Comprehensive School Safety Policy:

Trends in the Asia-Pacific Region

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

Save the Children

risk RED
risk reduction education for disasters

GFDRR
Global Facility for Disaster Reduction and Recovery

C&A Foundation

Asia Pacific Coalition for School Safety

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We gratefully acknowledge the support of the Global Facility for Disaster Reduction and Recovery (GFDRR) and the global partnership with C&A Foundation and C&A that supports the Comprehensive School Safety National Policies: Global Mapping Survey (2017) and related Comprehensive School Safety case studies.

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1. To read the complete versions of the GADRRRES CSS Policy Case Studies, please visit: gadrrres.net/resources

Executive Summary

The purpose of this project is to identify trends in Comprehensive School Safety (CSS)-related policies in the Asia-Pacific region with attention to factors that may facilitate or block the development or implementation of policies yielding positive outcomes. CSS aims to protect students, ensure educational continuity, safeguard sector investments, and strengthen community risk reduction and resilience through education. It is crucial to ensure that national and sub-national policies support CSS goals and that such policies are well implemented. In-depth analysis of CSS-related policies and policy gaps in the Asia-Pacific region can provide needed insight to government actors on how to better design or shore up policy approaches to risk reduction and resilience in the education sector.

This project was carried out by Save the Children on behalf of the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES) with support from the Global Facility for Disaster Reduction and Recovery and the C&A Foundation.

This report relies upon data compiled in 2016 and 2017 from 24 Asia-Pacific countries, 14 of which are Worldwide Safe School Initiative (WISS) Safe School Champions. The data collected indicates that many countries have enabling environments that support CSS, as well as specific policies related to the three pillars of the CSS framework – safe learning facilities, school disaster management, and risk reduction and resilience education. Thematic highlights from the data include:

- All responding countries have disaster management policies in place. High rates of disaster management policies across the Asia-Pacific region point to the successful achievements of the UNISDR Hyogo Framework for Action 2005–2015.

- Most disaster management policies are not fully integrated with the education sector and education policies. Most countries (75%) have disaster management policies that referred to the education sector, yet typically only in the form of a single section or paragraph.

- Most respondent countries have developed CSS policies that cover all three pillars, yet many policies may not cover all aspects of a pillar.

- Financial and human resource scarcity is evident in education sector disaster management policies and programming. Survey responses suggest that there are insufficient funds allocated in education sector budgets to fully implement CSS-related policies.

The survey also identifies facilitators and blockers to the development and implementation of CSS policies. Top reported facilitators reported revolve around the themes of advocacy and evidence, while top reported blockers revolve around the themes of resource scarcity. Statistical analysis finds:

- Countries that ranked strong civil society advocacy as a top facilitator were much more likely to have policies for the multi-hazard assessment of schools, management of schools as temporary shelters, and in-staff training for teachers and staff on school disaster management, as well as policies that require school facility assessment and policies for addressing disaster impacts on the education sector.

- Countries that cited senior and mid-level disaster management officials acting as advocates, as a facilitator, were more likely to have education authorities providing schools with guidance and procedures on risk reduction and recovery.

Notably, countries that cited some blockers were nevertheless more likely to have certain CSS policies, suggesting that these blockers may only come to light after CSS policies have been enacted.

Despite large strides in developing and implementing CSS policy, the Asia-Pacific region faces ongoing challenges. To further CSS policy development and implementation, the following recommendations are discussed:

1. better integration of education and disaster management policies
2. addressing all CSS responsibilities, targets and indicators
3. including teachers and students
4. investing in technical and human resources
5. collecting and using evidence as a policy-enabling tool.

Many governments of the Asia-Pacific have made great strides over the past 10 years in the development of disaster management policies, and are integrating these policies with those of the education sector. With knowledge of common facilitators and blockers in the Asia-Pacific region, governments and supporting partners should cultivate facilitators significantly correlated with CSS policy and develop strategies to address and minimize the effects of the policy-blocking factors. Where policy exists, efforts need to turn to funding, training and integration into everyday practice. From this strong base, CSS policy will not only protect students and staff and ensure educational continuity, it will support a culture of safety that spreads from school to community and from community to nation.

Acronyms

APCSS	Asia Pacific Coalition for School Safety
ASEAN	Association of Southeast Asian Nations
ACDM	ASEAN Committee on Disaster Management
ASSI	ASEAN Safe Schools Initiative
CSO	Community service organisations
CSS	Comprehensive School Safety
DRR	Disaster risk reduction
EiE	Education in Emergencies
GADRRRES	Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector
GFDRR	Global Facility for Disaster Reduction and Recovery
IGOs	Intergovernmental organisations
INGOs	International non-governmental organisations
MoE	Ministry of Education
NDMOs	National Disaster Management Organisations
SC	Save the Children International
UNCRC	United Nations Convention on the Rights of the Child
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction
WISS	Worldwide Initiative for Safe Schools

Chapter 1. Background

"...responses shed light on basic CSS policy themes in the three sub-regions..."

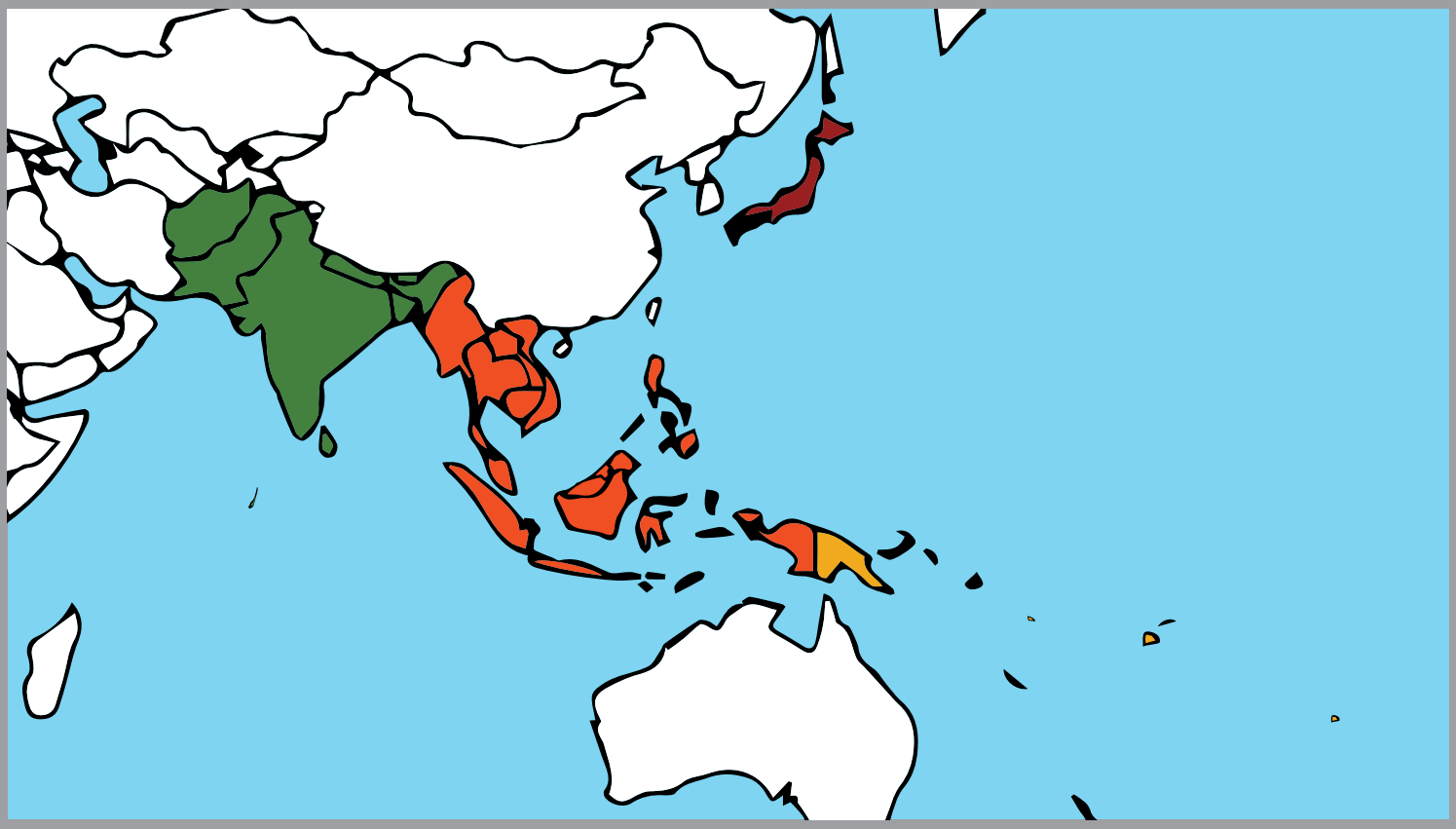
In 2017, Save the Children (SC), on behalf of the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES), and in partnership with the Global Facility for Disaster Reduction and Recovery (GFDRR), conducted a global survey collecting baseline data on national Comprehensive School Safety (CSS) policies. Comprehensive School Safety has four important goals:

- to protect learners and education workers from death, injury, and harm in schools
- to plan for educational continuity in the face of all expected hazards and threats
- to safeguard education sector investments
- to strengthen risk reduction and resilience through education.

Survey questions were focused primarily on policies (rather than on outcomes), and aligned to the CSS Framework (GADRRRES, 2017) and the CSS Targets and Indicators (GADRRRES, 2014). Survey questions covered existing national policies on school safety, as well as any enablers and blockers to its development and implementation, including aspects related to:

- **Enabling environment and risk indicators** (policies for disaster management in the education sector, school safety focal points, budget, access to hazard/risk data, and data collection about hazard impacts).
- **Pillar 1: Safer Learning Facilities** (new school construction, maintenance, and use of schools as temporary shelters).
- **Pillar 2: School Disaster Management** (disaster management plans at national and sub-national levels, response preparedness procedures and drills, and capacity development).
- **Pillar 3: Risk Reduction and Resilience Education** (public awareness, formal curriculum).

Consultants were employed to facilitate survey completion in many countries in Asia and the Pacific. Data collection was focused on the most populous countries of South Asia, Southeast Asia and the Pacific. The 24 responses represent all eight countries in South Asia, eight of eleven countries in Southeast



South Asia	Southeast Asia	Pacific	Other
Afghanistan [2, 3]	Cambodia [2, 3]	Fiji [1, 2, 3]	Japan [1, 2]
Bangladesh [2, 3]	Indonesia [2]	Kiribati	
Bhutan [2, 3]	Laos [1, 2, 3]	Papua New Guinea [2]	
India [1, 2, 3]	Malaysia	Solomon Islands [1, 2, 3]	
Maldives	Myanmar [2]	Tonga	
Nepal [1, 2, 3]	Philippines [2, 3]	Tuvalu	
Pakistan [2]	Thailand [1, 2, 3]	Vanuatu [2, 3]	
Sri Lanka [1, 2]	Vietnam [2]		

1. Country data was not verified by relevant government agency in country.
2. Save the Children has a country office or a member office.
3. Country has an Education Sector Snapshot for Comprehensive School Safety and Education in Emergencies, which was used to prepopulate surveys (ESS for CSS & EiE).

Asia (except Singapore, Brunei and Timor-Leste), and seven of eleven countries in the Pacific. One response was collected from the five countries in East Asia (Japan). Neither Central Asia nor the Middle East, which are included in the UN Asia-Pacific region, were targeted for this study. The 24 responses provide the basis of analysis and shed light on CSS policy themes in the three sub-regions that are well-represented. Since Japan is the only respondent outside of South Asia, Southeast Asia, or the Pacific, it is not included in regional responses, but is represented in the survey totals.

In South Asia, the Pacific and Japan, consultants were engaged to lead on the data collection. In each country, consultants worked closely with the SC office (if there was one as indicated above) to develop a context-appropriate data collection methodology based on the established relationship with government. The consultant worked with SC staff to prepopulate the surveys as much as possible before sharing it with government.

The data was collected through a mix of different methods:

- **Pre-population of the survey from Education Sector Snapshots for CSS & EiE.**
- **Pre-population of the survey from SC staff** working in disaster risk reduction (DRR) and the education sector in the respective country.
- **Self-completion,** where an email with the SurveyMonkey link was shared with the Ministry of Education (MoE) focal point for completion or the focal point coordinated with other colleagues and/ or agencies for completion, including the National Disaster Management Organisations (NDMO) in some cases.
- **Interview-based survey over the phone or face-to-face,** where the SC country office staff collected data in interviews with education authority informants and uploaded the responses to SurveyMonkey.

The survey items and scale were adapted from the GADRRRES Target and Indicators. These targets and indicators were developed in consultation with UNESCO experts, and emulated the *Education For All: The Year 2000 Assessment Technical Guidelines* that had been successfully implemented to promote Millennium Development Goals for Education.

The items were reworded into questions for the national government audience. The item-scale development process was done with feedback and consultation from technical expertise from GADRRRES & Asia Pacific Coalition for School Safety (APCSS) members.

In order to seek validation from the national authorities, the survey responses were shared via e-mail or print-out with a focal point in the national education authority wherever possible. In some cases, it was also shared with a counterpart in the NDMO.

Sixteen of the 24 countries had their survey responses verified by a responsible education sector official or NDMO official, in country. Where there was no SC country office, the survey was sent directly to the DRR focal point in each MoE, except in the Maldives where it went directly to the Deputy Minister of the Ministry of Defense and National Security and Head of the National Disaster Management Centre, who shared it with staff to complete online.

In Southeast Asia, the policy mapping study was undertaken under the auspices of the Association of Southeast Asian Nations (ASEAN) and implemented by the ASEAN Safe Schools Initiative (ASSI) ECHO consortium project. The survey questions were adapted for the ASEAN context and approved by the ASEAN Committee on Disaster Management (ACDM) Prevention and Mitigation Working Group. The ASEAN Secretariat coordinated the distribution of the survey to ACDM focal points.

ASSI Country Coordinating Leads focal points (employees of member non-governmental organisations) conducted interview-based surveys with focal points from MOEs and NDMOs in each country. The data collected during the interviews was sent to the ASSI project management team who used this information to complete the survey online.

All data collected was cleaned by consultants and ASSI project management team. As part of the cleaning process, SC staff liaised with subject matter experts in country. Where evidence could be cited, some errors were corrected.

The Human Development Index (HDI), a composite index of life expectancy, education, and per capita income, is a useful reference when evaluating a country's CSS policy environment because it provides a baseline indicator of a government's capacity to provide for its population. Though HDI does not necessarily indicate a country's level of success in developing and implementing CSS policies, higher HDIs may indicate a greater capacity to do so.

The median HDI for the entire Asia-Pacific region is 0.721, excluding 16 countries or territories for which no data is available. The median HDI for the 24 Asia-Pacific respondents is 0.607. Thus, the respondent countries are generally representative of the target countries in overall development, even as they are lower than the Asia-Pacific region in general. Median HDI across the Asia-Pacific region is higher because many several Asian countries with higher HDIs were not included in the survey.

Data Cleaning

The data was validated where possible in SurveyMonkey by sharing the populated survey with the government official to review and validate. The data cleaning process was undertaken in excel spreadsheets downloaded from SurveyMonkey. The spreadsheets were broken up by region and each consultant was given their respective region responses to clean. The data was cleaned in the following ways:

- spelling and grammar checked (using spell checker and independent review)
- duplicate entries removed
- numbers and number lines fixed to agreed format
- dates fixed to agreed format
- unnecessary spaces removed
- adding a column to indicate if the survey was validated
- adding a column to indicate if the country was a WISS country leader.

The consultants then returned their spreadsheet to SC staff who stitched the spreadsheets together and delivered to Risk RED data analysts.

Limitations

The choice and implementation of the data collection methods have the following limitations:

- The survey focused on the most disaster-prone countries and countries with established relationships and networks. Not all Asia-Pacific countries were included.
- People completing the English-language survey had varying English language proficiencies and interpretations of some questions. They also had different familiarity with policy and CSS.
- People inputting or validating the data in the online survey database had different IT literacy proficiencies, which also led to errors.
- Not all the survey questions were answered, creating gaps in the data. Identified focal points from within MoE and NDMOs did not always know all the answers to survey questions.
- Some policy documents were not readily available (ie no accessible copies during the data gathering period, or not translated into English) and could not be included in the policy review.

In light of how survey questions were answered, survey questions themselves need to be further disambiguated. In the future, survey questions should be carefully revised for inclusion into a checklist that becomes part of the Education Sector Snapshot for CSS and EiE.

It is also recommended that the process of monitoring of CSS policy should be part of the terms of reference and collective responsibility of the 'DRR in education' coordination mechanism in each country. The broad stakeholder groups involved in 'DRR in education' are typically led by education authorities, and meet quarterly to collaborate on CSS. They often emerge following activation of an Education Cluster during a major disaster with international humanitarian response.

Chapter 2. Themes in Comprehensive School Safety Policy in the Asia-Pacific Region

"Governments have instituted policies that address each of the three pillars of comprehensive school safety..."

"Teachers often teaching DRR without adequate training..."

This chapter describes Comprehensive School Safety (CSS) policy themes across the Asia-Pacific region with attention to both policy areas where countries are performing well and policy areas where countries have room for continued improvement. Governments and advocates may use this information to better understand how to improve or scale-up current policies, or develop new policies.

This chapter is divided into four thematic sections:

Worldwide Initiative for Safe School Participation. The first section describes the rate of participation in the World Initiative for Safe Schools (WISS) in the greater Asia-Pacific region, and contrasts this rate with that of participation among Asia-Pacific survey respondents.

Disaster Risk Reduction and Education Policies. The second section discusses overall high rates of DRR and education policies in place among Asia-Pacific survey respondents, while also highlighting room for more systematic data collection and better integration across these two types of policies.

Policy Comprehensiveness. The third section describes strong overall coverage of the three CSS pillars and suggests a focus on developing additional policies to support the goals of existing ones.

Resource Challenges. The fourth section describes the lack of human and financial resources that pose ongoing challenges for many Asia-Pacific respondent governments.

Results from the CSS Policy Survey indicate that respondents from Asia-Pacific governments have made excellent strides towards developing disaster management policies and policies that cover all three pillars of Comprehensive School Safety. Future efforts can turn to integrating DRR-related policies with education sector policies. Furthermore, while governments recognise the importance of professional advocates in the development and implementation of CSS policies, the importance of teachers and students in the policy process can be further enhanced.

WISS Participation

Of all 53 countries in the UN's Asia-Pacific region, 22 (42%) have committed to implementing safe school initiatives by joining the Worldwide Initiative for Safe Schools, a UNISDR and GADRRRES-led initiative to promote national level commitments to school safety (See Table 2). Of the 24 Asia-Pacific countries with survey responses, 14 (58%) are WISS Safe School Champions, indicating that the hazard-prone countries of South Asia, Southeast Asia and the Pacific might be more active in implementing CSS policies than the region as a whole.

WISS encourages governments to develop and implement policies that are consistent with the CSS framework, offering its expertise and technical support to policymakers and practitioners. WISS Safe School Champion Countries prioritise school safety through integration of DRR into education policies and planning, the allocation of funding toward safe school initiatives, and knowledge-sharing about safe schools with other countries.

Table 2. Worldwide Initiative for Safe Schools (WISS) Champion Countries in the United Nation's Asia-Pacific Region

Central Asia (5 countries)	East Asia (5 countries)	Middle East (13 countries)
Kazakhstan	China	I.R. Iran
Kyrgyzstan	Japan*	Lebanon
Turkmenistan		Qatar

South Asia (8 countries)	Southeast Asia (11 countries)	Pacific (11 countries)
Nepal*	Cambodia*	Fiji*
	Indonesia*	Kiribati*
	Laos*	Papua New Guinea*
	Philippines*	Samoa
	Thailand*	Solomon Islands*
		Tonga*
		Tuvalu*
		Vanuatu*

*survey participant

http://gadrrres.net/index.php/what-we-do/worldwide-initiative-for-safe-schools

"22 countries in the Asia–Pacific region have joined the Worldwide Initiative for Safe Schools committed to becoming Safe School Champions..."

Disaster Risk Reduction and Education Policies

One of the most impressive themes revealed by the survey was the high rate of policies in place that address disaster management. All responding countries for which data were collected have disaster management policies in place.

High rates of disaster management policies across Southeast Asia, South Asia and the Pacific point to both the successful achievements of the UNISDR Hyogo Framework for Action 2005–2015 as well as growing awareness among governments of the need to develop plans addressing disaster risk, and the presence of political will to develop and implement such policies.

While respondents have disaster management policies in place, most are not fully integrated with the education sector and education policies. Of the 24 respondents, 18 (75%) have disaster management policies that referred to the education sector, yet typically only in the form of a single section or paragraph (See Table 3). Only the Philippines indicated that its disaster management policy consistently addresses the education sector. Regionally, South Asian countries and Southeast Asian countries have high rates of disaster management policies referring to the education sector to any extent – both at nearly 90%.

All responding countries noted that their national governments have an education sector policy or policies (including laws, regulations, orders, etc). However, these education policies do not always incorporate CSS in a systematic way. Twenty countries (83%) indicated they have education sector disaster management policies, education in emergencies (EiE) policies, or both. Where such policies exist, countries have integrated many topics relevant to CSS into these policies (see Table 4).

Notably, Japan covers all policy topics listed in the survey, with the exceptions of "the role of students or youth volunteers" and "teacher qualifications for safe schools".

Several policy topics are covered by a large number of responding countries. Over half of the countries report that risk assessment, safer school facilities, school disaster management, risk reduction and resilience education, and risk mitigation are incorporated into their policy to some extent. South Asian countries and Southeast Asian cover these five topics particularly extensively, at a rate of between 63% and 88%. However, these concepts are often

Table 3. Disaster Management Policies Referring to the Education Sector

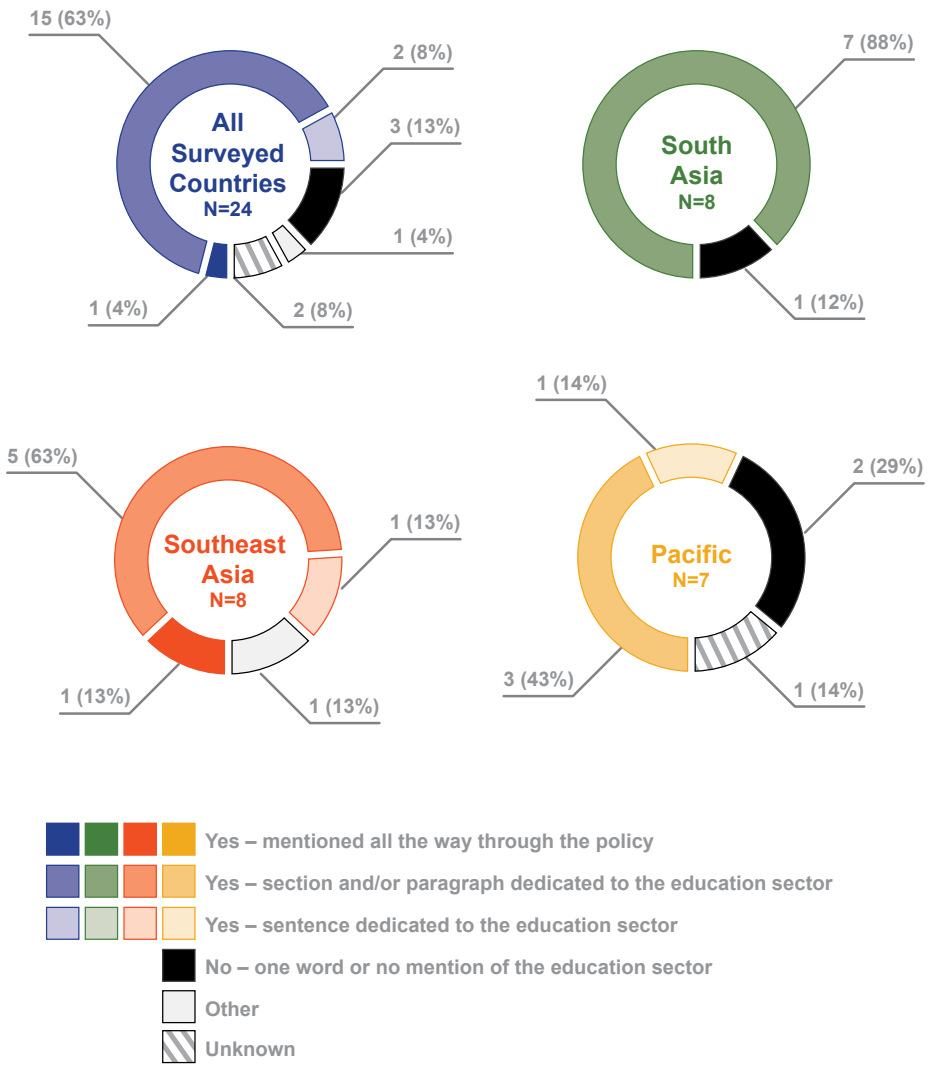


Table 4. Education Sector Disaster Management Policy Content

All Surveyed Countries N=24
South Asia N=8
Southeast Asia N=8
Pacific N=7

16 (66%)
6 (75%)
6 (75%)
3 (43%)

Safer school facilities

17 (71%)
6 (75%)
7 (88%)
3 (43%)

School disaster management

15 (63%)
6 (75%)
5 (63%)
3 (43%)

Risk assessment

17 (71%)
6 (75%)
7 (88%)
3 (43%)

Risk mitigation

17 (71%)
6 (75%)
7 (88%)
3 (43%)

Risk reduction and resilience education

15 (63%)
6 (75%)
5 (63%)
3 (43%)

Regular fire and/or hazard drills

10 (41%)
6 (75%)
1 (13%)
2 (29%)

Standard Operating Procedures for disasters and emergencies

12 (50%)
0 (0%)
7 (88%)
4 (57%)

Education continuity planning

12 (50%)
0 (0%)
7 (88%)
4 (57%)

Response preparedness

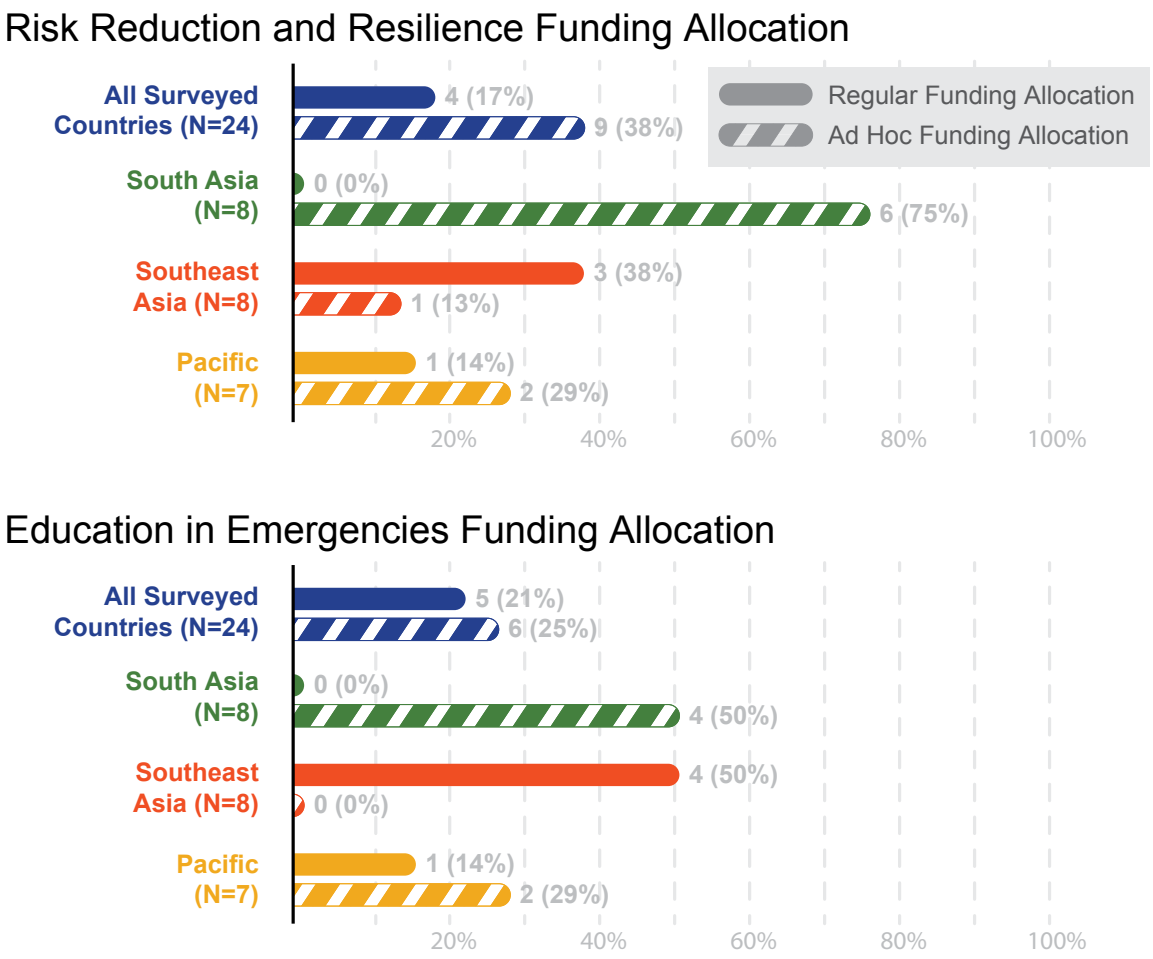
5 (21%)
0 (0%)
3 (38%)
2 (29%)

Teacher training in school disaster management

8 (33%)
1 (13%)
5 (63%)
2 (29%)

Role of students or youth volunteers

Table 5. Countries with National Education Budget for Risk Reduction and Resilience and/or Education in Emergencies



addressed only briefly. A third or less of the countries stated these policy topics are "mentioned all the way through the policy". Generally, these topics are mentioned in a single section of the policy, and occasionally the topic are only briefly mentioned in a sentence or single paragraph.

Few countries reported that their policy incorporates the concepts of response preparedness, educational continuity planning, the role of students and youth, or systematic teacher training/ professional development in school safety.

With both disaster management and education policies in place in many countries, staffing and staff training in the skills of education sector disaster management becomes an important concern. Of the 24 countries responding, only a few countries have any full-time staff persons dedicated to disaster risk reduction (33%) and/or education in emergencies (21%). The Philippines stands out as an exemplar, with a fully-staffed National Disaster Risk Reduction and Management office within the Department of Education, and more than 200 full-time regional and district-level disaster risk reduction and management personnel. Nine other countries (38%) reported that the national education authority have staff with part-time duties related to DRR and 13 (54%) with part-time duties related to EiE.

Some national education authorities have taken the important step of allocating regular funding for risk reduction and resilience or EiE programs (see Table 5). Four responding countries (17%) – Fiji, Indonesia, the Philippines and Vietnam – reported that their national education budget includes a regular allocation for risk reduction and resilience programmes. Fiji, Vietnam,

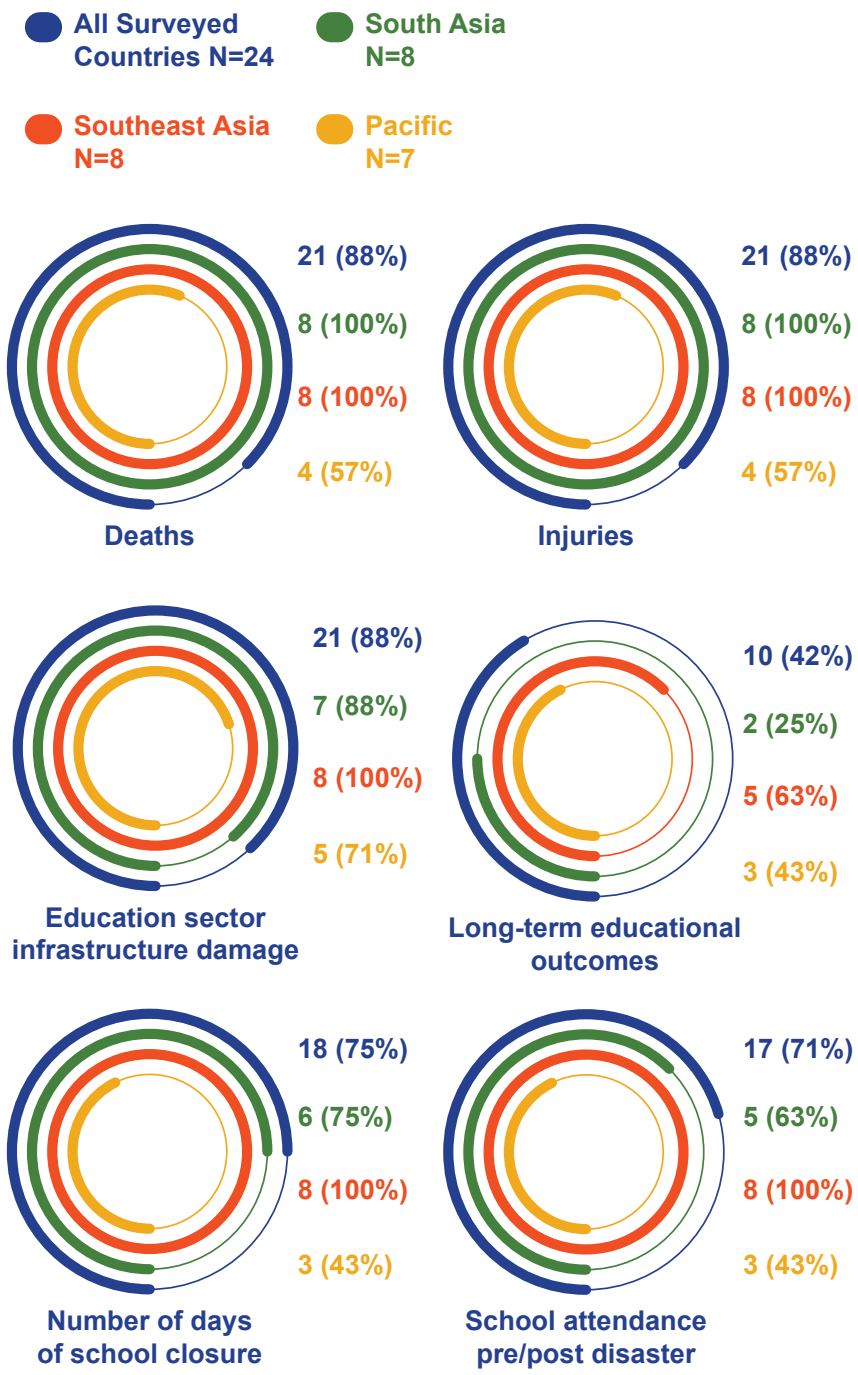
Myanmar, Thailand, and Indonesia report regular allocation for EiE programs. The majority of respondents reported inconsistent or no funding for such programs, though 14 (58%) indicate that the education authority could access outside funding during emergencies.

Globally, recognition of the importance of risk reduction, response and recovery as part of the regular business of the education sector, has grown significantly over the last 10 years. Prior to that period, disaster management was seen as the responsibility of disaster management or civil defence authorities alone.

It is promising that governments in the Asia-Pacific region have already begun to cross-reference their disaster management and education policies, and that education authorities are accepting their role as duty-bearers to ensure both children's safety and survival in school, as well as educational continuity in the face of known hazards. Early-stage integration of the disaster management and education sector policies indicates that governments are now more receptive to the complex responsibilities of a comprehensive approach to school safety.

The targets and indicators for the Sendai Framework for Disaster Risk Reduction (2015–2030) and for achieving Sustainable Development Goals (2015–2030) for education require nations to look at policy outcomes in terms of both minimising deaths and injuries as well as assuring access to basic education.

Table 6. Data Collection on Impacts of Hazards on the Education Sector (to any extent)



Most responding countries collect data on deaths (21–88%), injuries (21–88%), education sector infrastructure damage (21–88%), and number of days of school closure (18–75%) as they related to hazard events (see Table 6). Southeast Asian countries collect data on these matters at particularly high rates. Data collection on long-term educational outcomes is less common among survey countries (10–42%). The survey did not inquire as to how education authorities analyse these data.

Policy Comprehensiveness

According to the survey, governments have instituted broad disaster management policies covering each of the three pillars of Comprehensive School Safety.

- **Pillar 1: Safe Learning Facilities.** Almost all responding countries – 21 out of 24 (88%) – have policies requiring safe designs for new schools and 20 (83%) have policies requiring safe school construction.
- **Pillar 2: School Disaster Management.** Most responding countries – 21 out of the 24 (88%) – indicate that their national government has in place an education sector DRR or disaster management policy.
- **Pillar 3: Risk Reduction and Resilience Education.** Most responding countries – 19 out of the 24 (79%) – report that DRR is integrated into the national curriculum with nearly as many – 18 (75%) – reporting that climate change education is also integrated.

Despite excellent work developing disaster management policies that cover all three pillars of CSS, policies may not cover all aspects of each pillar.

Pillar 1 Policies: Safe Learning Facilities

Under Pillar 1, all Southeast Asian countries and most South Asian and Pacific countries have policies for safe design and construction of new schools (see Table 7). Nevertheless, fewer countries have policies that require safe site selection or monitoring of school construction. This ommission may seriously undermine the implementation of safe design and construction. As a country with very high earthquake risk, Japan has policies addressing all four aspects of construction: safer school construction; funded policies for assessment, retrofit, or replacement of unsafe schools; ongoing safety; and limited use as temporary shelters.

Fewer than half of the countries reporting have policies for the assessment of existing school buildings and the retrofit or replacement of unsafe school buildings. However, five countries with these policies indicated the policies are unfunded or have not, as of yet, been implemented.

Some governments have policies in place to ensure existing school structures are maintained and that non-structural risks are mitigated. Nearly half (11–46%) of the countries indicated that their government has a policy for the routine maintenance of school buildings. Fewer governments have in place policies for non-structural mitigation of school buildings (8–33%) and annual deferred maintenance (5–21%).

The use of schools as temporary shelters is another area where many issues remain unaddressed. Less than half (9–38%) of respondents indicated that their government has a policy in place limiting the use of schools as shelters. Some respondents (9–38%) reported that the government provides guidance for how to manage schools as temporary shelters or how to select schools appropriate to use as shelters (7–29%). Three countries – the Philippines, Thailand and Bangladesh – indicated that the government has a policy in place for the reimbursement of costs when schools are used as shelters.

Pillar 2 Policies: School Disaster Management

The vast majority of countries – 21 out of the 24 responding countries (88%) – have policies to address school disaster management at the national-level. These policies very often addressed risk assessment, risk reduction, and response preparedness (see Table 8). Two-thirds, or 14 responding countries, indicated that the policy includes educational continuity. Only two – the Solomon Islands and Papua New Guinea – provide guidance on how to encourage active child participation.

The high rate of inclusion of risk assessment, risk reduction and response preparedness within education sector DRR and disaster management policies provides a solid foundation for future incorporation of these less well-covered elements of child participation in disaster risk reduction and planning and educational continuity in a hazards context.

Table 7. Aspects of Safe Learning Facilities

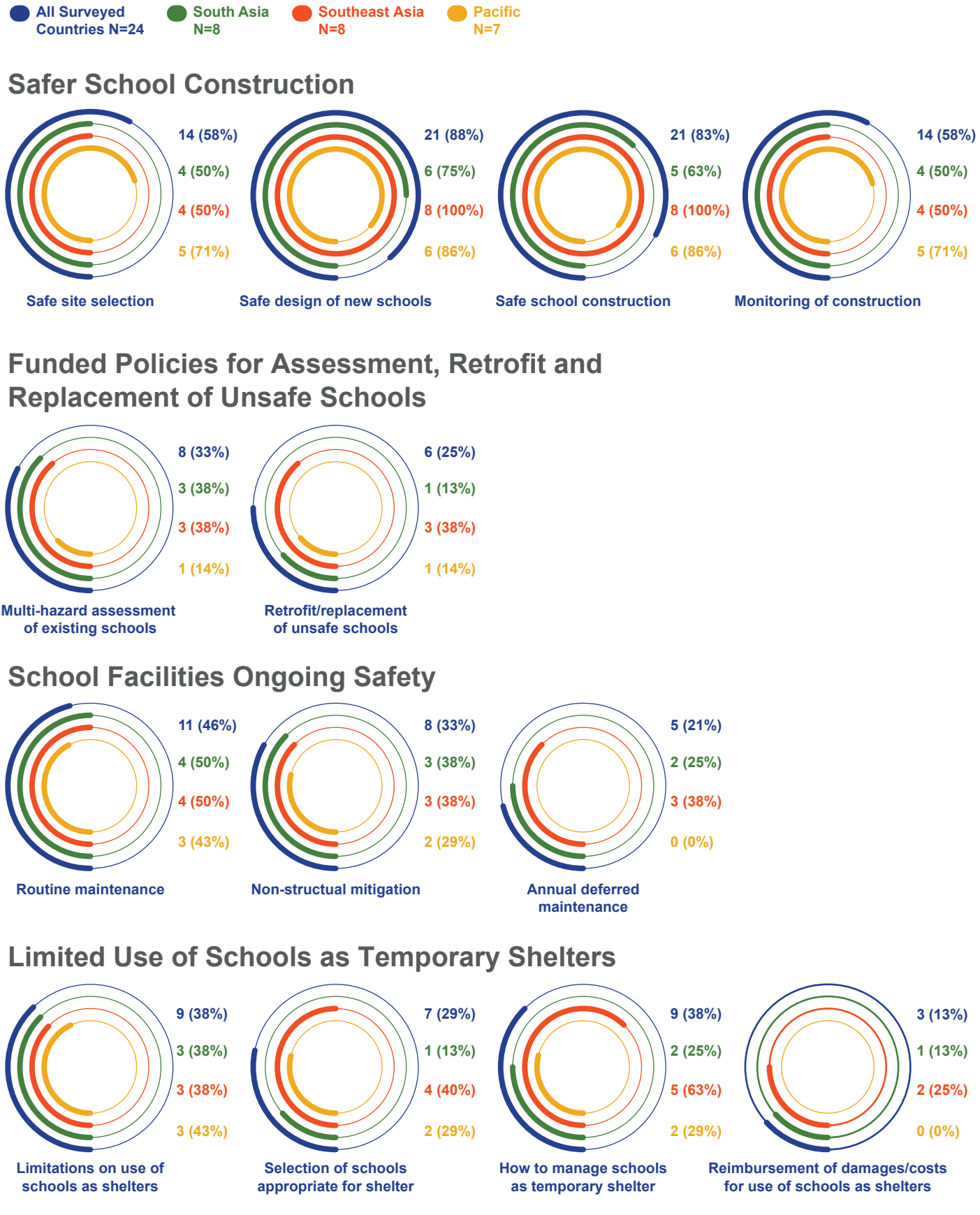
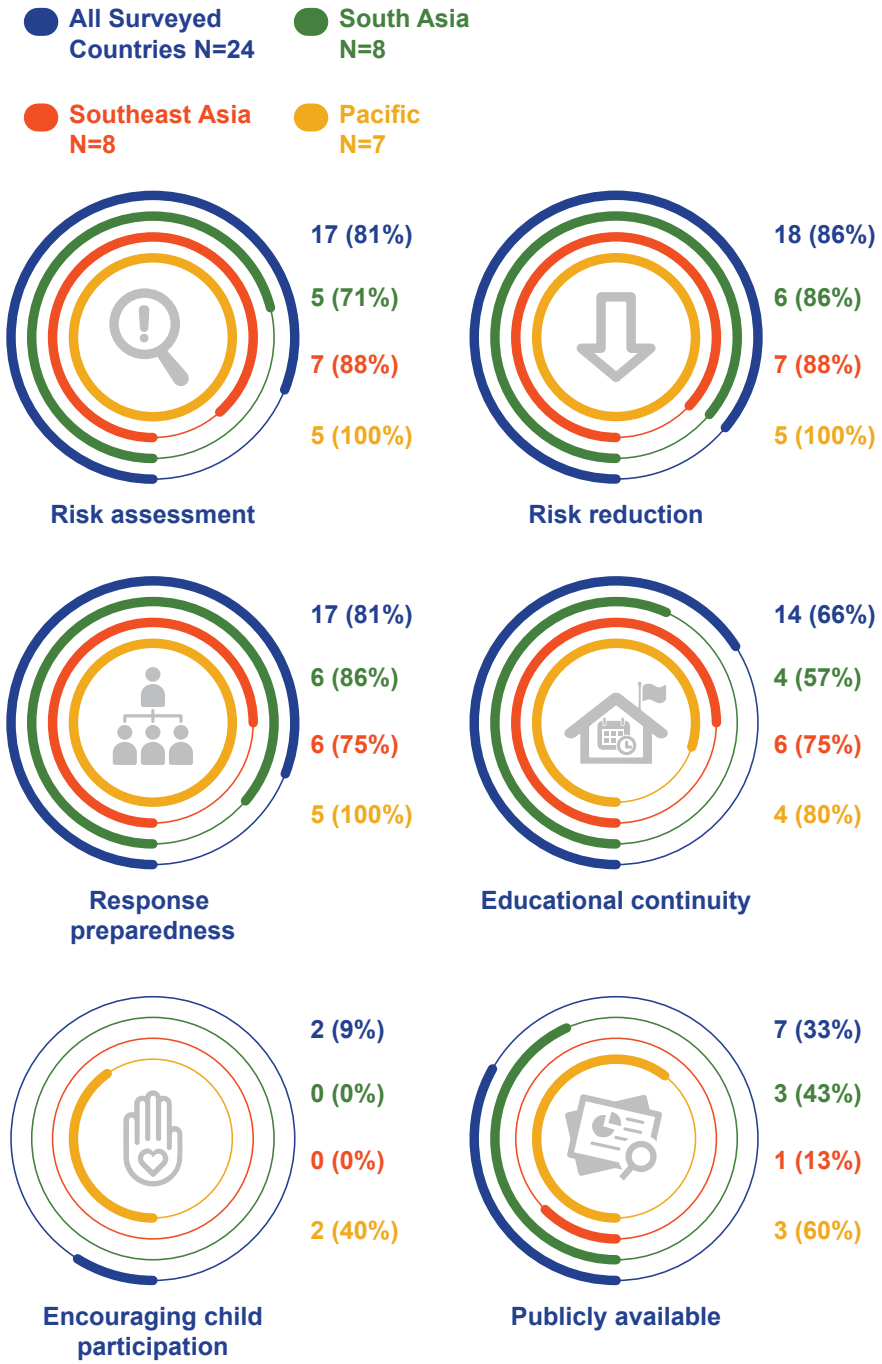


Table 8. Aspects of National-Level School Disaster Management Policies



In order to ensure proper implementation of disaster management policies, it is necessary to provide schools with guidance so that school staff can facilitate its implementation on the ground. Of the 24 responding countries, 15 (63%) governments provide schools with guidance and procedures for risk reduction; 18 (75%) governments provide schools with guidance and procedures for emergency response; and 11 (46%) governments provide schools with guidance and procedures for recovery.

It is equally important to provide school staff with fundamental knowledge of school-based disaser management through training.

Of responding countries, six (25%) include school disaster management in teacher training curricula and eight (33%) reported that they do not. Five education authorities (21%) require staff to complete professional development in school disaster management; 10 countries (42%) reported that they do not. The remaining countries were unsure or indicated another response.

It is impressive that some governments have already developed mechanisms to ensure school staff understand and can implement disaster management policies. Yet, Asia-Pacific countries can improve teacher training with more systematic integration of school disaster management into pre-service training and opportunities for in-service training. Insufficient disaster management training for teachers and administrators means that they cannot effectively guide the implementation of disaster management policies.

While many education authorities have a policy in place that requires fire (15–63%) and other hazard (12–50%) drills, fewer of these policies define the frequency of drill occurrence. Less than a quarter of respondents (5–21%) report that the policy requires that fire drills be practiced more than once a year and only four (17%) reported that the policy requires other drills to be practiced more than once a year. Governments can help facilitate the implementation of fire

and other hazard drills through the provision of guidelines for drill procedures. Over a quarter of respondents (7–29%) reported that their government provides guidance for fire drills and eight (33%) reported that their government provides guidance for other hazard drills.

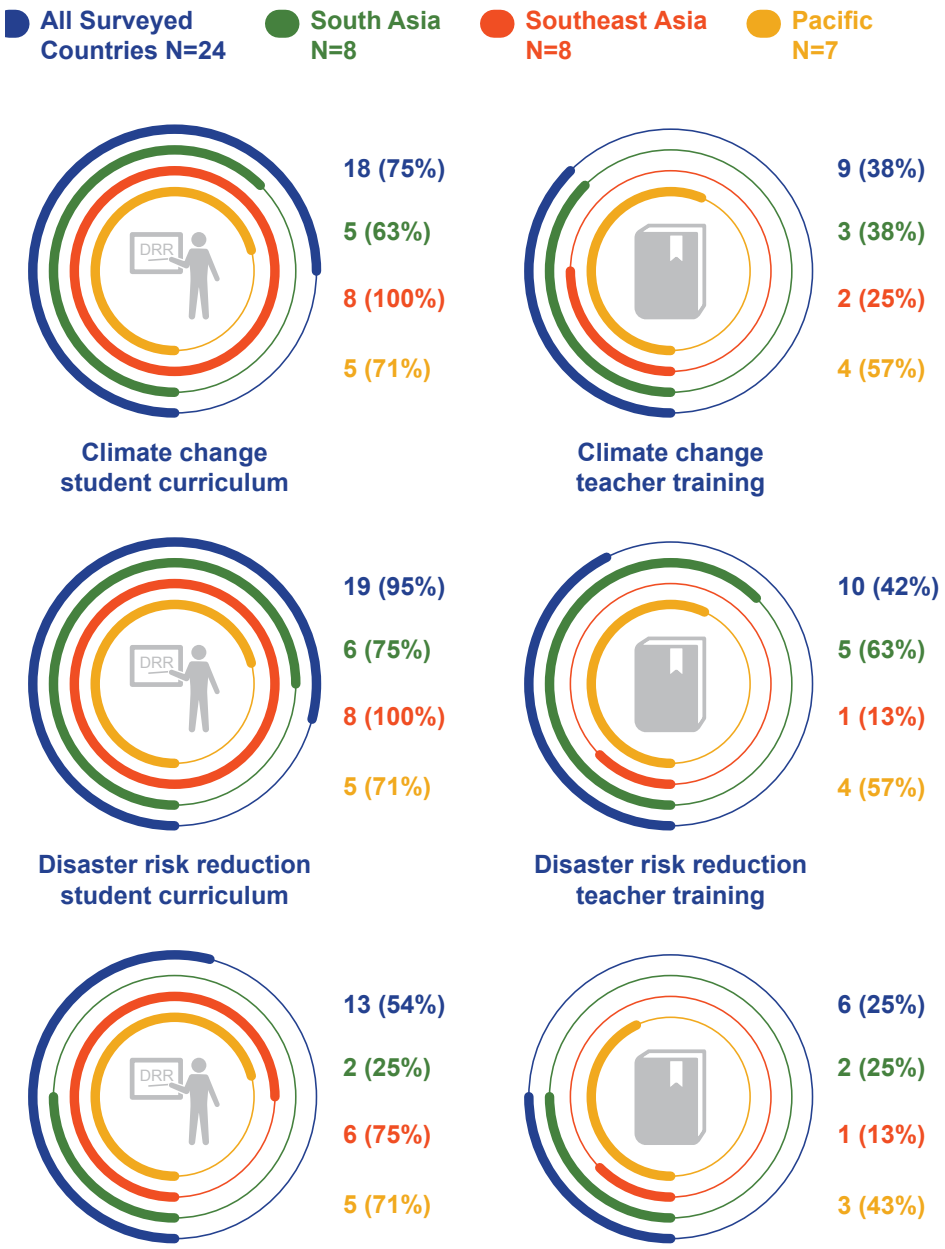
Pillar 3 Policies: Risk Reduction and Resilience Education

Survey results indicated that countries have been especially proactive in promoting risk-awareness to the general population, especially to children. Most responding countries reported having a national curriculum that includes material on climate change (75%), DRR (79%), and resilience education (54%).

It is important to note here that the "inclusion of DRR in curriculum" does not imply that this is either systematic, of quality, or effective. In-depth studies suggest that this area requires a great deal more understanding, analysis and intervention. Two United Nations publications provide further important data for guidance in this area (UNICEF and UNESCO, 2012; UNICEF and UNESCO, 2014).

Many governments have developed public awareness campaigns with consistent action-oriented messages for household risk reduction, reaching both children and their families. The fact that there seem to be entry points in the national curriculum for children to learn about climate change, hazards, risk reduction,

Table 9. Risk Reduction and Resilience Subjects: Inclusion in National Curriculum and Teacher Training



and resilience indicates that children have some information about these topics and can contribute to the conversations on these issues.

To support risk reduction and resilience education for children in schools, teachers need training in the same subjects. Studies done in New Zealand (Johnson, Ronan, Johnston, & Peace, 2014; see also Johnson & Ronan, 2014), Australia (Kelly, March, & Ronan, 2017), and Indonesia (Amri, Bird, Ronan, Haynes, & Towers, 2017) have identified teacher training to be a prominent facilitator, and lack of teacher training to be a prominent obstacle, to implementation of DRR education in classrooms and school settings.

Survey responses across regions indicated that, although many governments include climate

change, DRR, and resilience education in the national curriculum, teachers are offered training in these subjects at a substantially lower rate (see Table 9). Only nine responding countries (38%) indicated that national teacher training college modules include climate change; 10 include DRR (42%); and six include resilience education (25%).

Furthermore, only six countries (25%) indicated that school disaster management is included in teacher's training and five (21%) indicated that the education authority require teachers and administrators to undergo professional development for school disaster management.

The high rates of risk reduction and resilience curriculum for students and low rates of teacher training in these areas suggests a capacity gap. Governments may be asking teachers to provide students with knowledge the teachers themselves do not have. While not addressed in the survey, research indicates effective teacher professional development includes not only training, but also mentoring, coaching, and follow-up support. Thus, there remains much to learn and do when it comes to effective implementation of risk reduction and resilience education.

Resource Challenges

CSS policies developed are conceived with good intentions. However, a lack of financial resources and staff guidance and training seriously limit implementation, and especially the quality and consistency of implementation.

Resource limitations are particularly evident when it comes to addressing weak school facilities. Nearly half of the countries are aware of, and have policies in place for, addressing structurally weak school buildings (see Table 7). Of the 13 countries that have policies for structural assessment of schools or policies for retrofitting and replacing weak school facilities five countries, indicate these policies are neither funded nor implemented. While policy intentions are clear, the lack of financial or technical resources allocated for policy implementation leaves children and staff exposed to death and injury, and the potential for school disruption remains very high.

Financial and human resource scarcity is also evident in education sector disaster management policies and programming. Lack of full-time school disaster management staff at the national and sub-national levels, and irregular or no funding for these programs, suggest that there are insufficient funds allocated in education sector budgets to develop staff capacity and to fully implement disaster risk reduction and management. In the years ahead, governments will need to secure budgets and develop staff capacity to build upon the successes, and fulfill the promise of the policy initiatives in place.

While funding and human resources are important aspects of CSS policy, students and youth appear to be an untapped resource. Only two countries (8%) – the Solomon Islands and Papua New Guinea – indicated that their education sector disaster management plan includes guidance on how to encourage active child participation in risk reduction and planning. Eight countries (33%) indicated that their disaster management or EiE policies define the role of students or youth.

All countries in the Asia-Pacific can further promote active child participation, both to address current risks in the education sector, and to build a broader culture of safety.

Photo credit: Rebekah Paci-Green/Risk RED

Chapter 3. Comprehensive School Safety Policy Facilitators and Blockers

"Countries cited school safety advocates within civil society, the education authority and disaster management as major facilitators of CSS policy..."

"The most effective advocates seem to be civil society and disaster management authorities, either individually or together."

This chapter discusses facilitators and blockers to the development and implementation of CSS policies, drawing upon survey responses from the 24 countries surveyed in the Asia-Pacific region and literature in CSS, DRR, and risk reduction and resilience education.

Understanding common facilitators and blockers to CSS policy development and implementation allows governments and advocates alike to focus on strategies to strengthen facilitating factors and reduce the impact of blocking factors. Though facilitators and blockers will vary by country, and sometimes by local jurisdiction, general findings from survey countries and from relevant literature are useful to consider.

Top facilitators and blockers of CSS policy development and implementation were reported by key informants from 20 surveyed countries. Respondents selected three to five of each from a menu of choices that included the presence of specific advocates, the availability of evidence, public perception of school safety issues and being a part of regional coalitions. Four of the country surveys did not provide responses about facilitators and three did not provide responses to questions about blockers; these countries were removed from the analysis. The selection of facilitators and blockers is the responder's qualitative assessment of their importance to the CSS policy process, not a quantitative measure of that importance. The survey question did not ask responding countries to rank the importance of the factors, thus all were treated equally in the analysis.

In the analysis below, correlations were sought between the CSS policies reported to exist in a country and the responder's assessment of whether a facilitator or blocker was important. The selection of facilitators and blockers do not reflect a well-researched consensus of key actors, and are therefore only suggestive.

CSS Policy Facilitators

Among the 20 responding Asia-Pacific countries, facilitating factors for the implementation and development of policies that advance school safety largely overlap. Facilitating factors for both CSS policy development and implementation revolve around the themes of advocacy and evidence (see Table 11). The most frequently cited facilitators are "strong

evidence of disaster impacts on education, the dangers of unsafe schools, and/or the benefits of safe schools" and "school safety has become important for the government and public because of large disasters or frequent hazard impacts". The next three most cited facilitators involve the role of advocates. Countries cite the facilitating role individuals play when they advance school safety publically, including "senior and mid-level disaster management officials", "senior and mid-level education sector officials", and "civil society groups".

Advocacy

Human resources are indispensable in the development of a successful CSS policy framework. Advocates can publicise the problem, educate stakeholders, and exert pressure on relevant authorities to develop and implement policy solutions.

Survey responses indicate that in Asia-Pacific countries there are many CSS advocates within both government and civil society working to develop solutions to school hazard risk. These advocates should be celebrated as great assets towards the development of successful CSS policy frameworks within the region. Furthermore, many governments report that "there has been continued advocacy about school safety for a long period of time" and this is a facilitating factor for both development of policy (9–45%) as well as implementation (9–45%).

The survey focused on three potential sources of advocacy: advocacy by civil society (in general), by senior- and mid-level disaster management officials, and by senior- and mid-level education sector officials.

Note: the civil society category included – but did not break down – the various roles of intergovernmental organisations (IGOs), international non-governmental organisations (INGOs), and community service organisations (CSOs) and advocacy coalitions.) Ten or more countries, out of 20, consider advocacy by these groups as one of their top facilitators for CSS policy development; nine or more countries listed these advocates as one of their top facilitators for implementation.

A multi-variate statistical analysis found a strong correlation between the presence of these three types of policy advocates and the existence of specific CSS policies in the responding countries. The most effective advocates seem to be civil society and disaster management authorities, either individually or together.

Table 11. Top Facilitators for Both Policy Development and Implementation

Facilitating Factor	Percentage of Countries Listing Factor as Important (N=20)	
	Policy Development	Policy Implementation
There is strong evidence (proof) on the impacts of disasters on education, the dangers of unsafe schools, and/or the benefits of safe schools	70% N=14	70% N=14
School safety has become important for the government and public because of large disasters or frequent hazard impacts	60% N=12	55% N=11
Senior and mid-level disaster management officials use their position to advance school safety publicly	55% N=11	45% N=9
Civil society groups use their position to advance school safety publicly	50% N=10	50% N=10
Senior and mid-level education sector officials use their position to advance school safety publicly and in the education sector	50% N=10	50% N=10

While education sector authorities are certainly important, civil society and the disaster management sector seems to be most instrumental as catalysts. Perhaps this is because education sector authorities are generally supportive of CSS policy, but can only effectively enact such policy when they form advocacy coalitions with civil society and disaster management authorities.

Civil Society Advocates. When civil society – IGOs, INGOs, CSOs and others – advocated for school safety, countries appeared to have stronger CSS policies. Countries that ranked strong civil society advocacy as a top facilitator were much more likely[3] to have policies for the multi-hazard assessment of schools, managing schools as temporary shelters, and school disaster management training for teachers and staff. They were also more likely to have policies that require school building assessment and that address disaster impacts on the education sector, either through disaster management or EiE policies. Though a weaker correlation, they were also somewhat more likely to have a disaster management policy that referenced the education sector and guidance on using schools as temporary shelters. Notably, these policies span all three pillars of the CSS framework and show the importance of civil society in enacting and implementing policy in this arena. (For an example of effective civil society advocacy, see the GADRRRES case studies "Protecting Children in Emergencies by Law in the Philippines" and "Scaling-up Comprehensive School Safety Assessment in Laos and Indonesia").

3. Those with a p-value of 0.05 or less are judged "significantly more likely". Those with p-value of 0.1 or less are identified "more likely", and those with p-value of 0.15 or less are "somewhat more likely".

Disaster Management Advocates. Countries that cited senior- and mid-level disaster management officials acting as advocates as a facilitator were more likely to have education authorities providing schools with guidance and procedures on risk reduction and recovery. (Their advocacy seems to be more important than advocates from the education sector itself.) Where a country cited strong advocates, both within the disaster management authority and the education authority, countries were more likely to have training modules on risk reduction embedded into the national teacher training curriculum. It seems that advocates within disaster management were especially important in enabling policies for school disaster management, and when they formed coalitions with advocates within the education sector, they were important facilitators of policies for teachers training in risk reduction.

Education Sector Advocates. While half of the countries cited the presence of education-sector officials as advocates as an important facilitator, there is little significant difference in the policies of countries that do and do not select these advocates as a top facilitator. However, countries citing advocates within the education-sector administration as an important facilitator were somewhat more likely to have education policies referring to disaster response and public awareness campaigns with consistent action-oriented messages for household risk reduction. No other specific CSS policies were correlated with education sector advocates.

Evidence

Many governments indicated that strong evidence of disaster risk is a major factor in facilitating policy action around school safety. Evidence of disaster risk can be in the form of scientific or technical studies detailing hazard risk or structural risks, in the form of collective memory of a previous disaster, or both. (See the GADRRRES case studies "Seismic Renovation and Reconstruction of Schools in Uzbekistan", "Guiding Local Governments to Strengthen Unsafe Schools in Japan", "Assessing and Implementing Structural Interventions for Schools in China", and "Protecting Children in Emergencies by Law in the Philippines".)

Evidence of disaster impacts and risks highlights the need for the development or improvement of policies that focus on school safety. Such evidence can support policy change. While the need for such evidence was rated to be important, the survey did not determine whether sufficient evidence is considered to be available or not, for the purposes of policy advocacy and policy implementation.

Many Asia-Pacific respondents indicated that the existence of "strong evidence (proof) on the impacts of disasters on education, the dangers of unsafe schools, and/or the benefits of safe schools" are important factors for development (14–70%) and implementation (14–70%) of safe school policies. Asia-Pacific respondents report that "school safety has become important for the government and public because of large disasters" as a facilitator for policy development (12–60%) and policy implementation (11–55%). These two facilitators are likely closely intertwined – countries with large disasters can be expected to generally have stronger evidence of disaster impacts on education.

A statistical t-test was used to see whether countries ranking strong evidence of disaster impacts on schools were more or less likely to have key CSS policies. This analysis indicated that only a few policies showed a correlation. Countries ranking strong evidence as an important factor were only somewhat more likely to have education sector policies that included disaster reduction and response. They were also somewhat more likely to have national teacher training college curriculum that included disaster reduction. Such training is vitally important for teachers to pass on knowledge about disaster reduction.

It appears that strong evidence is not as important a facilitator of CSS policy as people believe. Research on science policy has shown that an increase in scientific data and a decrease in scientific uncertainty often does not lead to better policy clarity. Rather, for complex issues, broad agreement on social values is a better catalyst of policy (Pielke, 2007). This suggests that CSS policy is, first and foremost, a moral and political commitment. The harm that disasters cause is well-documented the world over. For countries seeking to develop CSS policies, waiting for sufficient and strong evidence within their own country may not be necessary.

"Countries ranking strong evidence as an important factor were only somewhat more likely to have education sector policies that included disaster reduction and response."

Contextualising advocacy and evidence

Advocates describe post-disaster periods as "windows of opportunity" for reshaping socio-economic and physical conditions in a way that will build resilience and reduce risk of future disaster. Birkmann et al. (2008) suggest that disasters spur formal policy change by creating new social, environmental, and political circumstances.

"... governments can use the disaster experiences of other countries with similar hazard risks as evidence upon which to develop or fortify school safety policies."

For example, within five months of the 2004 Indian Ocean tsunami, the Sri Lankan government developed the Disaster Management Act, which established national level disaster management institutions and mandated the preparation of disaster management plans. In Indonesia, the disaster led authorities to establish buffer zones in coastal areas with high tsunami risk where communities cannot resettle.

While disasters can be powerful catalysts for policy change, governments can just as reliably use scientific and technical evidence demonstrating the existence of disaster risk to develop and implement policies protecting schools before a disaster unfolds. In particular, governments can use the disaster experiences of other countries with similar hazard risks as evidence upon which to develop or fortify school safety policies.

For example, after the 2008 Sichuan earthquake in China – in which 10,000 schoolchildren died – the Japanese government accelerated its efforts to strengthen seismically weak school buildings by increasing national subsidy funds available to local governments for school retrofits and reconstruction (see the GADRRRES case study "Guiding Local Governments to Strengthen Unsafe Schools in Japan").

The theory of punctuated equilibrium helps to explain the roles of advocacy and evidence as facilitators for policy action. Baumgartner and Jones (1993) posit that policy for a specific issue is characterised by long periods of no change, due to institutional restraints, powerful interests in maintaining the status quo, and public disinterest or unawareness of the issue. However, policy equilibrium for that issue can be disrupted by major shifts in a political system or in public thought.

Advocacy for safe school policies and evidence for disaster risk in schools both serve as powerful stimulants for policy change, particularly through their abilities to influence public opinion. Advocacy can help an issue get to the forefront of a policy agenda through public dissemination of information and the exertion of pressure on policymakers (see the GADRRRES case study on "Protecting Children in Emergencies by Law in the Philippines"). Evidence, if known and understood widely, can stimulate shifts in public opinion significant enough to trigger policy change.

Table 12. Top Blockers for Both CSS Policy Development and Implementation

Blocking Factor	Percentage of Countries Listing Factor as Important (N=21)	
	Policy Development	Policy Implementation
The government has not allocated sufficient funds to be able to carry out the policy activities*	76% N=16	81% N=17
The government does not have sufficient technical capacity or access to sufficient technical support for school safety*	57% N=12	57% N=12
The departments and staff are too busy, or change too often, to be able to conduct the activities to implement the policy*	57% N=12	48% N=10
Funds to implement the policy are hard to access and not distributed on time	33% N=7	43% N=9
The government has no clear framework, ideas, approaches or steps on how to make schools safer*	38% N=8	33% N=7
The education sector staff who need to implement the policies do not understand them	NA	62% N=13
The policies are not aligned well with existing education sector strategies, priorities and standards	38% N=8	19% N=4

**These blockers are included in the statistical analysis described below.*

CSS Policy Blockers

The top three to five blockers of CSS policy were reported by key informants from 21 surveyed countries. The blockers were selected from a menu of choices that included a lack of commitment among potential advocates, problems with funding, technical knowledge and policy content. Twenty-one countries responded with a selection of top blockers for policy implementation (see Table 12).

Like facilitating factors, blocking factors for the implementation and development of policies that advance school safety largely overlap among Asia-Pacific survey respondents. Blocking factors for both development and implementation of CSS policies revolve around the theme of resource scarcity, particularly in the form of funding shortages and lack of technical capacity and human resources.

These blockers are similar to those found in other studies. In a study conducted by WestEd for the Asia-Pacific Coalition for School Safety, researchers collected 107 online survey responses in 12 countries from governmental and non-governmental organisation stakeholders and conducted 11 key informant interviews (WestEd, 2014). Respondents noted several policy challenges, including government instability, inaction, or lack of commitment; disproportionate focus on disaster response rather than risk reduction; difficulty providing appropriate training and materials; lack of support for staff professional development; and limited capacity for scaling-up. Such concerns are echoed in the top blockers found in this CSS policy baseline survey.

"57% of responding countries indicated that a lack of technical capacity block CSS policy development and implementation."

Lack of technical capacity and human resources

Technical capacities refer to specialised skills and expertise in a particular sector that require training. In the context of DRR, technical capacities might refer to the ability to develop a hazard map, perform a structural assessment of a school building, develop climate models, or manage a hazard incident database. Technical capacity may also refer to access to technology.

Twelve (57%) of the Asia-Pacific responding countries indicated that a lack of technical capacity is a top blocker of CSS policy development and implementation. Lack of technical capacity may be closely linked with insufficient government budgets for DRR-related technology acquisition and training.

Some governments report difficulties in developing and implementing school safety policies due to lack of training or guidance. Some education sector staff may not fully understand their responsibilities in relation to the school safety policies due to lack of training or unclear direction; 13 respondents (62%) indicated that "the education sector staff who need to implement the policies do not understand them."

Another major challenge that respondents cited is heavy workloads and high staff turnover within the departments responsible for developing or implementing policy; 10 (48%) respondents report this as a blocker for development, and 12 (57%) respondents report this is a blocker for implementation.

A statistical analysis, using multi-variate regression, was used to assess any differences in CSS policy presence for countries that did, and did not, cite specific blockers. Four distinct blockers were selected (see asterisked items in Table 12, above) for analysis in relation to policies concerned with human and data resources.

- **Government has not allocated sufficient funds**. While the most often cited blocker was governments not allocating sufficient funds, countries that listed this top blocker had very few differences in CSS policy than countries that did not list it. Countries that listed insufficient funding as a blocker were no more or less likely to have DRR and disaster response in their education policies. They were no more or less likely to have policies on school disaster management. However, countries listing this factor were much more likely to have developed a public awareness campaign with consistent action-oriented messages for household risk.

- **Lack of sufficient technical capacity**. Countries that cited a lack of technical capacity within the government as a top blocker of CSS policy rarely had different policy landscapes than the countries that did not, with one exception: they were less likely to have teacher training curriculum on school disaster management, perhaps indicating that lack of technical capacity in areas of disaster risk left education authorities without clear experts able to recognise the need for, and assist in, developing teacher training curricula.

- **Lack of a clear framework.** The cited blocker of "a lack of a clear framework and steps for making schools safer" seemed to have a stronger correlation with CSS policy than did other cited blockers. Countries that cited this blocker were significantly *more likely* to have education policy that included both DRR and disaster response. The positive correlation may suggest that in countries where education policy does address disasters, the approach may not be sufficiently coherent. Advocates may be aware of, and frustrated with, the lack of clarity regarding how these policies are implemented.

- **Staff are too busy and change too often.** Interestingly, although about half the countries listed "departments and staff are too busy, or change too often" as a top blocker, this blocker positively correlated with several CSS policies. Countries concerned about busy and changing staff were *more likely* to have education authorities that provided procedures and guidance to schools on hazard simulation drills. They were somewhat more likely to require fire drills and have teacher training curriculum that included school disaster management. These positive correlations may indicate that while some countries do have staff dedicated to school DRR policies, and the staff are making progress on these policies, the number of staff was perceived as insufficient in ways that block the development and implementation of effective policy.

Funding shortages

By far, the biggest blocker reported by Asia-Pacific respondents was funding. Many respondents reported that "the government has not allocated sufficient funds to be able to carry out the policy activities", with 16 respondents (76%) indicating that this is true for policy development and 17 (81%) indicating that this is true for policy implementation. It is notable that these concerns are nearly universal. Only four countries out of 21 (19%) did not list funding as a concern.

Nine countries (43%) reported that an additional blocker to implementation of policy is that "funds to implement the policy are hard to access and not distributed on time". The problem of financial resource scarcity is illustrated by the underfunding of assessment and retrofit policies, discussed in Chapter 1. While many countries report having policies in place for the assessment or assessment and retrofit of structurally unsafe school buildings, some report that the policy is neither funded, nor implemented.

Policy related to budgeting also showed correlations with three of the top blockers – lack of technical capacity, lack of a clear framework, and busy staff. Countries *without* budgets for risk reduction and resilience programming were significantly more likely to cite a lack of technical capacity as a top blocker. At the same time, countries with these budgets for risk reduction and resilience programming were significantly more likely to cite as a blocker staff being too busy and turning over too frequently. It appears that school safety advocates may be stymied by both budget and staffing issues. Without sufficient technical capacity, they cannot attract the budgets necessary to do risk reduction and resilience programming; however, when sufficient technical capacity and budget are available, further implementation of CSS policy is limited by staff stretched too thinly. Predictably, countries with budgets for EiE were also more likely to cite busy staff as a CSS policy blocker; responding to emergencies may be taking staff time away from broader CSS policy development and implementation.

Particularly notable is how the frequently cited blockers of technical capacity, lack of clear framework, lack of sufficiently allocated funds, and staff being busy do not correlate with most CSS policies. Countries citing these blockers are no more or less likely to have a person assigned to DRR or education in emergencies in the education authority. They were no more or less likely to use risk data to support planning for school safety, or have policies on school maintenance and non-structural mitigation. They were no more or less likely to have policies regarding schools as emergency shelters or have policies for multi-hazard assessment and school retrofit/replacement. They were no more or less likely to have DRR integrated into student or teacher training curricula.

While the blockers are likely real issues in the countries that cite them, the analysis suggests that countries may become strongly aware of these blockers in the process of developing and implementing CSS policy. However, awareness of these blockers does not seem to slow progress.

"Countries with funding for DRR programming and education in emergencies were significantly more likely to cite the staff being too busy and turning over too frequently as a blocker."

Photo credit: Save the Children

Chapter 4: Recommendations for Policy Advocacy

"Advocates within government and civil society can cultivate existing coalitions..."

School safety advocates are working at global, regional, sub-regional and national levels making use of several types of mechanisms for collaboration and coordination:

Global: Major United Nations agencies and secretariats such as UNICEF, UNESCO, and UNISDR; the World Bank affiliated Global Facility for Disaster Reduction and Recovery; the Interagency Network for Education in Emergencies; international non-governmental organisations, including Save the Children International, Plan International, World Vision and others; auxiliary organisations like the International Federation of Red Cross and Red Crescent Societies, and regional affiliates of the *Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES)* form a broad all-hazards coalition for CSS. Other groups place focus on a narrower range of hazards and risks to children in schools; for example, protecting children from attack, water and sanitation, and safe school access.

"Cross-referencing education and disaster management policies institutionalises a system of shared responsibilities and coordination..."

Regional: The Asia Pacific Coalition for School Safety brings these same groups together and includes regional non-governmental organisations like the Asian Disaster Preparedness Centre, the Asian Disaster Reduction and Response Network, and others.

National: At the national level, past disasters have spawned response-oriented "Education Clusters" to respond to major disasters with EiE interventions. These interventions have most often been co-led by the Global Education Cluster co-chairs, UNICEF and Save the Children. Many of these short-term mechanisms have been transformed into ongoing CSS or DRR in Education Task Force/Working Group or similar structures that typically meet at least quarterly to engage in more systematic work in support of CSS. The most sustainable of these are led by education authorities themselves. National and international NGOs are happy to support and facilitate these important mechanisms, and encourage them to engage the widest possible range of stakeholders. One of the most robust examples is in Bangladesh where major NGOs such as Building Resources Across Communities (BRAC), Campaign for Popular Education (CAMPE), and Rupantar have made important contributions.

These joint efforts have been effective in contributing to a recognisable paradigm shift in which education authorities now agree that protecting children and staff from death and injury, and assuring educational continuity, are indeed an integral part of their ongoing responsibilities.

Based on survey results from 24 countries, this report has identified several promising policy themes that build upon current strengthens among these countries in developing and implementing CSS policy. These strengths include:

- the high rate of disaster management policies in place referring to the education sector
- the high rate of education sector policies addressing disaster management, EiE, or both
- the breadth of policies, covering all three pillars of the CSS framework.

The survey has also identified policy areas where governments can continue to improve, as well as factors that may block the further development and implementation of policies advancing school safety. This chapter discusses the ongoing challenges faced by governments in the Asia-Pacific region in developing impactful CSS policies, and makes five recommendations for how they can continue to improve. These recommendations are:

1. better integration of education and disaster management policies
2. addressing all CSS responsibilities, targets and indicators
3. including teachers and students
4. investing in technical and human resources
5. collecting and using evidence as a policy-enabling and policy advocacy tool.

1. Better integration of education and disaster management policies

In the CSS Framework infographic (see next page), the encircling language refers to “education sector policies and plans aligned to national, sub-national, and local disaster management plans”. Indeed, across Asia-Pacific respondent countries, disaster management policies and education policies can be better integrated. Currently, few disaster management policies thoroughly reference the education sector and few education policies thoroughly reference disaster management; most reference each other with a sentence, or perhaps a paragraph. Lack of thorough integration of education and disaster management policies suggests that education and DRR are conceptualised as different issues that should be treated with different policy approaches.

Yet, as GADRRRES CSS policy case studies show, disaster management policies can overlook specific hazards to children, such as dangers going to and from school (see the GADRRRES case study on “Mainstreaming Road Safety Education for Children in South Korea”) and child trafficking following disasters (see the GADRRRES case study on “Protecting Children in Emergencies in the the Philippines”).

Education policy must consider disaster risk reduction and climate change in education sector planning, facilities management, training, and curriculum (see GADRRRES case studies on Iran, CSS Suite, Japan, Uzbekistan, and China). Cross-referencing education and disaster management policies institutionalises a system of shared responsibilities and coordination between disaster management and education authorities (see GADRRRES case studies on Cuba, Iran, and Los Angeles).

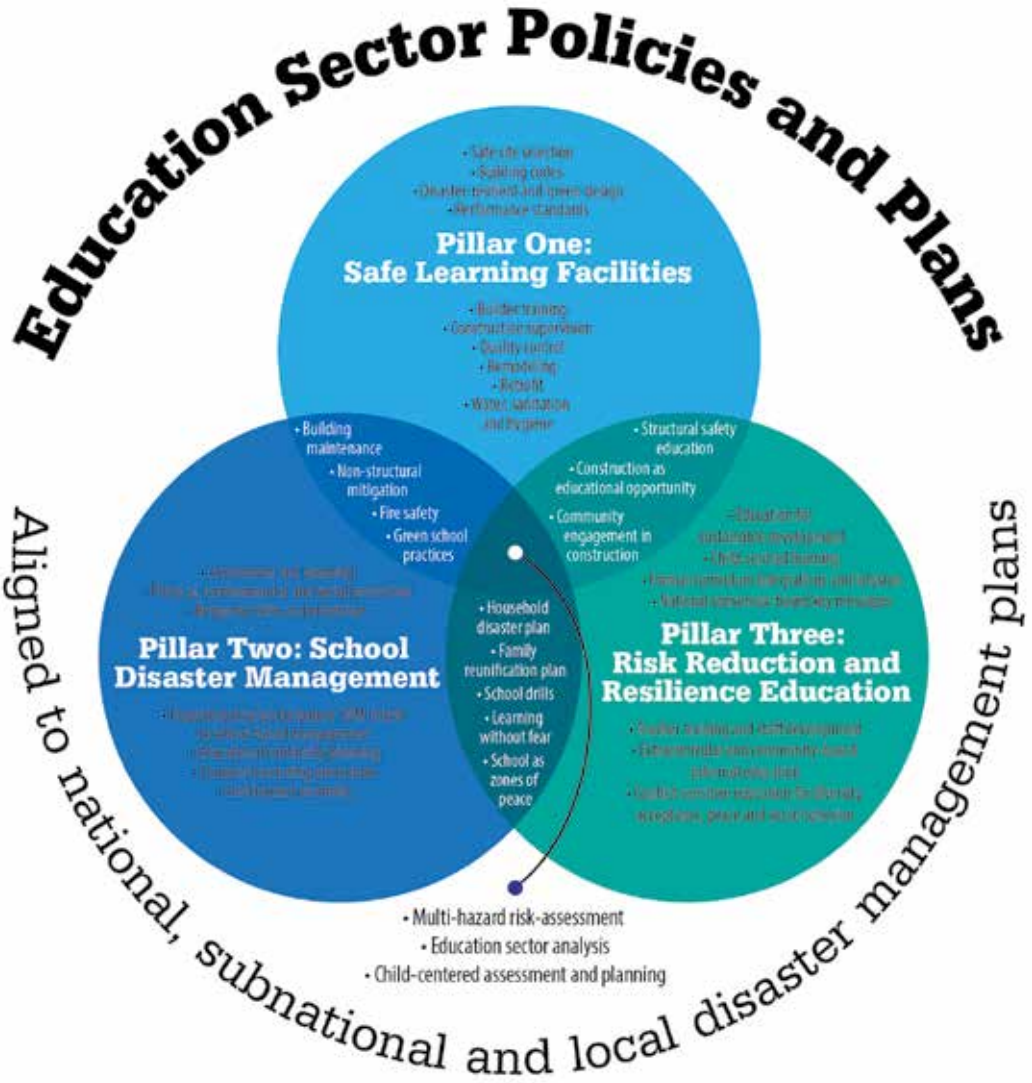
What some countries have found most useful to facilitate this kind of integration is to identify a single individual within the disaster management authority who serves as the focal point for the education sector, and similarly, the full-time manager within the national education authority serves as the focal point to the disaster management authority. This may also be usefully replicated at sub-national level in larger countries.

2. Addressing all Comprehensive School Safety responsibilities, targets, and indicators

While Asia-Pacific respondent countries have developed policies that span all three pillars of the CSS framework, many policies do not fully cover the major responsibilities and the targets and indicators[1] associated with each pillar. For example, many countries reported policies that address safe school design and safe school construction for new schools, but fewer had policies that require monitoring of school construction or safe site selection. Safe school construction cannot be guaranteed if there are no policies in place for safe site selection or for construction monitoring.

Beyond policies to ensure safe new school construction, policies are also need to address assessment, retrofit, and replacement of existing unsafe school building stock.

Within Pillar 2 policies, survey responses indicated that teachers and school administrators are undertrained in disaster management. Only six survey respondents (25%) reported that the teacher training curriculum includes school disaster management, and only five respondents (21%) reported that the education authority requires teachers and administrators



1. See http://gadrrres.net/what-we-do/current-activities/comprehensive-school-safety-targets-and-indicators

to complete professional development on school disaster management.

Lack of disaster management training for education staff means that even where policies are in place mandating school drills or other disaster management policies, teachers and administrators cannot effectively guide the implementation of these. Policies are needed that require the training of teachers and education staff in school disaster management, and that put in place periodic evaluation of staff capacities to implement relevant policies.

3. Including teachers and students

Asia-Pacific respondent countries have made great strides in incorporating DRR, resilience, and climate education into the national curricula. However, DRR subjects are included in national curricula for students at twice the rate as for national teacher curricula. For example, 79% of the countries reported having student curriculum on DRR; only 42% reported having this content embedded in teacher training. Similar disparities also exist for climate change and resilience curricula. This suggests a capacity gap between teacher training and the knowledge they are expected to impart on students.

Studies carried out in New Zealand (Johnson, Ronan, Johnston, & Peace, 2014), Australia (Kelly, March, & Ronan, 2017), and Indonesia (Amri, Bird, Ronan, Haynes, & Towers, 2017) found that teacher training is a major facilitator to the development and successful implementation of DRR education programs, and that the absence of teacher training is a major obstacle to successful programme implementation. Teachers are an integral factor in DRR programming in schools; their work determines the quality of DRR programme implementation. For this reason, teachers must be thoroughly trained in the DRR-related subjects they are directed to teach, in the educational programs their classes are to participate in, and in the school drills they are expected to lead.

Similarly, policymakers must carefully consider the roles of students in disaster management. Children and youth have a major role to play in successful development and implementation of risk reduction and resilience policies and programming (see the GADRRRES case study “Protecting Children in Emergencies by Law in the Philippines”). Eight Asia-Pacific survey respondents (33%) indicated that their education sector disaster management or education in emergencies policy address the role of students or youth volunteers, and only two respondents (9%) indicated that their school disaster management policy includes guidance on encouraging child participation.

Mitchell et al. (2009) identify two articles of the United Nations Convention on the Rights of the Child (UN-CRC) that outline their right to participate in decision-making in matters of their well-being, including those related to disasters:

“There is strong evidence that participation of children and youth in disaster planning enhances their resilience and reduces their vulnerability to hazards.”

“Many policies do not fully cover the major responsiblities and the targets and indicators associated with each pillar of comprehensive school safety.”

- Article 13.1 relates to a child's right to freedom of expression that includes "the right to seek, receive, and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice".

- Article 12.1 requires that signatory states will "assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child".

Beyond the participatory rights outlined in the UN-CRC, there is strong evidence that child participation in disaster planning enhances their resilience and reduces their vulnerability to hazards (Peek, 2008; Back et al., 2009). Furthermore, children can serve as positive agents of change within their communities. Mitchell et al. (2008) found that children can perceive and process information about risk and play important roles in communicating risk information to their families and communities. Mitchell et al. (2008) and Back et al. (2009) found that the inclusion of children in the decision-making process from a young age motivated individuals to participate and advocate for hazard- and environment-related issues later in their adolescent and adult years. Informing and including children in disaster management and planning is therefore important for ensuring that policies reflect children's needs in the present, as well as for developing hazard-related consciousness that will be maintained into adulthood.

Policymakers, communities, and households should consult and include children in decision-making processes about hazard risk in schools and communities according to generaliwed age-based capacities. Cheal (2010) suggests that young children can help find and report hazards in and around schools and their communities; lower-secondary or middle school children can find and report hazards, help create evacuation plans and help decide which emergency supplies are necessary; upper secondary school children can participate in more in-depth discussions with community leaders and organizations about hazard risk and planning, and help develop emergency response plans. In all cases, this is an opportunity for children to develop leadership and citizenship skills.

4. Investing in technical and human resources

The most common factors that survey respondents cited as blocking the development and implementation of CSS policies revolved around the theme of resource scarcity, particularly in the forms of technical capacities and human resources. Twelve of the 21 (57%) Asia-Pacific countries responding about CSS policy blockers indicated that "lack of technical capacity" was a blocker for both policy development and policy implementation. Lack of technical capacity may be closely linked with insufficient government budgets for DRR-related technology acquisition and training. Even more countries, 17 (81%), listed "governments not allocating sufficient funds" as a blocker to the CSS policy process.

Capacity-building interventions may be warranted for school staff, education sector administrators, and disaster management officials carrying out CSS policy. However, Potter & Brough (2004) caution that technical capacities refer to specialised skills and expertise, but the term "capacity building" remains broad, presenting an unspecific problem for which it is difficult to develop a solution. It is important to assess specific capacities and gaps and to articulate specific areas where training is needed. Governments should identify the technical capacities in which they are lacking, and which are relevant to a policy or programme need, so that they can develop targeted strategies to improve in these areas. Governments may identify where technical capacities are lacking through internal surveys and assessments, and prioritise areas for improvement based upon current policy or programme needs.

Some Asia-Pacific respondents report that lack of training or guidance is a significant blocker to developing and implementing school safety policies, even where technical skills are not necessarily required. Education sector staff may not fully understand their responsibilities in relation to the school safety policies due to lack of training or unclear direction.

Thirteen respondents (54%) indicated that "the education sector staff who need to implement the policies do not understand them". These survey results highlight a need for further investment in staff development. Staff trainings, workshops, seminars, and written guidelines can help ensure education sector staff understand the policy vision and implementation steps. Protocols for periodically evaluating the knowledge and capacities of staff implementing policies can further support policy implementation. Basic staff training may overlook their powerful role in policy development and revision.

Education sector staff serve as mediators between the CSS policy vision and community practice. Education sector staff can provide governments with insight about existing school safety issues and can represent community voices in policy development and implementation. Forums for dialogue between policy makers, administrators, staff and teachers; case studies; and even questionnaires can help funnel important contextual information up to policymakers and across to other communities struggling with CSS policy implementation.

In the Asia-Pacific Center for Security Studies (APCSS) needs assessment, respondents had familiarity with the CSS framework, but all indicated a strong need for additional training in all areas of school safety and DRR. The need for training materials tailored to specific users, in non-technical language, for staff, children and parents was also highlighted (WestEd, 2014).

Perceived needs for technical guidance and support cut across both government and other stakeholders and covered the span of all three CSS pillars. Government informants perceived these needs higher than other stakeholders. Respondents suggested several preferred training methods, including: interactive learning opportunities; use of audio-visual tools; tools for direct application, demonstrations and simulations; case study approach; refresher training; involvement of stakeholders in curriculum design; contextualisation to local issues; instructional design specifically for user groups; and development of more user-friendly and non-technical materials. They recommended setting standards for training and resource materials, providing certification, and maintaining a database of experts. The need to develop and share templates for consistent use of best guidance and hold cross-country regional trainings was also highlighted.

The findings from the APCSS study have been followed to a great degree by the Association of Southeast Asian Nations (ASEAN) Safe School Initiative (ASSI), which since 2014 has developed a common approach (ASSI, 2015) and School Disaster Management Guidance (ASSI, 2016). Programmatic efforts are now prioritising regional capacity-building training, and are piloting the use of introductory online self-study modules (see "Introduction to Comprehensive School Safety" and "Introduction to Participatory School Disaster Management" available on www.disasterready.org) to provide some scalable capacity-building tools. There is much more important work to be done in this area.

"Preferred training methods, include: interactive learning; audiovisual tools; tools for direct application, demonstrations and simulations; case studies; refresher training; involvement of stakeholders in curriculum design; contextualisation to local issues; instructional design specifically for user groups; and user-friendly and non-technical materials."

5. Collecting and using evidence as a policy-enabling and policy advocacy tool

"Consistent, credible messages about risk and risk reduction in schools can facilitate the CSS policy development and implementation by establishing policy allies and providing them with proof of its importance."

Asia-Pacific survey respondents indicated that strong evidence of disaster risk is a major factor in facilitating policy action for school safety. Multi-variate analysis validated a correlation between evidence as a facilitating factor and certain CSS policies; countries ranking strong evidence as an important factor were somewhat more likely to have education sector policies that included disaster reduction and response. They were also somewhat more likely to have national teacher training college curricula that included disaster reduction.

Evidence of disaster risk can be analysed from: aggregated non-technical self-assessment data collected at the school level regarding hazard impacts on education (see the GADRRRES case study "Scaling-up Comprehensive School Safety Assessment in Laos and Indonesia"), national and sub-national hazard mapping information, desk review of construction records (where available), and scientific and technical studies detailing hazard exposure or education sector vulnerabilities. The systematic collection of this kind of data, especially to document harm to children and staff, destruction of school infrastructure, and disruption of education, are all considered vital to monitoring progress towards CSS goals, as well as towards the Sendai Framework for Disaster Risk Reduction and Sustainable Development Goal 4, which seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2016). Where country data showing hazard impacts on the education sector are lacking, data from other countries can be used to support CSS policy development until such information can be gathered in country.

Governments can use evidence to build support from civil society, the private sector, education authorities, and the general public for policy change. This evidence can be presented through formal student curriculum (see the GADRRRES case study on "Mainstreaming Road Safety Education for Children in South Korea"), the practice of school and community emergency drills (see the GADRRRES case study on Nationwide School EArthquake Drills in Iran), or informal education mediums, such as public education campaigns (see the GADRRRES case study on "Students LEading Communities in Disaster Risk Reduction through Informal Education in Cuba"). IFRC (2011) outlines a key principle for developing successful DRR public awareness and public education campaigns: the adoption and communication of consistent, consensus and evidence-based key messages about school hazard risk. Consistent, credible, evidence-based messages about risk and risk reduction can facilitate CSS policy development and implementation by establishing

policy allies within the private and public sectors and providing them with proof of its importance.

Conclusions

Governments of Asia-Pacific respondents have made great strides over the past 10 years in the development of disaster management policies, and are gradually integrating these policies with those of the education sector. Most governments have policies in place that span all three CSS pillars, and disaster management policies include core DRR concepts.

These accomplishments indicate a growing awareness of the responsibilities that education authorities bear for the safety and survival of children in school, and for children's equitable and ongoing access to a quality basic education. The accomplishments also indicate their willingness to allocate resources to develop policy solutions.

The current baseline study of CSS policy trends in the Asia-Pacific region provides a solid foundation for improvement in both policy development and implementation processes. The results suggest:

- education sector and disaster management policies can be better integrated with each other
- finance authorities can make school safety a policy and funding priority
- CSS policies can be expanded to become more comprehensive by developing implementation guidance and regulations that ensure the aim of the policy is fully realised
- teachers can be better trained
- students can be encouraged to participate in disaster management to ensure that existing CSS policies better support the emergence of a culture of safety.

For example, with knowledge that advocacy within government and civil society are key components of developing and implementing school safety policies, advocates can cultivate strong coalitions and coordination mechanisms at national, regional, and sub-regional levels. They can harness the power of evidence as a policy-facilitating factor by promoting awareness about local and regional disaster risk among the population through formal education strategies, such as content inclusion into the general curriculum, and informal educational strategies, such as public campaigns and community workshops.

Furthermore, with knowledge that advocacy within government and civil society is a key component of developing and implementing safe school policies, advocates within government and civil society can use evidence of disaster risk as a tool for cultivating strong coalitions for action. Advocate institutions should share disaster data and information with each other and strategise together to develop solutions.

All blocking factors described by survey respondents thematically revolve around resource scarcity, either in terms of financial or human resources, and therefore require resource provisions to be addressed. Governments may not have the financial resources available to allocate to policy development and implementation right away.

Under these circumstances, school safety advocates can focus on developing human capital through training and coordination of exisitng disaster and education sector staff, and working to ensure that they fully understand their responsibilities. Furthermore, governments can bolster existing partnerships or develop new ones with civil society organisations to facilitate technical knowledge and skills transfer.

"... harness the power of evidence as a policy-facilitating factor by promoting awareness about local and regional disaster risk."

Advocacy Recommendations

The advocacy efforts of national disaster management and education actors, and international, national, and other civil society advocates have all been extremely effective thus far. These efforts should continue, and should focus in particular on:

Bringing together education and disaster management authorities for better integration of education and disaster management policies at national, sub-national, and local levels.

Examining each of the pillars of CSS in turn, to address all relevant responsibilities, targets, and indicators.

Investing in the development of high quality technical guidance, proven methods for teacher professional development, and staff in specialised full-time disaster risk management roles, especially at national and sub-national levels.

Supporting sustainable systems to collect evidence and monitor progress towards CSS goals.

Encouraging teacher and student participation in all comprehensive school safety efforts.

Over the last two decades, Asia-Pacific countries have vastly strengthened the policy frameworks that support comprehensive school safety. They have built broad coalitions of stakeholders and advocates. In many countries, they have integrated school disaster management into education sector policy and disaster reduction and resilience concepts into education sector planning and curricula.

These efforts need continued documentation and ongoing evaluation. Policy gaps need to be filled. Where policy exists, efforts need to turn to funding, training and integration into everyday practice. From this strong base, CSS policy will not only protect students and staff and ensure educational continuity, it will also support a culture of safety that spreads from school to community and from community to nation.

Photo credit: David Wardell / Save the Children

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Appendix 1. CSS Policy Survey

Survey: policies advancing school safety in your country

Complete one survey per country. More than one government focal point may need to contribute to the answers.

About this survey
We are Save the Children delivering on a partnership with the Global Facility for Disaster Reduction and Recovery (GFDRR) [the World Bank], to advance Comprehensive School Safety (CSS) around the world by collecting current baseline information on CSS policies, and projects. This survey is the tool we have developed to collect the information on policies.

Who should answer this survey?
This survey is designed to answered by a focal person from your country's national-level Ministry of Education. However, a number of focal persons from other government agencies, including the disaster management authority, may need to answer specific questions.
The survey may be conducted through interview, with the interviewer uploading all the answers into SurveyMonkey.

Why should I complete this survey?
This is the first time national level policy frameworks that advance school safety have been mapped globally. It will create a baseline to chart the progress of policies advancing Comprehensive School Safety (CSS) around the world, as well as chart good practice and achievement by Safe School Leaders under the Worldwide Initiative for Safe Schools (WISS).

What are policy frameworks that advance school safety?
School safety policy frameworks is a policy (or policies) focused on risk assessment in the education sector, and risk reduction, response preparedness, and educational continuity planning (including education in emergencies). Comprehensive policies cover safer school facilities, school disaster management, and risk reduction and resilience education.
When we talk about policies, this includes laws (legislation and regulations), guidelines that govern how laws are to be implemented, broad ideas and goals written down, or a policy on a particular topic, for example; a school disaster management policy. It also includes procedures on how to implement policies on a day-to-day basis, as well as guidance materials and tools.

How will you use the answers to this survey?
Your personal contact details will remain confidential. Read more about SurveyMonkey security and privacy policies. We will use the answers from this survey to:
- Develop a global database of policies advancing School Safety around the world.
- Display the data (through different pictures/maps) on the World Bank: Global School Collaboration Platform http://gpss.vizzuality.com
- Develop research reports for different audiences.
- Draw from the database for further research, program design and advocacy efforts.

How long will the survey take? Approximately 30 minutes

How do I answer the survey?
- This survey is mapping national-level policies. However, where there is a sub-national policy, please indicate in the comments box.
- Please answer the survey in English.
- Select 'next' to move to the next page.
- To return to questions you have already answered, select 'back'

- Select 'done' when you have completed.

What policy documents should I share?
If any of these are available, please share the following kinds of policies in any language, with the English version, if available *(These are examples only, they may be called something else in your country)*:

- Education sector policy
- Education sector disaster management policy
- Education in emergencies policy
- Disaster Management policy
- Policy governing routine maintenance and non-structural mitigation
- Policy governing new school construction
- Policy governing school hazard and fire drills
- Regulations or guidance to support safe school construction
- Policy or guidance regulating the limitations, identification and use of schools as temporary shelters and collective centres
- Education sector disaster management plans (national, and sub-national example)
- School disaster management plan format or template (school level)
- Implementation guidance supporting school disaster management plans
- Standard operating procedures for schools on disasters and emergencies
- Procedures and/or guidance on fire and hazard simulation drills
- Hazard mapping/risk information
- Data collection tools

How do I share the policy documents?
Before you begin, we kindly ask if you can share any of the policy documents listed above (if they are available and you have access to them). You can share these by:
1. **Upload** using this DropBox link. The link will allow you to upload files from your computer into the secure Dropbox folder without logging into or having a Dropbox account. Click on this link to upload your documents.
2. **Email** all available policy documents to **kate.mcfarlane@savethechildren.org.au**
3. **Paste the links (URLs)** for any policies available online in the box below.
1. Paste the online links (URLs) to policies

What if I can't complete the survey?
We encourage you to complete the survey. However, if you can't, please share all available policy documents. Alternatively, we can call you and complete the survey over the phone. For more information, contact: kate.mcfarlane@savethechildren.org.au

Q.	Question:	Criteria: (answer options)	
2	**Main contact person - details:** *We encourage you to provide your contact details so we can contact you if we have any questions about your answers. Your personal details will remain confidential. Read more about SurveyMonkey security and privacy policies.*	Name Organisation Position Skype Email address Phone number (including country code)	
3	**Collaborators' details:** *Write the name and contact details of other people who provided information to answer this survey.*		
4	**Which country will you be providing policy information about?** *Select country name.*	Drop down list of countries and codes (2 letter alpha)	
Policies for disaster management in the education sector			
5	**Does your national government have a disaster management policy?** *Select one.* *A **disaster management policy** is a policy focused on improving systems and structures to reduce the impact of hazards, and disasters, and to manage response and recovery.*	• Yes • No • Other • Unknown If yes, write the name of the policy and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
6	**Does the disaster management policy refer to the education sector?** *Select one.*	• Yes- mentioned all the way through the policy • Yes - section and/or paragraph dedicated to the education sector • Yes - sentence dedicated to the education sector • No - one word or no mention of the education sector • Other • Unknown If other, please explain. If yes, add link if online or upload to Dropbox.	
7	**Does your national government have an education policy?** *Select one.*	• Yes • No • Other • Unknown If yes, write the name of the policy and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
8	**Does the education policy include disaster risk reduction and response?** *Select one answer for disaster risk reduction and one answer for disaster response.* ***Disaster risk reduction:** Reducing risks through planned efforts to analyse and manage the causes of disasters, including through reduced exposure to hazards, reduced vulnerability of people and property, and good management of land and the environment, and improved preparedness for hazard impacts.* ***Disaster response:** Sometimes called disaster recovery. Providing emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.*	Matrix • Disaster Risk Reduction • Response • Yes- mentioned all the way through the policy • Yes - section and/or paragraph dedicated • Yes - sentence dedicated • No - one word or no mention • Unknown Any other comments?	
9	**Does your government have an education sector disaster management policy or an education in emergencies policy?**	• Yes –education sector disaster management policy • Yes- education in emergencies policy • Yes- both	

	Select one. ***Disaster management policy** – a policy focused on improving systems and structures to reduce the impact of a hazards, and disasters, and to manage response and recovery.* ***Education in Emergencies policy** – a policy establishing the systems, structures and budget for education to continue during times of a disaster, emergency and/or crisis.*	• No • Other • Unknown If yes, please name and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
School Safety Focal Points:			
10	**Does the policy (policies) include the following topics?** *Select one answer for each topic. Use the scroll bar below to see all of the columns.* ***School disaster management** – policies and procedures for all levels of the education sector (national and sub-national authorities, and schools (public, private and religious) to assess dangers and risks, reduce dangers, prepare to respond, and plan for educational continuity and child protection.* ***Risk reduction education** - For example, education on what the local hazards are and how to respond to any hazard events.* ***Resilience education** - For example, education on values, social skills, peace education, health promotion and positive social relationships to encourage the resilience and well-being of students.* ***Risk reduction** - Reducing risks through planned efforts to analyse and manage the causes of disasters, including through reduced exposure to hazards, reduced vulnerability of people and property, and good management of land and the environment, and improved preparedness for hazard impacts.* ***Response preparedness** – knowledge and capacities to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.* ***Education continuity planning** – planning for education to continue during times of emergencies and disasters.*	Matrix • Risk Assessment- • Safer School Facilities- • School disaster management- • Risk reduction and resilience education • Risk reduction • Standard operating procedures for disasters and emergencies • Regular fire and/or hazard drills • Response preparedness • Education continuity planning • The role of students or youth volunteers in disaster management and/or education in emergencies- • Teacher qualification for Safe Schools- • Yes - mentioned all the way through the policy. • Yes - a section and/or paragraph dedicated to the topic. • Yes - sentence dedicated to the topic • No - one word mention or no mention • Unknown Any other comments?	
11	**Does your national education authority have a person assigned to disaster risk reduction and/or Education in emergencies?** *This person is often called a 'focal point' for disaster risk reduction or education in emergencies. Select one answer for disaster risk reduction and one answer for education in emergencies.*	• Disaster risk reduction • Education in emergencies • Yes – a person's full time job • Partial – a person is named but it is not their full time job • No – nobody named • Other - (explain) • Unknown If yes or partial, write the name, position title and contact details of the focal point (email and phone number). If other, please explain.	
12	**Which elements of school safety does the assigned person look after?** *Only answer this question if you answered 'yes' or ' partial' to question 10. Select 'next' to move to the next question.* *Select one answer for each element.* *Read more about the elements in the Comprehensive School Safety Framework (CSS framework)*	Matrix • Education sector risk assessment • Pillar 1: Safe learning facilities • Pillar 2: School Disaster Management (including education in emergencies) • Pillar 3: Risk Reduction and Resilience Education • Yes • No • Unknown Any other comments?	
BUDGET			

13	**Does your national education sector budget include an allocation for risk reduction and resilience programming?** *Select one.*	• Yes – regular allocated funding • Partial – inconsistent funding • No – no funding • Unknown If yes or partial, how much? Include the currency and the amount [0000000.00]	
14	**Does your national education sector budget include an allocation for education in emergencies?** *Select one.*	• Yes – regular allocated funding • Partial – inconsistent funding • No – no funding • Unknown If yes or partial, how much? Include the currency and the amount [0000000.00]	
15	**Can your education authority access other funding sources in an emergency?** *Select one.*	• Yes • Sometimes • No • Unknown If yes or sometimes, please name the funding sources.	
Hazard/risk information			
16	**Does your education authority use risk data to support planning for school safety?** *Select one*	• Yes – only data from other government agencies or research institutions • Yes- only data from education sector • Yes- data from the education sector and other government agencies or research institutions • No • Unknown • Other If other, please explain.	
17	**Where does the risk data come from?** *Write the name of the source where the education authority gets the risk data from. If it is online, paste the link.*		
18	**How often is the risk data updated?** *Select one.*	• Monthly • Half yearly • Every two years • Every 5 years • Unknown • Other If other, please explain.	
Data collection about hazard impacts			
19	**Does your government collect data on the impacts of hazards on the education sector?** *Select one answer for each type of impact.* ***Data on disaster impacts on education*** *- information and statistics on extent and cost of damage and destruction of school facilities, days of school closure, reduction in school days and student/teacher contact hours, staff and student attendance, use of schools as temporary shelters, and rebuilding/recovery progress.*	Matrix • Deaths (in schools) • Injuries (in schools) • Education sector infrastructure damage • Long-term educational outcomes • Number of days of school closure • School attendance pre/post disaster • Yes - systematic (there is a data collection plan) • Yes- limited (sometimes, ad hoc or after major disaster only) • No - no data collected • Other • Unknown If other, please explain.	
Pillar 1: Safe Learning Facilities			

New school construction			
20	**Does your government have a policy requiring all new school construction to include the following:** *Select one answer for each construction element.*	Matrix • Safe school site selection • Safe design • Safe construction • Monitoring of construction • Yes • No • Unknown • Other If yes, write the name of the policy and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
21	**Does your government have regulations and guidance to support safe school construction?** *Select one.*	• Yes • No • Unknown If yes, please add a link if online or upload to Dropbox.	
Existing schools are being made safer			
22	**Does your government have a policy requiring the multi-hazards assessment of all schools and the prioritisation for the replacement, or strengthening of safety issues identified in unsafe schools (for example, retrofit, remodel, rehabilitation)?** *Select one answer. This policy may be a plan or guidance.* *Retrofit – is when you keep the school building but technical experts work with builders to make changes and add parts to make the school building safer and hazard resistant. For example, adding horizontal bands in a masonry building to improve earthquake resistance.* *Lighter rehabilitation and remodelling interventions can also incorporate risk reduction.*	• No • Yes – but not funded or implemented • Yes – funds allocated for assessment only but not implemented • Yes – funds allocated for assessment only, and assessment implemented • Yes - funds allocated for assessment and replacement/strengthening of safety issues (retrofit, remodel, rehabilitation), but not implemented yet or partially implemented • Yes – complete or almost complete • Other If other, please explain. If you use a tool for assessment, please share if available or describe below.	
23	**Does your government have a policy requiring the maintenance and non-structural mitigation of school buildings?** *Select one answer for each: routine maintenance, non-structural mitigation and annual maintenance events.* *-Example of routine maintenance activity: checklists for daily, weekly, and monthly maintenance tasks and who will do them.* *-Examples of non-structural mitigation activities: fastening furniture (earthquake), waterproof raised storage (flood), suppression equipment (fire), doors open outwards (all hazards).* *-Example of annual maintenance events: establish an annual 'safe school' day where students and families play active role in assessing and repairing the school premises.*	Matrix • Routine maintenance • Non-structural mitigation • Annual maintenance events • Yes • No • Unknown • Other If yes, write the name of the policy and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
24	**Does your government have policy and/or guidance on using schools as temporary shelters or collective centres in times of crisis or**	Matrix • Limitations on use of schools as temporary shelters or collective centres during school year. • How to select appropriate schools as temporary shelters.	

	emergency? If yes, does it include any of the content below? *Select one answer for each type of policy content/guidance*	• How to manage schools as temporary shelters. • Reimbursement for damages and costs for use of schools as temporary shelters. • Yes • No • other • Unknown If yes, write the name of the policy and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
Pillar 2: School Disaster Management			
Plans for education sector risk reduction and management			
25	**Does your education authority have risk reduction and/or risk management plans?** *Select one answer for national and one answer for sub-national for each row. If there is no plan, select 'no'.* ***Risk reduction (also known as 'risk management') plan** – a document prepared by national or sub-national authority, sector or organisation (for example a school), that includes risk assessment, goals and objectives to reduce the risks, including clear actions/activities and who needs to do them.*	Dropdown Matrix • Do you have education sector disaster risk reduction or management plans? • Does the plan include risk assessment? • Does the plan include risk reduction? • Does the plan include response preparedness? • Does the plan include educational continuity? • Does the plan allow for and/or include guidance on how to encourage active child participation? • Is the plan publicly available? • National • Sub-national • Yes • No • Unknown • Other If the plan is publicly available, write the name of the plan/s and add link if online or upload to Dropbox. If other, please explain. If you are in the process of developing a plan, please explain.	
26	**Does your education authority provide schools with guidance and procedures on risk reduction, response and recovery?** *Select one answer for each topic (column).* *For example, standard operating procedures for emergency and disaster response.* ***Risk reduction** - reducing risks through planned efforts to analyse and manage the causes of disasters, including through reduced exposure to hazards, reduced vulnerability of people and property, and good management of land and the environment, and improved preparedness for hazard impacts.* ***Recovery** - the restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.*	Matrix • Risk reduction • Emergency response • Recovery • Yes • No • Unknown • Other If yes to any of the above, add link if online or upload to Dropbox. If other, please explain. If you are in the process of developing these procedures or guidance, please explain.	
Response preparedness procedures and drills			
27	**Does your education authority have a policy requiring fire drills or drills for**	Matrix • Fire Drill	

	other specific hazards in schools at all grade levels? *Select one answer for each type of drill.* *For example, other specific hazards could include earthquakes, flash floods and violence.*	• Other hazard drill • Yes - more than one year • Yes - one a year • Mentioned (no frequency) • No policy • Unknown • Other If yes, write the name of the policy and add a link if online or upload to Dropbox. If other, please explain. If you are in the process of developing this policy, please explain.	
28	**Does your government provide procedures and guidance for how to conduct fire and hazard (disaster) simulation drills?** *Select one answer for each type of drill.*	Matrix • Fire drill • Other hazard drill • Yes • No • Unknown • Other If yes to any of the above, add link if online or upload to Dropbox. If other, please explain. If you are in the process of developing these procedures or guidance, please explain.	
Capacity development			
29	**Does teacher training curriculum include school disaster management?** *Select one.* *For example, teaching how to conduct and evaluate school drills. Teaching how to conduct risk assessments with students and develop risk reaction plans. Teaching good practice in safe reunification with families during a crisis.*	• Yes • No • Other (explain below) • Unknown If other, please explain. If yes, add link if online or upload to Dropbox. If you are in the process of updating the teacher training curriculum to include this, please explain	
30	**Does the education authority make teachers and school administration staff complete professional development on school disaster management?** *Select one.* *For example, how to conduct and evaluate school drills, how to conduct risk assessments with students and develop risk reaction plans, learning about good practice in safe reunification with families during a crisis.*	• Yes • No • Other (explain below) • Unknown If other, please explain. If yes, add link if online or upload to Dropbox.	
Pillar 3: Risk Reduction and Resilience Education			
31	**Have education and/or the disaster management authorities developed public awareness campaigns with consistent action-oriented messages for household risk reduction?** *Select one.* ***Consistent messaging** is the use of the same message over and over again so the public remember it.* ***Action-oriented messages** are messages that direct people to change behaviours (do something or not do something).*	• Yes • No • Unknown If yes, please provide examples of the messaging or add link if online.	
32	**Does the national curriculum include:** *Select one answer for each topic of study.* ***Climate change education**: For example, the impacts*	Matrix • Climate change education? • Disaster risk reduction education? • Resilience education?	

	of climate change on extreme weather events and droughts. ***Disaster risk reduction education**: For example, education on what the local hazards are and how to respond to any hazard events.* ***Resilience education:** For example, education on values, social skills, peace education, health promotion and positive social relationships to encourage the resilience and well-being of students.*	• Yes • No • Unknown • Other If yes, add link if online or upload to Dropbox. If other, please explain. If you are in the process of updating the national curriculum, please explain.	
33	**Do national teacher training colleges include disaster risk reduction, resilience and climate change training modules for teachers?** *Select one answer for each topic (column).* ***Climate change education**: For example, the impacts of climate change on extreme weather events and droughts.* ***Disaster risk reduction education**: For example, education on what the local hazards are and how to respond to any hazard events.* ***Resilience education**: For example, education on values, social skills, peace education, health promotion and positive social relationships to encourage the resilience and well-being of students.*	Matrix • Disaster risk reduction education • Resilience education • Climate change education • Yes • No • Unknown • Other If other, please explain.	
About the development and implementation of policies advancing School Safety			
34	**What were the important factors that allowed your government to be able to develop policies that advance school safety?** *Select 3-5 answers* *Think about the school safety policies your government has developed or is currently developing. Developing the policy means researching and drafting the policy idea.*	Select 3-5 answers -Elected officials (members of government) use their position to advance school safety publicly and within government. -Civil society groups use their position to advance school safety publicly. -Senior and mid-level education sector officials use their position to advance school safety publicly and in the education sector. -Senior and mid-level disaster management officials use their position to advance school safety publicly. -Professional journalists regularly report on safe schools, sometimes in depth. -There is strong evidence (proof) on the impacts of disasters on education, the dangers of unsafe schools, and/or the benefits of safe schools. -The government has clear framework, with ideas, approaches or steps on how to make schools safer. -Education is highly valued by the public, and expresses support for making schools safer. -The government has good technical capacity, or access to technical support for school safety -There has been continued advocacy about school safety for a long period of time. -School safety has become important for the government and public because of large disasters or frequent hazard impacts. -Public policy and programs are focussed especially on post-disaster response. -The private sector has an interest in school safety and supports it financially and other ways -The government is part of regional or global efforts that promote the importance of school safety. -Education authorities coordinate international and national civil society and inter-governmental stakeholders to support school safety. Please add any other factors and/or comments or stories about successes and limitations.	
35	**What were the important factors that allowed your government to be able to implement policies that advance school safety?** *Select 3-5 answers*	Select 3-5 answers -Elected officials (members of government) use their position to advance school safety publicly and within government. - Education and other authorities planned and carried out the policy activities well. - Education and other authorities were flexible in implementing the policies, adapting them if and when needed. - The government has dedicated enough funds to be able to carry out policy activities - Funds to implement the policy were easy to access and were distributed on time. -Civil society groups use their position to advance school safety publicly. -Senior and mid-level education sector officials use their position to advance school safety publicly and in the education sector. -Senior and mid-level disaster management officials use their position to advance school safety	

	of climate change on extreme weather events and droughts. ***Disaster risk reduction education**: For example, education on what the local hazards are and how to respond to any hazard events.* ***Resilience education:** For example, education on values, social skills, peace education, health promotion and positive social relationships to encourage the resilience and well-being of students.*	• Yes • No • Unknown • Other If yes, add link if online or upload to Dropbox. If other, please explain. If you are in the process of updating the national curriculum, please explain.	
33	**Do national teacher training colleges include disaster risk reduction, resilience and climate change training modules for teachers?** *Select one answer for each topic (column).* ***Climate change education**: For example, the impacts of climate change on extreme weather events and droughts.* ***Disaster risk reduction education**: For example, education on what the local hazards are and how to respond to any hazard events.* ***Resilience education**: For example, education on values, social skills, peace education, health promotion and positive social relationships to encourage the resilience and well-being of students.*	Matrix • Disaster risk reduction education • Resilience education • Climate change education • Yes • No • Unknown • Other If other, please explain.	
About the development and implementation of policies advancing School Safety			
34	**What were the important factors that allowed your government to be able to develop policies that advance school safety?** *Select 3-5 answers* *Think about the school safety policies your government has developed or is currently developing. Developing the policy means researching and drafting the policy idea.*	Select 3-5 answers -Elected officials (members of government) use their position to advance school safety publicly and within government. -Civil society groups use their position to advance school safety publicly. -Senior and mid-level education sector officials use their position to advance school safety publicly and in the education sector. -Senior and mid-level disaster management officials use their position to advance school safety publicly. -Professional journalists regularly report on safe schools, sometimes in depth. -There is strong evidence (proof) on the impacts of disasters on education, the dangers of unsafe schools, and/or the benefits of safe schools. -The government has clear framework, with ideas, approaches or steps on how to make schools safer. -Education is highly valued by the public, and expresses support for making schools safer. -The government has good technical capacity, or access to technical support for school safety -There has been continued advocacy about school safety for a long period of time. -School safety has become important for the government and public because of large disasters or frequent hazard impacts. -Public policy and programs are focussed especially on post-disaster response. -The private sector has an interest in school safety and supports it financially and other ways -The government is part of regional or global efforts that promote the importance of school safety. -Education authorities coordinate international and national civil society and inter-governmental stakeholders to support school safety. Please add any other factors and/or comments or stories about successes and limitations.	
35	**What were the important factors that allowed your government to be able to implement policies that advance school safety?** *Select 3-5 answers*	Select 3-5 answers -Elected officials (members of government) use their position to advance school safety publicly and within government. - Education and other authorities planned and carried out the policy activities well. - Education and other authorities were flexible in implementing the policies, adapting them if and when needed. - The government has dedicated enough funds to be able to carry out policy activities - Funds to implement the policy were easy to access and were distributed on time. -Civil society groups use their position to advance school safety publicly. -Senior and mid-level education sector officials use their position to advance school safety publicly and in the education sector. -Senior and mid-level disaster management officials use their position to advance school safety	

	in school safety? *Select 3-5 answers* *Think about areas that more work to make schools safer in your country and what blocks policy development in these areas.*	- The government has not allocated sufficient funds to be able to carry out the policy activities. - Funds to implement the policy are hard to access and not distributed on time. - Government leaders have not shown consistent support for implementing the policy. - Elected officials (members of government) have not shown commitment to or leadership on safe schools. - The government does not have sufficient technical capacity or access to sufficient technical support for school safety. - The policies are not aligned well with existing education sector strategies, priorities and standards. - The policies were implemented too quickly - Public policy and program are focus mostly on post-disaster response - Civil society groups (community members who share a common interest) are not involved. - Education sector leadership is not committed to safe schools. - Disaster management leadership is not committed to safe schools. - Professional journalists report very little or not at all on safe schools. - The public are focused on other political issues and not paying attention to safe schools. - The private sector has not shown an interest in school safety. - The culture does not value education highly. Please add any other factors and/or comments or story about these limitations and remedies.	
School Safety Summary			
38	**What are the main Comprehensive School Safety initiatives that your government has done?** *Write a summary, no more than 500 words. If available online, paste the link, email materials or upload to Dropbox. Think about how you are advancing Comprehensive School Safety (CSS) or showing leadership in the Worldwide Initiative for School Safety (WISS).*	Free text	
39	**What are your country's main achievements in school safety?** *Write a summary, no more than 500 words. If available online, paste the link, email materials or upload to Dropbox.*	Free text	
40	**What are the main challenges your national government has in implementing safe school programs?** *Write a summary, no more than 500 words. If available online, paste the link, email materials or upload to Dropbox.*	Free text	
41	**What are your national government's priorities regarding school safety?** *Write a summary, no more than 500 words. If available online, paste the link, email materials or upload to Dropbox.* *Are the priorities aligned with the Comprehensive School Safety (CSS) framework or the Worldwide Initiative for School Safety (WISS)?*	Free text	
Thank you for participating in this survey to chart how we are making schools around the world safer			

Thank you for taking the time to complete the survey.
Please remember to share any available policy documents.

Appendix 2. GADRRRES CSS Policy Case Study Summaries[1]

1. To read the complete versions of the GADRRRES CSS Policy Case Studies, please visit: gadrrres.net/resources

Scaling-up Comprehensive School Safety Assessment in Laos and Indonesia

Marla Petal[1], Ana Miscolta[2], Rebekah Paci-Green[2], Suha Ulgen[2], Jair Torres[3], Stefano Grimaz[4], Christelle Marguerite[5], Ardito Kodijat[6], and Yuniarti Wahyuningtyas[6]

1. Save the Children Australia 2. Risk RED 3. UNESCO Paris Office 4. Polytechnic Department of Engineering and Architecture University of Udine, Italy 5.Save the Children Laos 6. UNESCO Jakarta Office

All Pillars of Comprehensive School Safety

Governments need standardised data to identify how well policies are being implemented at the school level, and to adjust course accordingly. Without efficient and standardised methods for collecting data on school exposure to hazards, the conditions of their facilities, their disaster management plans, and their knowledge of disaster risk reduction, governments cannot identify and prioritise their interventions to support school safety nor can national progress towards school safety be monitored over time. The Comprehensive School Safety (CSS) Assessment Suite is a package of methods and three digital tools that can assist governments in monitoring, evaluating, and intervening for school safety.

- CSS First Step is a simple smart phone app for students, teachers, and community members that encourages awareness of and interest in school safety. CSS First Step asks users to answer basic survey questions about the school site, relevant hazards, and local disaster management strategies. Based on the responses, the app automatically generates an e-mail back to the user with recommended next steps for action to improve school safety.

- CSS Safe Schools Self-Assessment Survey (SSSAS) uses a smart phone or tablet to guide school assessors, such as government officials or school management committees, in collecting in-depth, non-technical information and photos on school safety at a low cost. Users receive a summary report, along with recommendations for action. Separately, authorised government officials can use a web-based data portal to generate reports with summary data for the schools in their jurisdiction.

- VISUS CSS, which stands for the Visual Inspection for defining Safety Upgrades Strategies, is a multi-hazard school safety assessment methodology that focuses on technical assessment of school structures and facilities. Surveyors using VISUS must be trained and have expertise in construction or engineering. After surveyors have collected data at school sites, the data is sent for remote automated processing. The app returns individual school and collective summary reports, including budget estimations for safety upgrading.

The SSSAS tool was piloted at nearly 150 schools in Laos in 2015. Provincial reports generated by the SSSAS tool helped authorities understand school safety better. Teachers and representatives from the Ministry of Education and Sports indicated that the use of the visuals within the SSSAS tool makes the tool particularly useful for school management committees, as well as education and disaster management authorities. VISUS was piloted in Indonesia in a similar number of schools. Local surveyors from the engineering and architecture departments of local universities and from vocational schools were trained to operate VISUS and education sector authorities learned the VISUS assessment process.

The CSS Assessment Suite tools are still in the early stages of piloting. In adopting these technologies, countries must overcome challenges, such as identifying local stakeholders and subject-matter experts to guide country-level adaptation. Local stakeholders also need to be prepared to operate new technologies and sustain the process of data collection, analysis and decision-making.

See the full case study in the report appendix and at www.gadrrres.net/resources

Assessing and Implementing Structural Interventions for Schools in China

Ana Miscolta, Risk RED

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

Pillar 1: Safe Learning Facilities

In 2009, the Ministry of Education (MoE) developed a program that mandated the seismic assessment and, as needed, the retrofit or reconstruction of every primary and secondary school in China within three years. The National Primary and Secondary School Building Safety Project was developed a year after the 2008 Sichuan earthquake, also called the Great Wenchuan earthquake, which resulted in the deaths of approximately 87,000 people, including 10,000 schoolchildren (Shuanglin, 2016; Sheth, 2008). The M_s 8.0 earthquake revealed widespread seismic susceptibility among China's school building stock, with 7,444 school buildings damaged or destroyed (Chen & Booth, 2011).

Since the adoption of the Code for Seismic Design of Buildings in 1989, which was updated in 2001, China's written seismic building code has been consistent with international standards (Ministry of Construction of the People's Republic of China, 2001). Despite the presence of a robust seismic building code, the Sichuan earthquake revealed gaps between building code standards and building construction practices. The gap was particularly problematic in rural areas, where many buildings are older than the country's building code and were never subject to seismic regulations.

The year after the earthquake, the MoE established the School Building Safety Project, which mandated the assessment and retrofitting or reconstruction of weak primary and secondary schools nationwide, including those unaffected by the Sichuan earthquake. Note: the total number of school construction projects completed, as well as the number of projects remaining, is unavailable at the time of publication.

The National School Safety Office supervised the project and managed data on a nationwide scale and coordinated with local governments to direct their own project management and implementation. Provincial governments primarily played an administrative role, managing data, funds, and helping local governments with school assessments. City and county governments were responsible for coordinating the assessments with schools and technical teams, collecting and providing school data to provincial authorities, and implementing the retrofitting or reconstruction projects (Ministry of Education, 2009a). The central government allocated approximately 30 yuan billion over three years toward the School Building Safety Project while approximately 350 billion yuan came from provincial governments (Yinfu, 2014).

Professional teams assessed the schools using uniform technical standards outlined by the MoE. Assessment teams then recommended whether the school was safe, or should be retrofitted or demolished (Guo et al., 2014).

Based on these recommendations, the individual school worked with a design company to create a school design plan and accompanying project budget. The school then applied for the necessary funding from the local government (Guo et al., 2014). After the local government approved a school's design plan and budget proposal, the school would contract a private company to complete the construction plan.

High levels of organisation and coordination between governments and a large budget from the central and provincial governments helped the project develop quickly. Though the School Building Safety Project has already created thousands of safe schools, and can largely be considered a success story, China will need to ensure that the new standards of design, construction, and construction monitoring continue to be applied to new school construction. New and retrofitted schools, especially those in rural areas, will need sufficient funds for school maintenance and repair to ensure that the successes of the School Building Safety Project are sustained.

See the full case study in the report appendix and at www.gadrrres.net/resources

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Guiding Local Governments to Strengthen Unsafe Schools in Japan

World Bank and the Global Facility for Disaster Reduction and Recovery, Ana Miscolta, Risk RED

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

Pillar 1: Safe Learning Facilities

In 1981, the Ministry of Land, Infrastructure, Transport, and Tourism heightened building standards to ensure the safety of building occupants even in high magnitude, rare earthquakes. School buildings constructed after 1981 and subject to these standards were considered safe. However, school buildings built prior to 1981 and not retrofitted were not.

In 1995, the national government made national subsidies available to all pre-1981 public and private schools for school assessment and retrofitting. However, many local governments did not take advantage of the subsidy program.

Realising that municipal governments needed guidance to implement school assessments and retrofitting, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) organised a working group of earthquake and planning experts, architects, and local government representatives to develop guidelines for the planning and implementation of school building retrofitting projects in late 2002. The resulting guidelines, published and distributed to local governments in 2003, described the basic concepts of structural earthquake safety in schools, how to prioritise retrofitting projects, and methods for planning and implementing retrofitting projects. These guidelines directed local governments to:

- Establish a steering committee consisting of relevant stakeholders in school safety and disaster prevention, including administrators, teachers, engineers, and academic experts.
- Conduct a baseline survey of school buildings inquiring about the condition of facilities, building design, presence of active fault, school status as an evacuation centre, and plans for closure or merger.
- Prioritise school buildings for vulnerability assessment and/or seismic diagnosis based on the number of floors, year built, and other estimates of structural integrity.
- Conduct a vulnerability assessment in cases where prioritisation surveys indicate a building was structurally weak or dilapidated. The vulnerability assessment scored a building's deterioration. Scores below a threshold had to be reconstructed; scores above it had to be further evaluated using a seismic diagnosis.
- Conduct a seismic diagnosis of buildings with certain prioritisation and vulnerability scores in order to calculate a seismic index of structure and a horizontal load-carrying capacity index. These two indices were then associated with a low, medium, or high risk of collapse in earthquake.
- Determine the urgency of projects using the results of the seismic diagnosis. Local governments were told to consider schools with high risk of collapse as cases with high urgency.
- Formulate an annual plan after reviewing the list of school facilities that require structural intervention in their jurisdiction. Local governments were told to consider the extent of work, associated costs, and number of high-risk buildings that required urgent attention.

Using the technical and planning guidance from the MEXT guidelines, as well as national subsidies available for school retrofit projects, municipal governments across the country began implementing school retrofits and reconstructions in their jurisdictions.

By 2015, approximately 52,000 elementary and junior high schools had been either assessed as seismically safe, retrofitted to be seismically safe, or torn down and reconstructed. Between 2002 and 2016, the percentage of earthquake-resistant public elementary and junior high school buildings in Japan increased from just 44.5% to 98%.

MEXT's development of comprehensive guidelines greatly facilitated program progress by providing local governments with detailed, step-by-step information for program planning and implementation.

See the full case study in the report appendix and at www.gadrrres.net/resources

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Designing and Building Earthquake-Safe Schools in Uttar Pradesh

Sanjaya Bhatia[1] and Ana Miscolta[2]

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Pillar 1: Safe Learning Facilities

Most of Uttar Pradesh, India's most populous state, sits within high seismic hazard zones – a problematic location because many buildings are poorly constructed and prone to collapse during large earthquakes. After the 2001 Gujarat earthquake, the Uttar Pradesh government developed a proactive approach to earthquake risk reduction in the education sector. In 2006, the government partnered with United Nations Development Programme (UNDP) Disaster Risk Management Programme and Sarva Shiksha Abhiyan (SSA), a national program aimed at expanding basic education access, to incorporate earthquake-resistant designs into all future school building plans.

The new designs were developed in a four-month period, in time to apply to 6,850 school buildings and 82,039 classrooms, planned for construction the following year through World Bank financing. Each new design came with a detailed construction manual and cost estimates. After the National Seismic Advisor and state officials evaluated and approved the designs, the Uttar Pradesh government revised its school construction budget to reflect the additional cost; adding earthquake-resistant design features caused only an 8% cost increase per unit.

To ensure proper construction, SSA held training workshops to teach thousands of masons about earthquake risks, show them new school design concepts, and give them hands-on practice with the new designs. Because the new school designs applied to all 70 districts of Uttar Pradesh, UNDP and SSA designed a cascade approach to training designed to reach as many local masons as possible.

In May 2006, UNDP introduced district-level education officials in all 70 districts to the new school designs. In June and July 2006, UNDP held master training workshops for engineers and education officials, with support from Orissa Development Technocrat's Forum. Four representatives came from each district. A month later, the master trainers taught training sessions in their respective districts with education officials, engineers, and local masons. District training sessions lasted two days. The first half focused on earthquake-resistant construction theory and methodology using photographs and manuals. In the second half, participants built their own earthquake-resistant models using techniques from the class.

Between 2006 and 2007, over 6,844 buildings were built using the new earthquake-resistant designs (Umrao, 2007), yet substantial challenges remain. Most notably, around 125,000 pre-existing elementary schools in Uttar Pradesh remain susceptible to earthquakes and await retrofit. A lack of funding impedes the implementation of a large-scale school assessment and retrofitting initiative through SSA (Umrao, 2007).

Uttar Pradesh was able to implement earthquake-resistant school designs in a relatively short period of time because the government already had a large-scale school construction program in place. One of the most challenging aspects of the SSA initiative was developing a labour force capable of implementing earthquake-resistant designs on the ground. However, using a cascade approach, in which the government relied on master trainers to train others in their respective localities, 10,000 masons were trained and certified within a period of a few months.

See the full case study in the report appendix and at www.gadrrres.net/resources

Seismic Renovation and Reconstruction of Schools in Uzbekistan

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Pillar 1: Safe Learning Facilities

Old Soviet-era buildings are widespread and seismically unsafe in Uzbekistan, including many school buildings that are prone to damage or collapse in an earthquake event.

In 1996, the United Nations International Decade for Natural Disaster Reduction secretariate launched the Risk Assessment Tools for Diagnosis of Urban Areas (RADIUS) to promote seismic risk reduction in urban areas. A RADIUS study of Tashkent's building stock generated increased awareness of seismic risk about Tashkent's building stock, including school buildings (Mirjalilov, 2000). This study stimulated the national government to make earthquake risk mitigation a policy priority.

In 2004, Uzbekistan established the National Programme on School Education Development for 2004–2009, which required unsafe school buildings be retrofitted or rebuilt. In response, the Cabinet of Ministers of Uzbekistan organised a working group of government agencies to oversee the project. The State Committee for Architecture and Construction established a design working group to assist the assessment process. The group included 11 state engineering and design institutes under the leadership of Uzbek Research and Design Institute of Standard and Experimental Design of Residential and Public Buildings (UzLITTI). The design group assessed the structural integrity of school buildings through questionnaires and field visits and assigned each school one of the following structural intervention categories:

1) Demolition and new construction – when it was more cost- and time-effective to demolish and reconstruct than restore or retrofit the building.

2) Operating repair – when the school met the current building code requirements and did not require strengthening, but did require light repairs.

3) Rehabilitation – when the school required retrofitting.

4) Capital reconstruction – when a school building required both strengthening and new construction, such as the addition of classrooms or sports halls.

The design group then developed designs for each type of the structural intervention categories. The Ministry of Public Education began implementing the plans in summer of 2004, delegating most of the implementation to municipal and provincial governments. Local governments prioritised school interventions based on each school's level of need compared to other schools in the area. Construction proceeded, first prioritising demolition of unsafe schools, then reconstruction of those schools. Rehabilitation of weak schools followed, with schools that needed only operating repairs being prioritised last.

Local governments organised public tenders for construction work according to technical and budget requirements defined by UzLITTI. Local construction firms bid for contracts and those firms that won the tender consulted with the design working group for guidance. The local branch of the State Architectural Construction Supervision monitored contractors to ensure they were meeting the structural requirements. Between 2004 and 2009, 8,501 Uzbek primary and secondary schools were retrofitted, repaired, or rebuilt under the programme. A total of 351 schools were reconstructed, 2,470 schools underwent capital reconstruction, 3,608 schools were rehabilitated, and 2,072 underwent operating repairs (Akhmedov, 2013).

Since the beginning of the program, all structurally substandard primary and secondary school buildings in Uzbekistan have been retrofit or rebuilt to be seismically safe. The assessment and structural intervention demonstrates the national government's commitment to child safety and disaster risk reduction. Its mechanism for implementing large-scale retrofitting and reconstruction projects serves as a model for other countries to follow.

See the full case study in the report appendix and at www.gadrrres.net/resources

Nationwide School Earthquake Drills in Iran

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Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

Pillar 2: School Disaster Management

Iran sits atop the seismically active Alpine-Himalayan orogenic belt and has been struck by many destructive earthquakes (Hessami et al., 2003). During the International Decade for Natural Disaster Reduction in the 1990s, the Ministry of Education (MoE) and the International Institute of Earthquake Engineering and Seismology (IIEES) decided to work together to encourage formal and informal risk-reduction education, with an emphasis on community inclusion. The IIEES and the MoE concluded that schools were ideal places for conducting hazard awareness activities and began discussing how school sites could be appropriate venues for educating citizens about earthquake safety and preparedness.

In 1996, the MoE and the IIEES piloted Iran's first school earthquake drill, eventually scaling up the drills to the national level and making participation mandatory. By 2016, nearly 13.5 million children participated in earthquake drills across the country for the nation's 18th national drill.

The main objectives of the Earthquake and Safety Drills were to:

1) increase the knowledge of children and teachers about earthquakes
2) develop preparedness for appropriate responses during an earthquake
3) reduce the disastrous consequences of earthquakes
4) build a culture of safety in earthquake-prone communities.

On the day of the annual drill, the MoE coordinates the earthquake and safety alarm within schools, while the Islamic Republic of Iran Broadcasting sounds the alarm on the national radio. On cue, students, teachers, and all school staff perform "drop, cover, and hold'" for 30 to 60 seconds, followed by emergency evacuation (IIEES Brochure, 2004). Each year, one or two schools are selected as models of good implementation, and their drill, conducted with representatives from IIEES and the MoE, is also broadcast on the radio to encourage student enthusiasm.

Inspired by the successful expansion of Iran's national school drill program, in 2015, the IIEES expanded their work to engage the broader community in earthquake risk reduction measures. They initiated a new program called Safe Schools – Resilient Communities, which aimed to raise hazard awareness and build resilience in the communities surrounding schools. The program provides communities with broad DRR training and facilitates community participation in the annual earthquake and safety drill. For the three months prior to the earthquake and safety school drill, the Safe Schools – Resilient Communities program educates community members about earthquake mitigation and response strategies. IIEES representatives train local facilitators to hold workshops to teach community members appropriate responses to an earthquake event, sheltering and evacuation protocols, and methods for addressing structural and non-structural risks in houses. Workshop facilitators also guide community members in preparing risk maps of their neighbourhoods. Safe Schools – Resilient Communities has already been introduced in 60 communities.

Iran's expansion of school earthquake drills nationwide and its development of a cooperative and inclusive community risk reduction program are the products of the long-term partnership between the MoE and the IIEES, demonstrating the necessity of strong relationships between government institutions and expert advocate organisations. However, Iran's education sector still faces challenges with strengthening weak schools and measuring the effectiveness of its emergency management systems. Over 30% of Iran's school building stock is seismically unsafe. Furthermore, the effectiveness of the earthquake drill and community risk reduction programs will not be known until the next major earthquake occurs.

See the full case study in the report appendix and at www.gadrrres.net/resources

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IIEES

Developing School Plans and Performing Drills in Los Angeles

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2. Risk RED

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

Pillar 2: School Disaster Management

In the past 100 years, several earthquakes have caused structural damage and disrupted educational activities in the Los Angeles region of California state. The Los Angeles Unified School District (LAUSD) Office of Emergency Services has in place some of the most comprehensive disaster management strategies in the United States.

The state-level Katz Act of 1984 required that all public and private elementary and high schools with 50 students or more develop an earthquake disaster plan. The act also required schools to hold regular "drop and cover" and evacuation drills. These regulations were later supplemented by California Education Code Sections 32280–32289, which mandated that all schools develop Safe School Plans, to include natural hazard risk, school and home violence, and traffic safety, with annual updates to be submitted to the governing board of their school district.

Over the next decade, California state emergency management requirements developed until ultimately the state created the Standardized Emergency Management System (SEMS), the set of requirements LAUSD school plans must comply with today. SEMS establishes inter-agency coordination to ensure rapid communication and decision-making, and a state mutual aid program, among fire departments, police departments, and health facilities.

The LAUSD guides the development of Safe School Plans for all schools in its jurisdiction, offering a Safe School Plan template, which addresses multiple natural and social hazards and has detailed emergency planning information and guidelines for plan completion.

Each school must establish a Safe School Committee in charge of reviewing and updating its Safe School Plan. In the LAUSD, Safe School Committees must include the principal, the United Teachers Los Angeles Chapter Chair, one non-teaching staff member, one student representative if the plan is for a high school, one parent representative of a current student, and one local law enforcement officer. In addition to mandatory members, the LAUSD Office of Emergency Services encourages schools to recruit staff members with diverse training backgrounds for the committee (Office of Environmental Health & Safety, 2009).

To further engage LAUSD students and staff in emergency planning, the LAUSD Office of Emergency Services released two apps based on the district's Safe School Plan template. The LAUSD Staff/Responder Emergency Plan app is available to all district employees and first responders and describes response protocols for emergencies. The LAUSD Community Emergency Plan app, which students, parents, and community members can download in English and Spanish, describes LAUSD emergency plans and protocols, including parent notification and reunification procedures.

Despite the LAUSD Office of Emergency Services' impressive work in emergency planning and hazard mitigation, significant challenges remain. One of the greatest obstacles to managing the development and maintenance of Safe School Plans in the LAUSD is the size of the district relative to the number of managers monitoring school plans.

Overall, the LAUSD Office of Emergency Services provides an excellent model of how a large school district or local government can guide schools in planning for emergencies. It is important to note that the LAUSD Office of Emergency Services emergency planning policy is strongly supported by California state law, and what is arguably a proactive hazard planning culture in California. Students benefit not only from the existence of emergency plans in school, but from hazard and emergency response education, provided through periodic school drills and the availability of emergency planning apps.

See the full case study in the report appendix and at www.gadrrres.net/resources

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Protecting Children in Emergencies by Law in the Philippines

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Pillar 2: School Disaster Management

When Typhoon Haiyan struck Southeast Asia in 2013, it affected nearly 6 million children in the Philippines, leaving thousands dead and many more psychologically traumatised. The property damage and social disorganisation left by Typhoon Haiyan made educational continuity impossible in certain parts of the Philippines. This disruption left children without social structure or a physical place of belonging, especially in cases where they had lost their home or families. Orphaned or separated children were also highly vulnerable to the risk of abuse or trafficking after the typhoon.

A month after the typhoon struck, Save the Children, World Vision, the United Nations Children's Fund (UNICEF), and Plan International began a study in December 2013 investigating the self-identified needs of children affected by Typhoon Haiyan. The study assessed 286 children and completed 42 focus group sessions. The purpose of the study was to identify existing weaknesses in policy, with emphasis on those systemic weaknesses that affected children.

The study found that, as of June 2014, over 10,000 children affected by Typhoon Haiyan remained in precarious situations with unstable access to education and health resources. In September 2014, based on the data from the post-Haiyan study and analysis of the existing policy framework, Save the Children developed a draft bill. Based on the draft bill, Representatives and Senators authored their own version of the bill, HB 5062, which eventually became The Children's Emergency Relief and Protection Act. In 2016, after several amendments in the Senate and House of Representatives, President Aquino signed the Act into law. The Act outlines specific measures to ensure the safety of children in disasters, including:

- establishment of evacuation centres
- establishment of child and women-friendly transitional shelters, and a referral mechanism for orphaned, unaccompanied and separated children
- assurance for immediate delivery of basic necessities and services
- stronger measures to ensure the safety and security of affected children
- delivery of health, medical and nutrition services
- plan of action for prompt resumption of educational services for children
- establishment of child-friendly spaces; and promotion of children's rights.

The Act directs the Department of Social Welfare and Development to develop a Comprehensive Emergency Programme for Children. The program will activate upon declaration of a state of calamity or any other emergency situation.

Save the Children's involvement in policy advocacy, development, and implementation highlights how important researchers and partner organisations can be in advocating for, and ensuring lawmakers pass, evidence-based policies. However, existing support and advocacy for children's welfare within the House of Representatives and Senate were integral in passing the law. The timing of policy advocacy was also important in passing the Children's Emergency Relief and Protection Act. Typhoon Haiyan had occurred less than a year prior when HB 5062 was first introduced. The devastation from the storm was still fresh in the minds of both citizens and lawmakers, making the political climate ripe for policy change.

Passing a comprehensive bill addressing the wellbeing of children in disasters is a substantial accomplishment for the Philippines. However, it remains to be seen how effective the law will be in practice. Ensuring the full support and participation of all government agencies involved in the Comprehensive Emergency Programme for Children is something that can be continued in the present. Civil society organisations should maintain their support of government agencies, and should offer their resources where needed.

See the full case study in the report appendix and at www.gadrrres.net/resources

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

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Students Leading Communities in Disaster Risk Reduction through Informal Education in Cuba

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Pillar 3: Risk Reduction & Resilience Education

In Cuba, environmental education and the prevention of disasters are directly related. From pre-school education through secondary school, the national curriculum directly addresses the protection of the environment. Classes focus on ecological problems and natural hazard risk with attention to methods of mitigation and disaster prevention.

However, officials within the Ministry of Education (MINED) consider formal school-based disaster risk reduction (DRR) and environmental education insufficient because it excludes the adult and out-of-school population and school-based education also cannot be rapidly updated with new knowledge. For this reason, the MINED has developed informal education programs that include the whole community in the DRR educational process in partnership with international non-governmental organisations, such as the United Nations Children's Fund (UNICEF), Save the Children, and the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Based on its current priorities and evaluation of need, the MINED develops and distributes terms of references for environmental education projects that are consistent with their education policy and model of development. Organisations answer to these terms of references, thereby developing partner projects with the MINED. While the duration of a single project may be finite, its lessons are often used for changes to permanent policy through incorporation into curricular content or teacher training content.

In 2013, the MINED with UNICEF Cuba and more than 15 interdisciplinary ministries and institutes in the sectors of education, civil defense and DRR, developed the project Education, Leadership and Gender. The project's aim was to strengthen the leadership roles of children and adolescents, their families, and their communities in learning and pursuing new knowledge and skills in the realm of disaster mitigation and prevention. The program centres on the inclusion of girls and women as active decision-makers and project leaders. Education, Leadership, and Gender is principally carried out in primary and secondary schools in between 25 and 30 communities each year.

Project activities are divided into two categories: those that are carried out in the schools and in which only students participate; and those carried out in community workshops and, in which everyone in the community participates, including students. The school activities train students in skills for the mitigation and prevention of disasters. The creation of risk maps of the school and its vicinity are a major component of the project. These activities are permanently incorporated into classroom activities from May throughout the rest of the school year. After finishing the school-based project activities, students present their new knowledge to their families and the rest of the community in public workshops, which are led by teachers, administrators, and community leaders. Children are encouraged to continue spreading DRR and environmental knowledge to their families and community members and serve as agents of change and liaisons between schools and the rest of the community.

Since its initiation in 2013, the Education, Leadership, and Gender project has been carried out in five provinces in Cuba. Between 2013 and 2016, over 14,000 children and over 1,800 teachers have participated in the project, in 128 schools and 107 communities. In April 2017, the project was initiated in the province of Ciego de Ávila and the results of the project are pending.

Despite the impacts of hurricanes and flooding in Cuba, the number of related fatalities is minimal, in large part due to the political will of preserving human lives through both formal and informal hazard education.

See the full case study in the report appendix and at www.gadrrres.net/resources

Mainstreaming Road Safety Education for Children in South Korea

Ana Miscolta, Risk RED

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector

Pillar 3: Risk Reduction & Resilience Education

In South Korea, the journey to school is an everyday hazard for children. Growth in car ownership in the 1980s led to an increase in traffic accidents and related fatalities throughout the decade. Traffic fatalities peaked in 1991, killing 13,429 people, including 1,566 children. Most fatal road accidents involving children in South Korea were vehicle-to-pedestrian collisions in urban areas. The death of these children highlighted a need to improve safety protocols for children who walk to and from school, especially in cities (Sul et al., 2014).

Between the years of 1988 and 2014, South Korea made a series of policy changes that lowered child traffic fatalities in South Korea by nearly 97%. These policy changes began in 1995 and included both formal and informal educational approaches to roadside safety for children and adults.

In 1996, the Ministry of Education, Science and Technology (MoEST) began mandating kindergartens to teach 30 hours of road safety education, and that elementary, middle, and high schools teach 21 to 23 annual hours of road safety education. However, the directive lacked a strong legal basis for enforcement. To address this legal gap, the national government amended the School Health Act in 1998 and the Child Welfare Act in 2000. Both amendments outlined the responsibility of school administrators to provide traffic education. The amendment to the Child Welfare Act also outlined road safety education guidelines for each age group:

- Kindergarten education focused on using sidewalks, crossing roads, and riding school buses.
- Elementary education focused on finding safe routes to school, understanding traffic rules, and using different forms of transportation.
- Middle and high school education focused on using and maintaining bicycles, understanding traffic rules, and preventing accidents.

In 1997, the President made a pledge to further strengthen road safety education. In response, the Ministry of Education and the Road Traffic Authority developed content for the 7th National Educational Curriculum between 1998 and 2000, and curricular changes were incorporated into textbooks.

Children also learn about road safety outside the classroom. In 2002, the national government developed facilities called “traffic parks” or “road safety experience centres” for kindergarten and elementary students to test hands-on learning approaches to safety education. Traffic parks are confined areas that mimic real roadways to help train children in a safe environment. Children learn how to use crosswalks, interpret traffic signs, and safely ride in vehicles.

South Korea has drastically reduced child traffic fatalities since the early 1990s: the number of child roadside deaths dropped from 1,766 in 1988 to 53 in 2014 (Sul et al., 2014). Classroom-based approaches contributed to the reduction in child traffic fatalities by teaching children skills to protect themselves on the street. Non-educational policies passed during the same period also played a large role, such as school zones and increased traffic penalties. In 1995, the government introduced the school zone system nationwide, which imposed stricter traffic rules in areas around schools. Traffic fines in school zones are double the normal amount. The new school zones and higher traffic violation penalties were also influential in making roads safer for children (Sul et al., 2014).

Despite South Korea’s impressive strides in reducing the rate of child traffic fatalities, its overall pedestrian fatality rate remained the highest among OECD countries in 2014 (OECD/ITF, 2015). Such a high pedestrian fatality rate indicates the country must take further measures to ensure roadside safety for all. Experts suggest the problem comes from a high rate of alcohol consumption, a fast-paced culture, lack of sidewalks, and relatively high speed limits (Yan & Kim, 2003; OECD/ITF, 2016). Developing measures to addres the root causes of traffic accidents will benefit children and reduce the rate of child fatalities even further.

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