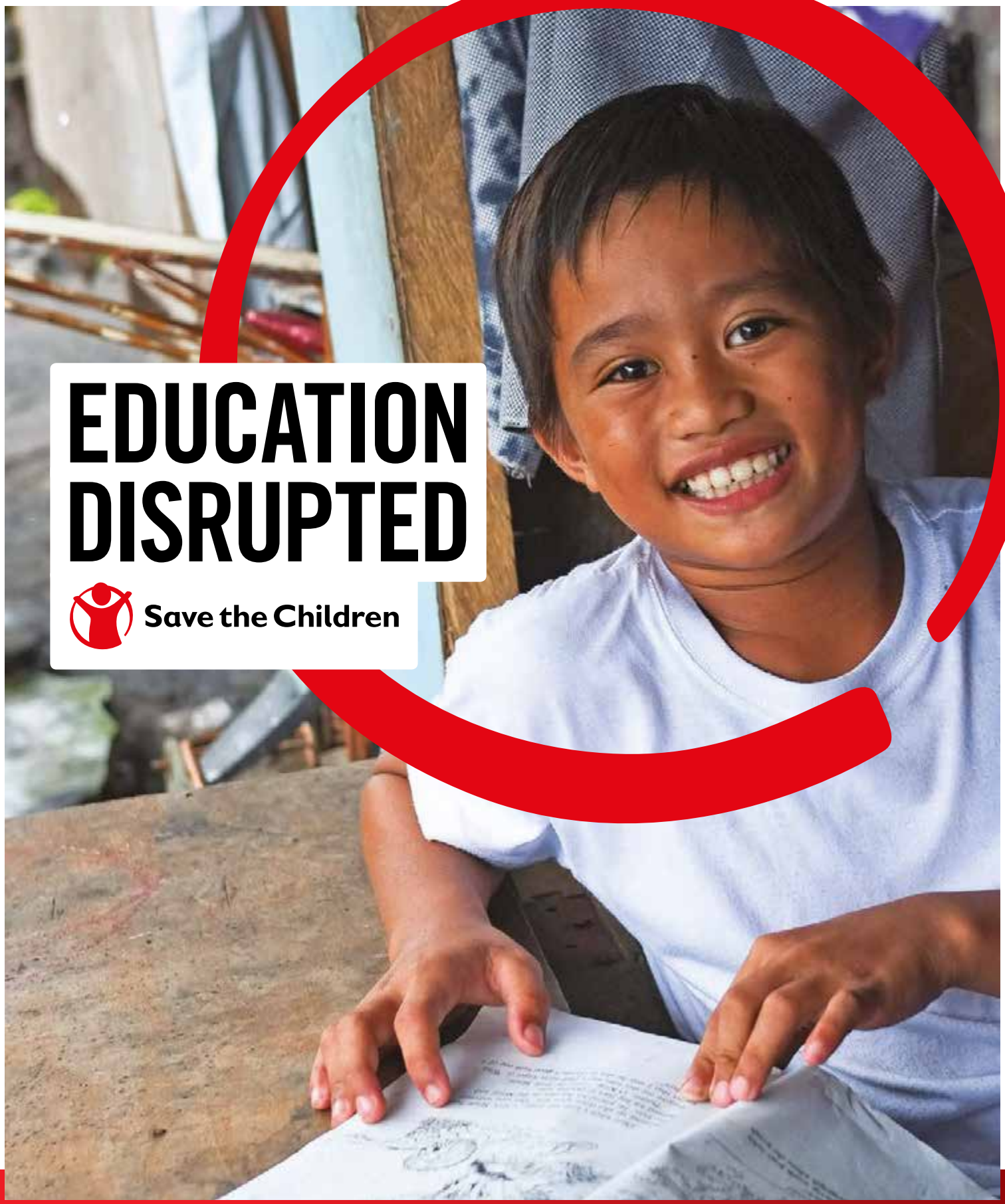

# EDUCATION DISRUPTED

Save the Children

**Disaster impacts on education in the Asia Pacific region in 2015**

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## Education Safe from Disasters

Children have a right to education, even in the face of disaster. In October 2015, Save the Children launched Education Safe from Disasters – an urgently needed strategy aimed at protecting children's education when disaster strikes. Education Safe from Disasters is a three-year strategy aimed at ensuring all children learn from a quality basic education, without having their schooling stopped or disrupted by disasters.


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Front cover photo: On 8 November 2013, Typhoon Haiyan (locally known as Yolanda) made landfall in the Philippines. With winds as strong as 275 km/h and storm surges several meters high, the typhoon destroyed almost everything in its path. The typhoon affected more than 14.1 million people and resulted in more than 6,200 deaths. Justin, nine, and his family benefited from Save the Children's unconditional cash grant and received school kits and emergency kits during the early phase of the response to the typhoon.
Photo: VJ Villafranca/Save the Children

This report was written by Sarah Ireland, Humanitarian Advocacy and Policy Advisor, Save the Children Australia.

## ACKNOWLEDGEMENTS

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Thank you to those staff in the country offices who supported this research through contributing primary data and ensuring the content in the report accurately reflected the situation before, during and after the disasters profiled. Finally, thank you to those who engaged and provided feedback throughout the drafting process, and contributed their time and insights to the research through their technical expertise and expansive knowledge of the region.

**Children's consultation organized by humanitarian agencies including Save the Children in Tacloban, Philippines. Children spoke openly and honestly about their fears of wind, rain and waves, and about fears that their parents would not recover their livelihoods, which may require them to drop out of school. Children play a vital role not only in helping to rebuild, but also in helping strengthen communities, resilience and preparation for disasters in the future. Photo: Save the Children**

# EXECUTIVE SUMMARY AND RECOMMENDATIONS

Each year disasters have a major impact on children, youth and education systems. In the disaster-prone region of the Asia Pacific, around 200 million children per year will have their lives severely disrupted by disasters in the coming decades.[1] Every child has a right to a quality education, yet across the region many children are unable to realise this right due to the impact of these disasters. Educational inequities are made worse because of schools being damaged or destroyed (due to poor site selection, design, or construction), schools being used as evacuation centres, and because disaster risk reduction (DRR) policies are not being adequately resourced or prioritised through different levels of governments and to the community level. Being unable to realise this right puts children at risk of exploitation and violence, and contributes towards a lack of economic participation.

Furthermore, if education is supported before, during and after a disaster it can save lives, protect children and benefit whole communities and countries. Schools can have a catalytic effect on strengthening humanitarian effectiveness, reducing vulnerabilities and supporting risk mitigation for future hazards. Additionally, while the cost of education in emergencies interventions can be high, such costs can be minimised with investment to ensure that national education systems are less vulnerable, and local schools are better prepared to bounce back from crisis and return children to learning as soon as possible.

This report seeks to shine a light on the continuing impact that disasters have on education by profiling five specific events that struck the Asia-Pacific region in 2015 – the earthquakes in Nepal, floods in Indonesia and Myanmar, Typhoon Koppu in the Philippines, and Cyclone Pam in Vanuatu. Some of the profiles are of large disasters such as that in Nepal, while others are recurring disasters that force children out of school on an annual or semi-annual basis, such as the typhoons in the Philippines or floods in Indonesia. Many of these are not identified as major disasters by any national or international declaration. The country profiles reveal that:

- Regardless of the size of the disaster, education was still disrupted. In countries such as Nepal where the earthquakes caused large-scale disruption, many children lost months of education. In Indonesia or the Philippines where the disaster was much smaller in scale, children were generally out of school for shorter periods of time. However, countries such as Philippines, Indonesia and Myanmar often experience similar disasters every year and thus children regularly lose school days, thus compounding the negative impact on their education over their whole school experience.
- Pre-existing challenges with school enrolment, alongside the damage to education infrastructure, often leave many children in need of critical education support to help ensure their longer-term development.
- Education is generally not prioritised in a disaster response, and reconstruction or rehabilitation of damaged schools is often belated. Almost a year after the earthquakes in Nepal and Cyclone Pam in Vanuatu, children are still being taught in temporary learning centres that were meant for use for weeks or months, not years.
- There are significant gaps in information from the education sector on both the short- and long-term impact disasters have on education. A lack of official data collection and analysis on the number of children and schools affected by disasters is reported as often inhibiting coordination amongst response agencies, government bodies and community organisations, and on the effectiveness of the education response as a whole.
- The differing levels of both policy commitments and actual implementation of DRR in the education sector at all levels, and the limited resources available to ensure the construction of safe schools, made a significant difference to the negative impact the disasters had on educational continuity across the five profiled countries. A positive example of DRR in education reducing the impact of disasters on education was with Typhoon Koppu in the Philippines where fewer children were forced out of school for substantial periods due to the emphasis on integrating DRR into education from the national level all the way to the school and community level.

- There were clear differences between countries and within the different districts affected by the disasters due to the resources and capacity available at the local level Ministry of Education (MoE) to ensure risks were reduced prior to the disaster occurring, and education was prioritised in the disaster response. Countries such as Indonesia and Myanmar that experience small-scale flooding each year struggle to receive sufficient funding to ensure wide-spread safe school construction; capacity building of teachers, local government staff and community members in DRR; and resilience education of students to ensure that they have greater awareness of the risks and potential impacts of disasters coupled with basic training on what to do during a disaster prior to a disaster occurring.
- Standardisation is often lacking across national and sub-national levels in the planning and development of comprehensive school safety policies and DRR-related strategies, initiatives and plans that exist in the education sector.

The country profiles also demonstrated that the need to mitigate the wide range of risks to children's safety and survival in school, and threats to educational continuity, requires a pro-active approach. Safeguarding education requires a thorough analysis of known and expected hazards and risks, action to reduce these, and planning for educational continuity. The consistent provision of safe and quality education is vital to the success of sustainable development objectives, and significantly speeds recovery from shocks and stresses.

As part of its regional initiative "Education Safe from Disasters", Save the Children's ambition is for zero children killed or injured in schools and zero days of schooling lost when a disaster strikes in Asia and the Pacific. However, we cannot achieve this without increased prioritisation, funding and focus on understanding the impacts of disasters on education, risk reduction, preparedness and response for the education sector from humanitarian and development agencies, donors, national governments and regional bodies. To achieve this goal and ensure communities and countries both benefit from the provision of a safe and quality education for all children, we recommend:

## National Governments

- Become a Safe School leader by signing onto the Worldwide Initiative for Safe Schools in support of the implementation of the Sendai Framework for Disaster Risk Reduction.
- Ensure policy and legal frameworks for a comprehensive approach to disaster risk reduction in the education sector are in place. Such frameworks are an important foundation for integrating risk reduction and resilience into education sector strategies, policies and plans.
- Identify national priorities for investment and support for disaster risk reduction in the education sector.
- Adopt an evidence-based child-centred approach to education sector risk reduction, putting children's safety and wellbeing at the centre of national, sub-national and local levels efforts.
- Establish organisational arrangements for leadership and coordination for risk reduction and resilience including trained and supported focal points at all levels of administration and at school-community level.
- Ensure the Education Information Management Systems (EIMS) are systematically recording data on the impact of disasters on education for use in risk reduction and response planning.
- Investigate and document the short- and long-term impacts of disasters on primary and secondary education. Such studies can identify policy, implementation, data and knowledge gaps that will provide an evidence base to inform program and advocacy strategies, as well as seeking to put some more comprehensive numbers behind the stories of the impacts of disasters.

## Donors

- Financially invest in and politically commit to support "Education Cannot Wait: the Fund for Education in Emergencies". This fund aims to unite global and national actors to generate the shared political, operational and financial commitment needed to meet the education needs of the millions of children and young people affected by crises. The platform seeks to inspire political commitment, generate and disburse new funding, strengthen planning and response, increase capacity and improve accountability. It has the potential to be the game-changer that is needed to tackle the chronic problem of under-resourcing of education in humanitarian crises.

- Increase investment in understanding risks, disaster risk reduction, and response-preparedness in the education sector. The risks to children's education will be greatly reduced if national education systems are able to take a comprehensive approach to ensure safe school facilities, school disaster management (including educational continuity planning) and risk reduction and resilience education.

### Regional and Global Platforms

- Articulate goals, commitments and collaborate initiatives for comprehensive school safety at the regional level.
- Support national governments' capacity-building, knowledge exchange and technical expertise, and promote sustainable, scalable and quality-tested approaches, and standardised monitoring across countries.

### Humanitarian and Development Partners

- Support the implementation of nationally defined priorities for risk reduction in the education sector.
- Collect and share evidence-base approaches to risk reduction in education sector programming.
- Engage in national, regional and international coordination mechanisms to avoid duplication of efforts or wasteful development of tools and materials which have been developed and tested by other partners.

**Sarita, Pradeep and Nirmala at the Temporary Learning Centre (TLC) constructed by Save the Children in Bhumisthan Village Development Committee (VDC), Nepal following the earthquake of 25 April 2015.**
**Photo: Bijay Gajmer/Save the Children**

**Destruction of homes in Port Villa, Vanuatu caused by Cyclone Pam.**
**Photo: Save the Children**

# 1 INTRODUCTION

Each year disasters have a major impact on children, youth and education systems. Big or small, these result in children missing school days, absenteeism by teachers who themselves may be affected by the disasters, disruption of education cycles, school closure because of damage and destruction to school infrastructure, or repeated or prolonged use of schools as emergency shelters. For particularly disaster-prone countries, this can mean that every year some children are losing many precious student-teacher contact hours, which severely impacts educational outcomes and a child's overall development.

The Asia-Pacific region is the most disaster-prone in the world and is 25 times more likely to be affected by disasters than Europe or North America.[2] In 2014, around half of the world's disasters occurred in the Asia-Pacific region.[3] Children are especially affected and face particular risks to their health, psychosocial well-being, protection, nutrition, and access to education. While in pursuit of their right to education, children are also at risk of injury or death in school facilities that are often neither constructed nor maintained to be disaster resilient.[4] For example, more than 10,000 children died during the 2008 Sichuan earthquake due to the collapse of over 7,000 classrooms. Looking forward, researchers estimate that 200 million children per year will have their lives severely disrupted by disasters in the coming decades.[5]

Throughout Asia and the Pacific, despite progress over the last decade, systematic approaches to incorporating disaster risk reduction and management into the ongoing mechanisms and procedures for education sector management are still lacking. Access to national and sub-national level risk information; school-based assessment of hazards, vulnerabilities and capacities; planning and implementation of risk reduction measures; learning and practicing of safety measures for emergencies and disasters; and planning for educational continuity, are not taking place on a systematic basis. The impact of disasters on schooling and on education sector investments is not yet being documented sufficiently, nor are mitigation and preparedness measures being monitored and evaluated. Looking back at past disasters highlights that an increased focus on these areas is needed to ensure children are able to continue their education, even when disasters strike.

This report highlights the continuing impact disasters have on education by profiling five disasters that have set back the prospects for education and prosperity for hundreds of thousands of children in the Asia-Pacific region – in 2015 alone. Some of the scenario profiles are of large disasters such as the earthquake in Nepal. However, once the international humanitarian responses to similar large-scale disasters have ended, there is often little follow-up on the long-term educational impacts and course of recovery.

Other profiles in this report focus on the recurring disasters that force children out of school on an annual or semi-annual basis, such as the typhoons in the Philippines or floods in Indonesia. Many of these annually occurring, or localised, disasters do not rise to the level of triggering a request for international assistance. They do not make the international headlines, and often do not even activate national response mechanisms. Ironically, national governments and the international community often regard these as events that local authorities are "coping with". But there is insufficient data collected to determine whether systems have rebounded, or whether children are still suffering the accumulation of these seemingly smaller impacts. This makes it more difficult to assess the overall and long-term impact on a child's education.

The end of the Millennium Development Goal (MDG) period of 2005–2015 saw significant improvement in some measures of education throughout Asia, including an increase in net enrolment rates throughout the region.[6] Despite this, there is still significant progress that needs to be made to achieve the goal of universal primary education. This includes looking beyond enrolment rates that may mask many other challenges such as the quality of teaching and learning and the vast differences in normative number of school days and school hours per day across the region and within countries. In many cases, such challenges are exacerbated by disasters.

The post-2015 education agenda is now defined by the Sustainable Development Goals (SDGs) and particularly for education, SDG 4 seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".[7] This presents us with a new opportunity to do a better job of recognising and mitigating the negative impacts of disasters. For countries at risk of disasters that have the potential to impact negatively on education, this requires investment into safeguarding education sector investments, through comprehensive school safety, and the commitment of both humanitarian and development funding to tackle these problems.

## 1.1. THE IMPORTANCE OF PROTECTING EDUCATION BEFORE, DURING AND AFTER DISASTERS

Parents and children in crises identify access to education as one of their highest priority concerns. There is compelling evidence that putting education at the centre of humanitarian response can have a catalytic effect on strengthening humanitarian effectiveness, reducing children's vulnerabilities and managing risks to their protection and development during crisis. During rapid onset emergencies, if carefully managed to avoid disruption of school operation, schools can become platforms for program integration within a crisis-affected community through which other essential services such as child protection, healthcare, water, sanitation and the provision of food and relief items can be coordinated and delivered in a targeted, sustainable and effective manner.

Additionally, when children have safe spaces to learn and play, and can access a full range of services and support, they are significantly less vulnerable to the increased risks that go hand-in-hand with disasters, including violence, sexual exploitation and child labour. Schools can also provide children with the space they need to access psychological support and assist with regaining a sense of normality and healing from trauma. Furthermore, school lessons are the ideal setting for training and awareness programmes around health, nutrition and safety, as well as safe behaviours during and after disasters.

The scale and extent to which crises interrupt children's access to education and the high cost of education in emergencies interventions, can be minimised with investment to ensure that national education systems are less vulnerable, and local schools are better prepared to bounce back from crisis and return children to learning as soon as possible.

It is clear that supporting education before, during and after a disaster saves lives, protects children and benefits whole communities and countries. Despite this, education is one of the most underfunded and under-prioritised sectors in humanitarian responses, receiving less than two percent of humanitarian aid committed through appeals. The education sector routinely receives less than half the funding it asks for to meet children's education needs.[8] This is a staggering figure considering that children are one of the largest groups affected by crises[9] and that for them continued education is a priority need.

### Regional platforms, frameworks and coalitions

In order to save children's lives and protect infrastructure and investment costs in the education sector, many countries across the Asia Pacific region have committed to regional and global frameworks and declarations which implement policy and procedural changes to increase DRR in schools and ensure educational continuity in the event of a disaster.

The below is a snapshot of such initiatives bringing together countries across the region with regional and international bodies in advancing and strengthening comprehensive school safety and mitigating the negative impact of a disaster on education.

*continued opposite*

## Regional platforms, frameworks and coalitions *continued*

### Comprehensive School Safety Framework

This framework provides a comprehensive approach to reducing risks from all disasters to the education sector.[10] At the core of these child-centred, child-participatory, and evidence-based efforts is the recognition of children's rights to survival and protection as well as to education and participation. The purpose of this Framework is to bring these efforts into a clear and unified focus in order for education sector partners to work more effectively, and to link with similar efforts in all other sectors at the global, regional, national and local levels.[11]

### Asia Pacific Coalition for School Safety

The Asia Pacific Coalition for School Safety (APCSS) actively advocates governments to adopt and implement the Comprehensive School Safety Framework. The goal of APCSS by 2018 is "learners and education workers in the Asia Pacific Region are more protected from death, injury and harm in schools, and their right to educational continuity better-protected, education sector investments better protected, and to strengthen risk reduction and resilience through increased number of countries that adopt and implement approaches consistent with the Comprehensive School Safety Framework and the Worldwide Initiative for School Safety".

### Southeast Asia

#### Southeast Asia Ministers of Education Organisation

The Southeast Asia Ministers of Education Organisation (SEAMEO) endorsed the Comprehensive School Safety Framework in 2012. Under SEAMEO's 2015–2035 work plan "Resiliency in the Face of Emergencies" has been identified as one of seven strategic priorities. Its objective is: "Preparing schools leaders, teachers, students, and local communities in managing and maintaining the delivery of education services during emergencies such as conflicts, extreme weather, and natural disasters".

#### ASEAN Agreement on Disaster Management and Emergency Response

The ASEAN Agreement on Disaster Management and Emergency Response (AADMER) is a regional framework for cooperation, coordination, technical assistance, and resource mobilisation in all aspects of disaster management.

During the 2010-2015 Work Program, the ASEAN Safe Schools Initiative (ASSI) was launched. ASSI is a regional cooperation on a common safe schools framework to ensure that children in ASEAN countries are more resilient to disasters and have a safe and secure learning environment.

The AADMER Work Program for 2016-2020 has eight priority programs. ASSI is embedded within Priority 2, "Build Safely: Scaled-up ASEAN Safe Schools Initiative". Intended outputs are to identify schools using the ASSI common indicators for school safety, develop capacity and expertise to retrofit schools, and showcase models of ASEAN safe schools.

### South Asia

The South Asian Association for Regional Cooperation (SAARC) has been proactive in identifying school safety as a significant issue for cooperation. The South Asian Disaster Knowledge Network, developed by the SAARC Disaster Management Centre, has shared strategies, plans and guidance materials for school safety planning across countries. SAARC has developed guidance on rapid structural and non-structural seismic assessment of school buildings.

### The Pacific

The Pacific Coalition for the Advancement of School Safety is currently working on advocacy goals to maintain and develop the regional strategic conversation on school safety.

# 2 EDUCATION DISRUPTED

The profiles below are examples from the Asia Pacific region where disasters have had significant and sometimes massive negative impacts, undermining the education of hundreds of thousands of children in 2015 alone. These countries represent different situations across the region in terms of size and scale of the disaster, prioritisation of education before, during and after the disaster, and availability of education-specific data. Through the collection of data from official and unofficial sources (government and community level), Save the Children programs and secondary research, this section highlights the disruption – large and small – that these disasters have had on children's education and their lives.

## 2.1. NEPAL

Nepal ranks in the top 20 of the most disaster prone countries in the world due to its topography and climatic condition, and is exposed to multiple hazards including floods, forest fires, avalanches, landslides, earthquakes and drought. The country is also recovering from 10 years of conflict and political instability and is one of the poorest countries in the world. Although the number of poor people has halved in only seven years, more than one in four people still live in extreme poverty, surviving on less than $1.25 per day.[12]

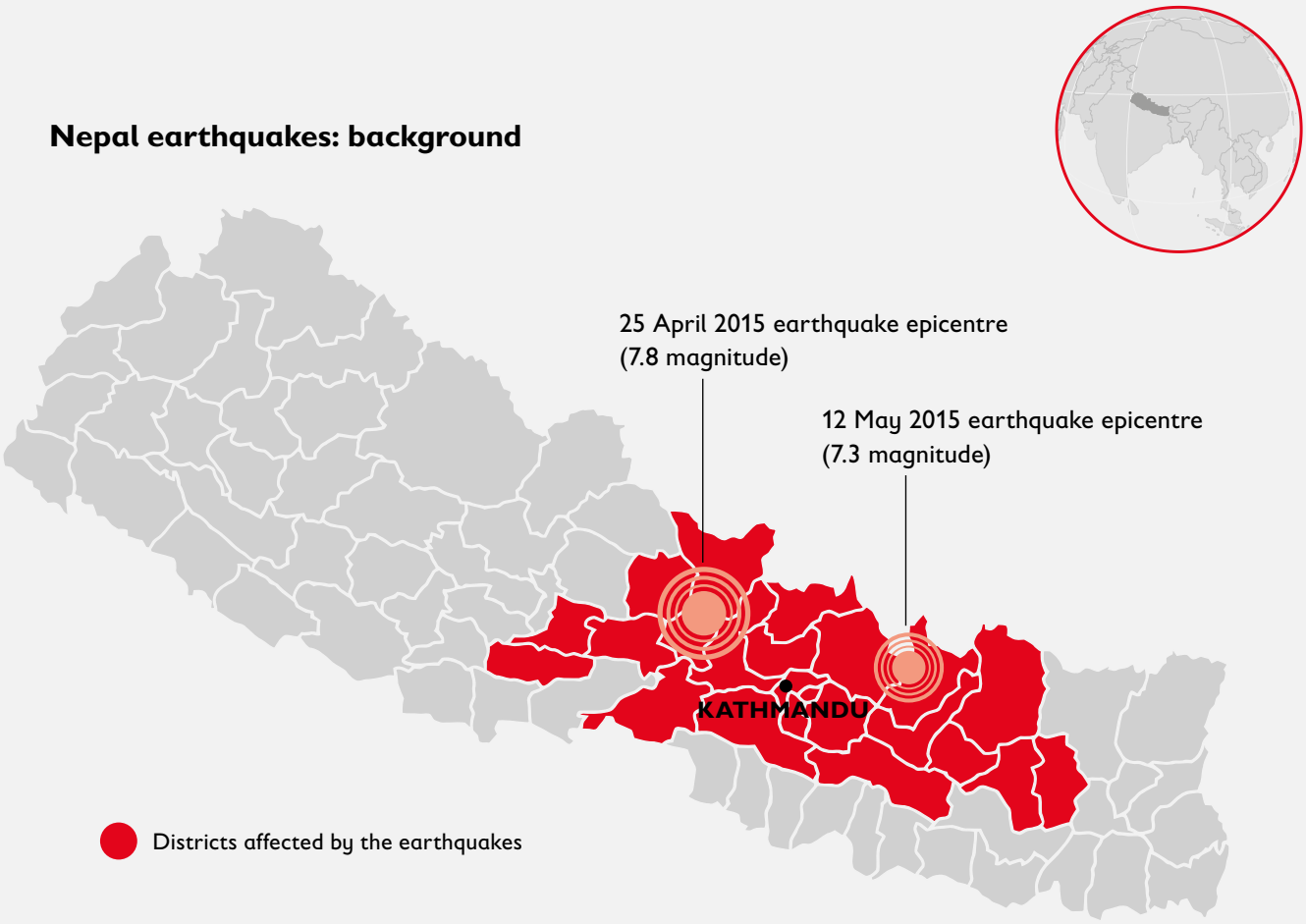
Nepal's education sector is one of the largest government departments both in terms of size of the population served and the annual government budgetary allocations. The sector consists of pre-primary (early childhood education and development [ECED]), basic education which covers grades one to eight, Technical and Vocational Education and Training (TVET) and higher education subsectors.[13]

In recent years Nepal has made good progress in enhancing access, equity and efficiency in school education.[14] However, while school education has made significant progress in enhancing access, the system suffers from low quality and relevance of education. Further, school education is not completely free despite constitutional provisions of free education up to secondary level, affecting the full participation of children, particularly from the poorest segments.[15]

### Education Cluster in Nepal

Globally, Save the Children co-leads the Education Cluster with UNICEF. The Education Cluster is the only cluster at global level which is co-led by a UN Agency and an international non-governmental organisation (NGO). The Education Cluster in Nepal was activated on April 26th immediately after the first earthquake struck. Led by the Department of Education (DoE) and working with co-leads Save the Children and UNICEF, the Cluster responded to the earthquake by gathering assessment data needed to provide a full picture of the needs of Nepal's school sector, coordinating the education response through strategy development and monitoring the education response of other agencies to highlight coverage, mitigate gaps or duplication, and to ensure a more effective education response.[16] The Education Cluster has now moved from the response phase to recovery and reconstruction.

## Nepal earthquakes: background




**25 APRIL 2015** A 7.8 magnitude earthquake causes severe destruction in 14 out of the 75 districts in Nepal.

**12 MAY 2015** A second quake of 7.3 magnitude hit, worsening the humanitarian situation.

In the two earthquakes, a total of 8,891 people were confirmed dead, 605,254 houses destroyed and 288,255 houses damaged. During the height of the emergency, some 188,900 people were temporarily displaced.

**JUNE 2015** The Government of Nepal hosted the International Conference on Nepal's Reconstruction where international partners pledged $4.4 billion in grants and loans for reconstruction of the affected areas.

**JANUARY 2016** Funds pledged at the conference were only just starting to be channelled through the newly established National Reconstruction Agency, meaning much of the repairs and reconstruction is only just commencing.

**MARCH 2016** The UN Appeal was 66.7% funded, with the education component being just 47% funded.

## Impacts on Education

An estimated 3.2 million children were directly affected both physically and mentally by the earthquake. Of these, around 870,000 children were left without permanent classrooms and an additional half a million required support to return to learning.[17] It should be noted that due to many of the unsafe and substandard school buildings, the impact of the earthquake on the lives and wellbeing of children and teachers could have been much greater had the earthquake struck on a weekday when children were in school rather than a Saturday afternoon.

### Impact of the earthquakes on primary and secondary schools[18]

| | |
|---|---|
| 8,242 | damaged public primary and secondary schools |
| 25,134 | destroyed classrooms in public primary and secondary schools |
| 22,097 | damaged classrooms in public primary and secondary schools |
| 957 | destroyed classrooms in private primary and secondary schools |
| 3,983 | damaged classrooms in private primary and secondary schools |
| 4,416 | damaged toilets and water, sanitation and hygiene facilities in schools |
| 1,791 | damaged compound walls |
| 1,292 | destroyed classrooms in tertiary education facilities |
| 3,040 | damaged classrooms in tertiary education facilities |

Additionally, the damage to ECED centres, furniture, libraries and laboratories, computers and other equipment was proportional to the damage faced by the primary and secondary schools.[19]

As the Post Disaster Needs Assessment (PDNA) states, while the effects of the earthquakes on infrastructure and physical assets were relatively easy to estimate in monetary terms, it is more difficult to estimate the financial implications of the earthquakes on teaching and learning processes. The two earthquakes and the thousands of aftershocks led to the complete closure of schools and colleges for more than a month (26 April–30 May) in the severely-affected districts, forcing more than two million children and youth to stay out of educational institutions.[20]

In addition to the time schools were closed in the immediate aftermath of the earthquake, school days were also lost because of irregular teaching-learning schedules once schools did re-open. Most schools in the highly affected districts were not able to hold full day classes for a least a month after schools re-opened.

The displacement of families also had a severely negative impact on the learning environment at home. Both the PDNA and a joint agency children's consultation found that children reported losing motivation and confidence to study as their learning habits had been disrupted.[21] Children reported anxiety that they might have forgotten what they had learned, and as such may find it difficult to pass their examinations. This anxiety was particularly prevalent with children in grades 8 and 10 who needed to take the district and national level board examinations.[22]

As a result of the earthquakes, exams were re-scheduled and the school leaving certificate was postponed by two weeks. The first quarterly exam took place in July rather than June and many districts cancelled the summer holidays to ensure that children could catch up with their studying in order to complete exams. This was determined at a district level by the District Education Office.

**Baguwa village, Gorkha district, Nepal. "This was my school", says 10 year old Diliya, of Shree Shiva Jyoti primary school in Baguwa village. Photo: Inge Lie/ Save the Children**

The impact on teachers was also significant. Many teachers lost their homes and had no alternative accommodation, and therefore did not return to school when the schools re-opened.

While some Temporary Learning Centres (TLCs) were established to fill the gap, student and teacher kits distributed, and teachers trained on appropriate psychosocial support and lifesaving messages, as of February 2016 school reconstruction was yet to commence. The government has now finalised some of its school designs, which are in line with the National Building Code and will be earthquake and other disaster resistant. However, the designs are costly and many development and humanitarian agencies are in the process of adapting them to lower costs while still being in line with the building code. At the time of writing, large scale construction was yet to begin.

## The fuel crisis

In September 2015, the Nepalese government began rationing fuel after discord over a new constitution prompted ethnic minority political parties to impose a strike and block border crossings with India. In November 2015, UNICEF warned that more than three million children under the age of five in Nepal were at risk of death or disease during the harsh winter months due to a severe shortage of fuel, food, medicines and vaccines. In addition, teachers spoken to by Save the Children staff have said that in some cases the lack of fuel is having more of an impact on children going back to school than the earthquakes.

The Private and Boarding School Organisations of Nepal (PABSON) reported that nearly 1,100 private and 200 government-funded schools have been affected by the fuel crisis, and catering and transport services had also been affected which impacted children's access to school.[23] The PABSON vice-president said that the fuel shortages had come just weeks before the national-level School Leaving Examinations were due to take place. He said the problem was affecting nearly 80,000 students in Kathmandu alone.[24]

### Long-term impact

Almost a year after the earthquakes, many children continue to attend school in makeshift temporary facilities without walls, and open to the cold winter weather. Other children have returned to attend school in unsafe buildings, some just patched over to hide the structural defects. The long-term impact the earthquakes and subsequent disasters have had on children's learning is still to be assessed and analysed. However, what is known is that the extensive damage to the education infrastructure, together with the pre-existing challenges with school enrolment in Nepal left millions of children in need of critical education support to help ensure their longer-term development. Despite the incredible community resilience and progress being made, the needs remain enormous and a long road to recovery lies ahead.

## Disaster Risk Reduction initiatives and investments in Nepal

In the last decade, progress has been made by the Government of Nepal to incorporate DRR in all related sectors, including the education sector. In order to do this, the Government developed several national strategies, initiatives and plans in accordance with international DRR initiatives.[25] However, national-level initiatives do not yet articulate all the stages of disaster including prevention, mitigation, preparedness, response, recovery and rehabilitation.

A study by the Nepal Ministry of Education (MoE) and the Japan International Cooperation Agency (JICA) stated that there are a large number of national DRR-related strategies, initiatives and plans that exist in the education sector, and they often hold a very ambiguous situation within the overall DRR framework of the MoE and the DoE.[26] The study also found that some of the national initiatives were not even recognised among stakeholders in the DoE and development partners.

In the past few years there have been some efforts to address these issues. For example, in 2014 the MoE and the DoE together with international NGOs developed a zero draft of the Safe School Policy and are aiming to have it approved in 2016. Such a policy should incorporate lessons learned from the two earthquakes and recent international initiatives such as the Sendai Framework for Action and the SDGs. Additionally, there is now a DRR and school safety chapter in the School Sector Development Plan.

As such, the Nepal earthquakes have prompted a renewed focus on DRR in education. The high numbers of damaged schools, the lack of educational continuity with schools resuming late and the slow reconstruction process have highlighted the lack of implementation of the policies and commitments made to strengthen the education sector across the country.

**First grade students at a primary school in Melamchi in Sindhuapalchowk district. Save the Children has supported the government run primary school to open again and reinstate its classes by training teachers and providing the school with teaching materials.**
**Photo: Sandy Maroun/ Save the Children**

CASE STUDY: NEPAL

## SARITA

Photo: Save the Children

Even after surviving the devastating Nepal earthquake of 25 April 2015, 11-year-old Sarita's infectious smile remains unfazed. When the earthquake hit the district of Gorkha, Sarita was enjoying lunch with her family. As soon as the earth began shaking, the entire family was quick in getting down the stairs, but Sarita remembers being panic stricken as her legs lost strength and she could not climb down. Her mother caught her by the hand and dragged her outside the crumbling house. "When I think about it, I cannot believe all that happened in one day," she said. "It feels like a movie – one minute I was eating lunch with my family, the next I was running away from my own house."

With the help of the neighbours, Sarita's mother and grandfather set up an immediate temporary shelter from whatever materials they could find – plastic sheets, and bamboo stumps. Trauma, heavy rains, winds, and subsequent aftershocks left Sarita sleepless with no appetite. She recalls the immediate days after the earthquake as being emotionally and physically tiring. Her three story home stood as a haunting ruin. Sarita stayed in the makeshift shelter for almost a month until a temporary shelter from CGI sheets was built. During the winter months, she recollects cold winds seeping in from the cracks – making it difficult to sleep during the night-time.

She returned back to school on the first day of its reopening and remembers her school in ruins. Before the TLC was constructed, all of the students used to sit underneath a makeshift classroom. It was uncomfortable to study there due to heavy rains often disturbing the class. Now, she feels the opposite when she is at school in the new TLC. She loves being in a safe and warm classroom with her friends and playing different games every day. Sarita said, "I like my new school. The first few days after the earthquake, we had to study underneath a tarpaulin. It used to rain heavily, making it difficult to study but now, I feel safe. It does not feel very cold in the classroom."

In the immediate earthquake response phase, Save the Children constructed two bamboo based TLCs and upgraded them for winterisation in Shree Manakamana Primary School in Baireni VDC (village development committee), Dhading. Altogether, 109 students are enrolled there. Additionally, the school has been supported with educational kits and materials that were distributed to all students.

## 2.2. INDONESIA

Spread across 6,000 inhabited islands, communities in Indonesia face earthquakes, tsunamis, landslides, volcanic eruptions, flooding, and drought. In this large nation with very independent provinces governing difficult-to-reach locations, there is little uniformity across jurisdictions. Differing levels of capacity across the country's regions pose a challenge in preparing for, and responding to, disasters. Poverty, population growth and rapid urbanisation exacerbate these vulnerabilities, along with climate change and the resulting changes in rainfall patterns, storm severity and sea level.

Between January and August 2015, the country experienced 1,160 disaster events including drought, forest and land fires, volcanic eruptions, landslides and floods.[27] The UN Office for the Coordination of Humanitarian Affairs (OCHA) reports that during this time, there were 373 floods throughout the country, affecting 606,655 people.[28]

In Indonesia there are roughly 55 million students, three million teachers and more than 236,000 schools in 500 districts, making it the world's fourth-largest education system. This system is run by three separate ministries – the Education Ministry oversees state primary, junior and secondary schools; the Religious Affairs Ministry has control of madrassas or Islamic schools; and the Ministry for Research and Technology is responsible for universities and polytechnics.

In the past decade, the gap between school-completion rates between rich and poor students, and between those from rural and urban areas has been narrowed, and since the 1970s the overall primary and junior-secondary enrolments rates have been boosted dramatically. Additionally, since 2009 a fifth of the country's annual budget has been allocated to education. However, there are still gaps. For example, whereas primary enrolment rates in richer districts are close to 100%, in some poorer districts they remain below 60%. Teachers are not evenly distributed across the country, and enrolments decline with age. For example, Indonesia has 170,000 primary schools, 40,000 junior-secondary schools, and just 26,000 high schools.[29]

### Impacts on Education

**Impact of the flooding on schools in North Jakarta**[30]

| | |
|---|---|
| **351** | schools affected by the flooding (primary and secondary public and private schools and kindergartens). This is an incomplete figure due to lack of information from the DoE for some districts within North Jakarta and no available data from the Ministry of Religious Affairs on the number of madrassas affected. |
| **3–14 days** | Schools were closed for approximately three to 14 days due to inaccessibility and schools being submerged in water. |
| ? | Schools were used as evacuation centres, but the DoE and Ministry of Religious Affairs do not have any specific data related to the number of school that were used in this way. |
| **3–7 days+** | Schools were used as evacuation centres for an estimated 3–7 days, plus schools were generally closed for additional days for rehabilitation such as cleaning. |
| ? | Schools may have been damaged or destroyed by the flooding, but no data is available from the Department of Education and Religion Ministry. |

## North Jakarta floods: background


- **DECEMBER 2014** The rainy season in Indonesia resulted in floods across the country including Aceh, West Java, Jakarta, East Jakarta, and Central Kalimantan.

- **23 JANUARY 2015** Roads were submerged by water in North Jakarta, resulting in traffic jams and closure of roads.

- As the rains continued, schools in North Jakarta were submerged by the floods and schools were used as temporary shelters for people whose homes had been flooded or damaged.

- After the flood waters receded the BPBD, the district agency for disaster management, reported a total of 36 areas affected – 25 of those areas were in North Jakarta. The BPBD Jakarta also reported that the floods were mainly due to heavy rain and poor drainage systems. According to Government reports, there was approximately 170mm to 300mm of rain per day throughout Jakarta, however the drainage systems in this city could only accommodate up to 60mm per day.

- **8 FEBRUARY 2015** Heavy rains started again causing further floods.

- **10 FEBRUARY 2015** BPBD reported that around 8,382 families or 27,167 people in 103 urban villages across 24 sub-districts were affected in Jakarta.

**Torrential rains in December 2014 and January and February 2015 caused low-lying areas of Jakarta, Indonesia to flood. Photo: Save the Children**

The Education and Culture Office and Religious Affairs Office at the municipality level in North Jakarta gave the schools authority to decide how long they would be closed, rather than mandating an official re-opening. Some schools continued to operate but with reduced school attendance primarily due to inaccessibility to transportation. Students reported that during the floods their normal means of public transportation to school were not available, and that available vehicles or boats charged unaffordable fares.

In the immediate aftermath of the floods, child friendly spaces (CFS) were established and educational materials were distributed as part of the CFS-focused distributions. However, there were no TLCs established or additional education opportunities made available to the students. Additionally, most of the schools in the affected areas did not have any remedial education established and integrated into school policy. However, some schools did provide additional lessons and gave more homework as catch up, once they returned to school. This was undertaken through a decision at the school-level rather than a directive from the MoE.

## "The school and societies must be prepared to face disaster"

Indonesia is one of the most disaster-prone countries in the world. Infrastructure damages and casualties caused by disasters can be catastrophic, and children bear the brunt of the impact. Children are at risk of dropping out permanently from the education system as their schools are damaged, educational materials are destroyed, and teachers and students lose their lives. "Education is important as a child protection effort in emergencies," said Andy Widayat, Senior Programme Officer at Save the Children.

The extent to which schools are prepared correlates with the magnitude of impact they face, which is why an education that emphasizes disaster knowledge and response is necessary. A contingency plan is an important tool because it "contains commitments," Andy emphasises. It maps out agreed objectives, technical action, and assigned roles in a response system when an emergency occurs. A good contingency plan focuses on the participatory process so that there is "understanding, sense of belonging, and commitment," which increases effectiveness of the response. Another criteria to ensure the success of the contingency plan is that it can operate when Save the Children is no longer working in the region. To enable this, partnership with local government – the Province Disaster Management Office (DMO) – is essential for cross-sector coordination of government, education, social, health and safety authorities. Finally, an effective contingency plan involves children and teachers by including their agreement on the risk analysis of what constitutes their local disaster threats. This ensures that the first parties to respond to a disaster – schools and communities – are the same as those involved in disaster preparedness planning.

CASE STUDY: INDONESIA

## AGUS TJAHYADI

Photo: Save the Children

Agus Tjahyadi, 48, has been teaching at Madrasah Ibtidaiyah Al-Muttaqin, a private Islamic school, for over 30 years. He serves as the Deputy School Principal, and also devotes time to teaching in a few other schools and early childhood centres.

The school is located in an area of North Jakarta that is extremely vulnerable to floods and fires. Records show 93 fires between January 2010 and August 2012, while floodwaters in 2000 reached one meter high. Since 1998, the school has served as a temporary shelter for the community as well. This has resulted in damaged and missing school supplies, health and hygiene issues, broken down bathroom facilities, and damp, termite-infested walls. Agus and his colleagues have been working with the community, the government Ministry of Religious Affairs, and the private sector to secure funding for renovations to the school building. They have completed several renovations since 1998, but it has not been enough to reduce the impact of sheltering people from floods every year. Save the Children and Plan International conducted a structural and geotechnical assessment of the school building, and determined that it does not meet the minimum standards of earthquake resistance.

Children are frequently dismissed from their classes due to flooding, and study in an overcrowded, chaotic environment without clean facilities. Agus said, "All of our students still need to learn even though [they face the consequences of flooding]… Because so many people stay at the school, we can't guarantee all the school equipment can be as good as before."

Photo: Save the Children

In some schools, small scale interventions have resulted in school communities taking measures to protect teaching and learning materials when the rains begin, but many schools have not taken these proactive measures due to factors such as lack of awareness, capacity or funding. Such practices highlight some of the gaps in the system, but also the positive examples demonstrate how effective some low cost interventions can be.

Where CFSs were not available, Save the Children staff observed that children did not have safe spaces to play and learn in the temporary shelters. Many spent their time playing in contaminated flood waters full of industrial effluents that carried a high risk of water-borne diseases such as upper respiratory tract infections, skin complaints and diarrhoea. Health facilities reported increases in the upper respiratory tract infections, diarrhoea and skin conditions that keep children out of school.

Depending on the severity of the flooding and how many students were able to access the school once it had re-opened, some schools delayed student exams by three to five weeks to ensure children had time to catch up on lost learning. This was an initiative at the school level, rather than being nationally mandated as there were no national exams during this time.

The lack of information on schools impacted by the floods highlights an absence of systematic data collection of the impact of disasters within the education sector in Indonesia. As such, this profile provides a small snapshot of the overall impact, and highlights the need for more standardised data gathering and analysis both before and after the disaster.

### Disaster Risk Reduction initiatives and investments in Indonesia

There is little standardisation across sub-national levels and schools in the planning and development of comprehensive school safety policies. For example, while there is standard guidance from the MoE and Ministry of Public Works on safe school construction, not all districts have the availabile budget to implement such guidance. As such, many districts adapt the guidance to suit both budget and local architectural practices.

Furthermore, the lack of data (and limited sharing of statistical data) on the number of children affected by disasters, including these floods in North Jakarta, indicates the limited awareness of the MoE and associated government bodies on the importance of systematic collection of data (including disaggregating data) and a lack of cross-sectoral coordination for recovering education in disasters.

## Developing data collection tools in North Jakarta

Currently in North Jakarta, the local government and schools are engaged in a process to develop assessment tools and to review current policies around education in emergencies, including establishing temporary learning facilities in the aftermath of a disaster. This process emerged after previous disasters when humanitarian agencies reported significant difficulties in mobilising resources from municipality and sub-district level education authorities to lead in facilitating assessments and coordinating education sector response. As such, Save the Children has assisted with the development of a rapid assessment tool that enables schools to report damage and disruption in the immediate aftermath of a disaster. This data can be used by the Education and Culture Authority and Religious Affairs Authority to assess and analyse the risk of the floods, allowing them to make decisions regarding the continuation or suspension of schools, as well as what support schools need such as additional teachers, TLCs, temporary learning spaces and school materials. This initiative seeks to close to gap on information collection and analysis and provide a link between schools, sub-district, municipal and provincial governments.

Save the Children has also been working with the Jakarta Provincial Disaster Management Office to develop school and community contingency plans as a reference for guidance in the development of a similar plan at sub-district level. These plans include education centre and community participation as part of the incident command system, to ensure that education activities are considered during disaster responses.

## 2.3. MYANMAR

In Myanmar coastal regions, particularly Rakhine State and the Ayeyarwady Delta Region, are at high risk for cyclones, storm surges and tsunamis. Much of the country is also exposed to flooding and landslides during the rainy season in addition to drought and fire during the dry season. As Myanmar falls on one of the two main earthquake belts in the world, much of the country is also prone to earthquakes. The likelihood for medium to large-scale natural disasters to occur every couple of years is high, according to historical data. Whilst past such events represented severe losses for the population and hindrances to development interventions, they also resulted in increased collaboration between the Government, the international community and local organisations, as well as greater preparedness and response interventions.[66]

Additionally, hundreds of thousands of people have been displaced in Myanmar over the last five years due to inter-communal violence in Rakhine State and conflict in Kachin and northern Shan States.[67] According to OCHA, over one million people throughout the country remain in need of humanitarian assistance, which includes those living in Rakhine, Kachin and northern Shan States, as well as those affected by flooding in the rest of the country.[68]

Under military rule education received little funding, on average accounting for just 1.3% of the national budget.[69] This resulted in poorly trained teachers, a weak curriculum and little availability of textbooks or other teaching materials. However, in recent years the government has started to commit to spending money on upgrading and expanding its education system. In the fiscal year 2012/2013, education accounted for 11% of the government's $7.3 billion spending.[70]

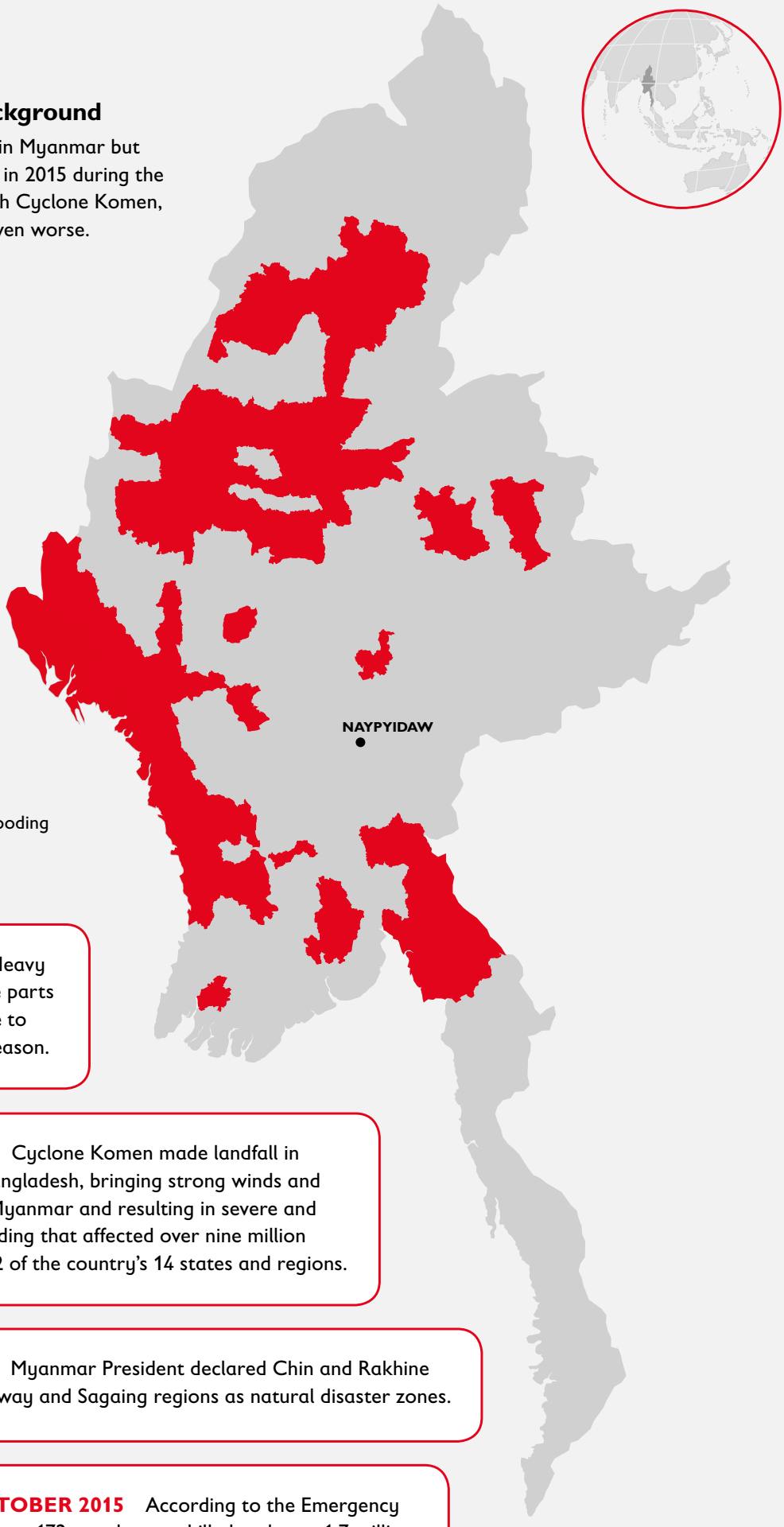
Myanmar still has a significant way to go in catching up with international and regional standards. According to a 2014 census, 4.4 million children aged five to 18 do not attend school.[71] There are still large numbers of children not attending school, and of those who do enrol, large numbers drop out before completing their primary education.

Education is regularly impacted by natural hazards resulting in disasters, and in areas such as Rakhine or Kachin where there is ongoing displacement, inter-communal tensions and/or conflict, such disasters compound the barriers to a safe and quality education. In these areas, the high cost of education, restrictions of movement, insufficient educational space, facilities and materials, and inadequate provision and retention of qualified and trained teachers continues to pose barriers for children accessing education.

**School and houses inundated, Sal Taw Village, Pwintbyu, Myanmar.**
**Photo: Hnin Kyawt Wai/Save the Children**

## Myanmar floods: background

Floods are an annual event in Myanmar but the particularly heavy rains in 2015 during the early monsoon, coupled with Cyclone Komen, made the annual flooding even worse.




**JUNE 2015** Heavy flooding in some parts of Myanmar due to onset of rainy season.

**30 JULY 2015** Cyclone Komen made landfall in neighbouring Bangladesh, bringing strong winds and heavy rains to Myanmar and resulting in severe and widespread flooding that affected over nine million people across 12 of the country's 14 states and regions.

**31 JULY 2015** Myanmar President declared Chin and Rakhine states, and Magway and Sagaing regions as natural disaster zones.

**JUNE TO OCTOBER 2015** According to the Emergency Operations Centre, 172 people were killed and over 1.7 million were temporarily displaced due to the impacts of the flooding.

## Impact on Education

Between June and August 2015, the National Natural Disaster Management Committee reported:[72]

### Impact of the flooding on education in Myanmar

| | |
|---|---|
| **4,116** | schools damaged |
| **608** | schools destroyed (Ayeyarwady, Chin and Rakhine State account for the majority of the destroyed school buildings with 549 schools destroyed in these three states alone.[73]) |
| **2,400** | schools shut as a result of the floods |
| **250,000** | children out of school as a result of the floods |

The lack of information on the impact of education as a result of the floods is widespread throughout the flood affected areas. For example, the UN's Humanitarian Needs Overview did not include any figures for the number of flood-affected people in need of education in any of the flood-affected areas, focusing mainly on the water, sanitation and hygiene (WASH), and food security sectors.[74]

Although schools officially re-opened across Myanmar on August 10, 2015, many students remained out of school for several months due to schools that were destroyed or badly damaged.[75] An unknown number of schools were used as evacuation centres or as shelters, which in some cases delayed the return to school even further. School materials for both students and teachers were destroyed or lost in the floods. However, again there is very limited data on the extent to which school materials were destroyed and how this resulted in a further delay for children to access quality learning.

**Flooding in Sal Taw Village, Pwintbyu, Myanmar.**
**Photo: Hnin Kyawt Wai/Save the Children**

Rakhine State, one of the least developed areas of Myanmar, was the worst hit by the floods.

The MoE reported that before the flooding only 25% of the 218 flood-affected townships had more than 70% of children attending schools, due to other barriers to education. As such, the MoE estimated that rehabilitating the flood-affected education infrastructure would, at most, restore access to only around 67% of children in those areas who attend school.[76] The inter-relationship between the various reasons for low base rates of school attendance, and what happens to lower or improve attendance after disaster impacts and recovery have never been investigated. However what is clear from the MoE statement is that repairs to flood-affected schools would only meet certain needs where in actuality development is needed for the whole education system.

### Disaster Risk Reduction initiatives and investments in Myanmar

In 2008 Cyclone Nargis destroyed more than 2,400 schools (more than 50% of schools in the affected area). Since then the Government has made efforts to ensure school safety with DRR integration in the education sector is outlined in related policies, guidance, action plans, and on-going programs and activities. The MoE has also developed and issued frameworks and policies which mandate and guide the implementation of comprehensive school safety, covering all three pillars of the CSSF.[77] However, similar to Indonesia, these policies and commitments lack leadership and mechanisms for implementation across districts and down to schools, primarily due to lack of funding and technical capacity.

OCHA states that many of the lessons learned after the destruction wrought by Cyclone Nargis in 2008 resulted in vastly improved national preparedness and response, and this no doubt saved many lives in the 2015 floods.[78] For example, improved early warning systems and emergency preparedness measures were in place in areas like Ayeyarwaddy, which were badly affected by Cyclone Nargis and which had benefitted from many subsequent disaster risk reduction efforts. However, other areas like Sagaing, Magway and Rakhine were far less prepared for a flooding emergency on this scale and even into late 2015, communities continued to face major challenges in recovering from the devastating effects of this disaster.[79]

An example of this in 2015 is the Government "safer school" design. This design was disseminated after the flooding through national newspapers and directly to State Education Directors in order to guide construction and repair efforts. However the EiE sector was not included in the development of this guidance document, and at the state level there is very limited capacity to implement such designs. Furthermore, there is little practical evidence of the guidance being utilised. Schools throughout the country vary greatly in design and materials. For example, the Joint Education Sector Needs Assessment in North Rakhine State reported that in just one area there were five different types of materials being used to construct school buildings.[80] Such variety in school buildings in one area alone highlights the challenges of providing national-level guidance for safe construction, without also working at the regional/state and local level to ensure it is contextually appropriate and able to be resourced sufficiently.

Additionally, in Rakhine State many of the school buildings were already in a severely degraded state prior to the flood damage.[81] The joint education assessment stated that very few schools had taken any measures to prepare for similar disasters: only 4% of basic education/branch schools and madrasahs reported taking any measures to strengthen structures to withstand strong winds and rain, while only 5% of basic education/branch schools and 7% of madrasahs reported having any kind of emergency planning in the event of a disaster (affiliated schools had made no preparations in terms of either structure or planning). The report concluded that the recent memory of Cyclone Komen and the flooding emergency presents a window of opportunity to expand the current scope of both school-based DRR programming run by development partners, and for the MoE to incorporate DRR education into school curricula in line with the Myanmar Action Plan.[82]

As stated by OCHA, disaster preparedness in Myanmar remains a major challenge. There is a continued need for DRR and activities aimed at strengthening national capacity to prepare for and respond to natural disasters, including in the education sector.[83]

CASE STUDY: MYANMAR

## PYAE PHYO WAI

Pyae Phyo Wai is ten years old and attends Myint Ga Basic Education High School in Myint Ga village, a fishing village located in the south of Pauk Taw Township in Rakhine, Myanmar. In the future she would like to become a school teacher, and currently she enjoys social studies, dancing, and sports. Her mother owns a small grocery shop and her father is a carpenter; he led the effort to repair her school after the heavy rains of Cyclone Komen caused severe damage in 2015.

Due to the cyclone, strong winds and heavy floods caused Pyae Phyo Wai's school to be closed for a week. U Maung Tin Mya, the principal of the school, said, "As we didn't want to miss out on school for an extended period of time, we reopened the school quickly. But we lacked enough space for all students as the main building was damaged." This affected the school's 607 students and 27 teachers. "While our school was closed for a week because of the storm, I missed my school days because I am very happy to attend the school and there I can meet and play with my schoolmates," Pyae Phyo Wai said.

Save the Children came to Myint Ga village after the Cyclone Komen floods subsided and constructed a TLC. Children returned here for lessons while their school building was under renovation. U Maung Tin Mya highlighted the need for timely renovation, stating, "If we cannot use [the renovated school building] when school is open in June, we will need to divide the school time into two shifts, and learning hours for the students will be reduced. We also need more desks and benches for the students."

Photo: Save the Children

## 2.4. PHILIPPINES

The United Nations 2009 Global Report on Disaster Risk Reduction ranks the country as the third most disaster-prone country globally with the most number of people exposed and displaced annually due to disasters.

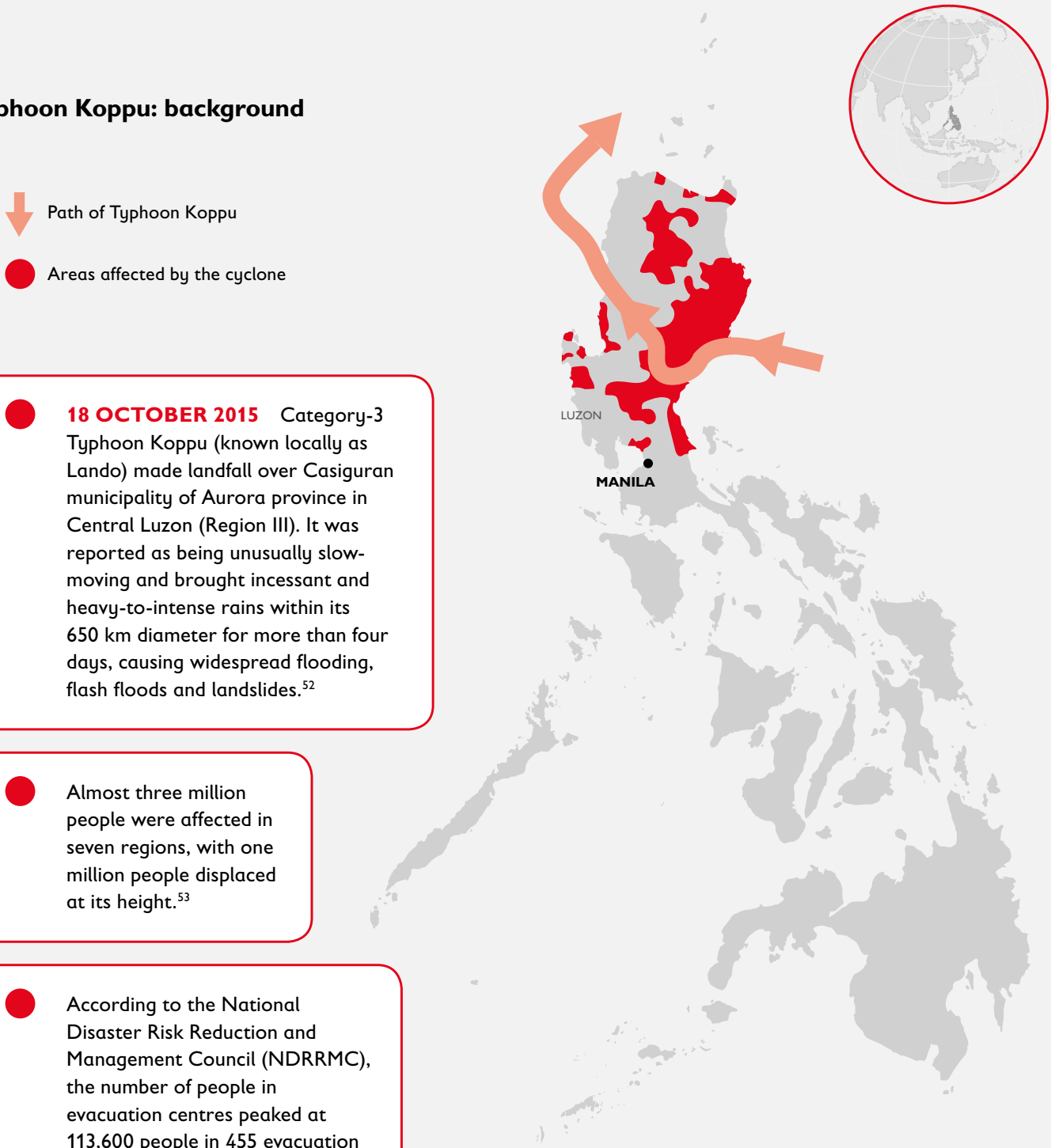
In 2015 alone, 14 typhoons and tropical storms entered the Philippine Area of Responsibility, nine of which made landfall; minor eruptions and abnormal activities of three volcanoes prompted the authorities to raise alerts; and the effects of El Niño were slowly felt throughout the country, with many provinces experiencing below normal rainfall, dry spells and drought.[46] The UN has predicted that conditions are projected to worsen in the first half of 2016 and aggravate water shortage and food insecurity.[47]

In total there are over 46,000 primary schools and 12,000 secondary schools in the Philippines, with over 20 million students enrolled in both private and public schools.[48] Primary school participation is at almost 100%, however keeping children in school until they finish their basic education remains a challenge.[49] The secondary school age participation rate was about 65% for the 2012 school year.[50]

With the country experiencing so many disasters each year, education is often severely disrupted. School buildings are damaged, teaching materials and school supplies lost or damaged, regular teaching is disrupted for long periods, teachers and students are injured or killed, and students regularly drop out. Unaffected classrooms in public schools are primarily used as evacuation centres during disasters and are usually left unclean by evacuees. After a disaster it is not unusual for teachers and students to spend longer hours in school during weekends or have class hours extended to complete missed lessons and make up the required number of school days. In between 2007 and 2011, 10.8 million students were impacted by disasters and 8,472 schools were used as evacuation centres.[51]

**Six families living in one room at the evacuation centre in Bancal Elementary School, Carles Municipality, Philippines. Photo: Save the Children**

## Typhoon Koppu: background




**18 OCTOBER 2015** Category-3 Typhoon Koppu (known locally as Lando) made landfall over Casiguran municipality of Aurora province in Central Luzon (Region III). It was reported as being unusually slow-moving and brought incessant and heavy-to-intense rains within its 650 km diameter for more than four days, causing widespread flooding, flash floods and landslides.[52]

Almost three million people were affected in seven regions, with one million people displaced at its height.[53]

According to the National Disaster Risk Reduction and Management Council (NDRRMC), the number of people in evacuation centres peaked at 113,600 people in 455 evacuation centres while the number of displaced people being assisted outside of evacuation centres reached 989,700 people.[54]

The typhoon caused approximately USD$233 million worth of damage in agriculture and infrastructure, including damaging almost 140,000 houses and more than 800 schools.[55]

**23 OCTOBER 2015** The UN praised the Philippines Government for its rapid and pre-emptive response to Typhoon Koppu, suggesting that its handling of the disaster should act as a model for other disaster-prone countries.[56]

## Impacts on Education

### Impact of Typhoon Koppu on education in Region III

| | |
|---|---|
| **803** | schools damaged |
| **14 days** | schools closed, on average. However during this time some classes were conducted in temporary classrooms or classes were merged. |
| **138** | schools used as evacuation centres |
| **5 days** | schools were used as evacuation centres |

While this typhoon did have a significant impact on educational facilities, the strength of the existing preparedness and DRR measures and the fact that the typhoon occurred during a vacation period so no children were in school reduced the negative impact this typhoon had on children's education. The timing of the typhoon also meant that despite the large numbers of schools damaged, there was time to organise school repairs and prepare the classrooms before the resumption of classes.

Schools that were used as evacuation centres were in need of cleaning before the resumption of classes. This common practice of mobilising the "Brigada Eskwela" where the school community gathers to clean up (usually at the start of the school year) is also often effective and efficient after typhoons, flooding, and similar disaster events.[57]

In the aftermath of the disaster, the DoE highlighted the immediate resumption of classes in order to avoid changes to school schedules and the forced delay of examinations. However, in some cases school classes were held on Saturday so that students could make up for the lost school days. The effectiveness of this strategy, as far as student-teacher contact hours, attendance, and learning outcomes, has not been studied.


**Typhoon Koppu did not spare infrastructure such as daycare centers and hospitals in Casiguran where it made landfall.**
**Photo: Jerome Balinton/Save the Children**

**Gerald, nine, attends a Save the Children Child Friendly Space, Leyte province, Philippines.**
**Photo: Jonathan Hyams/Save the Children**

## Disaster Risk Reduction initiatives and investments in the Philippines

As a result of experiencing large numbers of disasters each year, the Government of the Philippines and the international community have worked hard to reduce the risk of, and mitigate the impacts of such disasters. In recent years, the Philippines has taken measures to significantly improve its disaster management capacity by creating legally binding frameworks and legislation that comprehensively addresses disaster risks and response. However, it continues to face challenges of coordinating the work of a very large number of government and non-government agency and institutional inputs.

In the Typhoon Koppu response, in addition to the fact that the typhoon made landfall during a vacation period so no children were in school, the low net rate of school days lost and the clear value placed on resumption of education are attributed to two major factors. Firstly, the DoE has a fully staffed Disaster Risk Reduction and Management Office (DRMMO), with DRR focal points at regional, district and school level. Secondly, national government agencies issue clear early warning messages of incoming storms and typhoons, as well as action-oriented messages allowing all actors to anticipate and prepare in advance. These two factors meant that the community and the members of the Education Cluster were able to immediately support mitigation measures that led to earlier recovery.

Other factors contributing towards this reduced rate include:

- Clear national and education policies for Disaster Risk Reduction and Management (DRRM), including the suspension of classes and coordination protocols within DoE.
- National Education Cluster is organised and remains active throughout the year, making coordination easier between Cluster members, especially for collecting information on the ground and responding to the educational needs of the children affected.[58]
- Preparedness planning from local government units to ensure safety of communities, and conducting pre-emptive evacuation when necessary.

Importantly, the 2010 Philippine Disaster Risk Reduction and Management Act (DRRM Act) represents a clear legislative shift for the Philippines by approaching disaster response from a much broader perspective and including areas around prevention, mitigation, preparedness, response, and recovery.[59]

Since 2007, in line with its commitment to the Hyogo Framework for Action, the DoE began to mainstream DRR into the education sector. Several practices that have been identified as best practice are the development and implementation of a Comprehensive DRRM in Basic Education Framework; the establishment of the DRRMO at the national/central office, regions and division, and Coordination and Information Management Protocols; and the integration of DRR and Climate Change Adaptation (CCA) in the Kinder to Grade 12 Curriculum (Ages 5–17).[60] Such practices were designed to further DRR in education and underscore the Philippines commitment to the Sendai Framework for Action.

An example of this working in the immediate aftermath of a disaster is that all affected schools are required to report damage to a central database, which is used to coordinate immediate, recovery and rehabilitation assistance including school clean-up and minor repair, construction of TLCs, provision of learning materials, reconstruction of classrooms and/or repair of major damages.[61]

In 2015 several frameworks and policies were implemented to further DRR in education. To underscore its commitment to the Sendai Framework for Action, DoE adopted the Comprehensive DRRM in Basic Education to guide the implementation of comprehensive school safety at all levels. The framework is based on the global Comprehensive Safe Schools Framework and the four thematic areas of prevention and mitigation, preparedness, response, and recovery and rehabilitation. DoE also issued Guidelines on the Enhanced School Improvement Planning Process and the School Report Card which provides guidance to schools.

However, much more can be done to consolidate the achievements, scale up training of DRR focal points, develop sub-national contingency plans, and develop, expand and strengthen new areas to fully institutionalise comprehensive school safety in the country.[62] Additionally, more focus needs to be given to the impact small-scale disasters have on education. A report on the impact of flooding in Metro Manila on the education sector highlights that while major flooding events are particularly damaging to school facilities and often cause large amounts of people to utilise schools as evacuation centres for extended periods of time, it is the small-scale flooding that needs more attention.[63] The report found that these small-scale events are often poorly documented although their cumulated impact is very significant and results in many days of student absences as well as damage to school facilities, equipment and learning materials.[64]

The head of the UN Office for Disaster Risk Reduction (UNISDR) remarked that despite the devastation caused by Typhoon Koppu, other countries could learn from the timely response of the government and local and international NGOs, saying the Philippines is "the most storm-exposed country in the world and its expertise in disaster risk management can be usefully adopted by other countries trying to implement the Sendai Framework for Disaster Risk Reduction".[65]

CASE STUDY: PHILIPPINES

# GRACE


Photo: Save the Children

Ten-year-old Grace* is the eldest child of her family and loves taking care of her four-year-old sister and helping her parents with simple household chores. Grace dreams of being an elementary school teacher to help educate children in her community, and wants her success to make her parents' lives easier.

In 2015 when Typhoon Koppu hit the Philippines, Grace and her family sheltered in a neighbour's home made out of concrete, which was safer than their own home. After the storm, she discovered that the typhoon had completely destroyed her family's home and belongings, including all of her school materials like notebooks, pencils, crayons and books. "I cried," Grace said. "I was thinking to myself, 'Where would we live now? How can I ever go back to school without those things?'" Her father lost his livelihood and the family could not afford to buy new school materials. The school she attends was also badly damaged, with its roofs gone and books and other educational materials left soaking wet. Classes were suspended and Grace missed going to school. "When you don't go to classes, you don't learn. I miss schooling and my friends."

Save the Children distributed relief items and back-to-school kits for Grace's community, which helped Grace and other children to go back to school. The contents of the kit replaced those items lost or damaged by the typhoon. "My parents do not need to worry now where to get money to buy new things," Grace said.

* Name has been changed.

## 2.5. VANUATU

For four years, the annual World Risk Report has listed Vanuatu as the world's most at-risk country for natural hazards causing disaster, based on exposure, susceptibility, capacity to cope and adaptation strategies.[31] Like other Pacific countries, the numbers of people affected by disasters are often low relative to other parts of the world due to low population density; however the percentages of the country's population and infrastructure vulnerable to disasters is extremely high.[32] For example, an estimated 64% percent of the population are exposed to natural hazards each year including storms, flooding, volcanic eruptions and earthquakes. As a result, disasters in Vanuatu and the rest of the Pacific have greater capacity than almost anywhere else in the world to affect a country's entire economic, human and physical environment, with significant flow-on effects for long-term development.[33] In Vanuatu, average annual disaster loss is equivalent to 80% of social expenditure.[34]

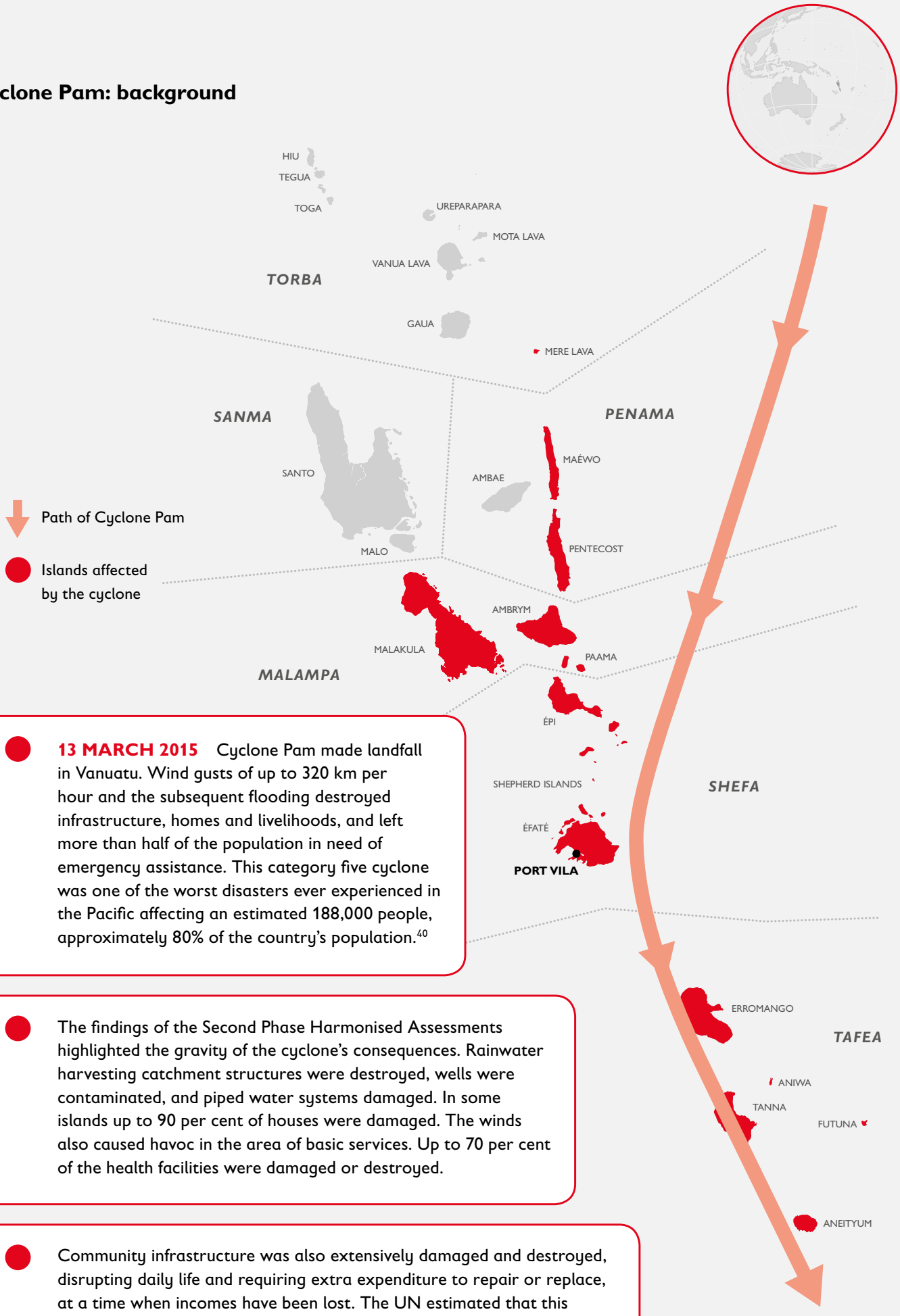
**A secondary school damaged by Cyclone Pam.**
**Photo: Robert McKechnie/Save the Children Australia**

Education is governed by the Education Act, which has a clear directive to provide for the development and maintenance of an effective and efficient early childhood care and education (ECCE) pre-school, primary and secondary education system for the benefit of Vanuatu and its people.[35] There are a total of about 1,092 registered schools (pre-school to secondary) in the Vanuatu Education Management Information System (VEMIS) which serve approximately 76,000 students.[36] The Government operates 343 of these schools directly, and also provides financial assistance to an additional 170 schools administered by Church Authorities. Education in Vanuatu is not compulsory.

Vanuatu's schools teach in either English or French medium and the lingua franca, Bislama.[37] UNICEF reports that Vanuatu's literacy rates are very low, due at least partly to the fact that there are 100 local languages that are the children's mother tongue. Overall, enrolment rates are fairly high at the primary school level although debates continue over the quality of education received by children and its relevance to life in Vanuatu. Classrooms and teachers tend to be under-resourced.[38]

Most children do not go onto secondary school due to a limited number of places with large number of students "pushed out" by distance and/or cost once they finish primary school. Facilities and programmes for youths who are pushed out or drop out are also considered inadequate.[39]

## Cyclone Pam: background




**13 MARCH 2015** Cyclone Pam made landfall in Vanuatu. Wind gusts of up to 320 km per hour and the subsequent flooding destroyed infrastructure, homes and livelihoods, and left more than half of the population in need of emergency assistance. This category five cyclone was one of the worst disasters ever experienced in the Pacific affecting an estimated 188,000 people, approximately 80% of the country's population.[40]

The findings of the Second Phase Harmonised Assessments highlighted the gravity of the cyclone's consequences. Rainwater harvesting catchment structures were destroyed, wells were contaminated, and piped water systems damaged. In some islands up to 90 per cent of houses were damaged. The winds also caused havoc in the area of basic services. Up to 70 per cent of the health facilities were damaged or destroyed.

Community infrastructure was also extensively damaged and destroyed, disrupting daily life and requiring extra expenditure to repair or replace, at a time when incomes have been lost. The UN estimated that this would have a significant long-term social and economic impact.

### Impact of Cyclone Pam on education in Vanuatu[41]

| | |
|---|---|
| **over 50%** | of primary and secondary schools damaged or destroyed |
| **34,500** | children affected |
| **10–30 days** | schools were closed. The Ministry of Education (MoET) mandated that all schools re-open two weeks after the cyclone but due to the severity of damages some schools did not open for up to one month. |
| **34** | schools used as evacuation centres. In remote areas it is likely that the number was even higher in the first few days after the cyclone hit. |
| **14 days** | schools were used as evacuation centres, on average. This is despite the Government mandating that all people withdraw from the evacuation centres and return to their homes after one week so schools could resume. |

To ensure children did not fall too far behind at school, the MoET mandated that the first school break after the cyclone was to be used to make up for school days lost.

While tents were established as TLCs for children whose schools had closed, not enough tents were available and thus not all children were able to re-start their education, even in temporary structures. As of the beginning of 2016, many of the damaged schools had not yet been reconstructed and some children are still being taught in TLCs.[42] TLCs, particularly when using tents or other makeshift structures, are meant for weeks or months, not years. This is similar to the situation in Nepal with the delay in reconstruction forcing many children to spend months attending TLCs.

**A secondary school damaged by Cyclone Pam.**
**Photo: Robert McKechnie/Save the Children Australia**

**Children celebrating their school re-opening after it closed due to damage caused by Cyclone Pam.**
**Photo: Robert McKechnie/Save the Children Australia**

## Disaster Risk Reduction initiatives and investments in Vanuatu

Supported by national and international actors, the Government of Vanuatu has invested substantial effort and resources in recent years in strengthening the national disaster management system. This includes a National Disaster Response Plan, a National Disaster Management Organisation with Standard Operating Procedures, a National Cyclone Support Plan, national-level humanitarian clusters, and the Vanuatu Humanitarian Team which is responsible for coordinating the activities of non-government actors. These systems and structures had proved satisfactory in meeting the needs of previous, smaller-scale disasters.[43]

However in general, Cyclone Pam highlighted the fact that had better risk reduction and preparedness measures been in place, losses could have been significantly reduced at a fraction of the cost of the humanitarian response for this disaster.[44]

In the education sector Vanuatu's Minimum Quality Standards for Primary Schools, Standard 11 states that "school policies have been developed and are implemented to protect school staff and students."[45] This has been interpreted to address comprehensive school safety. However, the MoET has no specific budget allocation for the three pillars of comprehensive school safety and as such is unable to fully implement activities in its Education in Emergencies Policy of 2013–2017.

Post-cyclone, MoET in cooperation with Save the Children ran an after-action Education Cluster lessons learned workshop with education stakeholders and education cluster members. The lessons learned in this workshop were intended to inform the broader National Disaster Management Office (NDMO) lessons learned workshop and the future development of the Education Cluster in Vanuatu. The Cluster also developed principles for use of schools during and after an emergency which are intended to ensure communities have access to safe havens during the immediate aftermath of a disaster but also ensure minimal disruption to the continuity of learning within the school for students post disaster impact.

# 3 CONCLUSION

The countries profiled in this report were chosen because they were all affected by disasters in 2015; they display a diversity of pre-disaster education outcomes; and they demonstrate differences in the size and scale of disasters that affect the region each year. However, as evidenced, regardless of the size of these disasters, education was still disrupted. In countries such as Nepal, the earthquakes caused large-scale disruption, forcing many children to lose months and months of education. In Indonesia and the Philippines where the disaster was much smaller in scale, children were generally out of school for shorter periods of time. However, these areas often experience similar disasters every year, resulting in children regularly losing school days. This compounds the negative impact on their education over their whole school experience. Even temporary disruptions to education can have long-term impacts on school attendance, with many students who are forced out of school never returning. Focussing on education as a priority during emergencies will mean that children are less likely to stop their education.

Additionally while there are many positive regional and country level frameworks established to support DRR in education, the differing levels of both policy commitments and actual implementation of DRR in the education sector at all levels, and the limited resources available to ensure the construction of safe schools, made a significant difference to the negative impact the disasters had on educational continuity across the five profiled countries. A positive example of DRR in education reducing the impact of disasters on education was with Typhoon Koppu in the Philippines where fewer children were forced out of school for substantial periods due to the emphasis on integrating DRR into education from the national level all the way to the school and community level.

The disasters profiled demonstrated clear differences between countries and within the different districts due to the resources and capacity available at the local-level MoE to ensure both risks were reduced prior to the disaster occurring, and to ensure education was prioritised in the disaster response. Countries such as Indonesia and Myanmar that experience small-scale flooding each year struggle to receive sufficient funding to ensure wide-spread safe school construction; capacity building of teachers, local government staff and community members in DRR; and resilience education of students, to ensure that they have greater awareness of the risks and potential impacts of disasters coupled with basic training on what to do during a disaster prior to a disaster occurring. Ensuring teachers and students are trained in the event of disaster will help minimise disruption when disasters occur – whether large or small.

Finally, there are significant gaps in information from the education sector on both the short- and long-term impact disasters have on education. This is particularly relevant for small-scale flooding, and is evident in the Indonesia and Myanmar profiles in this report. Assessments, data collection and analysis, and increased coordination is needed to ensure that sufficient data is being collected and analysed so the education response itself is sufficient, and to support DRR and preparedness programs that are fully cognisant of the risks facing schools and children. Additionally, such gaps in knowledge highlight the need to conduct further research on the short and long-term impacts of repeated intensive and recurrent extensive disasters on primary and secondary education. Such research can utilise historic data and improve current data analysis of impacts on infrastructure, educational disruption, enrolment and attendance, educational progress and attainment and economic impacts.

The Asia Pacific region is heavily prone to disasters, and in these disasters children suffer most of all. To ensure these children are protected and are able to continue to learn in the aftermath of a disaster, it is essential that humanitarian actors, donors and national governments prioritise disaster risk reduction, preparedness and response in the education sector.

**First grade students at their primary school in Nepalthok, Nepal. Following the 2015 earthquake, Save the Children has supported the government-run primary school to open again by training teachers and providing the school with teaching materials.**
**Photo: Sandy Maroun/Save the Childen**

# ENDNOTES

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**Back cover photo: Ten-year-old Rica at school in Barangay Oguisan, Leyte, Philippines. Rica's family was among the thousands affected by Typhoon Haiyan. Save the Children helped the community to get children back to school after the disaster, bringing them kits that included a sling bag containing notebooks, pencils, pens, lunch box, tumbler, raincoat and a pair of boots to help them to walk the muddy paths during the rainy season.**
**Photo: Heidi Anicete/Save the Children**

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