Sustaining the Gains: Feasibility of Risk Financing for Education

Task 1 Report:
Shocks and disruption to education, and quantification of impacts

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June 2017
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Executive Summary

With global exposure to disasters increasing (United Nations, 2015), investments in education are at risk from both natural disaster and political shocks. Natural disasters are currently estimated to affect 175 million children per year (UNICEF, 2014), and half of out-of-school children of primary school age live in countries affected by conflict (UNESCO, 2013).

The GPE portfolio has significant exposure to natural disaster and political risk. Almost all GPE partner countries are exposed to one or more natural catastrophe types, and a significant portion are fragile states and/or at risk of politically-driven crises and macro-economic shocks. This report finds that from 2000 to 2016, 79 out of 89 GPE partner countries reported a flood event, 53 reported drought, 44 reported storms, and 20 reported at least one earthquake event. In addition, political risk exposure in the GPE portfolio is substantial, with 42% of GPE partner countries classified as Fragile and Conflict-Affected Countries.

Impacts to the education sector are complex and cascading, and shocks and disruption to education have costs which reverberate beyond initial disaster recovery. Losses to education in GPE partner countries from 2000 to 2016 are estimated to total a minimum of USD 14.6 billion from natural disaster events alone. Direct and indirect impacts of shocks create substantial long-term economic and health costs, which substantially outweigh the immediate costs of rebuilding education systems.

Funding to respond to shocks in education systems is not prioritized and is poorly coordinated, which results in significant economic and social costs. Very little structured risk management is currently in place in the education sector, and the traditional response to shocks is reactive, rather than pre-planned and coordinated. Humanitarian funding allocations to education have averaged 2.1% over 10 years, and financial preparedness for shocks is low. The most significant cost of this system is the long-term socioeconomic cost of foregone schooling. Estimates from recent crises suggest that lower education levels due to foregone schooling have resulted in losses varying from 1.3%-3.1% of GDP, with substantial additional costs arising from permanent increases in the number of out-of-school-children, depending on the context.

A comprehensive and structured disaster risk management approach can build the resilience of the education sector to external shocks. This approach is based on coordinated and pre-agreed post-disaster plans, backed by effective financial protection measures, in addition to the understanding and reduction of hazard, exposure and vulnerability. The resilience dividend for the education sector could be substantial. Running a series of scenarios on recent examples of crises demonstrates that these vary from a 5% reduction in the delivery gap (i.e. the number of lost teaching days) resulting in benefits equivalent to 15.7% of the direct costs of the crisis in Syria, to a 50% reduction in the delivery gap resulting in benefits equivalent to 7,789% of the direct cost of the crisis in Pakistan.

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1 From original analysis of EM-DAT (http://www.emdat.be/) data
2 Tropical cyclone, earthquake, flood, and drought
3 From original analysis of 37 PDNAs in GPE partner countries. This estimate likely represents 60% of overall natural disaster losses to education.
Overall, risk financing mechanisms appear to be a promising avenue for development for GPE, but require piloting and further analysis. There are a number of outstanding questions regarding the scale of the potential benefits of risk financing, the use of parallel approaches or careful selection of contexts to avoid capacity traps, and optimum design of the risk financing mechanism to balance the needs and interests of the different actors involved. Piloting and further analysis will therefore be key to establishing how useful these approaches will be for GPE and will be addressed in Tasks 2 and 3 of this project.
1 Introduction

In June 2016, the Board of the Global Partnership for Education (GPE) mandated the Strategic Finance Working Group (SFWG) to develop an “ambitious and comprehensive” Financing and Funding Framework (FFF), which was approved by the Board in March 2017. Recognizing that shocks to education systems and the shortage of financing to support them are major disruptors to the delivery of education globally, GPE is investigating the potential for risk financing to form a part of GPE’s broader funding framework. A consortium consisting of Willis Towers Watson, the Overseas Development Institute, Save the Children and the Start Network were engaged to work on specific inputs to the decision-making process in late-2016, utilizing funding made available by the Rockefeller Foundation.

The purpose of this report is to present the policy case for risk financing for education. It will analyze the potential for these mechanisms to mitigate damage and disruption to education systems inflicted during shocks and to reduce the short to long term economic costs of impacts where they do occur. It will draw on a combination of reviews of existing evidence and original analyses of data from a range of sources, including GPE, the Start Network and Save the Children. It also highlights the considerable data and evidence gaps that exist on several key aspects and sets out some options for how these gaps could be closed. A key message is the need for piloting with strong monitoring and evaluation to test hypothesized benefits, and to strengthen the evidence base on the potential for structured risk management, including financing, within the education sector.

Shocks that disrupt education systems present an increasingly important barrier to achieving access to education and learning for all. The impact of sudden and slow onset natural disasters can be devastating for both education provision and opportunities. Examples of sudden onset shocks include the 2015 Nepal earthquake, which interrupted the education of a quarter of the school-age population (UN Education Cluster, 2015) and typhoon Haiyan / Yolanda, which damaged 65% of schools in the four impacted districts, destroying 30% of these (Government of the Philippines, 2013). In contrast, slow-onset shocks such as drought impact on child nutrition and school attendance, while disease epidemics will kill teachers and lead to large numbers of out-of-school children. During the Ebola outbreak that affected three countries in West Africa in 2014, many children lost six to eight months of their education4.

The disruption caused by humanitarian emergencies accounts for half of the world’s out-of-school children of primary school age (UNESCO, 2015a). In 2015 alone, nearly 75 million school-aged children and youth (3-18 years old) across 35 crisis-affected countries had their education affected (Nhan-O’Reilly and Mason, 2015; Nicolai et al., 2015; UNESCO, 2011). While that figure includes both those who are in and those out of school, crises that cause disruption and school closures, even for the period of a few months, translate into even greater losses to educational attainment due to the nature of the education timetable. Protracted crises – particularly those involving conflict or displacement – lead to more prolonged disruption of education and the risk that those out of school will remain so and others will join them without a strong response (Nhan-O’Reilly and Mason, 2015; Nicolai et al., 2015; UNESCO, 2011).

We estimate that across the GPE portfolio of countries eligible for education system financing\(^5\), direct
damage costs to education as a result of natural disaster shocks\(^6\) amount to more than US$850 million
per year, based on data from 2000 to 2016\(^7\). Direct costs due to conflict are estimated to have amounted
to more than US$44 million per year\(^8\) (Jones and Naylor, 2014). This is an absolute minimum; secondary
and long term impacts are not uniformly captured in the available data, we have not included the
estimated impact of the protracted Syrian crisis on education (which alone would at least double the
annual conflict loss quoted above), and we have only included major shock events where reasonable
impact estimates have been made. The costs of political shocks are poorly documented, and the relatively
large impact on infrastructure of natural disasters is easy to measure. Therefore, the ratio of costs due to
natural disasters over conflict is most likely an overestimate. Other metrics to compare the impacts of
natural disaster and political risk shocks will be discussed in Section 2. We have not found evidence that
macro-economic shocks have a systematic negative impact on education budgets; such budgets fluctuate
significantly year-on-year (according to the available data) and are clearly influenced by a variety of
factors.

There is widespread acknowledgement that many national education systems face challenges in
responding to shock-related disruption and that the current global architecture has significant gaps and
inefficiencies that limit its ability to offer effective support. At the national level, a lack of understanding of
risk and preparedness, as well as low political prioritization, present barriers to developing, financing and
implementing response plans. In the global architecture, education is given low priority in humanitarian
funding, and suffers from poor coordination between humanitarian and development agencies before,
during, and after the acute phase of shocks, arising from a combination of differing cultures, priorities,
approaches and financial constraints (Nicolai et al., 2015; Overseas Development Institute, 2016; Poole,
2014; Sparkes et al., 2014; United Nations, 2012).

Following the 2015 Oslo Summit and 2016 World Humanitarian Summit, there is an increasing
international focus on how to improve the resilience of education provision and limit the disruption to
children’s education from shocks. Momentum is building around several approaches, most notably the
ongoing development of the Education Cannot Wait (ECW) Fund and the outcomes from the International
Commission on Financing Global Education Opportunity. The question of innovative forms and sources of
finance has arisen in discussions around these bodies, including the idea of risk financing mechanisms,
especially as a modality for additional financing.

Risk financing is gaining increasing momentum as a development financing tool that can build resilience
to external shocks based on improving risk assessment and awareness, coordinated and pre-agreed post-
disaster plans and effective financial protection measures. Much of this momentum has been driven by
successful sovereign risk pools (ARC, CCRIF, PCRAFI), helping governments to protect national budgets,
and the lives of their citizens, against disaster impacts\(^9\). Furthermore, as outlined in this report, risk
financing can be applied much more broadly at different levels of modality (regional, national or program
level) according to the nature of the shock and the most appropriate response.

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\(^5\) Under the Financing and Funding Framework as of March 2017, there are 89 countries eligible for GPE financing of which about
60% are active recipients. Unless otherwise stated, reference to ‘GPE partner countries’ or ‘the GPE portfolio’ includes all 89
countries.

\(^6\) Tropical cyclone, earthquake, flood, and drought

\(^7\) See Annex 2

\(^8\) This estimate is low due to gaps in existing data.

This report aims to bring more detail to this discussion on the potential merits, drawbacks and approaches that could be taken for managing shock-related disruption of education systems, specifically through risk financing. It will first identify the shocks that disrupt the delivery of education. Second, it will provide an analytical framework to investigate the direct and indirect impacts of shocks on education systems. Third, it will set out the available evidence – and gaps – for quantifying the economic and social costs of shocks and disruption. Fourth, it will provide an assessment of the economic and social costs of the current approach. Fifth, and finally, it will outline the potential benefits – and limitations – of moving to an ex ante approach using structured risk management tools.

Annex 1 provides a review of risk financing both in general terms and as it has been applied to the public sector in developing countries, particularly at the sovereign level, over the past decade or so.
2 Shocks that Disrupt the Delivery of Education

There are a wide variety of shocks that can disrupt education systems, which have different practical impacts due to their specific characteristics. This section sets out a taxonomy of different forms of shock and associated disruption, and then provides a high-level analysis of the exposure patterns of GPE partner countries, and their education systems, to these shocks.

2.1 Taxonomy of different forms of shock and disruption

Descriptions of how emergencies affect education often begin with an overview of the crises themselves, i.e. war, natural disaster, epidemic, etc. Here we lay out a taxonomy that goes beyond the type of crisis to describe how this interacts with education systems. Three characteristics are relevant to how risk financing approaches might be applied to disruptive shocks in the delivery of education:

- The nature of the disruption to the education system;
- The extent to which the shock is predictable (in terms of onset, scale or location); and
- Whether the impact of the shock is immediate, slow-onset or protracted.

First, disruption can be divided into four broad types: disruption to the presence of students, disruption to the education delivery system, disruption to the presence of the teaching workforce, and disruption to physical infrastructure. The nature of the disruption of an earthquake will be different from that of a drought, and further, the disruption due to natural disasters will be different from that of political shocks such as civil unrest or refugee influx. While an earthquake causes damage and destruction to school infrastructure and learning materials, as well as the displacement or death of students and teachers, a drought disrupts education through the displacement and withdrawal of students and teachers, a drought disrupts education through the displacement and withdrawal of students and teachers and an increase in malnutrition that limits the cognitive capacity of affected children. Further, earthquakes have low predictability (with overall risk that is quantifiable, however, onset, scale and location of events are unpredictable with no warning) and immediate impact, while droughts have moderate predictability (with overall risk broadly quantifiable and identifiable early indicators as well as likely affected groups and regions) and slow onset and protracted impacts. A more extensive and detailed description of the disruptions caused by eight different shocks can be found in Annex 2.

The precise scale of impact is likely to vary based on shock and context. Beneath these headline disruptions, the impact of shocks also varies across societal groups. For example, conflict-affected environments may have greater gender disparities in enrollment, as concerns over the potential for insecurity, as well as sexual and gender-based violence (both within and outside school), lead families to keep girls at home – particularly at the secondary level (UNESCO, 2015b). This effect is particularly striking given that the increased risk of male children being conscripted or recruited into armed groups can also lead to lower enrolment rates overall (UNESCO, 2011).
Moreover, after all shocks that may impact education systems, the economically vulnerable face broader hardship, and children can become critical income-generators at the expense of their education, often permanently.\(^{10}\)

### 2.2 Initial analysis of GPE disaster exposure patterns

A key first step towards understanding how risk financing could be utilized by GPE is to understand the types of risks that its partner countries are exposed to. This section presents some initial analysis using the Emergency Events Database (EM-DAT), which is compiled by the Centre for Research on the Epidemiology of Disasters (CRED), based at the Université catholique de Louvain in Belgium, and focuses on natural catastrophe events compiled from various sources, including UN agencies, non-governmental organisations, insurance companies, research institutes and press agencies. Further detail is provided in Annex 2.

EM-DAT data for all 89 GPE partner countries was analysed by hazard type for the period 2000 to 2016. Figure 2.1 shows that over the past 17 years, by hazard, floods affect the largest number of GPE partner countries, with earthquakes affecting the fewest countries.\(^{11}\) Further modelling and risk exposure data is presented in the Task 2 report.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure_2.1.png}
\caption{GPE partner countries and disaster event experience, 2000 – 2016.}
\end{figure}

\(^{10}\) See Guarcello et al. (2009); Jacoby and Skoufias (1997); Beegle, Dehejia, and Gatti (2006); Jensen (2000); Beaz and Santos (2007); de Janvry et al. (2006); and Gitter and Barham (2007).

\(^{11}\) For EM-DAT data on the total number of events in GPE partner countries between 2000 and 2016 by hazard, see Annex 2. Absolute numbers of events mirror hazard distribution by GPE partner country.
In addition to risks associated with natural disasters, we have also reviewed GPE partner countries' exposure to political risks more broadly, as well as to macro-economic shocks. GPE partner countries have a broad exposure to political risk, which will be addressed in the Task 3 report. Political risk related shocks to the education sector include war, coups d’état, civil unrest, political instability, population displacement and refugee flows. Figure 2.2 presents the percentage of GPE partner countries with exposure to political risk in 2015, as measured by a range of indicators. It compares the Fund for Peace (FFP) Fragile States Index with the Political Risk Index by PRS Group and UNHCR data on displacement, as well as conflict data from the Uppsala Conflict Data Program (UCDP). The number of GPE partner countries in the bottom 10th percentile, 25th percentile, and 50th percentile of the 2015 Fragile States Index and Political Risk Index are shown as well as the number of partner countries hosting a displaced population of more than one thousand people, ten thousand people, one hundred thousand people, and one million people in 2015. It also shows the number of GPE partner countries with recorded conflicts in the UCDP database in 2015.

Figure 2.2 GPE partner countries and political risk exposure, 2015.

More than one third of GPE partner countries are either fragile or conflict affected, according to major international assessments. Using a broader quantification of political risk, in this case the PRS Political Risk Index, which takes into account economic as well as political stability, GPE partner countries consistently measure as the most unstable; only one of the 31 GPE partner countries covered in the

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12 See Annex 3 for more detail on the nature of disruptions to the education system due to four key political risk shocks.
13 Of those where data was available
14 http://library.fundforpeace.org/fsi
15 www.prsigroup.com
16 http://popstats.unhcr.org/en, population number is for number of displaced people hosted.
17 http://ucdp.uu.se/
October 2016 index was ranked in the top half of the 100 countries analyzed. Similarly, in the World Bank Worldwide Governance Indicators\textsuperscript{18}, all 89 GPE partner countries are included in the Political Stability and Absence of Violence / Terrorism listing with an average score of -0.5 (against the overall average of 211 countries of 0). Since the most complete and detailed information on political risk relates to conflict, this data is used as a proxy for political risk impacts in general for this policy case review.

Figure 2.3\textsuperscript{19} considers the number of children affected by different shocks and allows natural hazards to be compared with conflicts from the UCDP. Per year for GPE partner countries, the number of children affected by drought represents over one third of the total number of children affected, similar to the high proportion of children affected by conflict, followed by flood. GPE partner countries can be sub-divided into Fragile and Conflict-Affected Countries (FCACs) and non-FCACs. FCACs represent 88\% of all children affected by conflict, from only 42\% of the countries (37 out of 89). Similar distributions of number of GPE partner countries affected by natural hazard type are seen for FCAC and non-FCAC sub-sets.

![GPE: No. of Children Affected per Year](image)

**Figure 2.3** Number of children affected per year by hazard type including conflict for GPE partner countries.

We provide these risk metrics as a broad guide only; further detailing of the specific risk profiles of GPE partner countries for both natural disaster and political risk form part of the reporting for Tasks 2 and 3 respectively of this project.

\textsuperscript{18} http://info.worldbank.org/governance/wgi/index.aspx
\textsuperscript{19} For data methodology, refer to Annex 2.
Figure 3.1  Analytical Framework for shock impacts on education.
3 Quantifying the Economic and Social Costs of Shocks and Disruption

This section utilizes the analytical framework provided in Figure 3.1 as a basis for quantifying the economic and social costs of shocks causing disruption to the education system. Due to data availability, many of the costs cannot be reasonably quantified, so a qualitative approach is also added to capture those elements. This section will outline the quantified costs, and please see Annex 4 for more detailed tables.

3.1 Quantifying the short to medium term costs of shocks and disruption

There is widespread agreement that political shocks and natural disasters can have severe impacts on the infrastructure, workforce, students, and operation of education systems, creating considerable costs for the states and organizations involved in provision.

Short to medium term costs can be divided into three broad categories: the cost of restoring the education system following the disruption; the short-term cost of foregone provision; and the cost of temporary education provision while the education system is restored.

The costs of restoring the education system include:

- Rebuilding and repairing physical infrastructure
- Replacement of learning materials
- Mediation to end school occupation
- Compensation/pensions for affected teachers
- Training of new teachers
- Replacement of systems following breakdown
- Replacement of lost key personnel and records
- Additional costs due to emergence of complex needs (e.g. revise curriculum)

The costs of foregone provision include:

- Falling government revenues / education spending
- Foregone tuition/school fees
The costs of temporary education provision include:

- Provision of temporary structures
- Provision of learning materials
- Provision of teacher stipends
- Provision of cash transfers / safety nets

How these short to medium term costs, as well as the long term costs, follow from the impacts of shocks on the education system, students, teachers, and physical infrastructure is illustrated in the analytical framework in Figure 3.1.

Quantifying these costs is a persistent challenge due to a lack of consistent reporting and cataloguing of the impact and associated costs of crises to education systems. Data coverage is strongest for the costs of physical infrastructure, replacement of learning materials, recruiting and training new teachers, and salary costs for missed days of teaching (Nicolai and Hine, 2015). It is also possible to gather data on aspects of temporary provision (such as temporary structures and teacher stipends) and to calculate levels of foregone tuition / school fees, where these apply. However, there are also considerable data gaps and measurement challenges around aspects such as system breakdown, loss of key records and personnel, temporary programming (including complex needs, mediation and cash transfers / safety nets), and losses to the system associated with falling government revenues and education spending. The below costs, further detailed in Annex 4, identify cost ranges drawn from the literature, including PDNAs, and a survey of Save the Children and members of the Start Network.

In terms of the costs of restoring the education system, rebuilding a destroyed school building can cost between US$35,000 and US$4.8 million per school, depending on the country, and the cost of repairs to a damaged school building has a wide range of anywhere between US$13,000 to US$380,000 per school. It costs an estimated US$5,000-US$30,000 per school to replace learning materials and equipment, US$10-US$20 per new textbook, and US$300-US$8,825 to train new teachers, not to mention the cost of pensions or compensation for teachers or their families affected by death, disablement or trauma. Mediation to end school occupation can cost US$1,000 to US$2,000 or more of staff time. The breakdown of systems and replacement of key personnel and records will vary widely depending on context, but estimates from surveyed personnel suggest cost figures in the range of US$2,000 per Ministry of Education office and US$500 per staff member lost respectively.

The short-term costs of the foregone provision of education include a 0.6% to 11.4% reduction in annual public expenditure on education due to falling government revenues and US$0.75-US$3.80 per student per lost teaching day due to foregone tuition or school fees due to school closure or student absence.
The costs of temporary education provision are approximately US$1,420 per 42 square meter shelter for the provision of temporary structures and US$4 per pupil for the provision of temporary learning materials. Temporary teacher stipends can cost between US$234 and US$2,600 per teacher, per annum. The cost of the provision of cash transfers and safety nets will also vary widely by context, with estimates from a Save the Children program in Lebanon suggesting a guide figure of US$102 per month for a family of five, including three children.

For more detail on quantifying the short to medium term costs of shocks and disruptions associated with the three categories above, and information on the extent of current data availability, how estimates were made, and sources of data, see Annex 4.

3.2 Quantifying the long-term costs of shocks and disruption

There is strong empirical evidence that the long-term returns to education are positive, often high, and outweigh the costs of provision. These returns have three main sources: higher rates of personal income and economic growth;20 lower health costs (particularly for female education);21 and a greater chance of social stability.22 These economic and health returns are particularly strong in low income countries, which are more vulnerable to shocks and less able to respond effectively to their impacts. Figures from the International Commission on Financing Global Education Opportunity (2016) suggest that in low income countries, every US$1 invested in an additional year of schooling produces a return of US$10; US$5 in additional earnings and US$5 in improved health outcomes (Schäferhoff et al., 2016).

There are, therefore, strong theoretical reasons for believing that shocks whose impacts prevent children from accessing education will create long-term costs for the populations affected.23 However, estimates of the return to education vary widely, as do estimates of the long-term impact of shocks, creating challenges for accurate quantification of the long-term costs of shocks and disruption.

Shocks and disruption create long-term social, economic, and health costs through three main channels:

- Gaps in education attendance/provision leading to lower levels of educational achievement and learning outcomes;
- Permanent reductions in cognitive ability due to shocks leading to persistent malnutrition; and
- Permanent increase in out-of-school children due to the shock and disruption resulting in:
  - Increases in early marriage & childbirth;
  - Increases in child labor dependency; and
  - Student recruitment into armed forces / rebel groups.

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20 See estimates and analysis in Patrinos et al. (2006), Patrinos and Psacharopoulos (2013), Thomas and Burnett (2013) and Schäferhoff et al. (2016).
21 See estimates and analysis in ICRW (2005), Klugman et al. (2014), Patton et al. (2016) and Schäferhoff et al. (2016).
In terms of quantification, permanent reductions in cognitive ability due to persistent malnutrition costs an estimated US$10.26 to US$27.35 per annum per affected child, and the cost of lower levels of educational achievement and learning outcomes due to gaps in attendance and provision are also significant. For example, it is estimated that lower levels in education due to shocks cost the DRC US$470 million, or 1.5% of GDP, and Pakistan US$2.9 billion, or 1.3% of GDP, from 2009 to 2012. The educational achievement gap due to education disruption is estimated to have cost Syria US$1.26 billion, or 3.1% of GDP in the period from 2011 to 2015. Further, the permanent increase in out-of-school children is estimated to have cost the DRC US$53 million to US$107 million (2009-2012), Pakistan US$440 million to US$1.5 billion (2009-2012), and Syria US$2.18 billion to US$10.7 billion (2011-2015).\footnote{See Annex 4, Table A4.2 for long term costs and sources.}

It should be noted that these calculations are highly sensitive to the length of disruption experienced by the education system. The longer the gap between the shock and education provision/access being restored, the greater the reduction in educational achievement and learning outcomes, the more children are exposed to persistent malnutrition, and the higher are the chances that children will drop out of school permanently.\footnote{See Denney et al. (2015) and Sahbani et al. (2016) on early marriage and childbirth.}

Further, the longer the disruption, the more costly it will be both in terms of the long term impact and the more immediate costs of remediation. It is clear that the long term costs of disruptions are correlated to the duration of disruptions because duration affects educational attainment. However, short and medium term costs are also affected by the length of disruption. The more immediate costs continue to add up if short and medium term impacts are not addressed.
4 Assessment of the Economic and Social Costs of the Current Approach

4.1 Persistent failures in prioritization and coordination of education sector DRR and response

Education systems suffer from low prioritization in terms of both risk management and shock response, leading to a lack of system resilience and less effective response, further exacerbating the impacts of shocks and disruption. At the national level, a lack of understanding of risk, low levels of capacity, and low political prioritization mean that many countries’ existing national education plans contain relatively little contingency planning for crisis situations, while national emergency plans generally do not contain detailed guidance on forging an education response. Alongside this, few countries have made significant investments in disaster risk reduction. This is amplified by poor coordination between development and humanitarian agencies, explored further below, which leads to unpredictable funding and limits the resilience of education systems to shocks (Global Partnership for Education, 2015; The Payout for Perils Working Group, 2017; Nicolai et al., 2015; Overseas Development Institute, 2016; Winthrop and Matsui, 2013).

The challenge of funding education in emergencies is widely recognized. Allocations to education have averaged 2.1% of all humanitarian funding over 10 years, and the target level of 4% has never been achieved in a single year (Overseas Development Institute, 2016; Poole, 2014; United Nations, 2012). This is despite rising education needs, as measured by share of funds requested through the Consolidated Appeals Processes (CAPs) (Sparkes et al., 2014). This phenomenon occurs within the broader context of consistent shortfalls in funding humanitarian appeals, a problem that is particularly acute for “forgotten crises” that do not receive global media attention. Education is seen as a low priority sector, and, therefore, funding in the context of shocks is low relative to need.

Beyond the problem of low funding allocation, a key challenge for the education sector in emergencies is the sharp divide within the current architecture between development and humanitarian activities. Humanitarian funding is unpredictable and operates on short-term humanitarian timelines and priorities – including a specific focus on life-saving activities – that cannot easily integrate or reflect education needs and lacks the systems necessary to achieve them. Development agencies are unable to fill the gap, as their support is generally provided through long-term funding, channeled through government mechanisms, and focused on supporting the development of education systems. Additionally, in fragile or humanitarian contexts, they are generally hesitant to disburse funds due to a lower tolerance for financial risk and stricter reporting requirements than are applied to humanitarian funding (Global Partnership for Education, 2015; Overseas Development Institute, 2016). Funding for education in emergencies therefore slips between the gaps in humanitarian and development assistance, undermining investments made in education systems and causing significant damage to the education outcomes of poor and vulnerable children worldwide.
A secondary driver of failures in the current system, poor planning and preparedness, exacerbates the problem of unpredictable funding. A lack of understanding of the risks to education systems results in low prioritization, an absence of planning, and low capacity and knowledge. Several different mechanisms and approaches are being pursued to resolve these coordination issues, including the incorporation of contingency planning into education sector plans and the creation of national coordination bodies in several crises. However, their effectiveness is limited at present. There is an absence of adequate national contingency planning, and many national coordination mechanisms act largely as venues for reporting decisions after the fact rather than genuine venues for joint planning (Nicolai et al., 2015; Overseas Development Institute, 2016; Winthrop and Matsui, 2013). Underpinning these failures in coordination is a lack of financial preparedness, meaning an absence of assurances as to what funding will come in and when. While many education sector plans mention risks to the education sector in passing, there is not a consistent approach to risk analysis across GPE partner countries. Interim education sector plans demonstrate a more consistent approach and a deeper understanding of risk, and the detail and context specific nature of the interim education sector plans offer an example of work to build resiliency into planning. However, although interim plans are useful in the face of future unpredictability, they are often developed after an initial shock. Without bringing quantitative risk assessment and financial preparedness into the picture, planning exercises cannot develop beyond theoretical paper-based exercises, as no one can say for sure what they will or will not be able to deliver (Clarke and Dercon, 2016).

4.2 Quantification of costs of current approach in relation to specific crises

Quantification of the costs of the current approach is challenging due to both considerable data gaps (as noted in previous sections) and the question of what a fair counterfactual would be. In this section, we have taken the simplest route, which is to look at the data available from specific, recent crises and compile a total cost based on a combination of uninsured costs (e.g. destruction of schools and equipment) and costs exacerbated by slow response (e.g. lost teaching days, rise in out-of-school children etc.) This will also act as the baseline cost against which we will, in section 6, attempt to quantify the potential savings associated with moving to an ex ante financing approach.

Tables A4.5 and A4.6 in Annex 4 summarize the existing cost data for a number of recent crises. Although these are drawn from only a limited number of contexts, they give an idea of the scale of costs in different contexts and outline the likely differences in costs between crisis types. It is clear from these estimates that the economic and social costs of shocks to the education system are substantial under the current system, despite considerable variations across crises and contexts. A number of striking trends also emerge from this analysis.

Firstly, the long-term socioeconomic costs of foregone schooling (i.e. gaps in education access due to the emergency and a permanent rise in out-of-school children) are far more substantial than the costs of immediate damage to the education system. This suggests that shortening the gaps in provision will have a significant impact on the overall costs of a shock. Secondly, across all of these crises, the cost of damage to infrastructure and materials is far more significant than costs associated with lost teachers. These costs may therefore be particularly important to insure, although it should be noted that some forms of crises (e.g. famine, epidemic disease etc.) are likely to have minimal impact on physical infrastructure.
It should be noted, however, that due to a lack of data, our estimates in this section do not include costs such as disruption to education administration due to the breakdown of systems and the loss of personnel and records, economic impacts of the crisis leading to reduced government revenue and spending on education, or the psychosocial impact of disasters on students. The enumerated costs may therefore underestimate the true economic and social costs of the current approach to crises.

For a detailed table on the impacts and costs along a number of vectors for conflict shocks for which this data is currently available, please see Annex 4.3. In addition, the impacts and costs along a number of vectors for large natural disasters for which this data is currently available are presented in Annex 4.4, where the total immediate cost of the shock is also given, along with disaggregation by unit wherever possible.
5 The Potential Benefits of Moving to an Ex Ante Approach Using Structured Risk Management Tools

As described in earlier sections, the education sector does not fare well in crisis contexts. Maintaining education after an emergency is often not seen as an immediate priority, so additional financing is either unavailable or inadequate. Risk financing has the potential to contribute to addressing a number of the gaps and deficiencies within the existing global response architecture, thereby contributing to more resilient education systems worldwide for delivering education in post-disaster, protracted crisis and fragile contexts.

A comprehensive and structured disaster risk management approach can build resilience to external shocks based on understanding and reducing hazard, exposure and vulnerability, as well as coordinated and pre-agreed post-disaster plans that are backed by effective financial protection measures (The Payout for Perils Working Group, 2017). In a recent book, Clarke and Dercon (2016) outline the key elements of an effective approach to risk management. Such a comprehensive approach is increasingly being recognized as best practice and integrated into design and implementation of risk financing solutions across a range of development actors and programs (e.g. African Risk Capacity, Start Network Drought Financing Facility). The framework below is adapted from this best practice and comprises three main parts: risk assessment, contingency planning, and risk financing.

5.1 Improved risk awareness and risk recognition

The fundamental starting point for a structured risk management approach is risk assessment, equipping the involved parties with a scientific and quantitative understanding of the hazards in their areas of operation. Where possible, vulnerability and exposure information is combined with hazard information to estimate the likely impact of particular hazard events both under particular scenarios (e.g. the recurrence of a historical event) and from a probabilistic perspective. This assessment and quantification of risk allows planners to understand the particular risk from different crisis types to a given education investment or system and the likelihood of that investment or system being undermined or thrown off course. This risk recognition in and of itself is a valuable exercise. Such exercises shift the conceptualization of natural disasters and crises from an unexpected surprise to a quantifiable and anticipated event. Such analysis can reveal the hidden liabilities facing an education system and support action to reduce or prepare for those liabilities, including destruction or damage to infrastructure and educational personnel.

5.2 Improved risk management

The second feature of a structured risk management approach is a coordinated plan for post-disaster action agreed in advance. The response plan explicitly defines stakeholder responsibilities (who or what will be protected, against what, and who will pay for what), supported by a clear decision process. This process differs from traditional pre-disaster planning by combining operational and programmatic planning with clear financial preparedness to ensure that response plans can be delivered in the event of a crisis. The financial incentives act as glue to bring different stakeholders together around the table to discuss
(and agree on) how their various needs and priorities could be built into the payout mechanism. The approach also works to clarify risk ownership, for example between a sovereign government, development and humanitarian partners, individuals, households and communities.

Once response plans for different risk scenarios have been agreed and costed, *ex ante* financing is arranged to be released in the event of a shock. After saving, the most common form of *ex ante* risk financing is insurance, a transaction in which a risk holder (individual, business etc.) pays a relatively small premium, based on risk and extent of cover, on a regular basis to a risk-taker (insurance company) who is then contracted to provide a relatively large payout should a covered event occur (e.g. car accident, natural disaster). In indemnity insurance, the size of the payout is dictated by the size of the actual loss, so that, for example, a damaged building is repaired back to its prior state. In parametric (also called index-based) insurance, the amount of the payout is dictated by an objective measure of the causal event (e.g. the speed of the wind in a cyclone).

There are two basic differences to consider between these types of insurance with regards to their suitability as risk financing mechanisms for the education sector. First, the speed of an insurance payout will be much quicker with parametric insurance because an event’s occurrence is simply recognized and verified, while with indemnity insurance, loss adjustment has a high cost and results in payment delays. One of the key benefits of risk financing for mitigating and recovering loses in the education sector is the timeliness of funding, and fast payment is fundamental to its value. Therefore, since the timeliness of funds post-shock significantly decrease the long-term costs of disruption and improve educational outcomes, parametric insurance is the best fit in the education context. The simplicity and speed of parametric insurance comes at the cost of basis risk, which is the risk that event triggered payouts may not relate accurately to actual loss; however, this risk is worth bearing where the speed and predictability of payment is paramount. Further, the education sector currently approaches all risks as basis risks, so any shift towards predictability will reduce status quo basis risk. Of additional note are the relatively lower data requirements of parametric insurance products, since event triggers are transparent, relatively predictable, and based upon homogenous hazard data.

Other forms of *ex ante* risk financing include contingency funds, pre-defined budget re-allocation, contingent credit lines, and alternative risk transfer mechanisms such as catastrophe bonds (which package risk such that it can be held within the larger capital market space rather than just in the restricted reinsurance space).

Risk financing generally takes a layered approach, providing flexibility to use different mechanisms to respond to different severities of events (and different quanta of financing required) and on different timescales (relatively small amounts of financing available and deployed quickly often significantly reduce the overall negative financial impact.) Figure 5.1 illustrates this approach in a visual way.
Figure 5.1  Risk financing tools and optimal usage relative to quantum and timing of financing requirements.

It is important to note that eliminating, or at least reducing, risk is almost always the most cost-effective risk management strategy. A structured risk management approach will balance the long term value of disaster risk reduction (DRR) measures such as building more resilient classrooms or investing in community-level preparedness versus financial preparedness measures such as purchasing insurance. Investments in DRR in particular can result in lower costs of insurance premiums, thereby resulting in a direct financial incentive to invest in such measures.

5.3  Improved response

Investments in the scientific understanding of risk, combined with operational and financial preparedness, are designed to promote careful risk management and preparedness for potential crises. The first outcome of such an approach is to bridge the traditional development-humanitarian divide. As explained previously, part of the deficit in funding availability for education during and after shocks can be attributed to the difficulties in linking short-term emergency activities to longer term needs. Humanitarian priorities have traditionally involved a specific focus on life-saving activities that cannot easily integrate medium or long term education needs, or the systems necessary to achieve them (Overseas Development Institute 2016).

A structured risk management approach quantifies the inadequacies of leaving investments in education systems exposed to a range of hazards. This promotes the creation of shared, coherent goals to protect investments in education systems. *Ex ante* financial instruments would allow development agencies or
governments to pre-commit funds in the event of a shock, in a secure manner that would allow them to be disbursed rapidly to pre-agreed actions, in contrast to using traditional, more gradual funding channels. The capacity to pre-commit – perhaps through a mechanism covering multiple contexts – might also allow more funds to be channeled to “forgotten crises”, as they would be based on pre-agreed and objective criteria, and less reliant on the media profile of the crisis or geopolitical considerations. Recent analysis on the potential for using risk financing to support the Central Emergency Response Fund (CERF) of the UN particularly emphasized the potential these mechanisms have in closing these gaps – subject to resolving potential challenges that are explored in later sections (Filipp and Giudice, 2016).

Finally, *ex ante* financing can also result in improved timeliness of response to a shock. Rather than passing around the ‘begging bowl’ for post-disaster donations that arrive gradually over time, pre-positioned financing can be released immediately in response to pre-agreed triggers, thereby substantially reducing response times (Clarke and Dercon, 2016). This will in turn reduce the length of time that students are out of school, and so the costs associated with lost teaching days and the economic and social costs that result can be mitigated.

### 5.3.1 Modalities of risk financing

We can identify four levels at which risk financing could operate:

- Directly at the sovereign level, working with the Ministry of Education and Ministry of Finance to build the long-term resilience of an Education Sector Plan;
- At the sub-sovereign level, working with local or regional governments and communities to build resilience from the bottom up;
- At the project level, via an additional load on project funding to increase resilience both during project implementation and beyond; and
- At the partner organization level, to provide a larger pot of pooled funds that could be deployed across multiple projects and countries to meet specific partner or globally-identified needs.

There are benefits and challenges associated with implementing risk financing solutions in each modality. The type of crisis and potential funding requirement being financed may dictate which modality is most likely to be effective. For example, natural disasters may be managed at the sub-sovereign level, but infectious disease impacts can quickly extend to whole countries and across borders, so sub-sovereign or project-specific risk financing may not be appropriate. Working with sovereigns in fragile or conflict-ridden areas may be impossible, with partner-led risk financing solutions the most feasible modality.

Considering potential risk financing solutions in three different parts can lead to insights as to which modality – or modalities – may be most appropriate:

- **Risk ownership and coordination of preparedness planning:** Establishing risk ownership is critical in developing a holistic risk management approach. Sovereign legal obligations and duties of care may or may not outweigh community fellowship or global imperatives. Owning risk leads to obligations to finance risk reduction and disaster response, as well as obligations to coordinate preparedness planning.
Financial channel: Risk financing cannot occur in a vacuum, and it must be blended into general budgetary and financial management processes, utilizing established channels for smooth flow of funds from source (e.g., insurance payout, contingent credit funds, new budget line) to implementing line ministry, agency or partner. For example, when Senegal’s drought insurance policy with the African Risk Capacity (ARC)26 triggered in late-2014, the payout flowed to the Treasury within weeks, but onward transfer of funds to the line ministry responsible for executing the pre-planned response activities was delayed due to the lack of appropriate mechanisms and experience. Learning from this, the Treasury developed internal guidelines and rules for off-budget flows to line ministries, which are now being shared amongst ARC peers.

Implementation of financed activities: Pre-planned response activities must be effectively implemented, potentially by different actors to those owning the risk or facilitating the financial flows. Implementation could include state and international actors, NGOs and CSOs, and even the private sector, and understanding how implementation will happen can help to identify the most appropriate risk financing modality. Niger’s contingency plan for use of ARC payouts, put into action in early 2015, included the use of multiple NGOs and CSOs to deliver services to recipients of assistance after recognizing a lack of capacity within the government and strong experience in the NGO sector.

It is also important to draw on experiences with risk financing in other sectors. At present, sovereign level schemes are the most commonplace (examples such as African Risk Capacity, the Caribbean Catastrophe Risk Insurance Facility and FONDEN in Mexico are further described in Annex 1). Project level risk financing is not yet well established in the development space, but it is being actively discussed to protect public infrastructure and agricultural investments, amongst other things, and is commonplace in the developed world. At the organizational level, Start Network, individual NGOs, and the UN system (as a whole and individual agencies) are all discussing risk financing as an integral part of re-tooling humanitarian and development financing to better build resilience.

5.3.2 Risk finance design

Risk financing must form part of a broader risk management approach to building resilience in the education sector, so integration with core budgetary and planning processes is critical. Integrating risk finance instruments into education planning and tying payouts to specific, pre-agreed actions is likely to both give donors more confidence and ramp up the likelihood payouts are used properly.

Leveraging Local Education Groups to integrate resilience into Education Sector Plans, including through contingency planning for disasters, provides a strong foundation. Although some education sector external funding takes a project-based approach rather than working through the sovereign budgetary processes, long-term resilience is likely to be best served through close coordination with, and capacity building for, national and community actors working for or closely alongside the Ministry of Education. Where there is already ring-fenced funding for the education sector budget, such as in Burundi and Burkina Faso, risk financing through the sovereign specifically for education needs is likely to be implemented effectively. There is also recent experience in Malawi which demonstrates that payouts from sovereign level risk transfer instruments (in this case an ARC drought insurance policy) can be isolated so that pre-agreed contingency plans for response can be fully executed using the payout funds (in the Malawi case flowing

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26 A risk pool launched by the African Union to pool catastrophe risk.
to the Disaster Management agency which was the pre-agreed lead for implementation of the activities in the contingency plan).

Risk finance can also add to existing funding, rather than replacing it. A modality could be an additional top-up to a grant or project budget to cover specific risk management investments (which may include risk reduction and risk transfer) both during the grant or project and for a sustained period thereafter (as clearly defined additional financing). In this way, risk is recognized and addressed, and the resilience dividend is passed on to the communities and countries in which the investments are being made. This approach is very similar to the concept of a ‘crisis modifier’, a portion of a project budget set aside for addressing predictable crises. Risk transfer in particular can mitigate several of the challenges faced by the crisis modifier approach, including more efficient use of capital, more rigorous risk assessment, and increased discipline in enacting pre-agreed rules for flow and use of funds. In all cases, it must be recognized that additional, not re-programmed, financing must be made available to invest in resilience.

At the level of an institution such as GPE supporting multiple investments, the crisis modifier at the individual grant level could be funded through pooled resources in a dedicated fund, which could be fully, or partially, leveraged through risk transfer to enable greater capital flow than is likely possible or efficient to be held as ring-fenced contingency funds.

### 5.3.3 What might be the pre-requisites for piloting?

As further elaborated in Annex 1, we can identify five key elements that need to be in place in order to operationalize pilot risk financing programs.

- **Risk information**: Adequate information needs to be available for the education sector to assess risk frequency and severity with sufficient confidence to obtain beneficial pricing of risk by potential ultimate risk takers.
- **Cost of capital**: The identified modality and projected cost of a particular risk financing tool, as a vehicle to access capital when needed after a disaster, must be cost-effective compared to the status quo or to alternatives.
- **Timeliness**: The selected instrument and modality of engagement with the education sector must be able to make funding available at the right time, which in almost all cases will be quickly following a disaster or onset of a crisis. A cost-benefit analysis for ARC’s program\(^{27}\) demonstrates that a dollar spent on ARC is equivalent to 4.4 dollars in traditional appeals-based ex post humanitarian financing, those benefits being derived largely from the timeliness of response facilitated by ex ante risk financing.
- **Discipline**: The instrument must support post-disaster spending discipline, accountability and transparency.
- **Ownership**: The instrument must be used within a setting in which risk ownership has been clarified and is embedded in national, local or organizational strategies for both general education sector development and specific disaster response.

The Task 2 Report addresses these issues both generally across the range of GPE partner countries and specifically for some case studies / potential pilot programs, applied to natural disaster risk situations. The Task 3 Report reviews the same in the context of political risk situations, in order to evaluate what types of risk financing solutions are applicable.

5.3.4 How can risk financing be additional rather than simply reallocation?

Education in the development space is dramatically under-funded in normal circumstances, with emergencies simply amplifying this. Risk is not accounted for, either in sovereign budgeting processes or, generally, in support flowing from donors and multilateral development agencies. Reducing core budgets to pay the costs of risk financing has an high political cost, as the consequences of not pre-financing future losses rarely affect an incumbent politician (and, perversely, may actually be politically advantageous if even grossly inadequate and late funding flows in post-disaster).

The failure to recognize and mitigate unfunded risk in the education sector can reverse progress made in the sector. The burden of unfunded risk is compounded largely through slower economic development (the costs of inadequate short-term response being pushed on to future generations, which will require more assistance from development partners than they would otherwise have done) but also through triggering migration and unrest, creating security implications and costs. Therefore, the case can be made that risk financing must be additional, so that it can contribute to overall resilience and protect specific education investments.

5.4 Projected outcomes and quantification of economic and social benefits

In principle, there is increasing agreement that improving risk awareness and recognition, along with increased investment in risk management, can create a more effective response through greater coordination and increasing the speed and scale of funding in the immediate aftermath of a crisis (Figure 5.2). Ten years of experimentation by sovereign catastrophe risk pools have generated some evidence and learning to support this, although there is still a great deal more monitoring and gathering of evidence to be done.²⁸

However, assessing and quantifying the benefits in terms of the impact of improved response, in lowering the economic and social costs from shocks is much more challenging, due to an absence of strong empirical evidence to demonstrate this. This absence is rooted in a lack of historical focus on demonstrating these forms of outcomes, the difficulties of adequate data collection in fragile and crisis contexts, and the absence in most cases of viable counterfactuals to demonstrate results against. Many of these factors are also likely to be highly context specific and so are hard to give meaningful estimates for. Figure 5.3 provides a framework for the conceptual impacts of structured risk management on education costs.

These challenges apply particularly to estimating the scale of additional funding that might be secured and elements such as risk planning, investment in DRR and improved coordination. For this section, therefore, we concentrate on the elements that we have the strongest available empirical data for and are best able to model, focusing on the potential benefits of insuring physical infrastructure and improving the speed of

the response. These are applied to the data from the example political shocks given previously, to allow comparison with the costs of the current approach, and can be seen in more detail in Annex 4.

That part of the benefit of risk financing which is quantifiable, captured through shortening of education delivery gaps post-shock, suggests substantial savings in long-term socio-economic costs. The scale of these savings depends on the extent to which the delivery gap closes because of additional financing and improved response coordination. Running a series of scenarios on recent examples of crises demonstrates that these vary from a 5% reduction in the delivery gap resulting in savings equivalent to 15.7% of the direct costs of the crisis in Syria, to a 50% reduction in the delivery gap resulting in savings equivalent to 77.89% of the direct cost of the crisis in Pakistan. In most scenarios, the bulk of the savings relate to the avoidance of gaps in learning that would limit overall learning outcomes and educational attainment. However, in specific crises a substantial proportion of savings was the result of reduced gaps in provision helping to prevent students from permanently dropping out of school following the crisis (see Annex 5 for full tables of the scenarios).
Figure 5.2  Conceptual outcome pathway for risk financing in education.
Figure 5.3 Conceptual impacts of structured risk management on education costs.
The potential long-term benefits are therefore substantial; however, several caveats should be borne in mind when looking at these figures:

- We assume that increasing the scale of funds and the speed of their disbursal will result in a faster and more effective response. This sets aside questions of the extent to which capacity limits – in terms of systems, personnel and materials - may hamper a response regardless of the level of available financing.

- Limits to the payouts for damage to capital assets and other direct costs will the extent to which these costs are compensated for and so the likely impact in terms of overall savings.

- We model using a baseline of a 5%, 10%, 25% and 50% reduction in the number of teaching days lost in order to give an indication of potential gains at relatively modest levels of improvement in the response. This scenario is speculative in the absence of precise data on the actual improvement in the speed of response that could be expected.

- These figures are likely to underestimate the true benefits of a structured risk management approach, as they do not incorporate benefits that are harder to quantify using existing data, such as:
  - Reductions in initial damage to infrastructure, materials or the teaching workforce associated with improved risk awareness, recognition, management and investment in DRR.
  - Reduced complexity of response due to early response and improved contingency planning.
  - Improved efficiency due to greater planning and coordination between humanitarian, development and state actors (through the avoidance of duplication, economies of scale etc.).
  - Improved health outcomes associated with improved education outcomes.
  - Improvements in psychosocial wellbeing associated with an early return to education and curricula specifically designed for students who have experienced trauma because of the shock.
  - Reductions in long term economic and social costs from lower levels of malnutrition due to the provision of cash transfers and school meals.

29 The African Risk Capacity limited available financing to US$30 million in its early years due primarily to known capacity constraints within sovereign government participants to deliver response in an efficient and timely manner, required to capture the benefits of risk financing. In most cases, this restricted the contribution of ARC’s risk financing to overall needs to less than a quarter. In the equivalent programs in the Caribbean, CCRIF, and the Pacific, PCRAFI, governments use insurance to cover only a small portion of post-disaster needs, typically 10% or less.
5.5 Limitations, challenges and risks associated with risk financing for education

A key limitation to the potential impact of risk financing mechanisms is the extent to which there is existing capacity to develop an adequate response plan for use of financing and to carry it out following a crisis. The lack of political prioritization for education in emergencies, and particularly for contingency planning, has been widely noted. Alongside this there is a challenge of poor capacity, knowledge and skills to respond to shocks to education systems, creating challenges in formulating and carrying out response plans (Overseas Development Institute, 2016; Winthrop and Matsui, 2013). The process of establishing and operationalizing a risk financing mechanism might therefore involve a considerable front-loaded investment in improving capacity and specialist knowledge, depending on the context. There are also concerns that ex ante risk financing, and particularly risk transfer, can create moral hazard (the disincentivization of pro-active loss management before or during a crisis because response funding is already arranged), which must be addressed appropriately through program design and implementation. There would therefore have to be clearly defined and significant benefits for the state in question to be sufficiently interested in engaging with and establishing the mechanisms, as well as clear incentives (either by program design or broader political pressures) to continue to engage in pro-active loss management.

One potential approach that would avoid some of these issues would be for the insurance to be held by GPE – covering specific contexts and developing plans in concert with the governments and other stakeholders, through government-led local education groups (LEGs) and / or the education sector planning process. However, while this would resolve some of the issues of planning capacity, the issue of implementation capacity would remain. This applies not only to state capacity, but also the capacity of humanitarian agencies and national NGOs / CSOs that would be involved in the response. Concerns over the extent of existing capacity have been noted frequently in recent years, despite the ongoing efforts of the Inter-Agency Network on Education in Emergencies to spread knowledge and good practice, and the role of the Global Education Cluster Rapid Response Team in providing skills directly (Global Partnership for Education, 2015; Nicolai et al., 2015; Overseas Development Institute, 2016). It should therefore not be assumed that an increase in the speed or scale of early response funding will translate evenly into a faster or more effective response on the ground. The absorption capacity of both the state and non-state actors involved in the response will play an important role in this. The capacity gap is also a problem that risk financing cannot easily address, as it requires long term capacity building that is less tractable to funds provided in response to specific crises. However, risk financing can provide appropriate incentives through driving recognition of risk ownership, which then translates into tangible benefits to the risk owner for better preparation for and implementation of response.

The challenges outlined above emphasize that while risk financing may provide a solution for some specific gaps in the architecture for education in emergencies, its impact will be dependent on broader issues such as capacity within the state and responding agencies. It should therefore be viewed as one of a constellation of mechanisms that is needed to tackle the range of challenges and gaps in the current domestic and international architecture for responding to crises in education. In this vein, it is important that support for risk financing represents genuine additional funds – rather than diversions – as otherwise there is a risk that a shift in funding will help risk financing close one gap while others are widening.
In addition to these issues, there are a number of risks that specifically arise from risk financing mechanisms. These are not necessarily insurmountable, as can be seen from the success of CCRIF, ARC and PCRAFI, but should be borne in mind when considering the role that this mechanism could play. One aspect is the need for reliable payment of the insurance premiums — whether this comes from national governments or development agencies. Filipp and Giudice (2016) note that long term pledges and insurance contracts are optimal from an insurance perspective, but that it may be hard for donor agencies to make these commitments significantly in advance. While shorter contracts may therefore be optimal for donors’ ability to commit, it also raises a challenge of support for the mechanism being undermined if payouts do not occur during this period or are of a relatively low value compared to premiums and expectations. Risk financing mechanisms must therefore walk a fine line between being appealing enough to attract sufficient funding and effort from state and development agencies, while managing expectation to ensure that the absence of a payout — or payouts that are either disputed or at a level below expectations — do not undermine confidence in the mechanism prematurely (Filipp and Giudice, 2016).

Finally, an additional challenge to overcome is the monitoring of impact of any such mechanisms that are established. The application of risk financing instruments as a development financing tool is still relatively young, and requires further learning as to which tools are most effective in which contexts. It is particularly important that the establishment of a risk financing instrument is not seen as an end in itself, but that payouts are closely monitored to assess the outcomes in improved response, and the impact on minimizing disruption to education systems.
6 Conclusions and Recommendations

Investments in education are at risk from both natural disaster and political shocks. The increased resiliency that a structured risk management approach can provide GPE partner countries has the potential to unlock additional funding for the education sector and increase the cost-effectiveness of investment.

Risk models equip planners with a scientific understanding of the hazards, exposed value at risk and their inter-related vulnerabilities, which provide a comparative context in which to quantify the frequency and severity of unexpected events and their consequences. Through appropriately designed risk assessment and prior planning, disaster risk financing can improve the resilience and response to natural perils such as earthquakes, floods, storms and the slower-onset hazard of drought, as well as political shocks such as civil unrest, violent conflict, negative macro-economic events and forced displacement of populations.

Contingency planning that is coordinated and agreed in advance, in conjunction with pre-positioned finance, leads to more a timely release and implementation of funds, reducing the overall cost of shocks to the schooling system and protecting investments. The long term benefits incurred by the immediate response to shock that an effective structured risk management approach can provide results in some of the most significant cost reductions of shock impacts. Costs are reduced by preplanning in the short and medium term, and they are further reduced as a result of the more rapid response that risk financing provides. The shortening of the gap in education provision following a shock mitigates the socio-economic costs of poorer learning outcomes due to foregone schooling and reduction in enrollment following disruption. Further, a reduction in the duration of educational disruption can lead to a decrease child labor dependency, early marriage and childbirth, and student recruitment into armed forces or rebel groups.

Overall, therefore, risk financing mechanisms appear to be a promising avenue for development agencies and partners such as GPE to explore when considering their engagement with education in fragile or crisis prone contexts. However, there are a number of outstanding questions regarding the scale of the potential benefits, the use of parallel approaches or careful selection of contexts to avoid capacity traps, and optimum design of the risk financing mechanism to balance the needs and interests of the different actors involved. Piloting and further analysis will therefore be key to establishing how viable and useful these approaches will be for GPE and will be addressed in Task 2 and 3 of this report. Further suggestions and analysis relating specifically to the applicability of existing catastrophe risk models and risk transfer programs to education will be discussed in Task 2 of this report, and the feasibility of risk financing for political risk in the education sector will be discussed in Task 3.
References


