



Investment for education in emergencies

A review of evidence

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Key messages

This study, through a rigorous review of literature and analysis of selected case studies, provides a snapshot of what is known – and often not known – regarding investment for education in emergencies. It finds that:

- Existing evidence shows that communities, and children especially, prioritise education over and above a number of other issues in contexts of emergency.
- While emergencies clearly disrupt education, beyond some macro-level estimates at global and country levels, it is difficult to say by how much.
- The longer term economic and human capital costs of emergencies to education, while thinly researched, include estimates that reach the hundreds of millions – and even billions – of dollars.
- Though evident that low levels of humanitarian aid is going to education in emergencies, there is limited understanding of how existing funding catalyses or complements other sources.
- Case studies of Haiti and DRC illustrate that even when education is a high priority for communities after emergencies, funding for the sector can be very erratic.

A series of 10 recommendations then offer suggestions on further research that could help to secure and target investment for the sector more effectively.

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Abbreviations

Abbreviation Description

CAFS	Conflict-Affected Fragile State
CAP	Consolidated Appeals Process
CAR	The Central African Republic
CERF	Central Emergency Response Fund
CHF	Common Humanitarian Fund
CSO	Civil Society Organisation
DAC	Development Assistance Committee
DHS	Demographic and Health Surveys
DPC	Direction de la Protection Civile
DRC	The Democratic Republic of the Congo
EEPCT	UNICEF Education in Emergencies and Post-Crisis Transition Programme
EFA-FTI	Education for All Fast Track Initiative
EFA GMR	Education for All Global Monitoring Report
EPDC	Education Policy and Data Center
EQUIP	Education Quality Improvement Program
ERF	Emergency Response Fund
ERIC	Educational Resources Information Centre
EU	European Union
FTS	Financial Tracking Services
GoH	Government of Haiti
GPE	Global Partnership for Education
IASC	Inter-Agency Standing Committee

IDP	Internally Displaced Person
IFRC	International Federation of Red Cross and Red Crescent Societies
IMF	International Monetary Fund
INEE	Inter-Agency Network for Education in Emergencies
INGO	International non-governmental organization
INURED	Interuniversity Institute for Research and Development
JENA	Joint Education Needs Assessment
LIC	Low Income Country
LMIC	Lower-Middle Income Country
LPEPF	Liberia Primary Education Pooled Fund
MDTF	Multi Donor Trust Fund
MEPSP	Ministère de l'Enseignement Primaire, Secondaire et Professionnel
MICS	Multiple Indicator Cluster Surveys
NDRMS	National Disaster Risk Management System
NORAD	Norwegian Agency for Development Cooperation
ODA	Official Development Assistance
OECD	The Organisation for Economic Co-operation and Development
PBF	UN Peacebuilding Fund
PDNA	Post Disaster Needs Assessment
PTA	Parent Teacher Association
RESEN	Report of the National Education System of the DRC
SECOPE	Service de Contrôle et de Paiement des Enseignants
SHEP	Strengthening Higher Education Program
SMC	School Management Committee
SPF	World Bank State and Peacebuilding Fund
UIS	UNESCO Institute for Statistics

UNDP	United Nations Development Programme
UNESCO	The United Nations Organization for Education, Science and Culture
UNICEF	The United Nations Children's Fund
UNTFHS	UN Trust Fund for Human Security
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WDI	World Development Indicators
WFP	World Food Programme

Executive summary

Emergencies are a key barrier to meeting the global Education for All (EFA) and Millennium Development Goals (MDG). They will remain so as the new post-2015 targets set the development agenda for the coming years. Crises grossly infringe on the right to education, with estimates that half of the world's out of school children live in countries affected by conflict and, at any given time, many others are excluded due to natural disasters.

While more and more attention is being given to this issue, arguments to advance education in emergencies often draw on evidence at very different ends of the spectrum: macro level analysis (i.e. global numbers out of school) and more anecdotal sources (i.e. stories of children out of school in a particular crisis). However, a number of issues requiring more rigorous or nuanced evidence are often raised by those unsure in their support to the sector. Questions like, how much of a priority is education when there are so many other urgent needs? What do we really know about the extent of disruption to schooling and what this means for students? When it is provided, how does education in emergencies benefit students and communities? And how much funding can be leveraged from different sources?

This study, through a rigorous review of literature and analysis of selected case studies, provides a snapshot of what is known – and often not known – in response to some of these questions. Focused on investment related issues, its scope was not able to cover many other key education in emergencies themes: amongst these, psychosocial impacts, teacher education, and the role of non-state providers.

The work has been commissioned by Save the Children and was carried out by a multi-disciplinary team of researchers and advisers with expertise in education, economics, and political economy from the Overseas Development Institute (ODI).

This executive summary provides an overview the study's methodology, findings and related gaps, as well as resulting recommendations.

Methodology

The study's parameters were established in three ways: defining what to include under the rubric of 'education in emergencies', clarifying research questions to focus the review, and identifying appropriate source materials.

Following review of several recognised definitions of 'emergencies' and 'education in emergencies', a relatively comprehensive scope of these terms was accepted for the study. Where literature permitted, all levels of education would be included, emergencies across both conflict and natural disasters, and a range of emergency phases including acute, chronic and recovery periods. Emergencies outside the scope of this review included

long-wave events such as financial crisis, HIV and the more recent Ebola epidemic, climate change, and unplanned urbanisation. The research was also limited to low and low-middle income countries.

In terms of defining the question, while there was clear interest in looking at what available research tells us, there was an equal if not stronger interest to survey existing literature in order to inform focus and design of further research. This preference was based on the suspicion that while some robust evidence on these topics does exist, it is limited. This led to a framing of the study's overarching question as:

How can returns on investment to education in emergencies be identified, expressed and further explored across different types of emergencies and sources of finance?

To delve more deeply, four themes for review were identified. These included community prioritisation of education in emergencies, disruption to education in emergencies, measuring costs and returns, and exploring related sources of finance. These were then refined into a more detailed set of ten questions which are detailed in the study.

Through the course of the research a total of 53 studies were reviewed. The criteria for inclusion was provided by DFID's *How to Note: Assessing the Strength of Evidence*. The literature reviewed has a stronger focus on conflict situations over natural disasters, possibly due to the contributions of background papers and responses to the 2011 EFA GMR, which focused on armed conflict and education. Moreover, in line with the MDG framework, most existing research focuses on access, with little done on either education quality or equity. Analysis generally covers multiple countries rather than in depth analysis of the situation in one country or region. The exception to this is in terms of prioritisation where nearly all the research is country specific. There are no randomised control trials and limited quantitative analysis. The quality of the literature identified varies depending on the question and the type of emergency concerned.

In addition, two brief case studies, one on the situation in Haiti following the 2010 earthquake and one on the ongoing conflict in the DRC, were conducted to further contextualise our analysis of how communities prioritise education compared to other sectors and how education in emergencies was funded in different situations. For the case-studies, in addition to reviewing relevant literature, quantitative analysis was carried out on development and humanitarian financing for education.

Findings and related gaps

Existing evidence shows that communities, and children especially, prioritise education over and above a number of other issues in contexts of emergency.

There is a moderate body of evidence on this issue across a variety of emergency types. Six surveys, conducted in DRC, Ethiopia, Haiti, Sudan, South Sudan and Syria, were identified that directly asked affected people about their priorities following an emergency. Education was the top priority when children were surveyed and within the top 3 priorities amongst the studies consulting adults. Three pieces of research were found which

analysed cash transfer schemes, taking place in Haiti, Swaziland and DRC. Education was the 3rd and 4th highest expenditure evidencing a fairly high level of priority. In addition, one analysis of 19 different multi-country public opinion surveys undertaken in countries affected by conflict found that education is consistently cited amongst the top 3 problems facing these countries.

Exceptions to this level of prioritisation were found in two surveys of refugees from Syria and Cote d'Ivoire, where education did not feature highly. There are a number of reasons this could be the case, including the potential use of maladaptive strategies to supplement household income through child labour.

With a limited number of studies covering a relatively limited sample of the population, more robust and comprehensive research on prioritisation would strengthen these findings.

While emergencies clearly disrupt education, beyond some macro-level estimates at global and country levels, it is difficult to say by how much. Beyond global and country level estimates of children out of school due to conflict, disruption to education is addressed only in a small body of evidence, largely multi-country, which finds that emergencies correlate strongly with negative impacts on education. Seven studies were found, including five multi-country analysis and two country specific studies on Pakistan and Sri Lanka, which provide evidence on how conflict affects education, with most systematic research focused on reduced enrolment and attendance, despite the fact that data is often missing or of poor quality in such contexts. Additional impacts are explored less systematically: school closures, shortfalls in qualified teachers, psychosocial issues, damage to infrastructure, and reduced capacity to manage the education system. One multi-country study looks at how natural disasters have impacted education in terms of deaths and destruction or damage to schools.

Eight studies were found which highlighted that the effects of emergencies on education do not impact all groups equally, with girls and the poor frequently being the most affected. In addition, research shows that conflict appears to impact at the secondary level more significantly than primary, and that regional differences can be strong due to the localised nature of conflict.

There are, however, also several significant multi-country pieces of research that call into question the causal relationship between conflict and disruptions to education, pointing rather to underlying fragility within a country as a common cause of both conflict and weak education systems. While an important finding, correlation is perhaps as useful a concept as causation in this regard.

There is a gap in systematic research on disruption, including evidence that paints a fuller picture of enrolment and attendance, and lack of data that looks more closely at the scale and scope of other impacts. A closer look both at how different groups and different levels of education are affected would be useful.

The longer term economic and human capital costs of emergencies to education, while thinly researched, include estimates that reach the hundreds of millions – and even billions – of dollars. That said, these

numbers are speculative and very little was available on either the longer term costs of emergencies to education or the public and private returns when education is provided. Only two studies were found that addressed the long term economic and human capital costs of conflict: one on DRC, Nigeria and Pakistan, and the other on Cambodia under the Khmer Rouge and Germany and Austria in World War II. Another study looked at these impacts across a number of countries in natural disasters. Even minor shocks are found to have long term effects on human capital formation.

No evidence was found that specifically explores the public and private returns on investment to education in emergencies, although some explores fragile states (many which have experienced emergencies), and a larger body of literature looking at low income countries more generally. This evidence may be indicative of returns on investment in emergency contexts. Research tends to differentiate private returns along levels of education and gender, rather than income groups, showing that education for girls produces high returns in terms of maternal and child health and that returns are higher for higher levels of education.

There are research gaps in terms of the economic and human capital costs of more recent and current emergencies, and little that takes a longitudinal perspective on these. The complete dearth of evidence on public and private returns on investment to education in emergencies makes this a wide and important gap to fill.

Though clear that low levels of humanitarian aid is going to education in emergencies, there is limited understanding of how existing funding catalyses or complements other sources. A total of 20 studies were found that looked at some aspect of four sources of finance: humanitarian aid, development aid, domestic resources, and household expenditure. More detailed research is available on humanitarian financing, which in most situations is likely to be the smallest of these pots. While the absolute value of humanitarian aid to education has increased, in 2013 the figure was just 2%, half of the 4% target set by the UN Global Education Initiative. Of this, education response in natural disasters is much better funded than that in conflict settings. In some places, the situation is dire: half of conflict-affected countries that held appeals received 1% or less in 2013.

Surprisingly, while there is a fair amount of research that looks at the latter three of these sources, there is very little exploration of how these sources are used in emergency situations. This, despite the fact that domestic expenditure is the single largest source of funding on education across all types of countries. There is some limited evidence that household expenditure on education in emergencies is high and that development assistance education often comes online quickly post-emergency and runs parallel to humanitarian aid.

A better understanding of the catalytic and complementary nature of different sources of funding for education in emergencies is a clear need. More detailed analysis on development aid, domestic resources and household expenditure used in different emergencies would also be helpful.

Case studies of Haiti and DRC illustrate that even when education is a high priority for communities after emergencies, funding for the sector can be very erratic. The Haiti case shows an increased level of interest in education as opposed to other sectors following the earthquake.

In DRC, it was found that education was a high priority, with both community leaders and children rating this as a top need. A look at sources of finance shows that, in Haiti, the ability of the government to respond to the education crisis following the earthquake was severely compromised, which limited the use of domestic funds. However, the aid community stepped in, with humanitarian aid to education meeting 99% of requests to the education sector in 2010 and 110% in 2011 and commitments from development aid to education having dramatically increased. In DRC's case, evidence suggests that government funding for education is low, particularly in conflict affected regions. Development funding is an important source, however the amounts given to education do not meet the need and humanitarian aid for education has been incredibly weak, with only around 1% being directed towards education.

Further research could be useful to understand the incentives of humanitarian donors to fund education in natural disasters over conflict and acute crises over chronic emergencies, alongside a better understanding of other sources of finance available for the sector.

Recommendations

Given the strong indications on the priority of education for emergency affected populations, coupled with clear signs of short and long-term negative impacts of emergencies to both individuals and the broader society, significant additional investment in the sector is undoubtedly needed.

However, substantial gaps in knowledge identified by this review, also point to the necessity for stronger and more complete evidence in order to help secure and target investment more effectively. These recommendations offer suggestions on the kind of further research that could strengthen support to the sector, and better inform policy and practitioner decisions in coming years.

1. Greater **investment in data** is needed in order to gain a stronger picture across the range of issues covered in the review – prioritisation, disruption, costs and returns, and sources of finance.
2. In-depth **systems research focused on specific countries and regions** experiencing emergencies would add value at this point given gaps in data and a lack of nuanced understanding of what is happening in specific situations.
3. **Longitudinal research**, both current and retrospective, should be conducted in order to **capture trends during different phases and types of emergencies**.
4. Research conducted around disruption to education in emergencies **should go beyond analysis of enrolment and use mixed methods to look at broader issues** of quality, equity, psychosocial effects, and school to work transitions.
5. Given evidence of differing impacts of emergencies on different age groups, it is particularly important to **not only research primary education but also secondary and higher education** in emergency situations.
6. Research is sorely needed on the **economics of education in emergencies**, given that existing data and analysis in this area looks at low income countries more broadly.

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7. Research on the **returns to investment on different levels of education** in emergency situations could better understanding of public and private returns across early childhood education, primary schooling, secondary schooling, vocational and technical training and tertiary education.
 8. Analysis of **funding sources** to education in emergencies needs to look **beyond just humanitarian funding** to the role of domestic budget, household expenditure and development aid, looking as well at how these sources interact.
 9. Research carried out on the **incentives of different actors** to prioritise education in emergencies would help clarify and mitigate conditions the lead to the sector being at times underfunded and overlooked.
 10. Work could usefully be done on developing **theory(ies) of change for education in emergencies**, looking at how the various elements explored in this review can fit together toward improved education outcomes.

1 Introduction

Education in emergencies is a relatively young field both operationally and even more so in terms of research and evidence. While education efforts have been happening in response to conflict and natural disaster to some extent at least throughout the past century, it is only in the last ten years or so that global attention and cooperation around this issue began.¹

Widely cited figures state that half of the world's out of school children, around 28.5 million, live in conflict affected countries, with 95% of this number living in low and lower middle income countries, according to the latest EFA GMR. Girls comprise 55% of the total and are among the worst affected (UNESCO, 2014). We do not know how many children are out-of-school because of other types of emergencies such as natural disasters, but indications are that in the 1990s 66.5 million children were affected by disasters every year, and it was estimated that this would rise to 175 million per year in the following decade (Penrose & Takaki, 2006) (Save the Children UK, 2007). Despite major needs, expenditure on education as a percentage of total humanitarian spending is low, fluctuating between 1-2% since 2004; this peaked in 2010 at 2.3% but has declined since then to 1.5% in 2013 (FTS, 2014). This lack of humanitarian funding for education in emergencies is seen to significantly impact on emergency affected populations, both in the short and long term.

While this type of evidence provides broad understanding of need in the sector, more nuanced and detailed evidence is limited, and where it exists, is not easily accessible or readily known to policy makers or practitioners. Moreover, there are not readily available answers for many of the questions often asked by decision makers. Questions like, how much of a priority is education when there are so many other urgent needs? What do we really know about the extent of disruption to schooling and what this means for students? When education is provided in emergencies, how does it benefit students and the community? And how much funding might my money leverage from other sources?

Recognising this gap, Save the Children was interested to get a better handle on existing literature and to identify gaps and future directions for future research. It approached ODI to do a review of existing evidence with an overall aim to analyse the benefits of expanding investment in education in emergencies. This included:

- (i) a review and synthesise of related **existing research**,
- (ii) production of **two case studies** providing headline analysis of financial flows to education in select emergency contexts,

¹ Key milestones have included the formation of the Inter-Agency Network on Education in Emergencies (INEE) in 2000 in response to the Dakar Framework for Action on EFA, the development of the INEE Minimum Standards in 2003, the adoption of the Global Education Cluster in 2006 as a part of the global humanitarian architecture, and growing focus on the issue by development partners such as USAID, NORAD and DFID.

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- (iii) and identification of **implications and research approaches** that could be used to further build the evidence base regarding returns on education in emergency efforts.

Through the process of an inception report and then moving on to a rigorous literature review, part (i) of this brief emerged as the most extensive. It looked toward identifying research and evidence around demand for education, impact of disruption, and cost effectiveness and financing of the sector. Broad questions related to these themes framed the inception report, which was then broken down into a series of more detailed questions for the full review. The bulk of this report represents findings from this review.

The second part of this brief involved the production of two case studies, meant to help deepen our analysis of how communities prioritise education compared to other sectors and of funding for education in different emergency situations. In selecting the cases, it was decided to look at both conflict and natural disaster settings, have some geographical diversity and, as these were desk studies, identify contexts which would have available literature and documentation. The cases selected were to look at education in emergencies in Haiti following the 2010 earthquake and the ongoing conflict in the Democratic Republic of Congo (DRC), with hopes that some generalizable findings might emerge from these very different contexts.

The final part of the brief, looking at research approaches which could be used to build further evidence on education in emergencies, emerges from a reading of existing literature as well as attempts to explore prioritisation and funding patterns in the two case studies. It is treated in a more limited way in order to provide indicative directions for future research.

Following this introduction, in Section 2 this report goes on to outline the methodology used in the research. The following sections present the review of evidence, with Section 3 looking at prioritisation and demand, Section 4 the impact of disruption, Section 5 the economic costs and returns, and Section 6 on sources of finance. The Haiti and DRC case studies are presented in Section 7. And finally, directions for future research are explored through the conclusions and recommendations in section 8.

This work has been commissioned by Save the Children and is being carried out by a multi-disciplinary team of researchers and advisers with expertise in education, economics, and political economy from the Overseas Development Institute (ODI).

2 Research parameters

2.1 Defining education in emergencies

As part of scoping this research, definitions of both 'education in emergencies' and 'emergencies' were reviewed and used to inform both parameters and potential search terms. Looking at variables to consider alongside the relatively broad definition of terms and a more limited available literature, we maintain a fairly wide scope included within this research (see Table 1):

- All levels of education are discussed given their importance to the sector and the limited level of literature available.
- We look at a broad range of emergencies, including conflict and natural disasters. Emergencies not included are likely to be long-wave events, such as financial crisis, HIV epidemics, climate change, and unplanned urbanisation.
- Research analyses all stages of emergency responses where permitted in the literature.
- We focus on low and low-middle income countries.

The definition of the type of 'emergency' is quite critical as financing modalities and channels are likely to differ across types and durations. Several additional sources of prominent emergency response agencies were therefore consulted. This included IFRC, which defines disasters as 'sudden, calamitous events that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources'. The World Food Programme sets its definition as the event or series of events comprised of one or a combination of the following:

a) sudden calamities such as earthquakes, floods, locust infestations and similar unforeseen disasters;

b) human-made emergencies resulting in an influx of refugees, or the internal displacement of populations, or in the suffering of otherwise affected populations;

c) food scarcity conditions owing to slow-onset events such as drought, crop failures, pests and diseases that result in an erosion of the capacity of communities and vulnerable populations to meet their food needs;

d) severe food access or availability conditions resulting from sudden economic shocks, market failure or economic collapse that result in an erosion of the capacity of communities and vulnerable populations to meet their food needs;

e) a complex emergency for which the government of the affected country or the Secretary-General of the United Nations has requested the support of WFP

Given the extensive commonalities and overlaps across the above definitions, it was felt there is no need to choose one definition over the other. Moreover, in practice, it is often hard to distinguish between different types of crisis (i.e. complex emergencies) and phases of response e.g. short term – medium term – longer term – especially where countries might move in and out of conflict or have repeated occurrence of natural disaster.

Table 1: List of variables used to define scope

Variables	Include	Exclude
Nature of emergency (mostly from IFRC - types of disaster) natural disasters - geophysical (earthquake, landslide, tsunami, volcano), hydrological (avalanche, flood), climatological (extreme temperatures, drought, wildfire), meteorological (cyclones, storm surges), biological (disease epidemics, insect/animal plagues) technological & man-made - conflict / complex emergencies, famine, displaced populations, industrial accidents, transport accidents long wave (HIV, climate change, unplanned urbanization)	All natural disasters, conflicts, and complex emergencies	Long-wave events - “...where troubling and large-scale effects emerge gradually over decades.” ²
Duration of emergency Brief / short / long / prolonged ³	All, except long-wave events discussed above	Long-wave events
Composition of response International (bi/multilateral, NGO), domestic, private sector	All	None
Stages of response Immediate (response) Short-medium term (response) Long term (recovery) Disaster risk reduction / Mitigation (preparedness/prevention)	All	None
Types of countries Low to high income	Countries which are either now or at time of emergency low or middle income.	High income countries
Types of education pre-primary / primary / secondary / tertiary / vocational / adult public and private	All	None
Returns on education investment Level - National / Regional / Individual Type - Economics (jobs, income, GDP), externalities from having or not having access to quality education (both positive and negative)	All	None

² ‘A long-wave event’, 2006, page 302

³ ‘Conceptual framework of disasters’ page 42, table 3.3

In terms of defining education in emergencies, the most prominent and well recognised definitions have been put forward by Inter-agency Network on Education in Emergencies (INEE), the Education Cluster and the Sphere Project. Definitions of emergencies and disasters from the same sources are also presented in Table 2.

Table 2: Key definitions for ‘education in emergencies’ and ‘emergency’

Source	Education in emergencies	Emergency
INEE, Minimum Standards for Education (2010a) (page 117)	Quality learning opportunities for all ages in situations of crisis, including early childhood development, primary, secondary, non-formal, technical, vocational, higher and adult education. Education in emergencies provides physical, psychosocial and cognitive protection that can sustain and save lives.	A situation where a community has been disrupted and has yet to return to stability.
Global Education Cluster, Education Cluster Coordinator Handbook (2010, pg. 290)	The provision of quality education opportunities that meet the physical, protection, psychosocial, developmental and cognitive needs of children affected by emergencies, which can be both life-sustaining and life-saving.	A “serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceed the ability of the affected community or society to cope using its own resources”.
The Sphere Project: Humanitarian Charter and Minimum Standards in Humanitarian Response (glossary)	Quality learning opportunities for all ages (including adults) in situations of crisis. Education in emergencies provides physical, psychosocial and cognitive protection that can sustain and save lives.	A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts that exceeds the ability of the affected community or society to cope using its own resources and therefore requires urgent action. We use the word “disaster” to refer to natural disasters as well as to conflict, slow- and rapid-onset situations, rural and urban environments and complex political emergencies in all countries. The term thus covers natural and man-made disasters and conflicts and encompasses related terms such as “crisis” and “emergency”.

It is important to note that while this review focuses on the demand for, disruption to, and financing of education in emergencies, this is done with recognition that many other inputs such as institutional strengthening and teacher quality are needed – not just financing – to ensure good quality education. It is not just a case of whether to increase funding but what to spend it on, how to prioritise, and how to sequence. While the financing gap is significant, a big part of the story is inevitably related to how education in emergencies is delivered.

2.2 Research questions

These definitions, along with an understanding of problem have led to the following overarching research question:

How can returns on investment to education in emergencies be identified, expressed and further explored across different types of emergencies and sources of finance?

To delve more deeply, three broad questions were identified to guide the brief scan of literature conducted for the inception report. These were:

1. How do emergencies affect demand for education, particularly in terms of community prioritisation and household expenditure?
2. What are the educational and economic costs of disruption effects of emergencies on school age populations?
3. What evidence exists on rates of return to education investment across (a) low income developing countries and (b) countries affected by emergencies?

From this initial appraisal of literature, we identify a further refined set of 10 questions to help focus the fuller literature review. These questions were proposed through the inception report, and then further clarified and simplified as part of the rigorous review, and are:

1. Is education seen as a 'high priority' amongst emergency affected populations? How does this fit alongside a broader set of individual and community priorities?
2. What research methods could be further developed or replicated to investigate the priority that individuals and communities place on education during emergencies?
3. To what extent schooling is disrupted by different types of emergencies?
4. How is the schooling of different groups impacted by emergencies?
5. What are the economic and human capital costs of natural disasters and conflict on education?
6. How do the returns to education differ across levels of education, income groups and gender in emergency affected countries?
7. To what extent can the average public and private returns to education be quantified for a select group of emergency affected countries (type of crisis, by region etc.)?
8. How does the mix of sources change in relation to the emergency phase?
9. Is there a catalytic function of humanitarian aid to education in terms of leveraging other sources?
10. Who and what is typically funded by different sources? Do the channels tend to be complementary or are there gaps?

Following the review, and as researchers reviewed evidence for and reflected on the questions, there have been some concerns as to their wording and focus. For instance, a broader interpretation of questions linked to 'costs and returns' may have revealed more evidence on costs to human capital. Despite concerns, and partly due to the limited research available on this

topic overall, it is felt that the literature review does reveal available findings along the lines of intended inquiry.

2.3 Search of sources

Research for the literature reviews and case-studies was identified using the following search terms (identified in the inception report) in abstract and key term searches in the British Education Index, ERIC (Educational Resources Information Centre) and Google Scholar from 2004 onwards:

Table 3: Key search terms used for literature review

educat* AND (conflict OR emergency OR emergencies OR disaster)
(cash transfer OR priorit*) AND (conflict OR emergency OR emergencies OR disaster)
(refugee OR IDP OR internally displaced person) AND (survey OR priorit* OR cash transfer OR household expenditure)
(economic return OR social return) AND (educat* OR school*) AND (emergency OR emergencies OR disaster OR conflict) – nothing found
(economic return OR social return) AND (educat* OR school*)
(educat* OR school*) AND (emergency OR emergencies OR conflict OR disaster) AND (impact OR disruption OR marginalized OR marginalised OR out of school)
(DRC OR Democratic Republic of Congo) AND education
(Haiti) AND education

For the literature review the papers were then analysed using the DFID 'Assessing the strength of evidence: How to note' (DFID, 2014) as a guide. Papers deemed to be of low quality or relevance were eliminated from the review. Reasons for low quality included a lack of a clear methodology, inappropriate methodology, lack of appropriate data, poor internal reliability and or poor internal or external validity. Research of sufficient quality was analysed using a template with categories for title, year, author, country/region, emergency type, level of education, type of publication, research methodology, quality of evidence, and evidence concerning our research questions. The relevant evidence was then synthesized for this report on the basis of these completed templates.

Overall, 53 studies were identified and reviewed. The broad pattern of the literature is that there is a stronger research focus on conflict situations, rather than on other types of emergencies such as natural disasters, this is partly due to the contributions of background papers and responses to the 2011 Education for All Global Monitoring Report, the topic of which was armed conflict and education. Moreover, in line with the MDG framework, most existing research focuses on access, with little done on either education

equity or quality. Analysis generally covers multiple countries rather than analysing in depth the situation in one country or region. The exception to this is in the prioritisation section where nearly all the research is country specific. The quality of the literature identified varies extensively depending on the question and the type of emergency concerned.

Table 4: Mapping of research covered in this review

Theme	Total	Type of emergency				Location	
		Natural disaster	Conflict	Emergencies broadly	Not emergency specific but covering LICs and MICs	Country specific	Multi-country
<i>Prioritisation</i>	15	5	10	0	0	14	1
<i>Disruption</i>	13	2	10	1	0	2	11
<i>Returns</i>	5	0	0	0	5	1	4
<i>Financing</i>	20	3	2	12	3	6	14
<i>Total</i>	53	10	22	13	8	23	30

Moreover, with such a sparse array of evidence, there is no particular geographic concentration of studies. The varied pattern of investigation on short/medium/long-term emergencies seems dependent on question, i.e. prioritisation research tends to be short-term, disruption focuses on the short to medium-term, and measuring the costs and returns is largely long-term (but for low income countries, not emergency affected). Literature available in relation to financing sources has limited analysis specific to emergencies outside of humanitarian funds – and there are no studies that look at the complementarity of different sources. As a whole, little academically rigorous research has been carried out, but the few studies that do exist can help to begin to identify trends alongside surveys and more descriptive analysis.

The case studies cover the education situations in Haiti following the 2010 earthquake and the DRC, a country that has been suffering ongoing conflict for several years. The case-studies look largely at analyses of donor and INGO published work concerning community prioritisation of education in emergencies compared to other sectors in the respective settings. Their focus was on analyses of funding for education – including government budgets, household expenditure, development and humanitarian aid – provide evidence of how education in emergencies is financed in both countries. New quantitative analysis of available data from UN OCHA's Financial Tracking Service, OECD Credit Reporting System and from government ministries of finance and education was also carried out.

Literature review

3 Prioritisation of education in emergencies

3.1 Is education seen as a ‘high priority’ amongst emergency affected populations?

Total no. of studies: 15

Countries: Côte d'Ivoire (1), DRC (2), Ethiopia (1), Haiti (3), Malawi (1), Palestine (1), Sudan (3), Swaziland (1), Syria (2), and multi-country of 19 conflict-affected countries (1)

Type of emergency: Violent conflict (11), Earthquake (3), Drought / food crisis (2)

(The number of countries and emergencies differs from the total number of studies due to individual studies covering more than one country.)

POSITIVE (11), Neutral (2), Negative (2)

Summary of evidence: The evidence covers a wide range of countries and contexts. Ten of the fifteen reports focus on conflict-affected countries, three the earthquake in Haiti, and two on drought / food crises. Only two studies focus on children's priorities, the rest on adults' perspectives. Ten of the studies support the premise that education is a high priority during emergencies and only two cases counter this.

Headline findings: In the few studies that ask children, education is their top priority. When asking adults, education is rarely the top priority, but is consistently one of their top priorities and ranked amongst the top three. Other top priorities for adults can include food, water, health and employment.

There are three types of research that seem to best inform this question: survey results, data from cash transfer schemes, and public opinion polls. The majority of the reviewed studies supported an assertion that education is a ‘high priority’ among emergency affected populations, with several emerging as more ambiguous and a few countering this assertion. The definition of ‘high priority’ depends on the methodology of the individual

studies analysed. Most frequently this means education is in the top 3 of a longer list of priorities identified by affected people or that their spending patterns indicate a prioritisation of education over other needs.

3.1.1 Support

Ten studies were found that provide evidence supporting an assertion that education is a top priority for emergency affected populations.

Surveys

Six surveys were identified that directly asked affected people about their priorities following an emergency. These were conducted in DRC, Ethiopia, Haiti, Sudan, South Sudan and Syria. Education was the top priority when children were surveyed and a top priority (within the top 3) amongst the studies consulting adults.

Only two studies were found that focus on the priorities children have. Research by Gladwell and Tanner (2014) asked children, parents, and community leaders in two conflict-affected regions – North Kivu in the DRC and the Dollo Ado refugee camps in the Somali region of Ethiopia, what their top three priorities were. For the 132 children in the DRC, education was the top priority representing 35% of responses, followed by food and health, both 17%. The 38 children in Ethiopia placed education top with health at 26% followed by food at 20%. When disaggregating by gender, boys place a slightly higher priority on education than girls, although education remained the top priority for girls in the DRC and third in Ethiopia. In the DRC education was parents' second priority with 27% of responses after food, 28% of responses. In Ethiopia education was fourth for parents with 15% of responses after water (34%), food (21%), and shelter (19%). Overall, including responses from all participants in both regions, education represented the most responses at 30%, followed by food (19%), water (16%) and health (16%).

Another piece that asks children their priorities was conducted by Plan International (2010) two months after the January 12th 2010 earthquake in Haiti. 925 children and young people from nine districts were asked in focus groups what 'most urgent needs' were. With 17% of responses, the top set of needs were related to education, including terms such as 'school', 'education', 'university', 'youth training', 'free schooling', 'professional schools', and 'state school'. Their next highest priorities related to health (8%), housing (6%) and disaster risk prevention (6%).

All other research that in some way directly asks people their priorities during or after an emergency focuses exclusively on adults. Following the earthquake in Haiti, Oxfam funded a piece of research which surveyed 1,765 Haitians in five different communes (Port-au-Prince, Pétiön-Ville, Delmas, Carrefour and Léogane) two months after the event (Pierre, 2010). When asked what problems interviewees thought *the country* was facing *before* the earthquake, education did not feature in the top ten priority problems identified by participants. However when asked what needs they thought the country was facing *after* the earthquake 'school' was the second highest response at 21.8% after employment (26%), and followed by housing (10.1%) and support to local construction (8.2%). When asked which priorities they wish to see in the reconstruction plan, 'school' was again second (24.2%) after employment (28.2%) and followed again by housing (11.5%) and support to local production (6.3%). When asked what problems

their *household* was facing *before* the earthquake the responses were unemployment (28%), food insecurity (11%), difficulty to provide schooling for children (9.3%) and difficulty to find housing (8.6%). This compares with needs their household faced *after* the earthquake being employment (28.5%), housing (20.8%), food security (11.3%) and children's schooling (9.2%).

There are two surveys concerning the Sudanese conflict and refugee crisis. In 2006 the International Organisation for Migration carried out a survey of internally displaced persons (IDP), covering 6,480 IDP households, and representing 40,048 individuals in 54 locations. Of interest are IDPs' responses to concerns they have about returning to their homes. When asked what their immediate concerns or needs would be upon arrival to their return destination, education was their fifth concern with 14.3% of responses, the top four being food (20.9%), water (18.3%), shelter (18.0%) and healthcare (15.8%), with other concerns being security access to property, and integration with family members. When asked for reasons why they either have not decided to return or have decided they will not return 'education considerations for children' is the fourth most important factor with 11.1% of responses, the top three being 'not enough information about the future conditions of the place where we are residing now' (21.0%), 'not enough financial resources for return journey' (20.2%) and 'not enough information about area planning to return to (return destination)' (17.7%). Other factors were family considerations, poor health, and lack of property. The final relevant question asked for reasons that had prevented IDP respondents from returning to date. Education was not mentioned, but the 'lack of basic services in return destination' includes education and was fifth with 9.9% of responses. The top four reasons being 'no money' (38.2%), 'lack of transport' (20.5%), 'insecurity' (10.6%) and 'family considerations' (10.0%).

In 2008 Eidelson and Horn carried out a survey of 235 South Sudanese refugees in Kakuma, Kenya, to understand psychological factors relating to returning home. Refugees were given phrases to which they could respond to what extent they agreed. In response to the phrase 'When I think about returning to Sudan, I am very worried about x', 80.9% either strongly agreed or agreed when 'x' was 'education'. Only 'mines' received higher agreement at 87.2%. Other factors were 'the roads and transportation' (80.4%), 'security' (77.0%), 'how I will get clean water' (70.6%), and 'how I will support myself and my family' (68.5%).

More recently in 2013 the Beirut Research and Innovation Center and Oxfam surveyed 260 Syrian refugee households in Lebanon, with education being identified as a high priority. When asked what their biggest fears were, 'no education for children' was the fourth highest response, from 28.8% of participants. The top three responses were poverty (61%), remaining a refugee (55%), and lack of work (29.6%). Education ranked above 'losing a loved one to war' (28%), sectarian strife (26.5%), losing family honour (23%) and being an illegal immigrant (19.6%). Education of boys and girls was given equal value by interviewees.

Cash transfer schemes

Another method for identifying people's priorities and needs in different emergency contexts could be on how they spend cash they receive as part of unconditional cash transfer schemes. Three pieces of research were found which analysed cash transfer schemes, taking place in Haiti, Swaziland and

DRC. Education was the 3rd and 4th highest expenditure from these schemes evidencing a fairly high level of priority.

Following the 2010 earthquake in Haiti, Christian Aid (2012) distributed unconditional cash transfers in six locations across the country and tracked how the money was used. Education was the third highest expenditure with 13.8% of cash spent on the sector, following food (30%) and cooking fuel (17.7%) with the remaining sectors being water (10.5%), rent/shelter (6.8%), small enterprise (6.7%), health (6%), debt repayment (4.8%), household goods (3.3%) and savings (0.4%). When disaggregating for location people in rural areas had education as their second highest sector while urban areas had education third equal with water.

Devereux and Jere (2008) analysed the use of Save the Children's cash transfers during the 2007/08 drought and food crisis in Swaziland. Education (7% of total spending) was third of the list of spending priorities after food and livelihoods, and ahead of groceries (7%), transport (7%), clothing (3%) and health (2%). More important though is how household spending patterns changed when annual school fees were due in January. Families receiving 'cash only' diverted household funds they had been using for food in previous months to education to cover school fees in January. Spending on food dropped from just over 63% in December to just over 40% in January and February while spending on education rose from 10% in December to 20% in January. This same pattern was stronger for families receiving 'food only' assistance with food spending dropping from 66% in December to 24% in January with education spending increasing from 0% to 31% in the same time period.

Research from another unconditional cash transfer scheme was identified in the DRC (Aker, 2013). Cash was provided to IDPs in informal camps during 2011/12. Households were provided with \$130 over a seven-month period, which equated to two thirds of GDP/capita. Households spent the cash on an average of 6.54 categories. 70% of households spent some of the cash on school fees, making education the fourth most popular category after staple grains (79%), oil (77%), and salt (77%). Other non-food expenses were debt reimbursement (31%) and health expenses (7%). This shows that without the direct cash aid, 70% of households would struggle to afford school fees for their children.

Public opinion polls

Another method to examine whether education is a high priority among conflict-affected countries analyses results of multi-country public opinion surveys and focusing on the countries that are affected by conflict. Only one example of this type of analysis was found, covering 19 countries showing that education is consistently amongst the top 3 problems facing these countries.

Horvat (2010) carried this out for 19 countries for the Education For All 2011 Global Monitoring Report using the Arab Barometer, Afrobarometer, Asia Barometer, (East) Asian Barometer, LatinoBarometer, Pew Global Attitudes and the World Values Survey. The overall findings were that in single response questions, where participants could only give one response, education rarely featured as the most important problem which national governments should address. However, when asked to give more than one response, education consistently features prominently in lists of priorities,

especially in the poorest countries and countries with widespread violence. For example in Liberia in single response questions education is identified as only the ninth 'most important problem faced by Liberia', however ranks first and second when people were asked the second and third most important problems facing the country. In a list of top three problems education is the most mentioned, followed by unemployment and infrastructure. It should be noted that in countries where a regional breakdown was possible, there was no significant difference between conflict-affected regions within countries and the national average.

Other

In Southern Sudan, Pantuliano, Buchanan-Smith and Murphy (2007) used mixed methods including fieldwork data collection, focus group discussions and semi-structured interviews with participants ranging from government officials and UN representatives to community leaders and residents. They found that water was the top priority for IDPs and education was the second priority with education issues including confusion created by the use of parallel curricula – one in English and one in Arabic, lack of secondary and higher education, lack of teachers and lack of physical infrastructure. Priorities for returnee communities placed food and shelter at the top of the list followed by basic services, which included water, health and education.

3.1.2 Neutral

Two studies provide neutral results on the question of education prioritisation. These include a survey carried out in Palestine and analysis of a cash transfer scheme in Malawi – both of these studies raise issues, however in terms of would truly shed light on the extent that education is a priority.

Survey

In 2012 the BADIL Resource Center for Palestinian Residency and Refugee Rights carried out a survey of 3,856 Palestinian refugees and IDPs in the occupied Palestinian territory, Jordan and Syria. When asked what camp services were in short supply 63.9% of respondents included education as a priority, however this ranked fifth behind employment (86.1%), health services (77.7%), cash (77.3%), and food (75.6%). The responses to this question, may however, depend on the extent to which these services have been provided in the camp so do not indicate clearly what refugees priorities really are. In fact 64.8% of respondents were benefitting from camp provided education compared to health services (61.5%), food (49.2%), cash (17.3%) and employment (15.6%). When asked what camp services needed improving education featured as the sixth priority with 7% of responses, following 'maintenance / extension of electricity network' (16.0%), 'maintenance of housing units' (13.8%), 'increasing cash-type assistance' (11.0%), 'maintenance / extension of water network' (9.1%), and 'improving medical services' (8.6%).

Cash transfer schemes

Evidence from cash transfer schemes that did not highlight education as being a top priority comes from Devereux, Mvula and Solomon (2006) who evaluated Concern Worldwide's food and cash transfer project in Malawi during the 2005/06 drought and food crisis. 59.4% of the cash was spent on food, compared to only 2.4% on education. Other sectors included groceries (16.3%), health (7.3%), savings (6.4%), investment (3.4%) and extravagant spending (2.3%). This does not necessarily mean that education is not a

priority as the spending covered January to March during which there may not have been significant education costs – fees are generally due annually.

Counter

Finally, two studies in the Syrian crisis and in West Africa present evidence against education as a priority in emergencies, at least for the adults surveyed.

Surveys

Research by the International Federation of Red Cross and Red Crescent Societies and the Jordan Red Crescent (2012) of Syrian refugees in Jordan found that education was not seen as a top priority at that time. Based on interviews and focus group discussions in six locations in Jordan they found that ‘it was clear from assessment participants that expenditure on education was not one of the top priorities for the more vulnerable families’ and that ‘some children in vulnerable families are working, and this has been prioritised over education’ (pg. 27). The main priority highlighted by participants was the need for cash. When asked to elaborate, this was with regards to rent (including utilities), fresh food, and other basic household expenditure items such as medicines, baby items, schooling items, and clothes.⁴

In a survey of refugees from Côte d’Ivoire fleeing post-election violence in Liberia, conducted by Oxfam and Care (2011), education was not found to be a humanitarian priority. When individuals in five different locations in two counties (Maryland and Grand Gedeh) were asked what their humanitarian needs were, food was consistently the top priority, followed by clothes, and money. With the results disaggregated by gender, education only features as a fourth priority for women who were living in host communities in Grand Gedeh and fourth for men living in camps in Grand Gedeh. For men and women living in host communities and transit sites in Grand Gedeh, education did not feature, nor did it for men or women in transit sites in Maryland, men living in host communities in Maryland or women living in camps in Maryland.

ASSESSMENT Strong +	1. Is education seen as a ‘high priority’ amongst emergency affected populations?
Positive	DRC (Aker 2013), (Gladwell & Tanner 2014) Ethiopia (Gladwell & Tanner 2014) Haiti (Christian Aid), (Plan International 2010), (Pierre 2010) Multi-country (Horvat 2010) Sudan (International Organisation for Migration 2006), (Eidelson & Horn 2008), (Pantuliano, Buchanan-Smith and Murphy 2007) Swaziland (Devereux & Jere 2008) Syria (The Beirut Research and Innovation Center and Oxfam 2013)
Neutral / Ambiguous	Malawi (Devereux, Mvula & Solomon 2006) Palestine (BADIL Resource Center for Palestinian Residency and Refugee Rights 2012)
Negative	Côte d’Ivoire (Oxfam and Care 2011) Syria (International Federation of Red Cross and Red Crescent Societies and the Jordan Red Crescent 2012)

⁴ It is important to note that this could imply a practice of prioritising the use of children for immediate income generation. If this case, this of course is a maladaptive strategy as if sufficient livelihood support were provided to families they may be able to prioritise longer term development over more immediate income needs.

3.2 What research methods could be further used to investigate the priority placed on education during emergencies?

Types of research and countries:

Refugee, IDP or affected community survey: Haiti (2), Sudan (2), Syria (2), Côte d'Ivoire (1), DRC (1), Ethiopia (1), Palestine (1)

Monitoring of cash transfer spending: Haiti (1), Malawi (1), Swaziland (1)

Public opinion polls: Multi-country of 19 conflict-affected countries (1)

Mixed methods: Syria (1)

Type of emergency: Violent conflict (10), Earthquake (3), Drought / food crisis (2)

Summary assessment of evidence: Most of the research methods involve surveys of refugees, IDPs, or local affected communities. These cover a variety of emergency types in seven countries. Other methods include tracking how people spend cash given as unconditional cash transfers; the analysis of global public opinion polls focusing on conflict-affected countries; and other mixed methods.

Headline findings: Future research on identifying how people prioritise education during various types of emergencies could use any of the methods used previously with surveys perhaps being the most feasible across a number of contexts. Of significant value would be the complementary nature of mixed methods research to unpack the various issues of prioritisation. These efforts would benefit by giving greater voice to children and youth and tracking further changes in priorities during the different stages of recovery. Tracking of household spending is a useful, if more indirect, way of highlighting what households prioritise.

There are a variety of research methods that could be used to collect data on what priorities individuals and communities have during and after different types of disasters. The literature reviewed for the previous question comprises research that has directly sought to answer the question of priorities, while others have either included this question within a larger set of questions or have managed to measure priorities without this being intentional.

3.2.1 Refugee, IDP, or affected community surveys

The most common form of research involves surveys of refugees, IDPs or local affected communities. Either through questionnaires or focus groups these generally sample adults, only two reports were found that also surveyed children. Nine examples of this type of research was found. They are also taken at single points in time after emergencies, no research was found that tracks people's changing perceptions over time. The only report that had a time dimension was by Pierre (2010) in Haiti following the earthquake, although the survey itself took place at one point in time. In a survey of 1,793 people in five communes affected by the earthquake Pierre asked people what they thought the main problems facing the country were both before and after the earthquake. This survey was carried out two months after the earthquake itself.

Also in Haiti, Plan International carried out a Post Disaster Needs Assessment (PDNA), and lasting one month (starting two weeks after the January 12th earthquake). The published report (2010) highlights children's voices. Using a child friendly methodology they carried out 54 focus group discussions with 325 children in age groups of 5-10 years, 11-16, and 17-24. These groups were also split by gender so as to be able to disaggregate the results by age and gender. These covered nine departments of the country, including areas both directly and indirectly affected by the earthquake.

Eight months after post-election violence broke out in November 2010 in Côte d'Ivoire, Oxfam and Care (2011) carried out qualitative and quantitative research with refugees in Liberia. This included a rapid one week survey of the intentions of 524 refugees in 24 different locations including those in host communities and transit sites. Results were disaggregated by gender and location. They also carried out 16 key informant interviews.

Gladwell and Tanner (2014) carried out fieldwork research in two conflict-affected sites, one in DRC and one in Ethiopia, in September 2013. This relied on focus group discussions to analyse children's, parents', teachers' and community leaders' priorities. In DRC they carried out 37 focus groups (19 with 170 children, 7 with 42 parents, 8 with 70 teachers and school directors, and 3 with 15 community leaders). In Ethiopia they carried out 18 focus groups (7 with 38 children, 3 with 24 parents, 2 with 24 PTA/SMC members, 3 with 8 volunteer teachers, 2 with 3 teacher supervisors, and 1 with 3 community leaders).

During 2012 the BADIL Resource Center for Palestinian Residency and Refugee Rights (2012) carried out a survey of 3856 Palestinian households in 30 refugee camps in the West Bank, Gaza Strip, Jordan, Lebanon and Syria. This only included adults and the data was disaggregated by gender.

Two sources were found concerning the situation in Sudan. In 2006 the International Organisation for Migration carried out a survey of IDP intentions in 54 locations in nine states in Sudan. This included 6,480 households. The survey questionnaires were carried out by interviewers selected from IDP households. The second survey carried out was by Eidelson and Horn (2008) who surveyed 235 Sudanese refugees in Kakuma, Kenya, about their thoughts on returning home. The format of the survey included questions with participants required to answer to what extent they agreed with certain statements about returning home.

To understand basic needs of Syrian refugees, the IFRC and RCS (2012) carried out semi-structured key informant interviews and focus groups and home visits with refugees in six locations in Jordan. In total they carried out 12 focus groups with a total of 49 men and 53 women taking part. The Beirut Research and Innovation Center and Oxfam (2013) also surveyed Syrian refugees, this time in Lebanon. Their survey included 260 households across different regions of Lebanon

3.2.2 Monitoring of cash transfer spending

Three pieces tracked the spending of unconditional cash transfers.

Following the 2010 earthquake in Haiti, Christian Aid (2012) distributed unconditional cash transfers in six locations across the country and tracked how the money was used. Christian Aid worked with four local partners who each designed their own cash transfer schemes. These ranged from one time payments of \$52 to IDPs and host families to three payments of \$390 to IDPs starting from 14 days following the earthquake. The method for tracking spending data used the Cash and Learning Partnership survey tool, which is designed for cash transfer programmes. This had a sample of 10% (405 beneficiaries) and tracked how money was spent. The data was disaggregated by gender, and rural-urban.

The other two were evaluations of cash transfer schemes during food crises, the first in Malawi (Devereux, Mvula and Solomon, 2006) and the second in

Swaziland (Devereux and Jere, 2008). In Malawi, cash transfers were part of a wider response to the food crisis by Concern Worldwide. The evaluation was based on household surveys of both beneficiaries and non-beneficiaries. This included two baseline surveys before the project implementation, three during the course of the project and one after. These surveys included between 500 and 1,000 households and were split evenly between beneficiaries and non-beneficiaries. This was supplemented by qualitative fieldwork involving group interviews, focus group discussions and community meetings. In Swaziland 1,225 households received 'cash plus food' aid. The evaluation of the project included a baseline survey and followed by five monthly follow ups using household expenditure monitoring forms.

3.2.3 Public opinion polls

One study (Horvat 2010) analysed the results of public opinion poll results in 19 countries affected by conflict. The opinion polls include Arab Barometer, Afrobarometer, Asia Barometer, (East) Asian Barometer, LatinoBarometro, Pew Global Attitudes Project and the World Values Survey. These multi-country public opinion polls regularly collect a wide range of data across many countries. Horvat's analysis focuses solely on the conflict-affected countries included and analyses responses to questions that rank what people think are problems in their country.

3.2.4 JENA (Joint Education Needs Assessment)

JENA's are another potentially opportunity for future research. JENA's are independent assessments carried out at the acute phase of an emergency often managed by the Education Cluster or equivalent working group. These could be expanded to include questions of prioritisation and also to create a baseline for longitudinal study of prioritisation of needs.

3.2.5 Mixed methods

For their research in Sudan, Pantuliano et al. (2007) used a variety of methods for fieldwork data collection, including focus group discussions and semi-structured interviews with participants ranging from government officials and UN representatives to community leaders and residents.

Moving forward mixed methods approaches combining both qualitative and quantitative research is likely to be key to unpacking the various issues surrounding prioritisation and other issues of interest to the field. For example, identifying correlations and then analysing these further through focus groups or in depth interviews can offer nuanced findings that fill current gaps in research and contribute to a growing body of evidence.

It is clear that education is a top priority for communities affected by a variety of emergencies. However future research will need to focus on the various stages of emergency responses to highlight at what point education becomes a top priority. Research will also benefit by a deeper analysis of what types of education are important and why. For example whether it is because of links to the labour market or normalisation of daily life. Including the voices of children and youth alongside other community members will again deepen our understanding of why education is important.

Methods identified	2. What research methods could be further used to investigate the priority placed on education during various types of emergency?
Refugee / IDP / affected community survey	Côte d'Ivoire (Oxfam and Care 2011) DRC (Gladwell & Tanner 2014) Ethiopia (Gladwell & Tanner 2014) Haiti (Plan International 2010), (Pierre 2010) Palestine (BADIL Resource Center for Palestinian Residency and Refugee Rights 2012) Sudan (International Organisation for Migration 2006), (Eidelson & Horn 2008) Syria (International Federation of Red Cross and Red Crescent Societies and the Jordan Red Crescent 2012), (The Beirut Research and Innovation Center and Oxfam 2013)
Monitoring of cash transfer spending	Haiti (Christian Aid) Malawi (Devereux, Mvula & Solomon 2006) Swaziland (Devereux & Jere 2008)
Public opinion polls	<i>Multi-country</i> (Horvat 2010)
Mixed methods	Sudan (Pantuliano, Buchanan-Smith and Murphy 2007)

4 Disruption to education in emergencies

4.1 To what extent is schooling disrupted by different types of emergencies?

Total no. of studies: 10

Countries: Pakistan (1), Sri Lanka (1), multi-country (8)*

* = the 7 multi-country studies include: study of 40 conflict-affected countries (1), review of people displaced by conflict (1), review of conflict impacts on entire systems (2), study of natural disasters in developing countries (1), study of 25 conflict-affected countries (1), 19 conflict-affected countries (1), all conflict-affected countries vs all non-conflict-affected countries (1)

Type of emergency: Violent conflict (9), natural disasters (1)

STRONG NEGATIVE IMPACT (8), ambiguous (2)

Summary assessment of evidence: Evidence mainly consists of papers that analyse at a macro level the impacts of violent conflict on various aspects of education systems. These predominantly focus on impacts on enrolment, with some focus on teachers. There is very little systematic research on the impact of natural disasters.

Headline findings: Available research shows that conflict has a significant negative impact on a variety of aspects of education. Conflict is likely to have a strong localised aspect but more research and data is needed to better substantiate this. There are significant pieces of research that call into question the causal relationship between acute conflict and disruptions to education, pointing rather to underlying fragility within a country as being a common cause of both conflict and weak education systems. This is supported by data that indicates that for systems with lower overall enrolment figures, the disparity between non-conflict and conflict-affected regions is higher than in systems with high overall enrolment figures. A recurring theme across the literature is the lack of available and credible data though. This lack of data is likely to underestimate the impacts of conflict on education as it is consistently missing in those areas that are most affected by conflict.

Most of this research consists of multi-country analysis of administrative enrolment or attendance data. There is limited research on either longitudinal fluctuations in enrolment / attendance over time, as well as more localised analysis. Nothing has been done on natural disasters. Future research will need to unpack the various issues highlighted here through more in depth

research for example on the psychosocial impact of emergencies and missed education and the impact of these various issues on learning outcomes.

4.1.1 Strong negative impact

Eight studies show that emergencies have a strong negative impact on education. Seven of these focus on violent conflict with two country specific studies – Pakistan and Sri Lanka – and 5 multi-country analyses. There is one study on natural disasters that covers multiple countries.

Enrolment / Attendance

The majority of the research in this area focuses on the impact of violent conflict on national enrolment rates. A number of studies point out that the impact of violent conflict on enrolment is likely to be underestimated due to the lack or quality of enrolment data and credibility of data in those areas most affected by conflict, an example of which is Afghanistan.

The latest research by the UNESCO EFA GMR (2013) states that 22% of primary school aged children live in conflict affected countries but that 50% of primary school aged children out of school live in these countries, a figure that has increased from 42% in 2008.

Research by (Jones & Naylor, 2014) point out that although there are large numbers of children out of school in conflict areas the UNESCO figures both under and overestimate these numbers. Firstly the figures are an underestimate because they only take into account children of primary school going age. In many of these contexts children attending primary school are often overage and therefore would not feature in these figures. They also point out that the UNESCO figures are at the national level whereas conflict often does not affect entire countries. This means that the figures are also an overestimate or that they should not be equated with children being out of school because of conflict. In depth research on three countries – DRC, Nigeria and Pakistan – they do find that 5% to 20% of those who are out of school can be directly attributed to the various conflicts in those countries. They agree that conflicts have a direct negative effect on the numbers of children out of school.

In 2010 the UNESCO Institute for Statistics used household survey data to analyse the impacts of conflict on education. They find that access to schooling is severely impeded by conflict in countries with weak education systems, such as Afghanistan, Rwanda and Uganda. However in countries with strong education systems, such as Bosnia and Herzegovina, Republic of Congo and Tajikistan, the impact of conflicts had little impact on the proportion of the student population without formal schooling. There was, however, a negative impact on access to higher levels of education in these countries. The report concludes that while children may return to education after a conflict most do not, often leaving a generation of students with significant educational deficits. This highlights the interconnectedness of institutional fragility and conflict, with both likely to play a role in children not accessing education.

In an assessment of conditions for refugees and IDPs, Ferris and Winthrop (2010) find that there are 27 million children who are displaced by conflict and lack access to formal education, 10% are refugee while 90% are IDPs – based on evidence from the 2004 Global Survey on Education in Emergencies. Although data is lacking, for most conflict affected countries one third of children are not accessing education. In some countries only a

minority of children are able to enrol in primary school – in Somalia 81% of primary-aged children are out-of-school, and Chad and Eritrea are given as other examples, although figures are not provided. Counter-intuitively displaced people may actually have advantages over those who are not displaced due to better provision of schooling in a more stable zones than in their hometowns, more research is needed to adequately test this though. For example in Chad, it was found that many villages of origin did not have schools at all and that those who were displaced were often better served by UNICEF-managed displacement camps that provided schooling.

In a more localised piece of analysis the Education Policy and Data Center (2010a) analysed the impact of violent conflict on enrolment in primary schooling in the Khyber Pakhtunkhwa province of Pakistan. In the Swat district, the area most affected by violent conflict, it was found that before the conflict in 2006, there was an average school closure rate of 3%. This increased to 9% within 3 years. In a breakdown of union councils (village councils) it was found that around half of union councils within the district were unaffected, bringing the average down, whereas some union councils were severely affected with school closures increasing from 0% to 24% in Ultroor and 8% to 31% in Shamozi. This highlights the local nature of conflict. There was a decrease of enrolment by 11% in Swat between 2006-2008, whereas enrolment had been growing before 2006.

In analysis of the impact of the violent conflict in Sri Lanka between 2006 and 2010, Williams (2010) finds that only 50% of IDPs had access to education and that in return areas in the north, only 35% of schools were operating. More than 300,000 school-aged children were affected, with school attendance for these children being as low as 80 out of 210 designated days.

Teachers

There has been very limited research done on the effect of emergencies on teachers. What has been done emphasises a shortfall of qualified teachers in affected regions, but limited effects on teachers being on the payroll if already working in the school.

The EPDC report on Pakistan (2010a) finds that the impact of conflict on teachers mirrors the effects on enrolment, however is less pronounced. The enrolment in Swat had fallen by 11% from 2006 to 2008 because of local conflict. Falls in the numbers of teachers were as high as 5.3% in some districts. The effect was often worse in girls' primary schools with teacher number falls as high as 13.6% compared to a maximum fall of 6.3% in boys primary schools. The reason for the effect on teachers being less pronounced is partly explained by districts being reluctant to remove teachers from payrolls despite student numbers decreasing. Teacher absenteeism was not measured.

Jones and Naylor (2014) find that teachers can be specifically targeted as part of attacks on education. This leads either directly to teachers being absent, through death, kidnapping or injury, or it leads to teachers being absent through fear of such scenarios. Other factors negatively affecting teachers is their displacement and sometimes even their recruitment into conflicts, although they acknowledge that data on this final point is lacking.

Williams (2010) report on Sri Lanka also finds that in the affected region there was an 80% shortfall in qualified teachers due to displacement.

Entire system

Only one piece of research was identified that focuses on the wider impacts on conflict on entire education systems, rather than on one more specific aspect, such as enrolment or teachers.

Based on a review of the literature O'Malley (2010) finds that violent conflicts have system wide implications for education. Firstly there is the disruption of student, teacher and other staff attendance and the psychological implications of conflict on students' and teachers' mental health. Systems struggle to recruit qualified replacement staff, while infrastructure can be damaged or destroyed and reconstruction is often left as a task for post-conflict peace. There is also reduced capacity to manage the system or at worst a suspension of the system. Examples of these include: the deaths of 439 teachers, students and other education staff in Afghanistan between 2006 and 2009; 300 education facilities severely damaged during a three week Israeli military operation in Gaza at the turn of 2008-2009. O'Malley states however that there is very little reporting of long term impacts of persistent attacks on education systems or the use of attacks to inhibit the recovery of education systems, and recommends better monitoring and reporting of attacks on education. Since O'Malley's paper there has been more reporting of this kind, especially since the foundation of the Global Coalition to Protect Education from Attack, founded in 2010.

Natural disasters

Only one global level study was found that looked at the impact of natural disasters on education.

Marla Petal (2008) highlights the various ways in which natural disasters negatively affect education, from destruction of school infrastructure to the deaths of teachers and students themselves.

Table 5 shows the impact of various natural disasters between 1952 and 2008. It also found that natural disasters are increasing in frequency with over 230 million people affected every year.

Table 5: Partial list of impacts of disasters on schools until 2008

A PARTIAL LIST OF RECENT IMPACTS OF DISASTERS ON SCHOOLS (deaths in schools shown in bold)		
2008	Myanmar	2,250 schools completely collapsed in Cyclone Nargis. Another 750 were severely damaged.
2008	NW China	An estimated 10,000+ children died in their schools. An estimated 7,000 classrooms were destroyed.
2007	Bangladesh	Cyclone destroyed 496 school buildings and damaged 2,110 more
2006	Philippines	Super Typhoon Dorian caused \$20m USD damage to schools including 90-100% of school buildings in three cities and 50-60% of school buildings in two other cities.
2006	Leyte Island, Philippines	245 children and their teachers died in a mudslide that buried the village elementary school after 5 days of rain had ceased.
2006	Uganda	13 children died in a school dormitory fire where children were using candles for lighting.
2005	Northern Pakistan, Kashmir	17,000 students died at school, and 50,000 were seriously injured, many disabled. 10,000 school buildings destroyed. 300,000 children affected. In some districts 80% of schools were destroyed.
2005	Gulf States, USA	56 schools were destroyed and 1,162 were damaged. 700 schools were closed and 372,000 children displaced. 73,000 college students displaced. \$2.8billion was spent to educate displaced students for a year.
2004	Indian Ocean	A tsunami destroyed 750 schools in Indonesia and damaged 2,135 more. 150,000 students without schools. 51 schools were destroyed in Sri Lanka, 44 in Maldives, and 30 in Thailand.
2000	Cambodia	Severe floods directly affected between 500,000 and 1m students in 1,000 – 2,000 schools in 8 provinces.
2004	Bangladesh	1,259 school buildings were lost to floods and 24,236 were damaged.
2004	Tamil Nadu, India	93 children died in a fire due to explosion of a cooking gas cylinder
2003	Bam, Iran	67 of 131 schools collapsed, the remaining were heavily damaged. (10,000 school children and 1,200 teachers died and more than 32,000 students were adversely affected.)
2003	Bingol, Turkey	84 children and teachers die in collapsed school building in a moderate earthquake. 4 schools collapsed. 90% of schools were impacted and education disrupted.
2003	Xinjiang, China	900 classrooms in dozens of schools collapsed in earthquake 27 minutes before thousands of children returned to their classrooms. Middle school collapsed killing at least 20 students.
2003	Dominican Republic	18,000 students lost their classrooms.
2003	Boumerdes, Algeria	103 schools destroyed, 753 severely damaged. Cost of rehabilitation \$79 million.
2002	AbGarm	16,500 students education disrupted when 8 schools collapsed and 137 were damaged.
2002	Molise, Italy	26 children and 1 teacher died in a school earthquake collapse.

4.1.2 Neutral

Two studies offer more ambiguous evidence on the impact of conflict on education, with previous enrolment levels and state fragility (rather than conflict) seeming to be significant.

Enrolment

The EPDC (EPDC 2010b) carried out an analysis of the impact of violent conflict on school enrolment at the sub-national level in 19 countries. The overall findings suggest there is a negative impact of violent conflict on enrolment however this may be due to underlying weaknesses in the education system rather than due to the conflict itself.⁵ Their “analysis of time series data – which covered all 19 conflict affected countries -- shows no strong evidence that primary attendance rates, enrolment rates, pupil numbers, and pupil teacher ratios decline dramatically in conflict areas as compared to non-conflict regions” (pg. 2). However for 10 of the countries the lower the overall attendance rate at the national level, the greater the disparity between conflict and non-conflict affected regions – for example in Chad primary school gross attendance for non-conflict affected regions was 3.7 times than conflict affected regions. At the other end of the scale in Rwanda, Uganda, Colombia and the Philippines, all of which have relatively high

⁵ Literature on institutional resilience may be useful here: strong systems are better able to provide services during stable times and during crisis, but how? Institutional resilience literature does note some key aspects of strong systems such as flexibility, local decision making, clear goals but also an acceptance of uncertainties, and some level of preparation for them (Bird, 2009) (Reyes, 2013).

national enrolment rates, there is very little difference between conflict and non-conflict affected regions. Problems with the data that may have distorted findings were that administrative data often lags in conflict, the regions analysed were too large to measure more local impacts of conflict, household survey data may only have been collected within more peaceful areas, and that the concept of conflict may be too broadly defined.

In response to criticisms by the 2012 Human Security Report (Human Security Report Project, 2012) of the EFA GMR of 2011's findings on the impacts of conflict on education, Shields and Paulson (2014) carried out a longitudinal analysis of cross-national data on armed conflict, state fragility and enrolment in primary and secondary schooling. They find clear associations between conflict and lower net enrolment rates and lower growth in net enrolment. However when they control for fragility, the relationship between conflict and education is no longer statistically significant. This adds weight to an idea that fragility is a more important underlying factor in lower enrolments than conflict itself. As with other reports, they point out that the lack of data may lead to underestimations of the impact of conflict, especially since the effects of conflict are often localised or regional, and that countries most affected by conflict are lacking from the analysis due to the lack of credible data.

ASSESSMENT Strong Negative Impact	3. To what extent is schooling is disrupted by different types of emergencies?
Strong negative impact	Pakistan (EPDC 2010a – school closure, enrolment, teachers) Sri Lanka (Williams 2010 – enrolment, school closure, teachers) Multi-country (Ferris & Winthrop 2010 – enrolment, Jones and Naylor 2014 – out of school children, teachers, O'Malley 2010 – <i>entire</i> system, Petal 2008 – <i>various factors</i> , UNESCO EFA GMR 2013 – <i>enrolment</i> , UNESCO Institute for Statistics 2010 - <i>enrolment</i>)
Ambiguous impact	Multi-country (EPDC 2010b – <i>enrolment</i> , Shields & Paulson 2014 - <i>enrolment</i>)

4.2 How is the schooling of different groups impacted by emergencies?

Total no. of studies: 8

Countries: Pakistan (1), Sri Lanka (1) multi-country (6)*

* = The six multi-country studies included: natural disasters in developing countries (1), study of 40 conflict-affected countries (1), literature review of conflict-affected countries (2), study of 25 conflict-affected countries (1), and a global study of education in emergencies (1)

Type of emergency: Violent conflict (6), natural disasters (1), variety of emergencies (1)

Disadvantaged group: Girls (7), higher levels of education (2), poorest (2), ethnic minorities (1), regions (1)

Summary assessment of evidence: Most of the literature here highlights the impacts of violent conflict on different groups' education. The findings relate mostly to gender but also touch on other aspects such as the wealth, regional divides, and levels of schooling. Again, there appears to have been limited research on natural disasters.

Headline findings: The effects of conflict on education do not affect all groups equally. Most often girls are more severely affected, although there are times where boys suffer more. Similarly the poorest are frequently hit hardest – the cases where there is greater impact on the rich is where the level of education for the poorest is already at a very low level. The impact of conflict appears higher at the secondary level and also at the regional level given the often localised nature of conflict.

A total of eight studies was found that provide analysis regarding disadvantaged groups, with the majority centred on conflict and gender. Other types of disparity include around schooling level, ethnicity, region and wealth.

4.2.1 Gender

Of the 28.5 million primary school aged children not in school in conflict areas, 55% are girls compared to 45% boys, and 11 million of the 20 million children not in secondary school are girls compared to 9 million boys, according to the UNESCO EFA GMR (2013).

The UNESCO Institute for Statistics (2010) review of the impact of conflict on education finds that the effects of war are often but not always gendered. For the majority of the 25 countries reviewed, girls were more seriously affected than boys with regards to access to formal education and educational attainment, examples of these countries being Zimbabwe, Tajikistan and Chad. In certain countries both girls and boys were equally negatively impacted, for example in Iraq, Rwanda and Guatemala, and in a few countries boys were more negatively affected, such as Cambodia and Mozambique.

The EPDC (2010a) report on the impact of violent conflict on primary education the Khyber Pakhtunkhwa province of Pakistan found that the impact was much more severe for girls than for boys. In Swat in 2006, before the conflict, 0.59% of boys primary schools were closed, compared to 7.77% of girls schools. However three years later these figures had risen to only 1.66% for boys but to 21.59% for girls' schools. The impact on enrolment was that in 2006 female enrolment had been catching up to male enrolment but

between 2006 and 2008 male enrolment decreased by 5.6% but girls enrolment decreased by 17.9%.

Jones and Naylor (2014) also find that girls are most often those that are most negatively affected by conflict in terms of being out of school. Using UIS data they state that of 23 countries, in 14 girls are more negatively affected. In five countries there is no difference between the genders. And in 4 countries boys are more likely to be out of school.

The Women's Commission's Global Survey of Education in Emergencies (2004) highlighted the gender disparity of enrolment for refugee populations. Analysing 500 projects in 113 countries showed that while enrolment was equal for boys and girls at the pre-primary level, by the first grade of primary school the ratio was 55% to 45% in favour of boys which increased year on year until a peak at grade 11 when the ratio is 71% to 29%.

Justino's (2010) review of empirical evidence on the impact of violent conflict on education suggests that the impacts affect girls more severely than boys across a range of contexts. For example, the 1992-1998 armed conflict in Tajikistan had a significant impact on the enrolment of girls but little if any impact on the enrolment of boys. Girls in conflict affected regions were 12% less likely to complete schooling compared to girls in non-conflict affected regions. Justino also highlights the lack of appropriate data though.

4.2.2 Schooling level

Justino (2010) finds that violent conflict affects secondary schooling more than primary. This might indicate the prioritisation given to primary schooling even in times of conflict but is also due to the fact that impacts on primary schooling result in knock-on effects throughout the system as children who drop out struggle to return to education.

The UNESCO Institute for Statistics (2010) report on the impact of conflict on education notes that secondary schooling is often more strongly affected. This is due to the fact that secondary schooling requires more specialised resources than primary and is thus more difficult to establish during or after a conflict. Also work or military opportunities are more tempting to children of secondary school age. In some countries, Rwanda, Cambodia and Somalia, the educated class of society were actively targeted during the conflict, which again decreases average years in school for these groups.

4.2.3 Ethnicity

Williams' analysis of the impact of conflict in Sri Lanka finds that the Tamil minority were disproportionately affected with their achievement levels half that of the majority. He notes though that it is not clear however whether this was caused by the conflict itself or whether this is one of the underlying causes of conflict.

4.2.4 Region

For most countries conflict is localised. The UNESCO Institute for Statistics (2010) review of the impact of conflict on education uses household survey data such as DHS and MICS to monitor the impacts of conflicts. When disaggregated by region it is found that regional conflict exacerbated pre-existing disparities in educational attainment in the majority of countries studied, examples of which include Turkey, Iraq, and Pakistan. During the civil war in Iraq in the 1990s the average years of schooling for people in

Kurdistan fell significantly compared to the rest of the country, the average for which only fell slightly.

4.2.5 Wealth

For most countries covered in the UNESCO Institute of Statistics (2010) review the increases in educational attainment of school-aged children from the richest quintiles was barely impacted. However those from the poorest quintiles showed increases in the proportion of students without access for formal education and decreases in educational attainment for the same conflict affected periods. Countries exhibiting these patterns include Bosnia and Herzegovina, Afghanistan and Zimbabwe. There was a sub-set of countries where the educational attainment of the wealthiest quintile was more negatively affected, while the poorest remained at relatively low pre-conflict levels, countries such as Burundi, and Somalia. This is in part explained by the argument that secondary education is more strongly affected by conflict than primary education.

Baez, de la Fuente and Santos (2010) also find that the poorest are most significantly affected by emergencies for several reasons- inequalities in risk exposure, risk sensitivity, and access to resources, opportunities and capabilities.

ASSESSMENT Effects are unequal +	4. How is the schooling of different groups impacted by emergencies?
Strong disparities	Multi-country: (Baez, de la Fuente & Santos 2010 – <i>poorest</i> , EFA GMR 2013 – <i>girls worse affected</i> , Jones and Naylor 2014 – <i>girls worse affected</i> , Justino 2010 – <i>girls worse affected, secondary more affected than primary</i> , UNESCO Institute for Statistics 2010 – <i>girls, poorest and secondary schooling worse affected</i> , Women's Commission 2004 – <i>girls worse affected</i>) Pakistan (EPDC 2010a – <i>girls worse affected</i>)
Ambiguous impact	Sri Lanka (Williams 2010 – <i>ethnicity</i>)

5 Measuring costs and returns

5.1 What are the economic and human capital costs of natural disasters and conflict on education systems?

Total no. of studies: 2

Countries: Multi-country (3)*

* = The three multi-country studies included: natural disasters in developing countries (1) and 2 literature reviews of conflict-affected countries (1)

Type of emergency: Violent conflict (2), natural disasters (1)

Summary assessment of evidence: Only three reviews look specifically at this question, two on violent conflict (one based on historical evidence) the other on natural disasters.

Headline findings: There is very little evidence that looks at the long term effects of the disruption of education systems by various forms of emergencies. What evidence there is, confirms the notion that conflict and natural disasters have long term impacts on individuals human capital, for example through lower education or health outcomes or reduced labour earnings in the future. These long term impacts are much greater than the short term impacts on education systems.

Only three studies were found to be addressing the specific issue of the long term economic and human capital costs because of the negative impacts emergencies have on education systems. While other studies exist that explore the impact of conflict and natural disasters on human capital in areas such as psychosocial trauma and learning completion (some of which are discussed in the above section on disruption) it was only the below that looked at the impact of lost education further down the line.

5.1.1 Economic costs

Jones and Naylor (2014) estimate the economic costs of conflict on three education systems – DRC, Nigeria and Pakistan – between 2009 and 2012. They estimate that the direct costs, because issues such as the of destruction of infrastructure, the cost of training new teaching staff, lost teaching time, to be \$32m for DRC, \$7.2m for Nigeria and \$117m for Pakistan. However this is dwarfed by the costs further down the line due to lower student attainments and missed schooling. This is discussed in the next section.

5.1.2 Human capital

Jones and Naylor (2014), in their assessment of the costs of conflict on education systems analysed the impacts between 2009 and 2012 in two countries – DRC and Pakistan. Based on rate of return rates of 25% and 15% respectively, they find that for DRC the cost due to lost human capital is \$470m (1.7% of GDP) and for Pakistan it is \$2.9bn (1.3% GDP). They do acknowledge that these figures are highly speculative, but argue that they give an indication of the enormous knock on effects of the impacts of conflict on education systems.

In a review of existing evidence on the impact of violent conflict on education for the 2011 Education for All Global Monitoring Report, Justino (2010) finds that even relatively minor shocks to education access can have significant long term effects on an individual's human capital formation, this being comprised of educational attainment, health outcomes and labour market opportunities. This finding however is based on three historical reports that do not look at recent conflicts, two of which aim to quantify the impact on human capital formation of World War II in Germany and Austria, the third measured the impact of landmines on educational attainment during the 30 years of the Khmer Rouge regime in Cambodia, the results being a 9% loss in years of schooling for those exposed to landmines.

In their review of the evidence on the question of the impact of natural disasters on human capital Baez, de la Fuente and Santos (2010) find that disasters are 'antithesis of human development' (pg. 3) by negatively impacting nutrition, education, health and many income-generating channels. These impacts can be both large in scale and long-lasting, although some are not irreversible. The few occasions where disasters can have a positive indirect effect is when old and inefficient infrastructure is destroyed and replaced with more modern infrastructure such as schools and health clinics. Examples of the negative impacts include the impact of malnutrition following disasters on schooling outcomes. Malnourished children start school later and are more susceptible to dropping out or repeating grades. Each of these leads to less years in schooling and reduced cognitive development.

ASSESSMENT	5. What are the economic and human capital costs of natural disasters and conflict on education systems?
Significant long term impacts on human capital	Multi-country: (Baez, de la Fuente & Santos 2010, Jones and Naylor 2014, Justino 2010)

5.2 How do the returns to education differ across level of education, income groups and gender in emergency affected countries?

Total no. of studies: 4 Countries: Multi-country (4) including Bangladesh, Cote d'Ivoire, DRC, India, Mali, Yemen, Nigeria Type of emergency: None - Low income or fragile states only
Summary assessment of evidence: The evidence covers a wide range of countries and contexts. Almost all the articles are multi-country that discuss more than one country case study. Evidence tends to anecdotal and a mixture of qualitative and quantitative evidence has been used.
Headline findings: There is relatively little evidence on returns to education in emergency situations, although there are findings on how returns on education are likely to differ across gender and age level (i.e. primary, secondary and tertiary) in fragile states. Studies suggest that returns on education have lowered over the years for primary education, but increased for higher education. Returns are also high on maternal and child health for females.

No evidence has been found that specifically discuss private returns to education in emergency affected countries. However, there are a number of studies that discuss private returns to education in fragile states and of course low income countries more generally. Some of this broader evidence is discussed in Annex 1 as indicative for the kinds of differences on returns to education that are likely. Evidence tends to differentiate private returns to education along levels of education and gender, rather than income groups.

ASSESSMENT	6. How do the private returns to education likely differ across income groups and age levels in emergency affected countries?
Gender	Burnett et al (2013); Aslam et al (2010); Psacharopoulos and Patrinos (2004); Hawkes and Ugur (2012)
Age group	Burnett et al (2013); Psacharopoulos and Patrinos (2004); Hawkes and Ugur (2012)
Income	Psacharopoulos and Patrinos (2004)

5.3 To what extent can the average public and private returns to education be quantified for a select group of emergency affected countries (type of crisis, by region etc.)?

Total no. of studies: 4
Countries: Ethiopia, Pakistan, Chile, Tanzania, Uganda and Mozambique
Type of emergency: None - Low income or fragile states only
Summary assessment of evidence: The literature discusses public and private returns to education in several different dimensions including economic, political, and psychosocial etc.
Headline findings: Once again, little evidence is available that has attempted to quantify public and private returns to education for emergency affected countries. Further ambiguity arises as some authors debate on whether public return or private return on education can be greater.

No evidence has been found that specifically discuss public and private returns to education in emergency affected countries. However, there are a number of studies that discuss public and private returns to education in fragile states and of course low income countries more generally. Some of this broader evidence is discussed in **Annex 2** as indicative for the kinds of differences on returns to education that are likely. The evidence tends to differentiate between economic, political and psychosocial returns.

Future research to quantify the likely high and varied returns to investing early in education could be key to securing greater sources of funding and institutional support for education in emergencies. These could highlight not only the direct economic benefits through increased learning outcomes leading to increased earnings in the future but also the wider benefits to well-being for example through the psychosocial support education offers during the early phase of an emergency or the value of peace and state building during or following a conflict.

ASSESSMENT	7. To what extent can the average public and private returns to education be quantified for a select group of emergency affected countries (type of crisis, by region etc.)?
Economic returns	Burnett et al (2013); Aslam, Bari and Kingdon(2010); Patrinos and Psacharopoulos (2011); Psacharopoulos and Patrinos (2004)
Political returns	Burnett et al (2013) ; Drackner and Subrahmanyam (2010)
Psychosocial returns	Burnet et al (2013) ; Hawkes and Ugur (2012)

6 Sources of finance

6.1 How does the mix of sources change in relation to the emergency phase?

Total no. of studies: 0
Summary assessment of evidence: There appears to be no evidence that deals directly with these questions.

No research was identified that answers this question. Different sources of spending are likely to feature more prominently at different stages of a response, such as preparedness, response and recovery (acknowledging the fact that these stages often do not occur in a linear fashion. Emergency preparedness tends to rely on a combination of both domestic funds and development aid sources. Humanitarian aid is most utilized at the onset of an emergency and during the early stages of the recovery. How this is used for education depends on the type and magnitude of the emergency. However this will typically include the establishment of safe spaces and informal schooling. This is when households are most likely to use their own finances and any diaspora remittances they receive to cover basic necessities. In recovery, domestic resources and development aid is likely to grow again in comparative volume and importance. Research is needed to establish the actual rates of spending of these various flows and how they complement each other or could be better integrated.

6.2 Is there a catalytic function of humanitarian aid to education?

Total no. of studies: 2
Countries/contexts: Low and lower-middle income countries (2)
Summary assessment of evidence: There does not appear to be research that responds directly to this question, however two pieces of broad research identify ways in which international aid can act as a catalyst for greater investment in basic education in low and lower-middle income countries.
Headline findings: ODA and development assistance from the Global Partnership for Education can help governments expand the domestic resources available for spending on basic education in low and lower-middle income countries.

No literature was identified that answered this question specifically. What follows details research that discusses the catalytic function of aid more generally to promote greater or more effective spending of domestic resources in the poorest countries, countries which are often those most significantly affected by various types of emergencies.

Rose et al. (2013) highlight that ODA resources can play a critical role in supporting low and lower-middle income countries in increasing domestic resource spending on education. They do not specifically discuss emergency or conflict-affected countries but their focus on low and lower-income countries includes many of the countries most severely affected by conflicts and emergencies. Given the funding gap for basic education in LICs and LMICs (\$26 billion per year – Rose et al., 2013, pg. 5) it will be imperative for these countries to both improve tax collection and spending as well as raising more revenue from natural resources where available. ODA can play a key role in facilitating these financing drives through tools such as advocacy and target setting.

In a review of financing for education the INEE (2010b) highlights the catalytic role the Education for All Fast Track Initiative (EFA-FTI – now the Global Partnership for Education, GPE) plays in increasing domestic funding to basic education in the poorest countries. Through their Catalytic Fund they support the implementation of domestically developed education sector plans. However, the support that GPE now provides in emergency situation is not captured by analyses looking at humanitarian assistance to education.

ASSESSMENT	9. Is there a catalytic function of humanitarian aid to education?
Catalytic function of international aid (not specific to humanitarian aid)	Rose et al. (2013) INEE (2010b)

6.3 Who and what is typically funded by different sources? Do the channels tend to be complementary or are there gaps?

Total no. of studies: 20

Type of funding: Cash transfer expenditure (3), Development aid (4), Humanitarian aid (3), Overall education expenditure analysis (2), Diaspora remittances (6), Government spending (1), Household expenditure (1), NGO spending (1), Social protection (1)

Type of emergency: Violent conflict (3), Earthquake (1), Drought / food crisis (2), LICs & LMICs and fragile countries (not necessarily emergency context) (10), not stated (broad analysis of humanitarian aid) (3)

Summary assessment of evidence: The evidence is varied and does not systematically answer the first part of this question. There is broad evidence concerning gaps in humanitarian funding for education in emergencies. Evidence is lacking on spending patterns for diaspora remittances and the use of development assistance specifically in emergency situations. There is however detailed analysis of how humanitarian funds are spent exists across various countries and settings.

Headline findings: Looking at the literature reveals that the four main sources of funding for education in emergency settings are domestic resources, household expenditure, development assistance and humanitarian aid. Very little research systematically deals with how domestic spending on education responds during times of emergencies. Among the donor community education is still seen broadly as a development issue, rather than a humanitarian issue with development assistance to education outstripping humanitarian aid in countries affected by various types of emergencies. Appeals for humanitarian aid to education sectors are never met, with conflict settings the most underfunded. Focusing solely on the humanitarian funding will therefore underestimate the amount of funding there is for education in emergencies. The divide between humanitarian and development funding is an ongoing issue that needs better integration.

6.3.1 Domestic Resources

While domestic expenditure is the single largest source of funding on education across all types of countries, no research was found that clearly analyses this before, during and after emergencies. Data on overall government expenditure on education is available, but generally does not include a specific breakdown of domestic government expenditure on education during and after emergencies [UNESCO, WDI data]. It may be that certain governments have set aside budgets to support education in emergencies, but this is not documented or explored in any depth in any cases.

Domestic spending on education has increased in developing countries in recent years, including in low and middle income countries where most out of school live. Low income countries have increased expenditure on education as a percentage of government expenditure on education since 1999 from 16% to 18% by 2011. In SSA public expenditure on education as a percentage of government expenditure has increased from 17.1 in 1999 to 18.7 by 2011 as shown in Table 6 below.

Table 6: Public expenditure on education

	Public education spending					
	% of GNP		% of government expenditure on education		Per capita (primary education) (PPP constant 2010 US\$)	
	1999	2011	1999	2011	1999	2011
World	4.6	5.1	15.0	15.5	2 149	3 089
Low income	3.1	4.1	16.4	18.3	102	115
Lower middle income	4.6	5.1	15.9	16.9	356	545
Upper middle income	4.8	5.1	15.8	15.5	1 117	1 745
High income	5.3	5.6	13.3	13.2	4 752	6 721
Sub-Saharan Africa	4.0	5.0	17.1	18.7	345	468
Arab States	5.3	4.8	21.0	18.1	822	1 338
Central Asia	3.4	4.1	15.4	12.3	—	—
East Asia and the Pacific	3.9	4.4	15.0	16.6	2 216	3 245
South and West Asia	3.9	3.7	14.6	15.0	297	573
Latin America and the Caribbean	5.0	5.5	14.4	16.2	1 142	1 753
Central and Eastern Europe	4.8	5.2	12.4	12.2	1 813	3 846
North America and Western Europe	5.6	6.2	13.3	13.1	5 990	8 039

Source: UNESCO Education for All Global Monitoring Report 2013/14

Governments have also increased their commitment to expenditure with the amount dedicated to education increasing from 4.6% of GNI in 1999 to 5.1% by 2011. However 25 countries – including Pakistan, affected by complex emergencies and home to 10% of the worlds out of school children – have decreased domestic expenditure on education since 1999. Moreover, post financial crisis budgets have come under additional pressure. Of the 49 countries where data is available UNESCO (2014b) found that 25 had a planned reduction in their education budgets in real terms. Sixteen of these 25 countries are in SSA, a number of which are those affected by conflict, and where a significant proportion of children affected by emergencies and remaining out of school still live.

Another modality of funding to help education in various forms of emergencies is social protection. Holmes (2010) finds that in conflict-affected states parents are often burdened not only with the direct costs of schooling for their children but also the costs of keeping schools running, meaning financial barriers are often the most significant for children in these countries. In Chad parents contribute 80-90% of all education out-of-pocket expenditures. Although not widely implemented, fee waivers and subsidies are effective methods for improving attendance. Key conditions for functioning social protection programmes that meet the direct and indirect costs of education include long-term funding, adequate institutional capabilities and support to school building. Social protection efforts can also be tailored to target specific marginalised groups, such as girls. Examples of this include scholarships for girls' education in post-conflict Sierra Leone; conditional cash transfers for girls in Cambodia; and school feeding programmes in Pakistan that provide extra rations to girls to take home depending on school attendance.

6.3.2 Household Expenditure

Research in relation to household expenditure and education is quite limited, but does suggest that households contribute to education when money is available. And that the poor may do so disproportionately compared to the better off. There is some analysis on household expenditure in relation to education in emergencies in the form of tracking and evaluation of cash transfer schemes, discussed as well in section 3.1 on whether education is a priority for those affected by emergencies. In addition there is some broad analysis on education that may apply in emergency situations, and a likelihood – although with limited research – that diaspora funds play a role here.

As already mentioned in section 3.1, three reports tracked how households spend unconditional cash transfers in times of emergency. Following the 2010 earthquake in Haiti, Christian Aid (2012) distributed unconditional cash transfers in six locations across the country and tracked how the money was used. Christian Aid worked with four local partners who each designed their own cash transfer schemes. These ranged from one time payments of \$52 to IDPs and host families to three payments of \$390 each time to IDPs starting from 14 days following the earthquake. The results showed that education was the third highest priority with 13.8% of cash spent on the sector, following food (30%) and cooking fuel (17.7%) with the remaining sectors being water (10.5%), rent/shelter (6.8%), small enterprise (6.7%), health (6%), debt repayment (4.8%), household goods (3.3%) and savings (0.4%). When disaggregating for location people in rural areas had education as their second highest sector while urban areas had education third equal with water. Details were not given beyond what sector the money was spent on, so it is not possible to analyse how the money was spent on education.

The other two were evaluations of cash transfer schemes during food crises, the first in Malawi (Devereux, Mvula and Solomon, 2006) and the second in Swaziland (Devereux and Jere, 2008). In Malawi cash transfers were part of a wider response to the food crisis by Concern Worldwide. The evaluation was based on household surveys of both beneficiaries and non-beneficiaries. This included two baseline surveys before the project implementation, three during the course of the project and one after. Evidence that did not highlight education as being a top priority comes from Devereux, Mvula and Solomon (2006) who evaluated Concern Worldwide's food and cash transfer project in Malawi during the 2005/06 drought and food crisis. 59.4% of the cash was spent on food, compared to only 2.4% on education. Other sectors included groceries (16.3%), health (7.3%), savings (6.4%), investment (3.4%) and extravagant spending (2.3%). This does not necessarily mean that education is not a priority as the spending covered January to March during which there may not have been significant education costs – fees are generally due annually (Devereux, Mvula and Solomon, 2006). In Swaziland 1,225 households received 'cash plus food' aid. The evaluation of the project included a baseline survey and followed by five monthly follow ups using household expenditure monitoring forms. In Swaziland Devereux and Jere (2008) analysed the use of Save the Children's cash transfers during the 2007/08 drought and food crisis in Swaziland. Education (7% of total spending) was third of the list of spending priorities after food and livelihoods, and ahead of groceries (7%), transport (7%), clothing (3%) and health (2%). More important though is how household spending patterns changed when annual school fees were due in January. Families receiving 'cash only' diverted household funds they had been using for food in previous months to education to cover school fees in January. Spending on food dropped from just over 63% in December to just over 40% in January and February while spending on education rose from 10% in December to 20% in January. This same pattern was stronger for families receiving 'food only' assistance with food spending dropping from 66% in December to 24% in January with education spending increasing from 0% to 31% in the same time period.

The EFA GMR 2013/14 analysed expenditure data for seven countries⁶, several of which are or have been affected by emergencies, and found that households in the poorer countries bore a greater burden for education expenditure. Households contribute more to higher levels of education, with

⁶ Albania, Bangladesh, Indonesia, Malawi, Nicaragua, Rwanda and Tajikistan

household expenditure accounting for 45% at primary level, 49% at secondary level and 57% for tertiary institutions. Household expenditure in primary ranged from 14% in Indonesia to 37% in Bangladesh (UNESCO EFA GMR, 2014b). The study also found that expenditure on primary education is very progressive as most children attend primary schooling. However at the secondary level, public expenditure is less progressive as fewer children from poor households continue their studies at the secondary level.⁷ This is partly driven by entry fees – common in secondary education – which restrict access for children from poor backgrounds. Government expenditure on secondary education therefore benefits more children whose parents can afford the tuition fees, although fees may be less because of that government subsidy.

In terms of source of income or wealth, remittances should be noted as a particular factor in emergency context. Global remittance flows to developing countries increased from US\$303 billion in 2009 to roughly \$414 billion in 2013. South and East Asia regions receive the bulk of these flows but flows to SSA are also increasing (from US\$28 billion in 2009 to US\$32 billion in 2013) (World Bank, 2013). During emergencies, diaspora communities provide remittances and other in-kind assistance to family and friends back home. For example the Somali diaspora is estimated to contribute between USD 1.3 billion and USD 2 billion per year in remittances back to Somalia, of which roughly 10 per cent is used for humanitarian assistance (King and Grullon, 2013). Analysis of remittances to Somalia sent from the UK by Hassan and Chalmers (2008) indicate that remittances to individual households were used to meet basic needs, for investment in business to encourage self-sufficiency, and for special occasions such as weddings, religious festivals or family bereavements. Again in analysis of remittances to Somalia, Hammond et al. (2012) find that remittances are used for building of primary and secondary schools, but do not provide any quantitative data for comparison with other sectors. Other research citing the importance of remittances in Somalia is by Maimbo (2006). This report finds that families receiving remittances are more able to meet the direct and indirect costs of education and that with higher levels of school attendance a consequence.

Research by Cherono (2013) shows that remittances are often used for education in Sub-Saharan countries. In a list of 14 options education came 2nd in Burkina Faso, Uganda and Nigeria, 4th in Kenya, and 5th in Senegal. None of the countries analysed however could be classified as emergency contexts. Future research of this kind in emergency situations would be beneficial to understand spending patterns on education in emergencies.

6.3.3 Development assistance

Even in emergency affected contexts, development assistance plays a dominant role in aid to education – at least in the medium to long term. The limited research on this that does exist looks either LIC or LMIC more generally or CAFS, rather than emergency situations specifically. Findings include that aid distribution has been to the disadvantage of poor countries and CAFS, and although funding for CAFS has increased somewhat recently, this is largely short-term grants.

However, development funding in conflict situations, such as that provided by the World Bank, is usually not captured analysis of funding to education in emergencies. For example, in Afghanistan, the World Bank has funded

⁷ In Malawi for example, the richest 20% of families receive a public subsidy for secondary education that is more than five times the amount the poorest 20% of families receive.

primary, secondary and tertiary programs (EQUIP, SHEP) where funds were provided for community programs, school protection, etc. However, the “conceptualization” of emergency funding has not covered these resources, nor has the Bank or similar development agencies made explicit their emergency response with development frameworks.

The latest report from UNESCO EFA GMR (2014a)⁸ highlights that donor funding is a large proportion of public expenditure on education in some countries. There are 25 countries for which more than 10% of public expenditure on education is from donor spending and in Liberia and Afghanistan this figure is more than 40%. Of these total aid figures the majority is development aid. For all developing countries only 2% of education aid is humanitarian, 98% is development aid. For the 21 countries that appealed for humanitarian aid for education in 2012, only 8% of education aid was humanitarian, 92% was still development aid. Even in South Sudan and Somalia, humanitarian aid only account for 23% and 27% of aid to education respectively, the rest being development aid. When looking at total aid to all sectors, not just education, there is a greater proportion of humanitarian aid compared to development aid. For the 21 appeal countries the figures are 23% humanitarian and 77% development. This shows the low priority given to education from a humanitarian perspective but the relative high priority given by the development side. Future research unpacking this issue could add significant value.

Rose et al. (2013), in a report on global financing for basic education, do not specifically discuss conflict or other emergency situations but do highlight the financing challenge for low and lower-middle income countries, many of which are those that suffer from ongoing conflict. They found that in 2010 spending on basic education in 46 low-income and lower-middle-income countries totalled \$28 billion, domestic spending accounting for \$25 billion of this and \$3 billion coming from donors. The EFA Global Monitoring Report (2012) estimates that this total figure will need to almost double to \$54 billion leaving an annual financing gap of around \$26 billion globally, a gap that is widening and hitting the poorest countries hardest. Rose et al. also found that multilateral aid suffers from uneven distribution and a lack of data meaning gaps often arise, gaps that again often hit those that need it most. Total aid to basic education in developing countries fell for the first time since 2002 between 2010 and 2011, a fall of 6%. This affected the poorest countries disproportionately with their figure falling by 7%, or \$149 million – the equivalent of sending an extra 1.1 million children to school.

Save the Children (2009) similarly find that although there are encouraging signs education in emergency situations is severely underfunded. For example between 2003 and 2005 conflict affected fragile states (CAFS) accounted for more than twice the number of out-of-school children than other low income countries. However these CAFS received just on third of aid committed to basic education in all low income countries. When analysing the top education recipients of aid from the European Commission, it is found that there is little emphasis on fragile states with the top recipients being lower-middle income countries such as Egypt, Tunisia and Jordan. Of the top ten recipient countries only one country was a CAFS, Pakistan. They note

⁸ The latest report from UNESCO EFA GMR (2014b) show that total donor aid (development and humanitarian) to education has fallen from a high of \$13.9 billion in 2010 to \$12.6 billion in 2012, a fall of 9% - comprised of a fall of 15% for primary education, 8% for secondary, and 5% for post-secondary. The level of priority given to education has also fallen. In 2003 education received over 11% of all donor aid; this has now fallen to 8.7% in 2012. These figures are not specific to countries suffering particular emergencies.

that, while increasingly countries are recognising the importance of education in conflict-affected countries, of 23 Development Assistance Committee (DAC) members only ten have policy commitments to education in countries affected by fragility or conflict, and only five of 23 have embedded education in their emergency policies.

Dolan (2011) finds that of 27 countries affected by conflict there are five countries that receive 50% of the education aid committed to these 27 countries. This skewed nature of funding means that some countries have very high basic education aid gaps per child, the highest being Burundi, Ethiopia, and Cote D'Ivoire. This small group of countries that receive over 50% of aid, Dolan argues, are often those countries that are most of interest to donors for reasons of national security. Dolan finds that overall education in emergencies is chronically underfunded however she does acknowledge that donor funding to education in emergencies has been on the rise as the importance of education in conflict or crisis affected countries has gained increasing recognition.⁹

In looking more closely at INGO expenditure, according to Dolan and Ndaruhutse (2010) Save the Children UK's expenditure on education in conflict-affected countries has risen dramatically since the early 2000s. This has been through their Rewrite the Future Campaign. In 2004 they spent about \$2 million on education through their development department and nothing through their emergencies department. However by 2009 they were spending close to \$10 million on emergencies and \$21 million on development making a total of \$31 million per year on education in conflict-affected countries. The largest recipient countries in 2008 and 2009 were DRC and Somalia with DRC receiving over \$8 million and Somalia receiving over \$4 million in 2009. The nature of the funding means that country programmes receive funding through large numbers of short-term grants, which affects what types of efforts that can be funded. This has meant there has been more of a focus on dealing with short-term activities that have an impact on direct educational needs rather than contributing to the long-term stability of education systems. Approaches vary from country to country with Somalia/Somaliland more successful in raising long-term funding while DRC, southern Sudan and Liberia have struggled on this front (Dolan and Ndaruhutse, 2010).

6.3.4 Humanitarian aid

While research on humanitarian aid to education is also limited, there does seem to be a more thorough picture of its scale and how it is allocated than for the other sources. This is likely due to the availability of data through the globally-held FTS. Analysis confirms that education is one of the most underfunded sectors of humanitarian aid, with requests regularly far outstripping funding.

The latest report from the UNESCO EFA GMR (2014a) shows that the percentage of humanitarian aid that goes to education has on average been increasing since the early 2000s. However in 2013 the figure was just 2.0%, half the 4% target set by the UN Global Education First Initiative. Education is also one of the most underfunded sectors of humanitarian aid. In 2013 of

⁹ Examples of this have been the funding from the Netherlands for UNICEF's Education in Emergencies and Post-Crisis Transition programme (EEPCT); the UK's commitment to increase aid to conflict affected countries; the increased prioritization of conflict affected countries by the Education for All Fast Track Initiative; Australia's commitment of US\$800 million to education with a priority on fragile states in the Pacific region and conflict affected countries such as Afghanistan and Pakistan.

nine sectors only agriculture (29%), protection (29%), and economic recovery & infrastructure (31%) received less as a percentage of their requests than education (40%). Sectors that are traditionally viewed as life-saving received a greater proportion of their request – food (86%), health (57%), water and sanitation (46%). Conflict-affected countries receive even less of their education humanitarian requests than those affected by disasters. Of 16 countries that held education humanitarian funding appeals in 2013, the C.A.R. and Sudan received the highest percentage of their education funding requested at 8% and 6% respectively. Half the countries received 1% or less.

The Global Education Cluster (2014) analysis further highlights the gap in humanitarian funding to education. In the latest figures, 2013, education requests through the CAP and flash appeals totalled \$409 million or 3.19% of all humanitarian funding requests. 65% of all humanitarian fund requests were met, however, as in for the analysis above, for education this figure is only 40%. This means that of all humanitarian fund requests met education represented only 1.95% in 2013 at \$163 million. In analysis of humanitarian funding in 2013 to 24 countries or regions, only two received the requested amount for education – Burkina Faso and South Sudan and in only four did the proportion of education requests met outperform the total requests met – Burkina Faso, Philippines (Haiyan), South Sudan and Syria. In all other situations education received less than the average. This meant that for example in Chad of 22 projects only five received any funding at all. Their analysis extends to the numbers of beneficiaries reached. In 18 countries in 2013 there were 8.97 million target beneficiaries of education support. Funding gaps meant that only 3.43 million were actually reached leaving 5.53 million people, mostly children, completely unreached. For example in Afghanistan the target for education beneficiaries had to be revised down from 1 million to 288,000 due to funding shortfalls.

In 2010 Development Initiatives (2010b) carried out an analysis on pooled funding in conflict settings. On the humanitarian side their analysis included three funds – Central Emergency Response Fund (CERF), emergency response funds (ERF), common humanitarian funds (CHF) – and on the development side five funds – multi donor trust funds (MDTFs), UN Peacebuilding Fund (PBF), UN Trust Fund for Human Security (UNTFHS), MDG Achievement Fund, World Bank State and Peacebuilding Fund (SPF). Between 2006 and 2009 total pooled funding (humanitarian and development) accounted for between 1.6% and 1.8% of all ODA, two thirds of this being development and one third humanitarian. However, of this humanitarian assistance, less than 3% was spent on education between 2006 and 2009 for all beneficiary countries and just over 3% for just conflict-affected countries. The figure for the development pooled funds was higher at around 7.5% for the same period for all beneficiary countries and for conflict affected countries specifically. That education receives a higher percentage of development than humanitarian funds suggests that education is predominantly seen as a long term development issue, rather than an emergency issue.

TYPE of FUNDING	10. Who and what is typically funded by the different sources? Do the channels tend to be complementary or are there gaps?
Domestic resources	Holmes (2010) – social protection UNESCO EFA GMR (2014b) – domestic education spending in all countries
Household Expenditure	Cherono (2013) – diaspora remittances – various Sub-Saharan Christian Aid (2012) – cash transfer spending – Haiti Devereux, Mvula & Solomon (2006) – <i>cash transfer spending – Malawi</i> Devereux & Jere (2008) – cash transfer spending – Swaziland Hammond, Ali and Hendrick (2012) – <i>diaspora remittances Somalia</i> Hassan and Chalmers (2008) – diaspora remittances - Somalia King & Grullon (2013) – diaspora remittances, lack of data Maimbo (2006) – diaspora remittances - Somalia UNESCO EFA GMR (2014b) – proportions of household expenditure on education World Bank (2013) – diaspora remittances
Development Assistance	Dolan (2011) – skewed funding of education aid Dolan and Ndaruhutse (2010) – patterns of spending for Save the Children UK INEE (2010b) – overall analysis of education funding Rose et al. (2013) – financing gap for basic education in LICs and LMICs Save the Children UK (2009) – trends in donor policies to education aid in conflict-affected countries UNESCO EFA GMR (2014a) – fall in development aid since 2010, education prioritisation by development sector
Humanitarian Aid	Development Initiatives (2010b) – greater proportion of pooled development funding than pooled humanitarian funding is spent on education Global Education Cluster (2014) – gaps in humanitarian funding for education Lopes Cardozo and Novelli (2010) – <i>Dutch aid to education</i> UNESCO EFA GMR (2014a) – lack of humanitarian funding, especially in conflict-affected countries

7 Case studies: Haiti and the DRC

In the following section we analyse the questions of prioritisation and the financing characteristics in more depth through two detailed case-studies. The first is in Haiti following the 2010 earthquake and the second is in the DRC which is suffering ongoing conflict. The country selection criteria included covering both a natural disaster and a conflict situation and countries with adequate data availability. These are purely desk-based reviews and the methodology for these case-studies includes literature reviews of available documents and quantitative data work using available data from the UN OCHA Financial Tracking Service, the OECD Credit Reporting System and where possible data from country ministries of finance or education.

7.1 Haiti

7.1.1 Overview of crisis and effect on education

On January 12th 2010 a magnitude 7.0 earthquake struck just 25km from Haiti's capital, Port-au-Prince. This had a catastrophic impact on the country and its education system. Estimates of loss of life range from as low as 46,000 (according to USAID) to as high as 316,000 (according to the Haitian government) (O'Connor, 2012) with at least a third of the population affected and the cost of losses and damages totalling over \$7.8 billion, more than the country's entire GDP the previous year (Ramachandran and Walz, 2012).

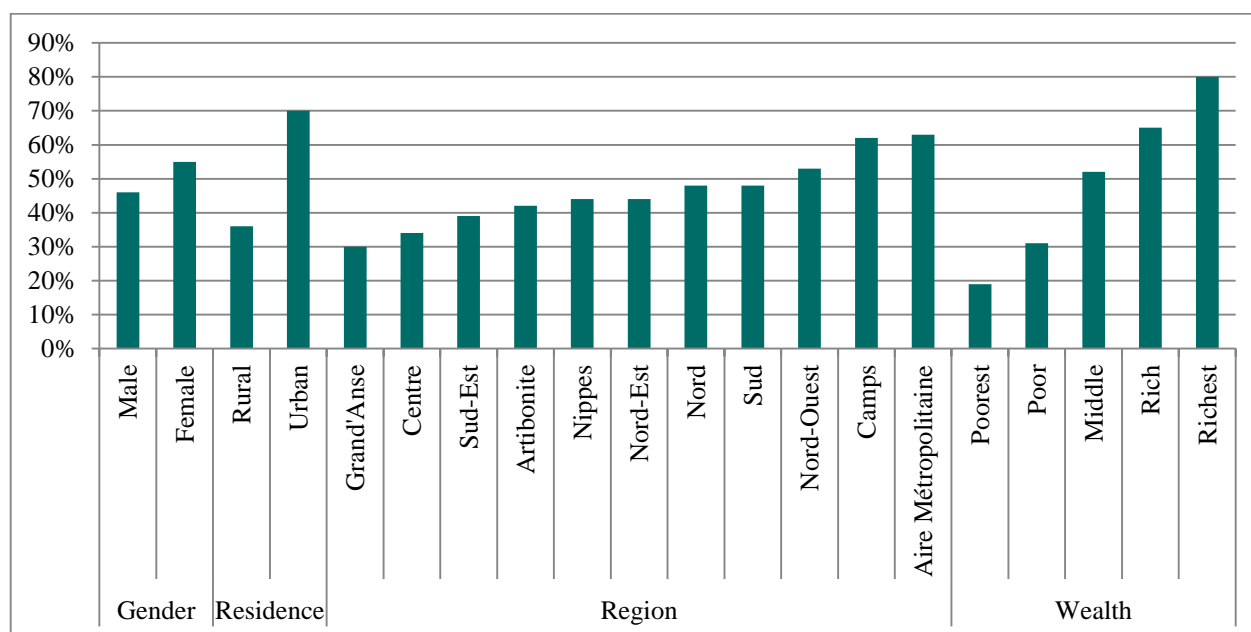
The education system was hit hard with half of the country's schools and three major universities either destroyed or severely damaged. In the words of the then education minister, Joel Jean-Pierre: "What we have seen is the total collapse of the Haitian education system," (McNulty, 2011). 23% of the country's 4,992 schools were damaged or destroyed and 1,500 education personnel lost their lives (IASC, 2010). The Ministry of Education itself collapsed killing many of those inside, leaving an already weak system without key staff in place to help the recovery.

The humanitarian response had various components. At the national level, civil society organisations (CSOs) were active in providing immediate assistance following the earthquake. The Government response was severely impeded by the deaths of and injuries to civil servants and damage and destruction of national and municipal buildings. The government did start work on the recovery the day after the earthquake and by the 15th of January had established working groups for health, food, water, fuel and energy, reconstruction, and safety for temporary shelters. Each of these was led by a Minister or civil servant and involved both government and CSOs. In the first 6 months of the humanitarian response, 4 million people received food aid, 2.1 million received non-food household items, 1.5 million received emergency shelter materials, 1 million had benefited from cash-for-work

programmes, and 195,000 children had benefitted from temporary learning spaces.

The education system itself displays strong inequalities. For the primary completion rate for children of primary graduation age in 2012, girls (55%) outperformed boys (46%). The range for regions was from 30% in Grand'Anse to 63% in Aire Métropolitaine. The most extreme differences are by wealth. Of the poorest quintile only 19% complete primary education, compared to 80% of the richest quintile (see Figure 7-1). Because the earthquake hit Port-au-Prince and surrounding districts, significant impacts were felt by both the rich and the poor.

Figure 7-1: Primary completion rate for children of primary graduation age, Haiti, 2012

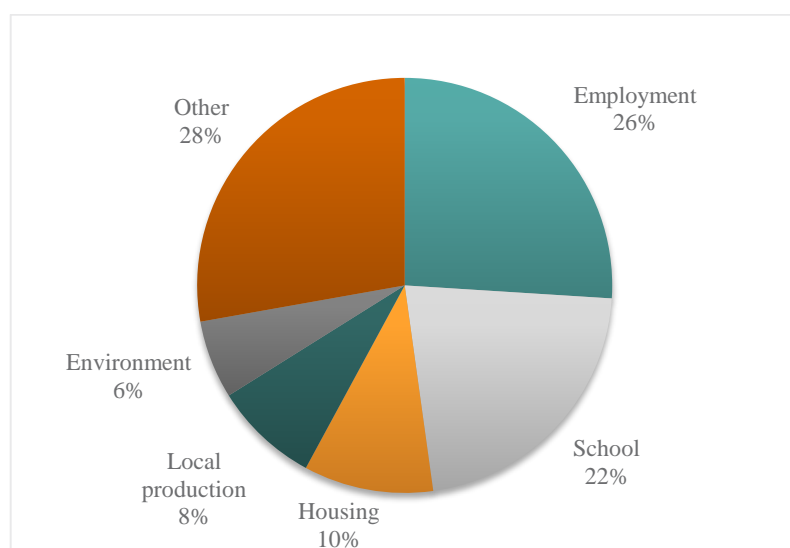


Source: The World Inequality Database on Education (WIDE), accessed 22nd July 2014

7.1.2 Prioritisation

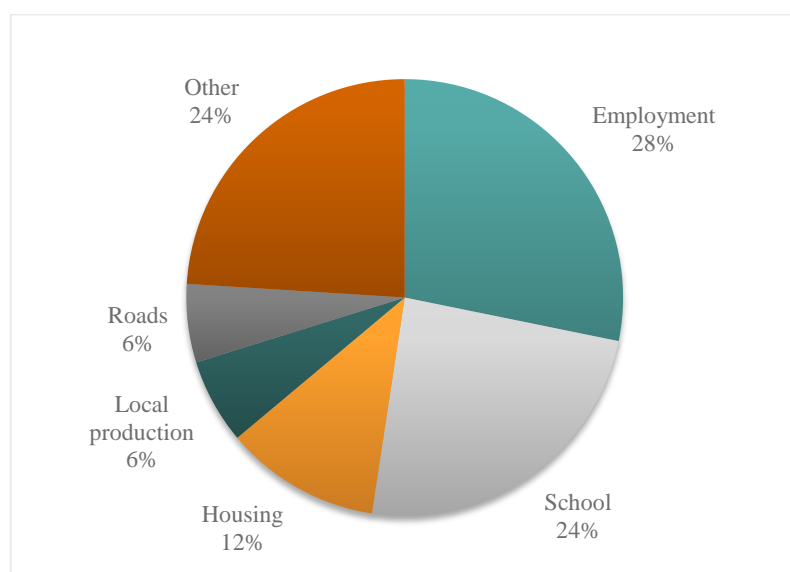
As discussed in section 3 education is often seen by communities as a relatively high priority. In Haiti this is reflected by two analyses of people affected by the earthquake. A survey of 1,765 adults by Oxfam (Pierre, 2010) found education was a high priority after the earthquake. Before the earthquake education had not been in the top ten of priority problems facing the country identified by respondents. After the earthquake, however, education was identified as the second top priority faced by the country in both needs and what people want to see as part of the reconstruction plan.

Figure 7-2: Needs facing the country after the earthquake



Source: Pierre, 2010

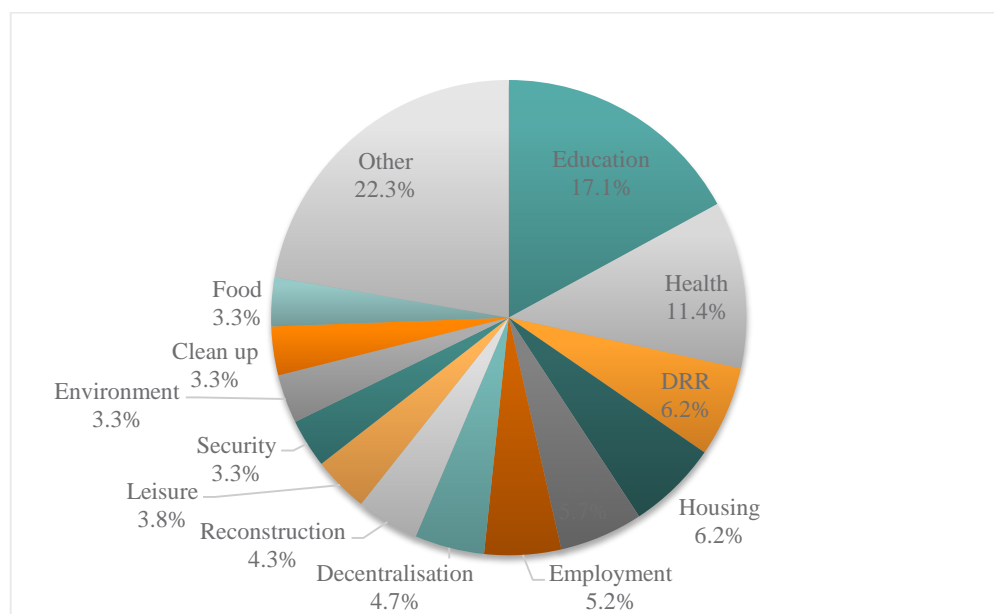
Figure 7-3: Priorities Haitians wish to see in reconstruction plan



Source: Pierre, 2010

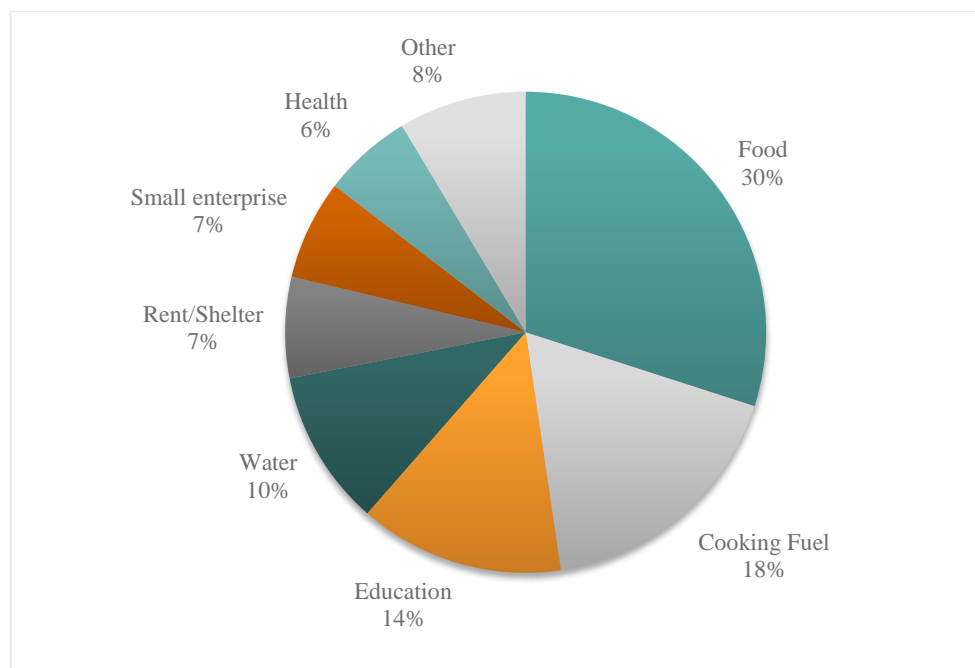
In addition Plan International (2010) carried out a survey of 925 young people, aged 5 to 24, from nine districts two months after the earthquake. In focus groups the participants were asked what their 'most urgent needs' were. Overall education accounted for the highest number of responses (17.1%) followed by health (11.4%), disaster risk reduction (6.2%) and housing (6.2%) (see Figure 7-4). 'Education' included terms such as 'school', 'education', 'university', 'youth training', 'free schooling', 'professional schools', and 'state school'. When disaggregating the data education was top for all age groups and both genders.

Figure 7-4: 'Most urgent needs' of youth, aged 5-24, following 2010 earthquake, Haiti



Source: Plan International, 2010 Following the 2010 earthquake in Haiti, Christian Aid distributed unconditional cash transfers in six locations across the country and tracked how the money was used. Education was the third highest priority with 13.8% of cash spent on the sector. The following chart shows how the cash was spent across various sectors (Christian Aid, 2012).

Figure 7-5: Percentage of cash transfer spent by sector, Haiti, 2012



Source: Christian Aid, 2012

When disaggregating for location, people in rural areas had education as their second highest sector while urban areas had education third equal with

water. Education was also a high priority for humanitarian funding with only four sectors raising more funds and with education receiving the highest percentage of humanitarian funding requests.

7.1.3 Costs and returns

The only available data for returns to education for Haiti show that in 2001 the returns of each extra year of schooling were 8.3% (Montenegro & Patrinos, 2014). The total return for primary education was 23.8%, 14% for secondary and 18.4% for tertiary. Except at the tertiary level returns were higher for girls than for boys (see Table 7).

Table 7 - Returns to schooling in Haiti (2001), %

Extra year of schooling	Total primary	Total secondary	Total tertiary	Total primary (male)	Total secondary (male)	Total tertiary (male)	Total primary (female)	Total secondary (female)	Total tertiary (female)
8.3	23.8	14	18.4	20.8	12.3	21.9	23.9	18.3	11.5

Source: Montenegro and Patrinos, 2014

No more recent analysis on returns to education has been found.

7.1.4 Sources / analysis of funding

Domestic budget

According to the IMF (2013) government spending on education remains relatively low, at 2.1 percent of GDP, compared to 3.8 on average in the region (IMF, 2013).

According to Carlson et al (2011), although the education system in Haiti is largely inadequate, the government is not in a position to close deficient schools, as it is not equipped to take on the additional responsibility, nor does it have the resources or capacity to do so. Before the earthquake, the GoH was spending approximately US\$100 million per year on schools, approximately two percent of its GDP and approximately \$41 per student. This is slightly less than half the regional average of budget allocation for public education (McNulty, 2011).

Additionally, the education system suffers from rural neglect. It is highly geographically centralized, with only 20 percent of education-related expenditures reaching rural areas, which account for 70 percent of Haiti's population (Luzincourt & Gulbrandson, 2010). Of the total number of universities in Haiti, 87 percent were located within or in close proximity to Port-au-Prince before the earthquake (Interuniversity Institute for Research and Development, 2010). To further illustrate this point, in 2007, 23 communal sectors lacked a school, and 145 were without a public school, all located in rural areas.

Furthermore, Bredl (2011)'s results suggest that remittances play an important role for poor households in alleviating budget constraints. Household wealth, captured via an asset index, is found to have a significant impact on education as well, supporting the idea that budget constraints play a crucial role in schooling decisions in Haiti.

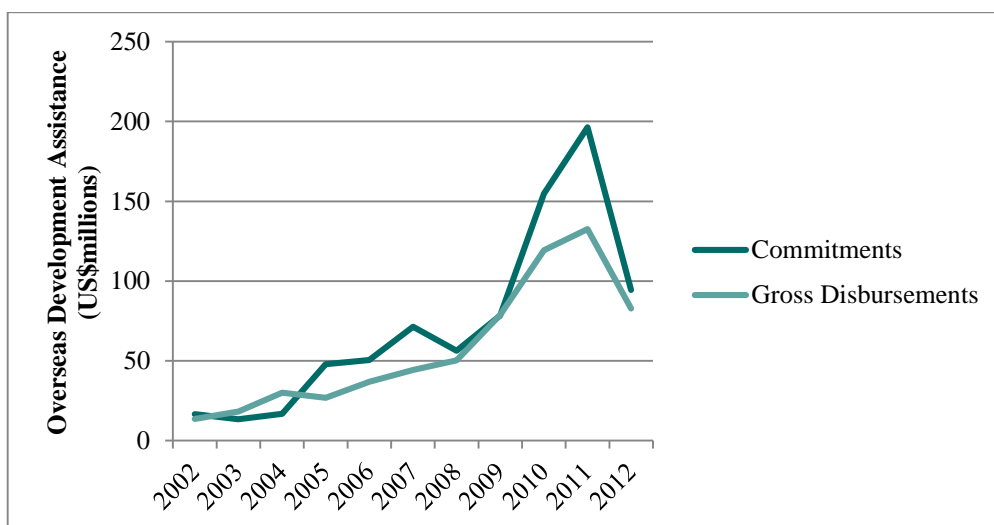
Household expenditure

Research has not been identified that analyses household out-of-pocket expenditure on education or the use of diaspora remittances to fund education.

Development aid

Overseas Development Assistance (ODA) has been a major contributor to the education sector in Haiti. Available data from the OECD shows that total ODA from all donors to education in Haiti has risen from \$13.6 million in 2002 to a peak of \$132.6 million in 2011, the year after the earthquake (see Figure 7-6). The percentage of commitments that has been met by donors has fluctuated between 56% and 178% with an average of 80%.

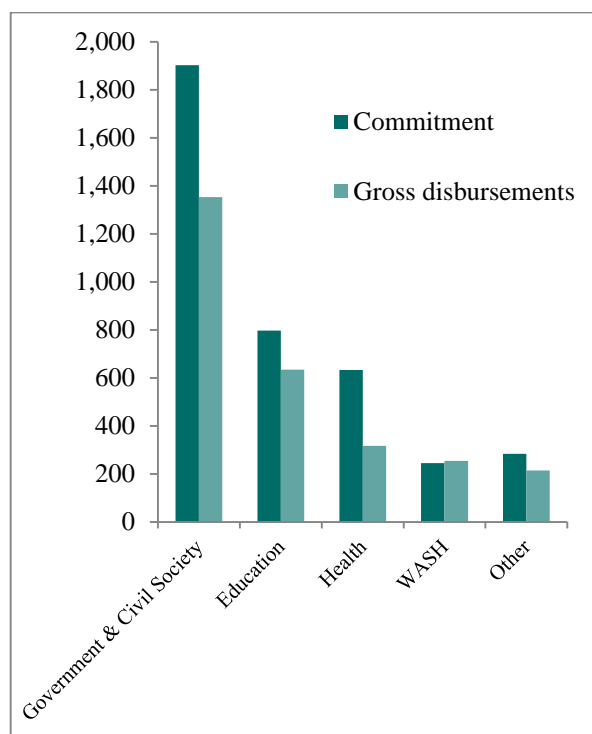
Figure 7-6: ODA to education in Haiti, 2002-2012



Source: OECD Stats, accessed 15th July 2014

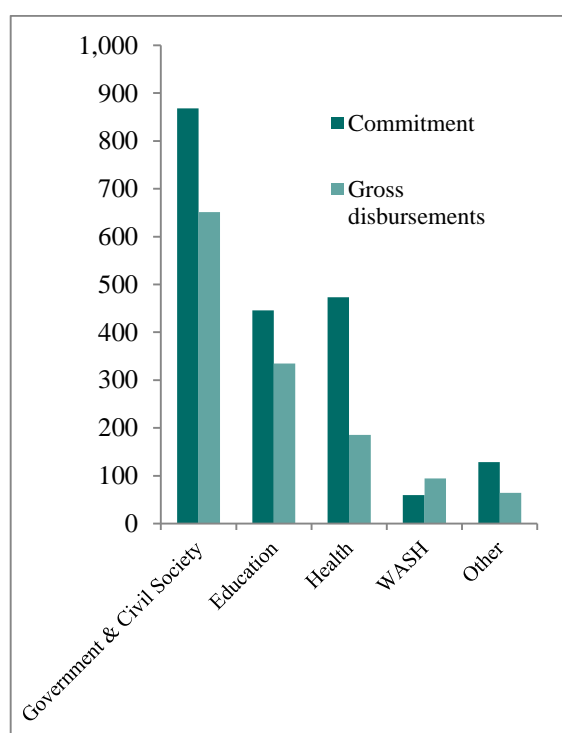
Compared to other sectors within social infrastructure and services, education has received the second highest total amount (\$634.1 million), after government and civil society (\$1.4 billion) from 2002 to 2012 (see Figure 7-7 and Figure 7-8). After the 2010 earthquake there was a shift in that health received higher commitments than education, however these commitments were not sufficiently met and education still received more in the years following the earthquake (see Figure 7-8)

Figure 7-7: ODA to social infrastructure and services in Haiti, 2002-2012
(US\$ millions)



Source: OECD Stats, accessed 15th July 2014

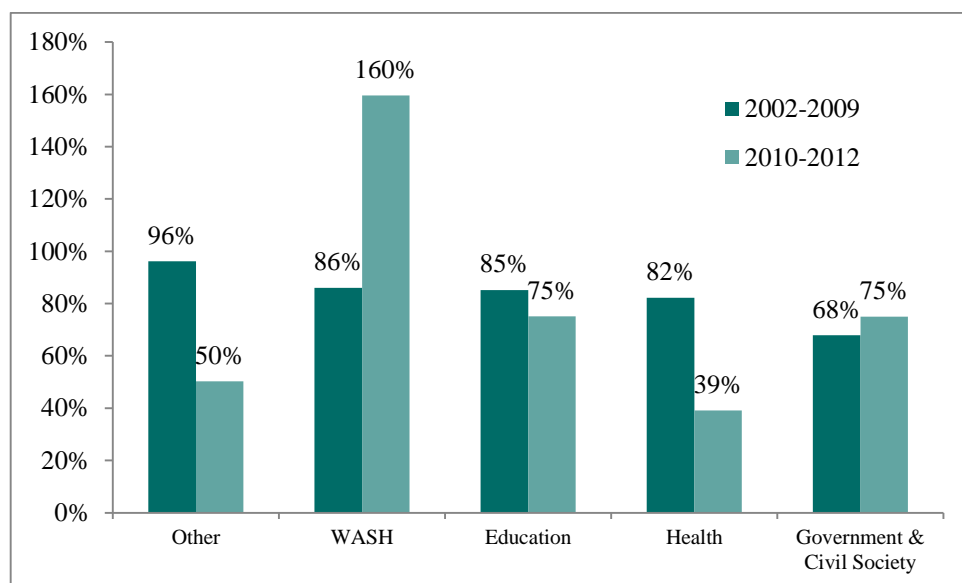
Figure 7-8: ODA to social infrastructure and services in Haiti, 2010-2012
(US\$ millions)



Source: OECD Stats, accessed 15th July 2014

The proportions of commitments met changed significantly after the 2010 earthquake. From 2002 to 2009 education received 85% of commitments, with only health (82%) and government and civil society (68%) receiving less. After the earthquake this figure dropped for education to 75%. Health and 'other' dropped to 39% and 50% respectively. WASH however almost doubled from 86% before the earthquake to 160% after. Government and civil society was the only other sector that increased, from 68% to 75% (see Figure 7-9).

Figure 7-9: Percentage of commitments met for ODA to social infrastructure and services in Haiti, 2002-2009 and 2010-2012

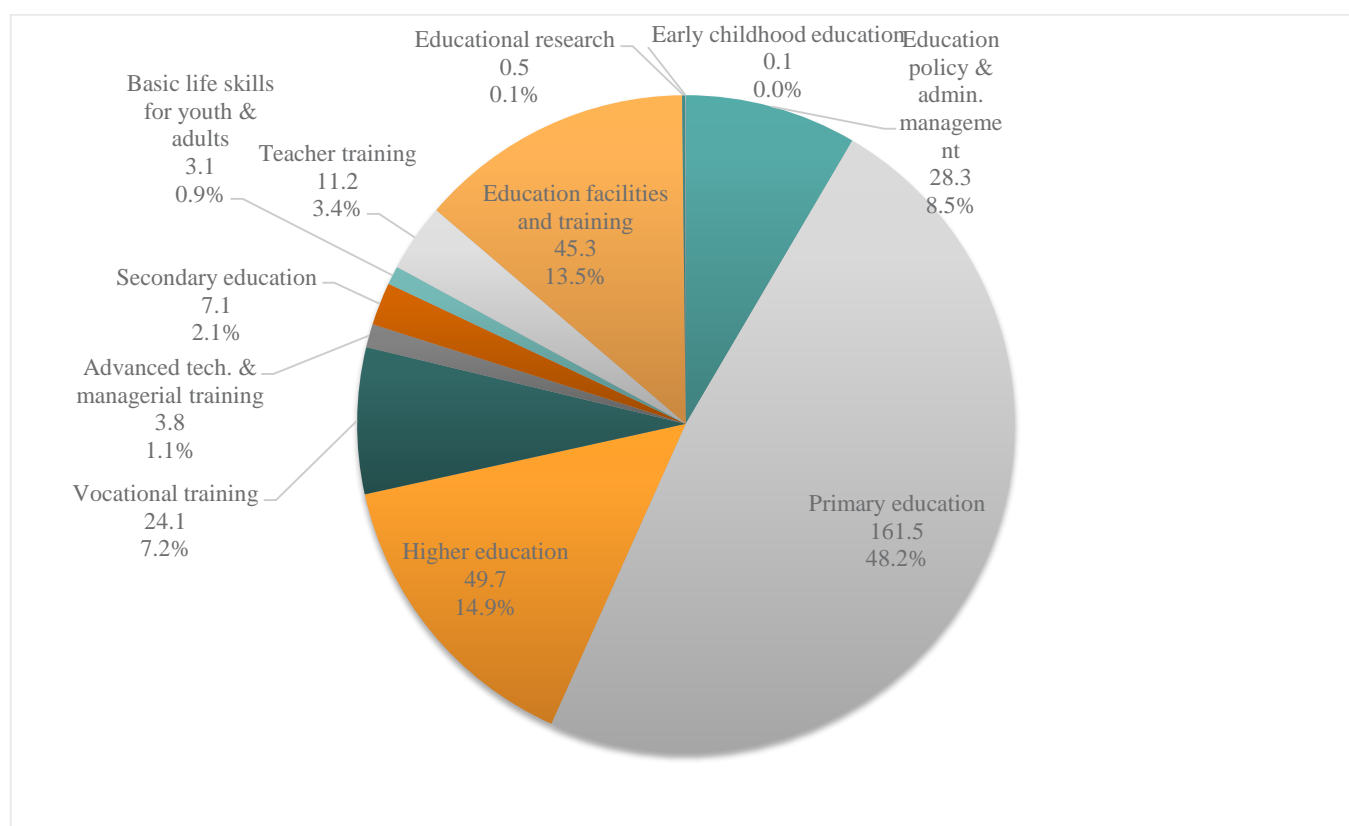


Source: OECD Stats, accessed 15th July 2014

How these funds to education were spent before and after the 2010 earthquake is revealing. Between 2002 and 2009 the sectors receiving the highest proportion of funding to education were 'Education policy and administration management' (33.8%), primary education (32.5%) and higher education (20.8%). These three sectors received 87% of all education funds.

These priorities shifted after the earthquake, with the primary sector receiving almost half of all funds between 2010 and 2012. Education facilities and training also increased significantly, from 1.0% between 2002 and 2009 to 45.3% between 2010 and 2012.

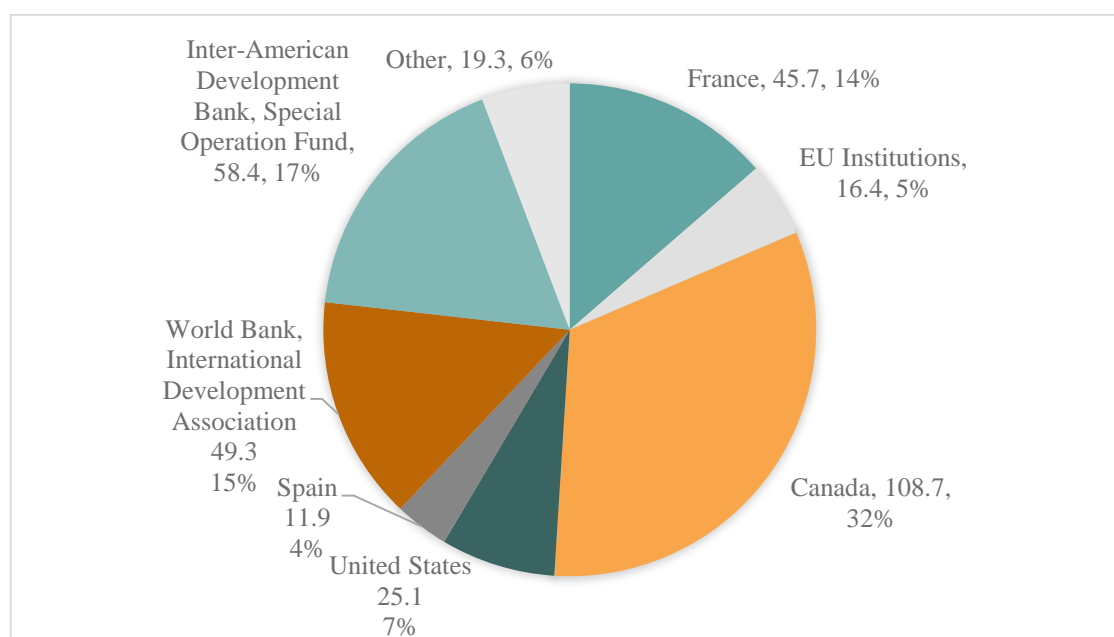
Figure 7-10: ODA to the education sector, Haiti, 2010-2012 (US\$ millions)



Source: OECD Stats, accessed 16th July 2014

The main ODA donors to education in Haiti before the earthquake were France (23%), EU Institutions (18%), Canada (15%), the USA (15%), and Spain (14%) who all gave between \$40 and \$70 million between 2002 and 2009. The main donors after the earthquake, however, were Canada (32%), the Inter-American Development Bank (17%), the World Bank (15%) and France (14%), who donated between \$45 and \$109 million between 2010 and 2012 (see Figure 7-11).

Figure 7-11: ODA donors to education in Haiti, 2010-2012, (US\$ millions)



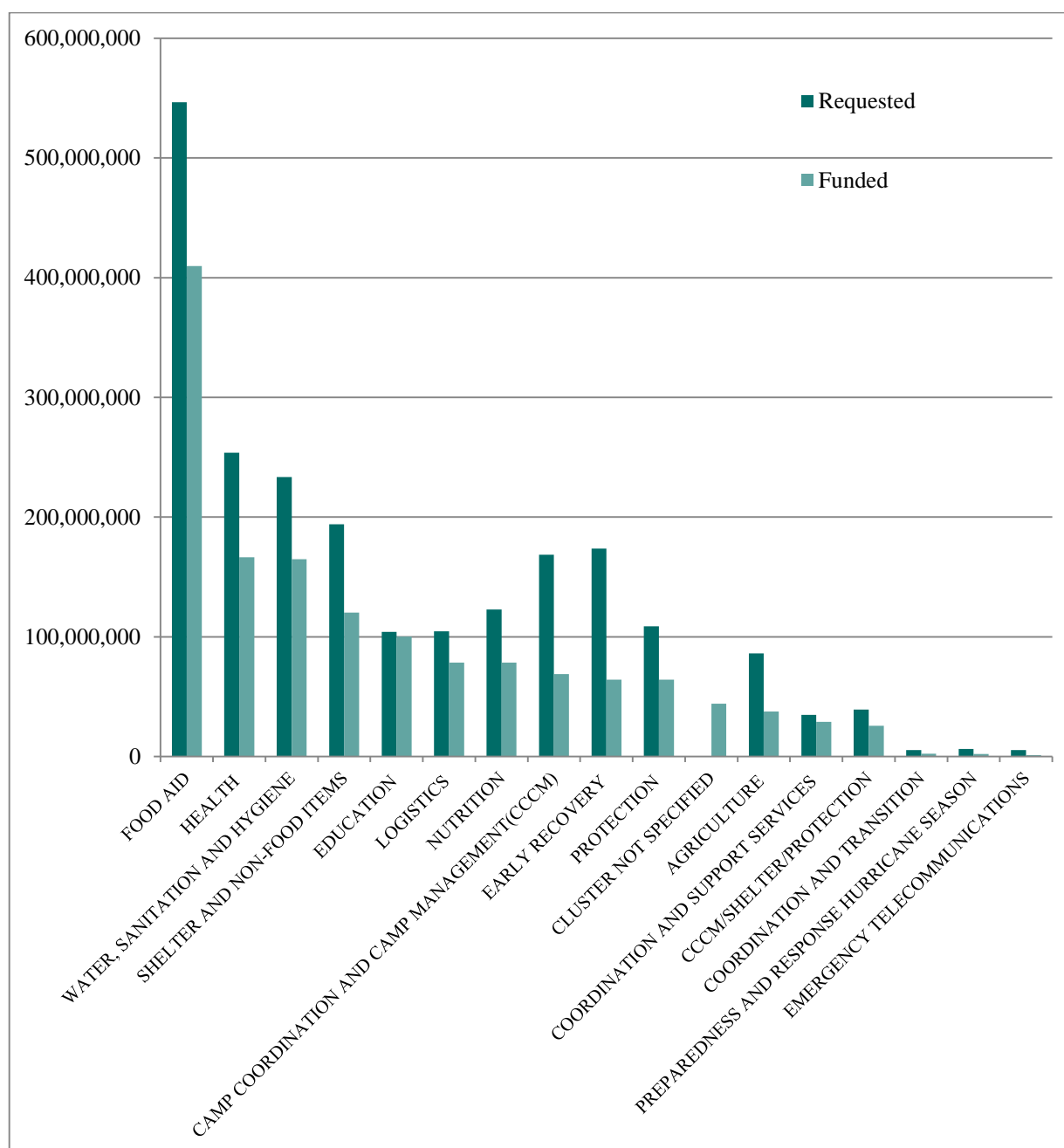
Source: OECD Stats, accessed 16th July 2014

The Global Partnership for Education granted Haiti \$22 million between 2010 and 2015 and has approved a grant of \$24.1 million for 2014 to 2016 (Global Partnership for Education, 2014a) (Global Partnership for Education, 2014).

Humanitarian aid

Through the Consolidated Appeals Process (CAP), for data from 2010 to 2013, the Haitian education sector has received \$100 million of the requested \$104 million. Only four other sectors received more – food (\$410m), health (\$166m), WASH (\$165m), and shelter and non-food items (\$120m) – see Figure 7-12.

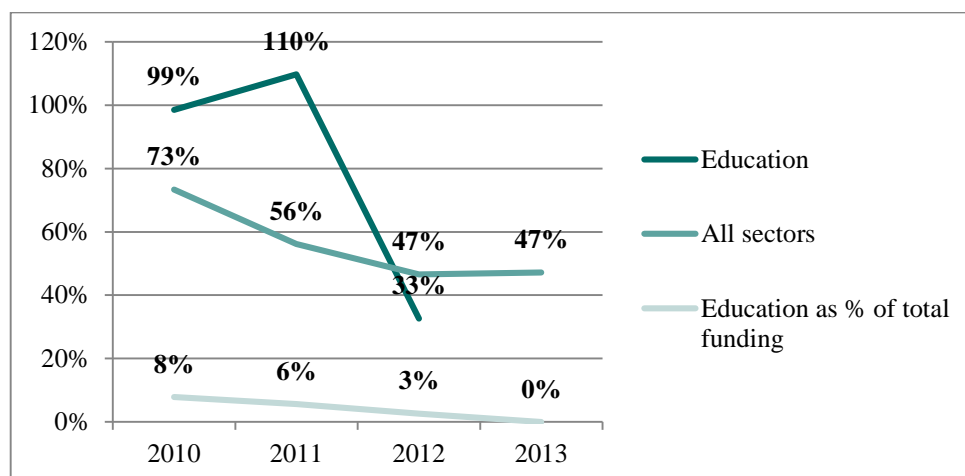
Figure 7-12: Total humanitarian funds (US\$) requested and funded via the CAP in Haiti by sector, (2010-2014)



Source: Financial Tracking Service, accessed 9th June 2014

In the first two years following the earthquake education received 99% and 110% of humanitarian funding requests, far above the average for all sectors combined. This fell to 33% in 2012, the final year education made humanitarian funding requests. From 2010 to 2012 education accounted for 8%, 6%, and 3% of all humanitarian funding to Haiti, meeting the 4% target set by the UN – see Figure 7-13.

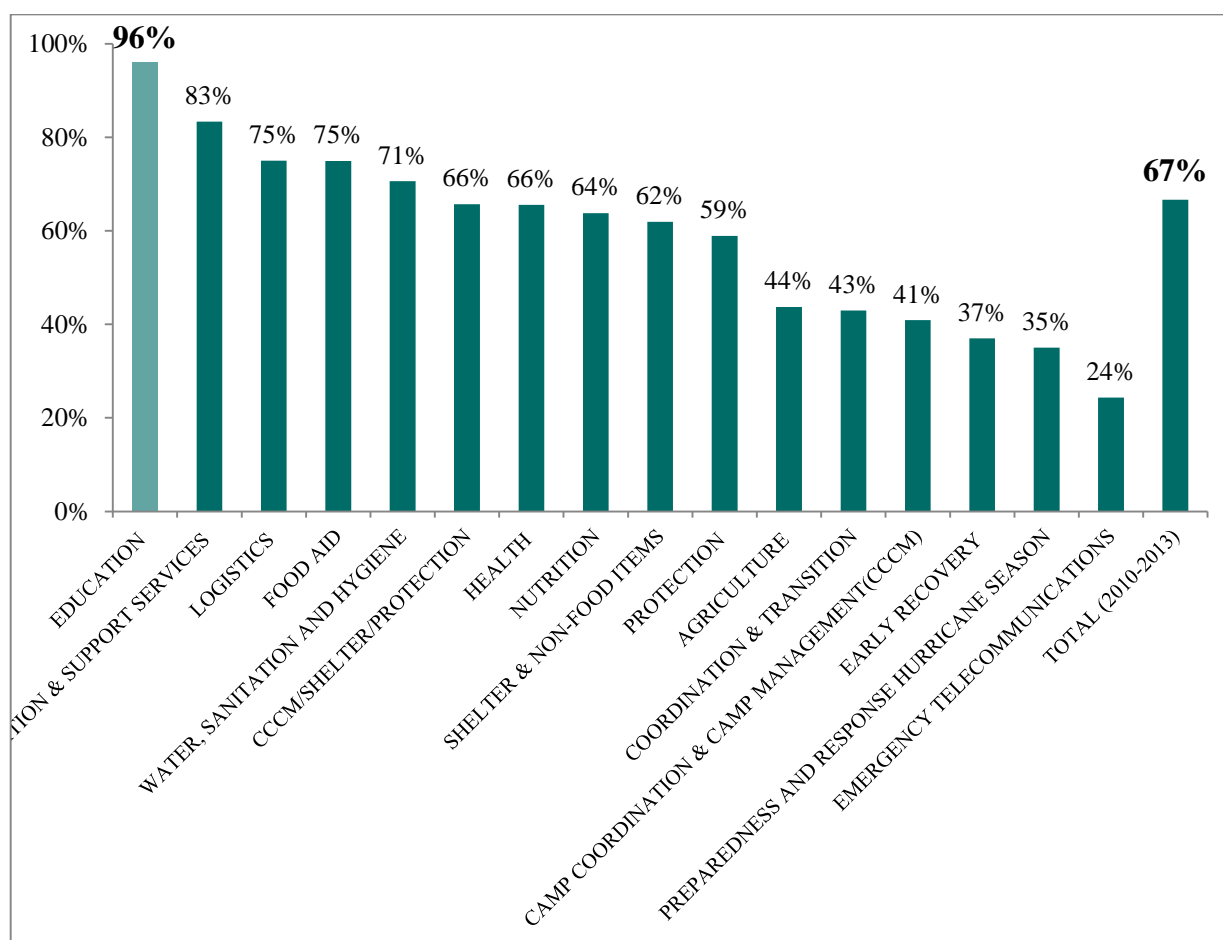
Figure 7-13: Percentage of humanitarian funding requests met through the CAP in Haiti – education compared to all sectors



Source: Financial Tracking Service, accessed 9th June 2014

Overall education has received 96% of humanitarian funding requests, the highest of any sector in Haiti and well above the average of 67%.

Figure 7-14: Percentage of humanitarian funding requests met through CAP in Haiti by sector (2010-2013)



Source: Financial Tracking Service, accessed 9th June 2014

This shows that education was a relatively high priority for the humanitarian sector and that essentially the sector received all the requested funds.

7.1.5 Conclusions

After the 2010 earthquake in Haiti, education was a major demand for affected communities along with food, health, housing and employment. The ability of the government to respond to the education crisis following the earthquake was severely compromised due to the destruction of the ministry of education, much of the system's infrastructure and the deaths of staff. Commitments from development aid to education increased dramatically in the two years after the earthquake, however these commitments were not met with equal increases in actual disbursements of funds for education programmes. Humanitarian aid on the other hand met 99% of requests to the education sector in 2010 and 110% in 2011 – education was the sector that received the highest proportion of its requests following the earthquake. Household out-of-pocket expenses and diaspora remittances are likely to have played a significant role, however research is lacking in this area.

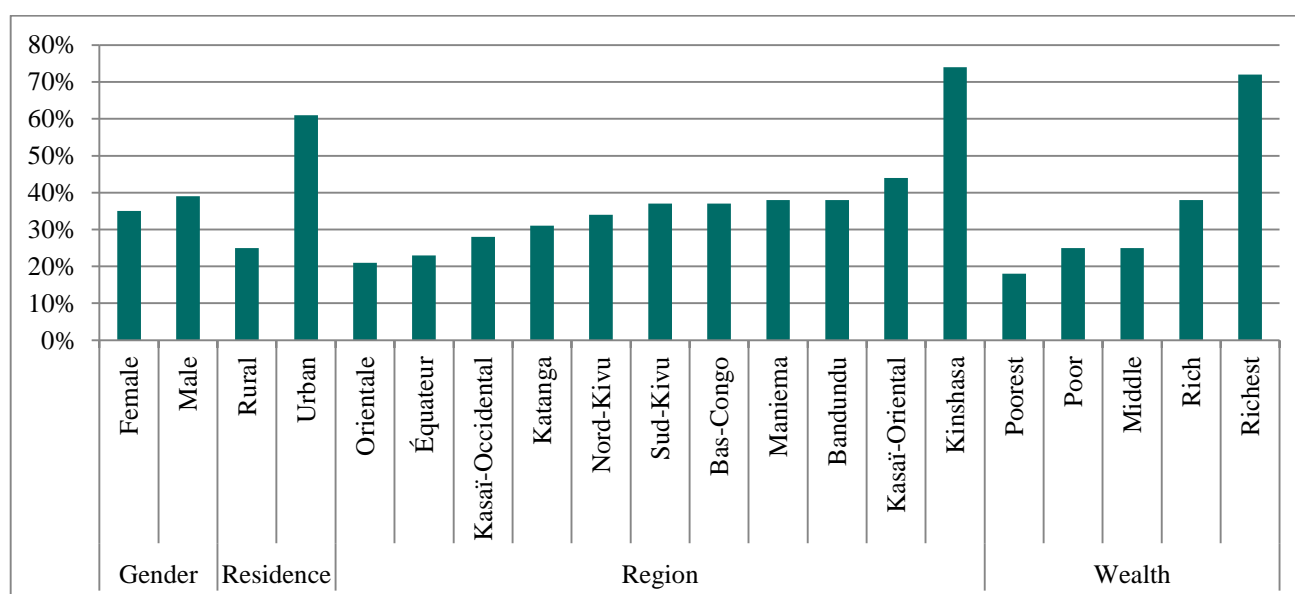
7.2 DRC

7.2.1 Overview of crisis and effect on education

The DRC is classified as a fragile state and has been affected by ongoing conflicts for decades. In the latest human development index DRC features second bottom, above only Niger (UNDP, 2014), and there are approximately 1.4 million IDPs in the country (INEE, 2014a). The country also has the highest poverty rate in Africa, with more than 70% of the population living on less than \$1 per day and more than one third of the population only have one meal per day (Bender, 2010).

The education system relies almost entirely on household funding, driven by high public demand that has filled the lack of government funding to the sector and the government's inability to deliver education. The system is marked by serious inequalities. When looking at the primary completion rate for children of primary graduation age one finds that boys (39%) outperform girls (35%), although not dramatically. The biggest inequalities are between wealth quintiles, regions and whether a child lives in an urban or rural area. The completion rate for the richest quintile is 72%, compared to only 18% for the bottom quintile. The best performing region is Kinshasa with 74% with the ten other regions ranging from as low as 21% to only 44%, with the regions affected by conflict all being in the lower half (see Figure 7-15). It is estimated that 10-20% of out of school children can be attributed to the conflict directly, this figure peaked at 41% in 1999 at the height of the conflict (Jones & Naylor, 2014).

Figure 7-15: Primary completion rate for children of primary graduation age, DRC, 2010



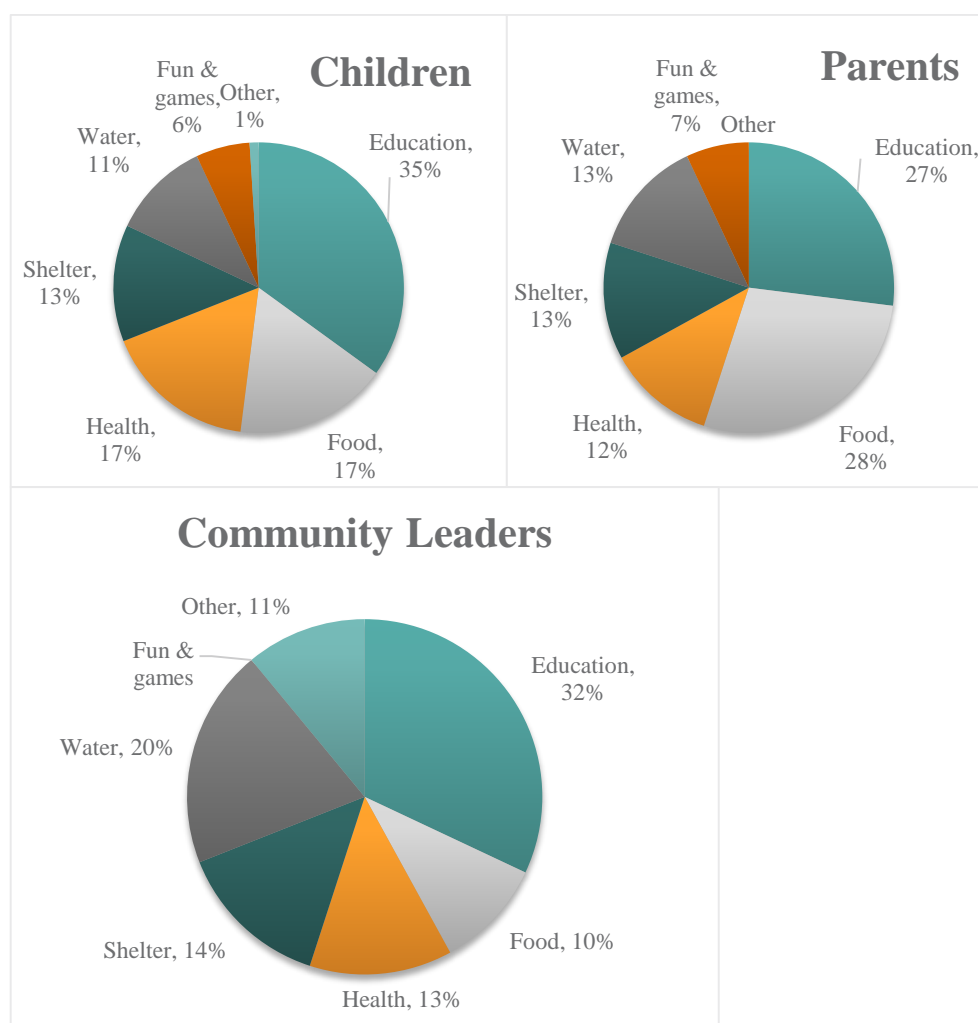
Source: The World Inequality Database on Education (WIDE), accessed 22nd July 2014

7.2.2 Prioritisation

Two pieces of research have been done that indicate education is a fairly high priority in the country, both of which have also been mentioned in above analysis.

Gladwell and Tanner (2014) carried out research in the conflict-affected region of North Kivu in DRC to evaluate communities' priorities. Their focus groups included 132 children, 42 parents and 15 community leaders. For children and community leaders their top priority was education, while for parents education came second only to food needs. Other high priorities included water and health (see Figure 7-16). When disaggregating for gender 36% of boys and 34% of girls ranked education as their top priority.

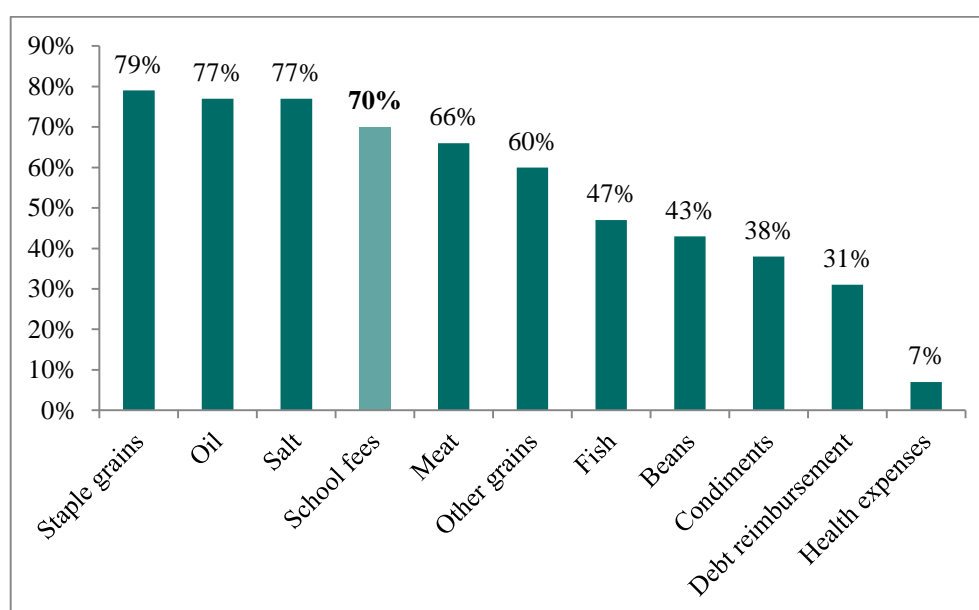
Figure 7-16: Priorities of children, parents and community leaders in North Kivu, DRC, 2013



Source: Gladwell & Tanner, 2014

One unconditional cash transfer scheme was identified in the country. This was provided to IDPs in informal camps during 2011/12. Households were provided with \$130 over a seven-month period, which equated to two thirds of GDP/capita. Households spent the cash on an average of 6.54 categories, education (school fees) being the fourth most popular category (see Figure 7-17). This shows that without the direct cash aid, 70% of households would struggle to afford school fees for their children.

Figure 7-17: Percentage of households that spent money on each category



Source: Aker (2013)

7.2.3 Costs and returns

Available data for returns to education for DRC show that in 2005 the returns of each extra year of schooling were 6.3% (Montenegro & Patrinos, 2014). The total return for primary education was 9%, only 1.7% for secondary and 21.5% for tertiary. Except at the secondary level returns were significantly higher for girls than for boys (see Table 8).

Table 8 - Returns to schooling in DRC (2005), %

Extra year of schooling	Total primary	Total secondary	Total tertiary	Total primary (male)	Total secondary (male)	Total tertiary (male)	Total primary (female)	Total secondary (female)	Total tertiary (female)
6.3	9	1.7	21.5	2.5	1.9	20.1	24.7	0.9	32.8

Source: Montenegro and Patrinos, 2014

It is important to note, as well as being completed nearly ten years ago, this analysis was done for the country as a whole and not for emergency affected areas specifically.

Jones and Naylor (2014) estimate that the total cost of conflict and the impacts this has on education come to between \$600m and \$739m just for the period from 2009-2012 (see Figure 7-18).

Figure 7-18 - Summary of economic impact of OOSC due to conflict, 2009–2012, DRC

Impact	Cost
Direct cost to the education sector of targeted attacks on education, 2009–2012	\$26m
Impact on educational expenditure	\$3.8–25m per year (0.6–3.6%)
Opportunity cost of lost and reduced expenditure (long-term impact of the above two impacts)	\$36m
Opportunity cost of current out-of-school children due to conflict	\$53–107m
Opportunity cost of reduced educational attainment due to conflict	\$470m (1.7% GDP)
Total (2009–2013)	\$600–739m

Source: Jones and Naylor (2014)

7.2.4 Sources / analysis of funding

Domestic budget

The Public Expenditure Review of DRC by the World Bank (2006) offers an analysis of the structure and allocation of public expenditure in the DRC within the context of objectives established by the country under its program of reform between 2002 and 2005. Overall, the report notes that it was very difficult to obtain reliable figures because of the total disarray of information systems. However, it is certain that resources have declined significantly in real terms over the last decade due to hyperinflation and the collapse of the economy. Key challenges include:

Current expenditures have been favoured over capital expenditure. In other words, investment has been low.

The province of Kinshasa was the main beneficiary of spending, while the other provinces were effectively deprived of budget resources from the central government.

Oversight of budget execution appears to be very weak.

- The structure of the executed budget doesn't match the budget adopted by vote.
- No prioritisation of expenditures, resulting rate of execution to be highly variable.
- Major off-budget expenditures

More specifically, the main findings on the education sector are the following:

Households finance 97% of primary school expenses;

Government's contribution to this sector is low;

Current government spending is almost exclusively on wages;

Donor contribution is low.

In 1961, 30% of DRC government spending was on education but this fell to approximately 5.8% in 2001. Public spending on education consists primarily of wages, which represent 86% of recurrent costs. Non-wage expenditures almost exclusively support the operation of Ministry of National Education. Expenditures to improve the quality of learning are non-existent. Facilities such as bathrooms are in deplorable condition. Nothing has been spent on

maintenance of infrastructure or rehabilitation. The report also estimates that there is an annual funding gap on the order of \$130million in terms of meeting the needs of schoolchildren who are already enrolled, and the gap is much greater when the unenrolled children are taken into account. Geographically, the allocation of government resources clearly favours the province of Kinshasa and Bandundu. Table 9 shows the dramatic fall in government funding to education from 1982 to 2006, falling from \$781 million per year in 1982 to as low as \$24 million in 2002. There has been a rise since then, with the total budget increasing by a factor of nine at 2012 current prices between 2002 and 2012 (see Table 10). Capital investment in the sector average 6% of spending between 2002 and 2012, with the bulk of the spending being on recurrent expenditure.

Table 9: Evolution of the budget of the Ministry of Primary, Secondary, and Professional Education, 1982-2006, in constant 2006 dollars

	Total budget	Budget per pupil	Budget per capita
1982	\$781 million	\$159.67	\$27.17
1987	\$97 million	\$23.44	\$2.88
2002	\$24 million	\$4.45	\$0.44
2006	\$112 million	\$6.82	\$0.93

Source: De Herdt, Titeca and Wagemakers, 2010

Table 10: Evolution of public expenditure on education, DRC, 2000-2012

	2000	2002	2005	2006	2007	2008	2009	2010	2011	2012
Congolese franc, billions, current										
Recurrent	2.5	9.9	53.9	82.3	124.1	183.9	184.0	260.6	397.1	460.3
Capital	-	0.9	6.8	1.3	7.1	1.9	26.8	28.4	32.8	2.1
Total	2.5	10.8	60.7	84.0	131.2	185.8	210.7	280.0	429.0	462.4
Congolese franc, billions, constant 2012										
Recurrent	74.6	45.9	171.1	228.6	290.1	362.8	268.7	310.1	418.4	460.3
Capital	-	4.2	21.6	3.5	16.8	3.7	39.1	33.8	34.6	2.1
Total	74.6	50.2	192.7	232.1	307.7	366.5	307.8	344.7	453.0	462.4

Source: UNICEF, forthcoming, 2014

A similar Public Expenditure Review jointly conducted by DFID and the World Bank (2008) carried out in 2008 echoes most points from the previous Public Expenditure Review, while also making the following observations about DRC's education sector. The education system in DRC is performing well below the Sub-Saharan African averages.

Table 11: Summary of education indicators for primary education (2006 or most recent year available)

	DRC ^(a)	Sub-Saharan Africa ^(b)
Gross enrollment ratio (total)	64%	96%
Survival rate	44%	71%
Completion rate (total)	29% ^(c)	60% ^(d)
Repetition rate ^(e)	16%	16%
Dropout rate	20% ^(*)	36% ^(**)

* (1st year of primary) ** (primary school average)

(a) Source: Priorités et Alternatives Pour le Renouveau du Système Educatif (2004), p. 46.

(b) Average for 48 countries (Source: World Bank Education Statistics Database).

(c) Student survival rate between the first and sixth years.

(d) Student survival rate between the first and fifth years.

(e) Completion rate measured by the percentage of 11-year-olds in the sixth year of primary school.

Source: World Bank, 2008, pg. 74

All teachers working for accredited schools must be registered officially in the database of SECOPE, a public entity responsible for managing the teachers. However, there are a large number of unregistered teachers who were hired during the long years of conflict. These are 'ghost workers' as they do not exist but their salaries are paid from school fees. Cash usually has to be physically transported from these principal public accounts to headmasters, who are responsible for paying the teachers and leakages occur. Only 35% of school fees collected are spent at the school; the rest is used to pay bonuses for managers and keep their respective offices running.

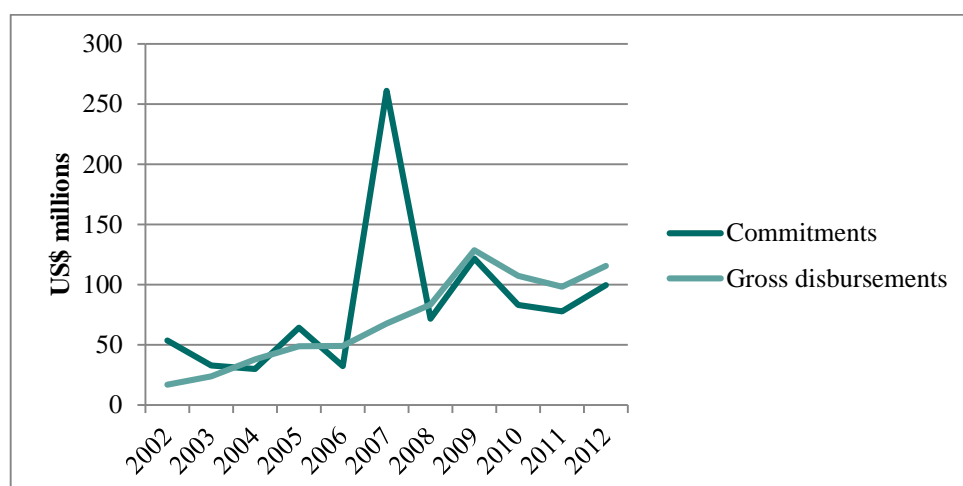
Household expenditure

The bulk of funding for the education sector comes from households themselves. Estimates for how much households contribute to the running of the education system range from 80 to 90% of all education spending in the country (INEE, 2014b). Much of this household funding is enabled through the diaspora that sends hundreds of millions of dollars back to the country through remittances (European Commission, 2009).

Development aid

Overseas Development Assistance (ODA) has been a significant contributor to the education sector in DRC. Available data from the OECD shows that total ODA from all donors to education in DRC has risen from \$16.8 million in 2002 to a peak of \$128.6 million in 2009 (see Figure 7-19). The percentage of commitments that has been met by donors has fluctuated dramatically between 26% and 152% with an average of 84%. The spike in 2007 commitments is due to a \$197.6 million commitment from the International Development Association, of which only \$17.2 was disbursed.

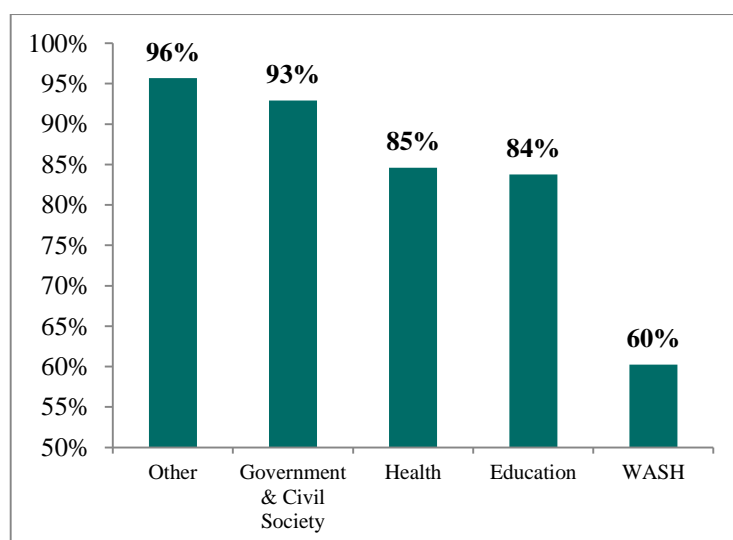
Figure 7-19: ODA to education in DRC, 2002-2012



Source: OECD Stats, accessed 15th July 2014

Compared to other sectors within social infrastructure and services, education has received the third highest total amount between 2002 and 2012 (\$777.8 million), although still significantly behind government and civil society (\$3.0 billion) and health (\$2.2 billion). Education receives the fourth highest percentage of donor commitments at 84%; only WASH receives less at 60% (see Figure 7-20).

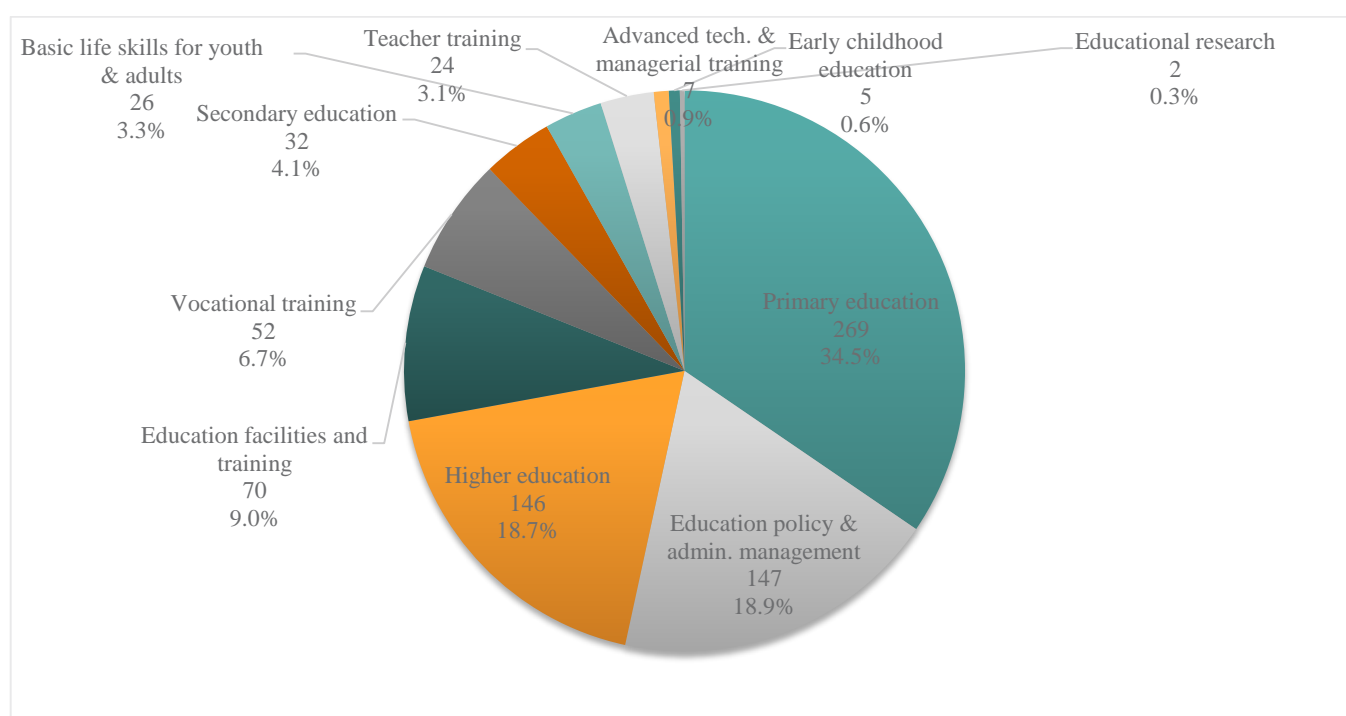
Figure 7-20: Percentage of commitments met for ODA to social infrastructure and services in DRC, 2002-2012



Source: OECD Stats, accessed 15th July 2014

How this ODA to education is spent is significant. Between 2002 and 2012, over a third (\$269 million) has been spent supporting primary education. Education policy and administration management, and higher education have both received just under 19%. Potentially important sectors that have received only a small portion of the funds include secondary education (4.1%), teacher training (3.1%) and early childhood education (0.6%) – see Figure 7-21.

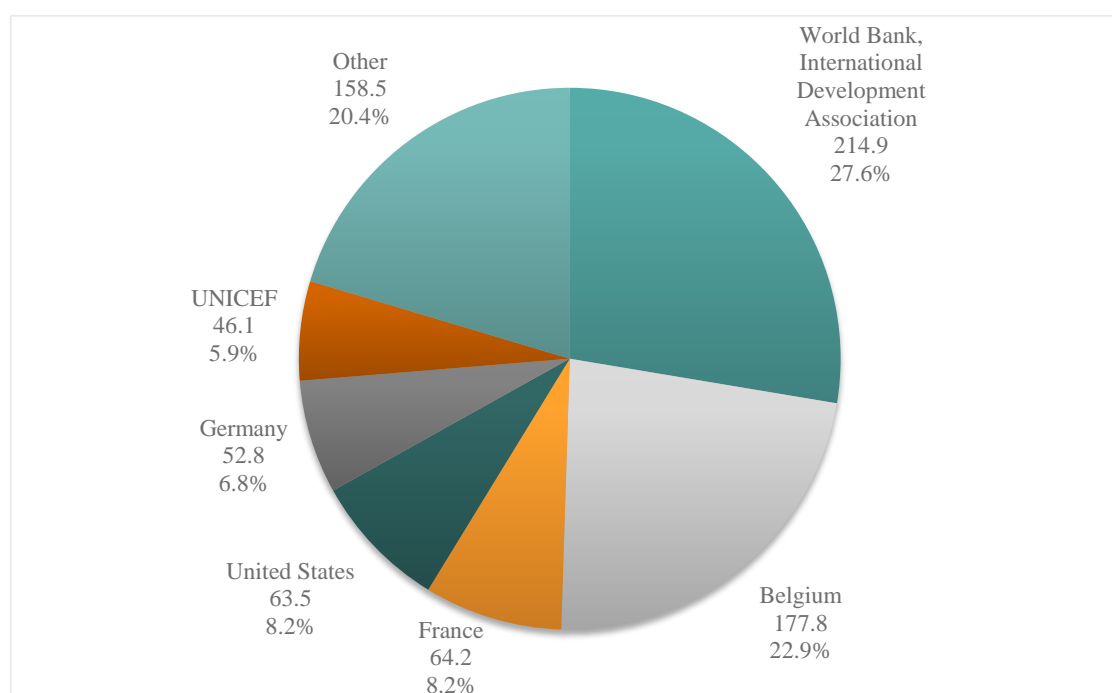
Figure 7-21: ODA to the education sector, DRC, 2002-2012 (US\$ millions)



Source: OECD Stats, accessed 16th July 2014

The main donors of ODA to education in DRC between 2002 and 2012 are the World Bank and Belgium, accounting for over half of funds (see Figure 7-22), although at the end of 2012 the Global Partnership for Education granted \$100 million to support primary education in the country (Global Partnership for Education, 2014b).

Figure 7-22: ODA donors to education in DRC, 2002-2012, (US\$ millions)



Source: OECD Stats, accessed 16th July 2014

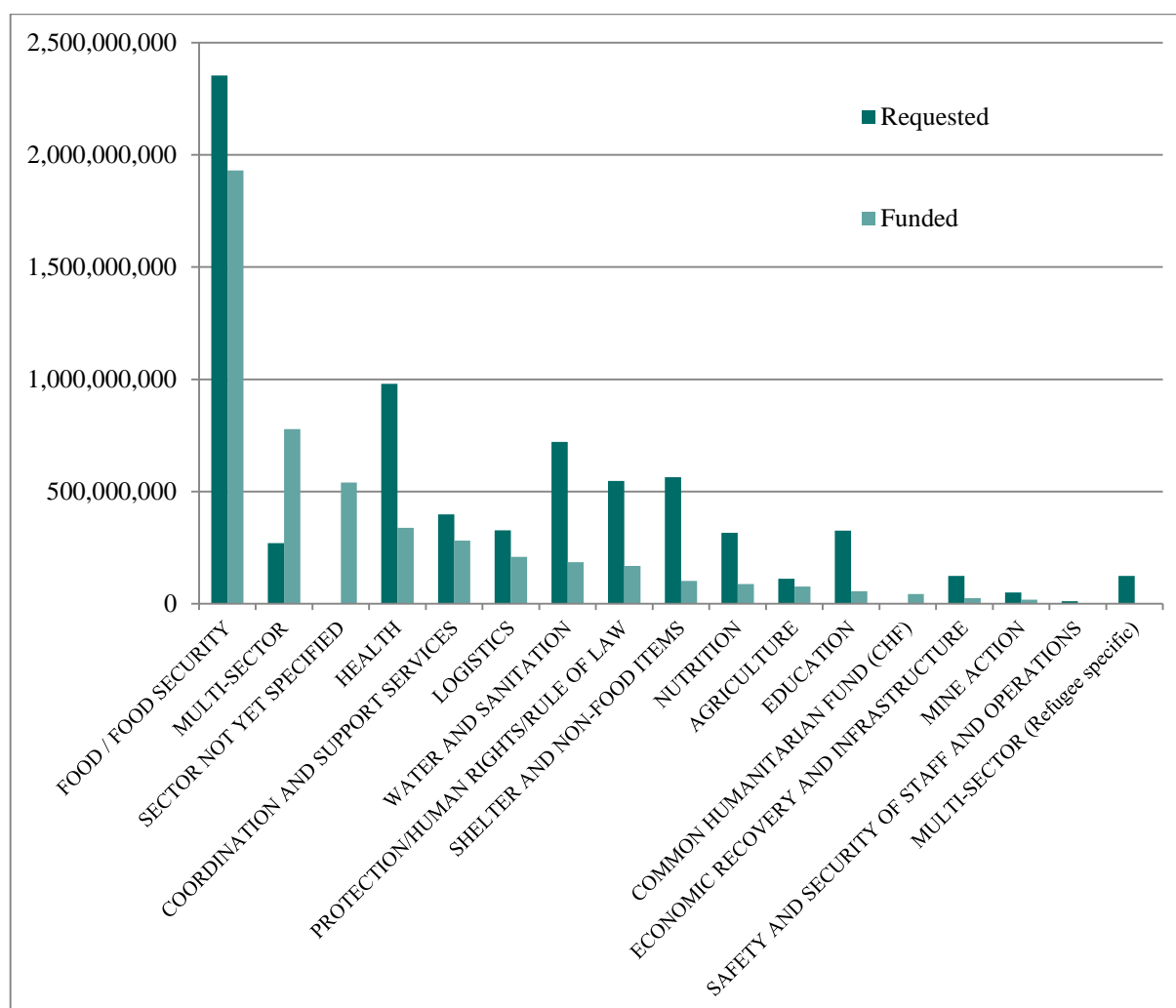
The low level of donor funding to education is due to the lack of:

- detailed assessments of the status of the education sector ;
- clear indication of government objectives;
- reliable or transparent funding channels;
- monitoring or evaluation by authority (World Bank, 2006).

Humanitarian aid

Humanitarian funding through the Consolidated Appeals Process (CAP) is not a large source of funding for education in DRC. From 2000 to 2013 education has requested \$326 million but only received \$55.5 million. This compares with food and health which have received \$1.9 billion and \$339 million respectively. Figure 7-23 shows the total requests and total requests funded per sector in DRC since 2000.

Figure 7-23: Total humanitarian funds requested and funded via the CAP in DRC by sector, (2000-2013)

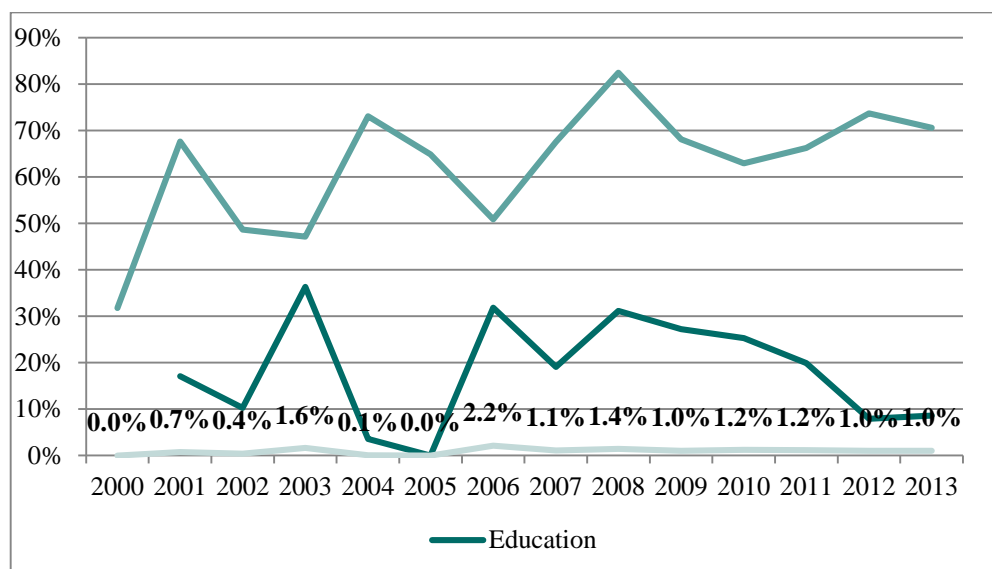


Source: Financial Tracking Service, accessed 9th June 2014

Figure 7-24 shows data from 2000 to 2013 on the percentage of humanitarian funding requests met for education compared to all sectors combined and the percentage of total humanitarian funding that has been for the education sector. The percentage of education requests met has been consistently

lower than the average for all sectors combined. At most only 36.3% of education requests were met, in 2003, and the overall average is only 17%. As a percentage of total funding education has only received 1.1% since 2000, well below the target of 4% set by the UN Global Education First Initiative. This compares to 39.8% for food /food security and 7.0% for health.

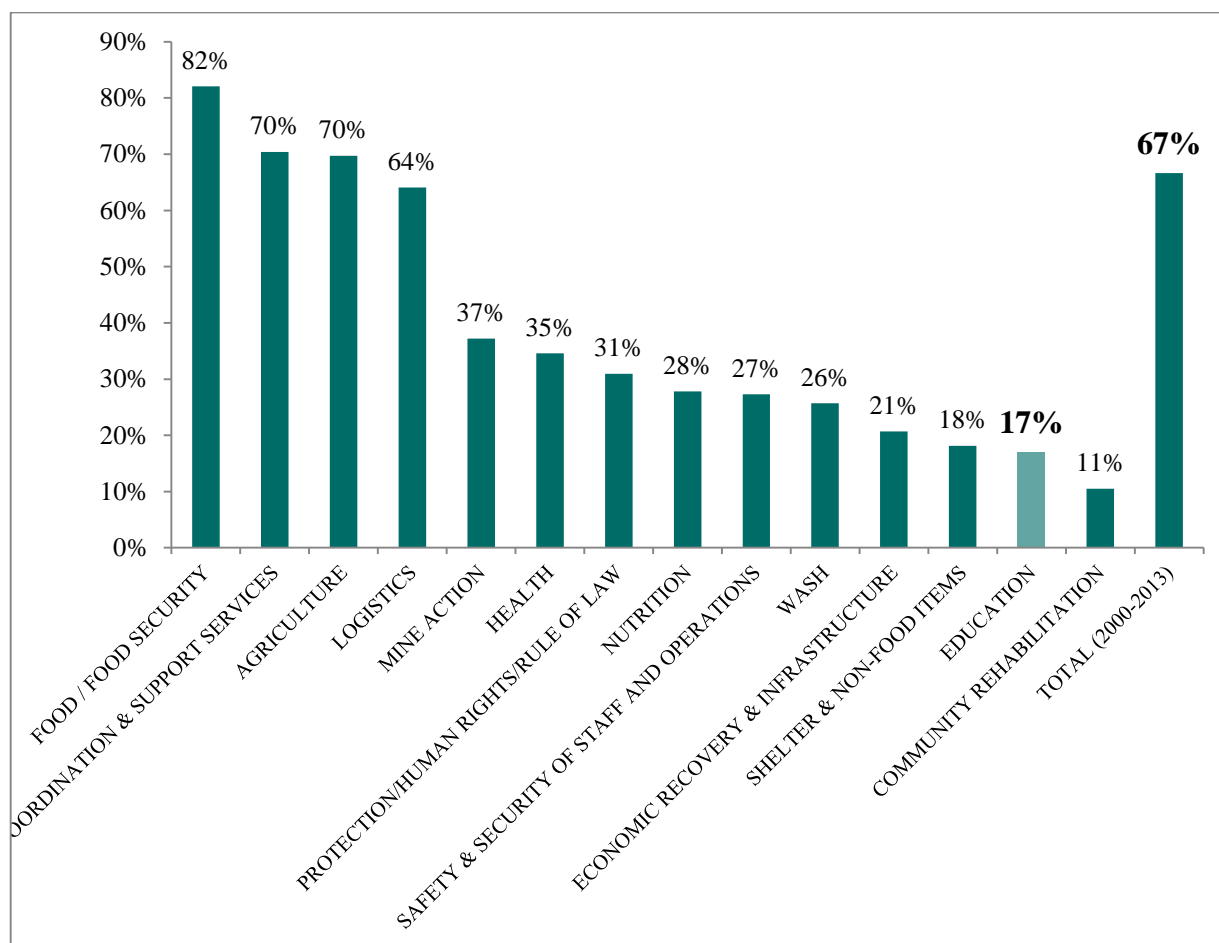
Figure 7-24: Percentage of humanitarian funding requests met through the CAP in DRC – education compared to all sectors



Source: Financial Tracking Service, accessed 9th June 2014

Figure 7-25 shows the percentage of requests met per sector between 2000 and 2014. Of 14 sectors education has the second lowest figure at only 17%, far below the overall average of 67%, again showing the low priority given to education in humanitarian funding in DRC.

Figure 7-25: Percentage of humanitarian funding requests met through CAP in DRC by sector (2000-2013)



Source: Financial Tracking Service, accessed 9th June 2014

This low funding of education, both in real terms and compared to other sectors, is an example of how funding for education is particularly underfunded in ongoing conflict settings compared to pure natural disasters.

7.2.5 Conclusions

In DRC education appears to be a top priority for people affected by conflict in the country. Lack of funding for education, however, is a serious issue. The evidence suggests that government funding for education is low despite having improved in recent years. Development funding is an important source, however the amounts given to education are very low compared to other sectors, such as health and government and society, and compared to the government's budget. Humanitarian aid to education has been incredibly limited, with only around 1% of humanitarian aid being directed towards to this sector. Compared to other sectors, education receives one of the lowest amounts when compared to requests per sector, at only 17%.

8 Conclusions and recommendations

This review explored the following overarching question:

How can returns on investment to education in emergencies be identified, expressed and further explored across different types of emergencies and sources of finance?

A further subset of questions was progressively identified, first as a part of an inception report and later as a framework to the full literature review covered in this report. These questions explored the following themes: community prioritisation of education in emergencies, disruption to education in emergencies, measuring costs and returns, and sources of finance. Case studies looking at prioritisation and financing of education in emergencies in Haiti and DRC were also prepared.

Through the course of the research, a total of 53 studies were reviewed, not including the case-studies. Using the overall guidance of the DFID 'Assessing the strength of evidence: How to note' (2014), key sources included journal articles, published papers by reputable organisations, and some limited grey literature. The quality of literature available varied extensively. A much greater amount of research was available focusing on conflict rather than natural disaster. More research focused on questions of access, with little done on either education equity or quality. Moreover, there was varied attention to short/medium/long-term emergencies depending on the question, i.e. prioritisation research tends to be short-term, disruption focuses on the short to medium-term, and measuring costs and returns largely long-term (but for low income countries, not emergency affected). As a whole, little academically rigorous research has been carried out, but the few studies that do exist help to begin to identify trends alongside surveys and more descriptive analysis.

8.1 Community prioritisation of education in emergencies

Existing evidence shows that communities, and children especially, prioritise education over and above a number of other issues in contexts of emergency. A moderate body of evidence across a variety of emergency types finds that education is a high priority for communities affected by emergencies in a wide range of emergency contexts. Sources include surveys of affected populations, analysis of unconditional cash transfer spending and public opinion polls.

In studies that ask children, education is their top priority. When asking adults, education is rarely the top priority, but is consistently one of their top priorities. Other top priorities for adults can include food, water, health and employment. In the few exceptions to this level of prioritisation there are a

number of reasons this could be the case, including the potential use of maladaptive strategies to supplement household income through child labour.

Further research on identifying how people prioritise education during various types of emergencies would benefit by ensuring voices of children and youth are taken into account and tracking changes in priorities during the different stages of emergency and recovery. With a limited number of studies covering a relatively limited sample of the population, more robust and comprehensive research on prioritisation would strengthen these findings.

8.2 Disruption to education in emergencies

While emergencies clearly disrupt education, beyond some macro-level estimates at global and country levels, it is difficult to say by how much.

There is a small body of evidence, mostly concentrated on conflict, which finds that emergencies correlate strongly with negative impacts on education and that more marginalised groups seem to suffer most in terms of enrolment. The majority of the research is multi-country, covering more than one country, rather than more in-depth investigations of country situations.

A recurring theme across the literature is the lack of available and credible data regarding disruption and its impact. It is highlighted that there is likely an underestimation of the impacts of conflict on education, as data is often missing or of poor quality in those areas that are most affected by conflict.

There are, however, significant pieces of research that call into question the causal relationship between conflict and disruptions to education as directly affecting education, pointing rather to underlying fragility within a country as a common cause of both conflict and weak education systems. While an important finding, correlation is perhaps as useful a concept as causation in this regard. Indications are that, for systems with lower overall enrolment figures, the disparity between non-conflict and conflicted-affected regions is higher than in systems with high overall enrolment figures.

Moreover, the effects of conflict on education do not affect all groups equally, with girls and the poorest frequently being the most affected. Conflict appears to impact at the secondary level more significantly than primary, and that regional differences in impacts of conflict on education can be strong due to the localised nature of conflict.

There is a gap in systematic research on disruption, including evidence that paints a fuller picture of enrolment and attendance, and lack of data that looks more closely at the scale and scope of other impacts. It is especially important that research looks at how different groups are affected, and that different levels of education are better covered.

8.3 Measuring costs and returns

The longer term economic and human capital costs of emergencies to education, while thinly researched, include estimates that reach the hundreds of millions – and even billions – of dollars. That said, there is very little evidence that looks at these longer-term costs of emergencies to the economy or human capital. Equally, little to no research has been done looking at the returns of education in emergency response. What has been done largely focuses on low income countries, a number of which have been

affected by emergencies. In addition, research that has been done is multi-country rather than country specific, and thus tends to use global datasets as a source rather than country level data, which might provide a richer picture.

What evidence there is suggests that conflict and natural disasters have long term impacts on individuals' human capital, for example through lower education or health outcomes or reduced labour earnings in the future. Even minor shocks are said to have long term effects on human capital formation, comprised of educational attainment, health outcomes and labour market opportunities.

No evidence specifically explores the public and private returns on investment to education in emergencies, although there is some that explore fragile states, many which have experienced emergencies, alongside a larger body of literature looking at low income countries more generally. Some of this evidence may be indicative returns on investment in emergency contexts. Research tends to differentiate private returns along levels of education and gender, rather than income groups, showing that education for girls produces high returns in terms of maternal and child health and that there are higher for higher levels of education.

There are research gaps in this area in terms of the economic and human capital costs of more recent and current emergencies, and an opportunity to take a longitudinal perspective on these. The complete dearth of evidence on public and private returns on investment to education in emergencies makes this a wide and important gap to fill.

8.4 Sources of finance for education in emergencies

Though clear that low levels of humanitarian aid is going to education in emergencies, there is limited understanding of how existing funding catalyses or complements other sources. As a part of the inception report, four key sources of finance were identified for education in emergencies: domestic resources, household expenditure, development assistance and humanitarian aid.

While there was a fair amount of research that has looked at the first three of these sources, very little of that explored how these sources were used in emergency situations. This despite the fact that domestic expenditure is the single largest sources of funding on education across all types of countries, some limited evidence that education is high on the list in terms of household expenditure in emergencies, and the reality that development assistance education often comes online quite quickly post-emergency and runs parallel to humanitarian aid.

More detailed research, however, was available on humanitarian financing, which in most situations is likely to be the smallest of these pots. While the absolute value of humanitarian aid to education has increased, in 2013 the figure was just 2%, half of the 4% target set by the UN Global Education Initiative. Of this, education response in natural disasters is much better funded than in conflict settings. In some places, the situation is dire; half of conflict-affected countries that held appeals received 1% or less in 2013.

A better understanding of the catalytic and complementary nature of different sources of funding for education in emergencies is a clear need. More detailed analysis on development aid, domestic resources and household expenditure used in different emergencies would also be helpful.

8.5 Case studies

Case studies of Haiti and DRC illustrate that even when education is a high priority for communities after emergencies, funding for the sector can be very erratic. Two case studies done in addition to the broader literature review, Haiti and the DRC, epitomise this trend, despite similar levels of prioritisation of education. These studies were focused on a closer look at the questions of prioritisation, disruption, costs and returns, and sources of finance in particular country and emergency contexts. Haiti was chosen as an example of a country affected by a natural disaster and DRC as a conflict affected context.

Regarding prioritisation of education, the Haiti examples shows an increased level of interest in education as opposed to other sectors following the earthquake. It was identified as the second highest priority faced by the country as part of the reconstruction plan. In DRC, while the conflict has lasted more than a decade, evidence on prioritisation is only available for short snapshots of time, and only from limited surveys of the conflict-affected population. Nonetheless, it was found that education was a high priority, with both community leaders and children rating this as a top need.

Very little relevant information was found on disruption, nor on the education costs of the emergency or returns from investment on education in emergencies. In Haiti, some of the detail on disruption and costs may be available in grey literature, but was not identified in a literature search. In DRC, it is doubtful if this exists, and the only analysis found on returns was conducted for the nation as a whole and not disaggregated to conflict affected regions.

A look at sources of finance showed that, in Haiti's case, the ability of the government to respond to the education crisis following the earthquake was severely compromised, which limited the use of domestic funds. While research on household (and diaspora) expenditure was not identified, it is clear that the aid community stepped in, with commitments from development aid to education having increased dramatically and humanitarian aid to education met 99% of requests to the education sector in 2010 and 110% in 2011. In DRC's case, evidence suggests that government funding for education is low, particularly in conflict affected regions. Development funding is an important source, however the amounts given to education are very low and humanitarian aid for education has been incredibly weak, with only around 1% being directed towards education.

Further research could be useful on the incentives of humanitarian donors to fund education in natural disasters of conflict, and acute crises over chronic emergencies, alongside a better understanding of other sources of finance available for the sector.

8.6 Recommendations

Given the strong indications on the priority of education to emergency affected populations, coupled with clear signs of short and long-term negative impacts of emergencies to both individuals and the broader society, significant additional investment in the sector is undoubtedly needed.

Substantial gaps in knowledge identified by this review, however, also point to the necessity for stronger and more complete evidence on a range of

issues in order to help secure and target investment more effectively. These recommendations therefore offer suggestions on the kind of further research that would better convince those considering support to the sector, as well as better inform policy and practitioner decisions in coming years.

Ten main recommendations emerge on ways research could be taken forward to advance understanding of education in emergencies.

1. Greater **investment in data** is needed in order to gain a stronger picture across the range of issues covered in the review – prioritisation, disruption, costs and returns, and sources of finance. Numbers are powerful, for instance with statistics on numbers of children out of school due to conflict having leveraged some of the greatest movement in the sector. Moreover, there is an opportunity to tap into broader current work on the ‘data revolution’. Given the complexity of many of the issues surrounding education in emergencies, collection and analysis of additional data is likely to be most effective when coupled with mixed methods research and case studies.

2. In-depth **systems research focused on specific countries and regions** experiencing emergencies would add value at this point, given gaps in data and a lack of nuanced understanding of what is happening in specific situations. Substantial research conducted in two or three countries that have experienced repeated occurrence of conflict or natural disaster would build a depth of understanding that could be drawn on elsewhere. Using mixed-methods approaches would help triangulate causal relationships between the various issues that take us beyond the mostly correlational research that has been carried out to date.

3. **Longitudinal research**, both current and retrospective, should be conducted in order to **capture trends during different phases and types of emergencies**. Most research to date only captures a point in time, and while more of that is also desirable, there are significant gaps in longer-term understanding. Development of historical profile of a context, a baseline, and then tracking data on education patterns over a period of 3-5 years would begin to paint a picture of significant trends. Longitudinal research can also be done retroactively to reconstruct the process, triggers, and patterns of an emergency and its resolution (or lack thereof), which can provide some longitudinal findings today, in addition to setting a based line for traditional longitudinal studies.

4. Research conducted around disruption to education in emergencies should go **beyond analysis of enrolment and use mixed methods to look at broader issues** of quality, equity, and school to work transitions. While enrolment and attendance remain important core indicators, other issues are equally important, despite being somewhat more difficult to research. This research could benefit significantly from taking a mixed methods approach help with a more nuanced understanding of the four main issues treated here: demand, disruption and impact, cost-effectiveness and sources of financing. Exploration of these types of issues will be key to education targets in the new Sustainable Development Goals.

5. Given evidence of differing impacts of emergencies on different age groups, it is particularly important to **not only research primary education but also secondary and higher education** in emergency situations. The

human development psychological literature provides evidence on how conflict, violence, and acute adversities in general affect children and youth at different stages of their development. This is very important to understand in terms of the role of schools and education actors can play during emergencies.

6. Research is sorely needed on the **economics of education in emergencies**, given that existing data and analysis in this area looks at low income countries more broadly. This work could also include more systematic analysis of the costs of emergencies to education systems as well as looking at the impacts on non-monetary returns such psychosocial well-being, peace-building and state-formation

7. Research on the **returns to investment on different levels of education** in emergency situations could better understanding of public and private returns across early childhood education, primary schooling, secondary schooling, vocational and technical training and tertiary education. As access to primary education increases toward full enrolment, more and more children are attending secondary and higher education. In particular, such analysis may help highlight the need to focus beyond basic education as countries coming out of conflict are likely to have a serious need for the advanced skills acquired through tertiary education. These higher levels of education also bring different types of important public and private returns that are key to recovery from emergencies. They could also be a key driver in catalysing progress in previously fragile states and or states recently recovering from conflict.

8. Analysis of **funding sources** to education in emergencies needs to look **beyond just humanitarian funding** to the role of domestic budget, household expenditure and development aid, looking at how these sources interact. In addition, research looking at the ability of humanitarian aid to catalyse or supplement other sources of funding would be useful. Research proposing new mechanisms for funding education in emergencies that bridges or replaces the divide between humanitarian and development funding would also be of great value. Further theorising on the implications and development of models for more coordinated and parallel financing across the emergency and recovery phases would be useful.

9. Research carried out on the **incentives of different actors** to prioritise education in emergencies would help clarify and mitigate conditions the lead to the sector being at times underfunded and overlooked. With very different groups responsible for the allocation of different sources of funding, a better understanding of their political motivations and other incentives for action would prove useful. This is likely another opportunity for mixed-methods research involving both quantitative and qualitative evidence.

10. Work could usefully be done on developing **theory(ies) of change for education in emergencies**, looking at how the various elements explored in this review can fit together toward improved education outcomes. It would be particularly useful to work on the assumptions and framework that could/should guide decisions around financing education in emergencies. Any such a theory of change would require consideration – and evidence – on the education mechanisms that play a positive role in emergency response and recovery, as well as the compounded risks that may emerge if education systems are left to fend for themselves in emergency (delayed

recovery, additional trauma on children and youth, loss of education gains, etc.). Identifying these education assets and risks, as well as facilitative and inhibiting factors, would help to define a proposed theory of change.

Conducting research along these lines and leveraging the resulting evidence could play an important role in expanding support for and increasing the scale of education response in emergency situations, thus reach more of the many, many children and young people who continue to be excluded from or receive poor education in these contexts.

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Annexes

Several of the searches in the review found little to no evidence specific to emergency affected countries, but did identify related evidence in low income countries that could be indicative of trends in countries affected by crises. These findings are included here in two annexes rather than in the main body of the review itself.

Annex 1 - How do the returns to education differ across level of education, income groups and gender in emergency affected countries?

Levels of education (primary, secondary and tertiary)

Private returns to education differ according to level of education. Aromolaran (2006) reached the conclusion that for Nigeria private returns to schooling for both males and females at the primary level are low (2-3%) and secondary level (4%) since 2000s, but are substantially higher for tertiary education at 10-15%.

Studies find that there are different explanations for the lower private returns to primary education (UN Millennium Project, 2005; Colclough et al 2009). First, the increase in primary school enrolment and completion has made the pool of primary-educated workers larger, driving down the wages. On the demand side, technology-driven demand for more specialised skills on the labour market has increased. Having said this, it is important to note that these studies generally examine private economic returns to education using wage-based employment data, which does not make up the majority of the typical workforce in many developing countries, especially emergency-affected countries.

Gender (male vs female, mother's education)

Evidence also reveals that returns to education can vary significantly between males and females in terms of economic and health benefits. Although evidence is based on low income rather than on fragile or emergency contexts, some of the following low income country analysis might apply.

Psacharopoulos and Patrinos (2004) and World Bank (2008) find that each additional year in school is associated with a 10-30% increase in hourly wages. However, gender plays a significant role here – the private returns to primary education were found higher for males (at about 20 percent versus 13 percent for females), while females had higher returns to secondary schooling

Table 12: Returns to education by gender (%)

Education Level	Men	Women
Primary	20.1	12.8
Secondary	13.9	18.4
Higher	11	10.8
Overall	8.7	9.8

Source: Psacharopoulos and Patrinos (2004)

In terms of effects on health outcomes, research generally show a strong negative correlation between educational attainment and fertility rates, as well as a strong positive correlation between educational attainment and intervals between births (UNESCO, 2006). At the macro level, each additional year of schooling for girls reduces national fertility rates by 5 to 10 percent. At the micro level, a woman's fertility rate is reduced by nearly one birth when she gains four extra years of education. In Sub Saharan Africa, according to Demographic and Health Survey data, a woman would not only have her first child later but also fewer children throughout her life if she receives more education (Majgaard and Mingat, 2012).

Mothers' education is strongly and significantly associated with their children's chance of survival before age five. Education is positively linked with the likelihood of receiving prenatal health services in Sub Saharan Africa, which improve new-borns' health prospects. Children whose mothers completed secondary education or higher have the highest rate of survival and those whose mothers completed primary education tend to survive more than those whose mothers lack formal education. On average, a 10% increase in girl's primary enrolment is expected to decrease infant mortality before age one by about 4 deaths per 1000 births (UNICEF, 1999).

Income level

Psacharopoulos and Patrinos (2004) analysed private returns to education distinguishing countries by their income level but again there was no specific analysis on fragile countries. See below:

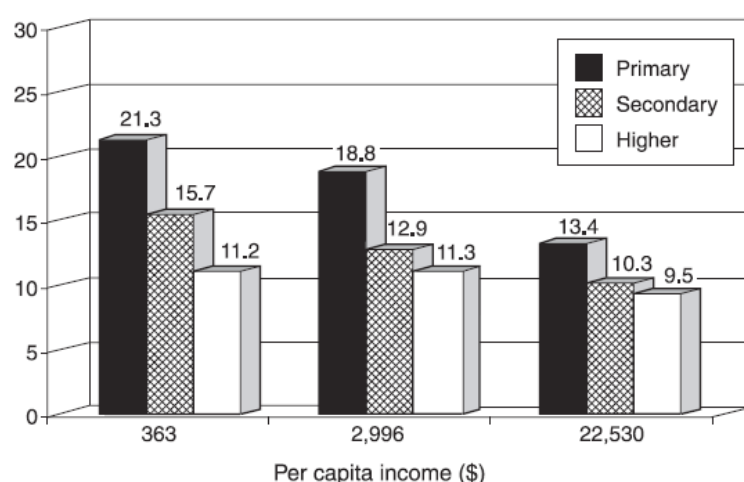


Fig 3. Social returns to investment in education by income level.

Table 2. Returns to investment in education by level, latest year, averages by per-capita income group (%)

Per-capita income group	Mean per capita (US\$)	Social			Private		
		Primary	Secondary	Higher	Primary	Secondary	Higher
High income (\$9266 or more)	22,530	13.4	10.3	9.5	25.6	12.2	12.4
Low income (\$755 or less)	363	21.3	15.7	11.2	25.8	19.9	26.0
Middle income (to \$9265)	2996	18.8	12.9	11.3	27.4	18.0	19.3
World	7669	18.9	13.1	10.8	26.6	17.0	19.0

Source: Table A1.

Annex 2 - To what extent can the average public and private returns to education be quantified for a select group of emergency affected countries (type of crisis, by region etc.)?

Economic

While a number of studies examine the effect of education levels on countries' economic growth, results vary and there is no conclusive evidence that primary education has a macroeconomic impact on growth. Some studies find a significant effect of primary education on macro-level growth, but with large lags (McMahon, 1999). A large-scale study spanning 100 countries between 1960 and 1995 reveals that while there is a positive, significant correlation between the number of secondary school years completed by males and economic growth, the number of years of primary school is not found to be significantly associated with growth (Barro, 1999).

Empirical evidence also shows that macro effect of education varies based on a country's level of development. For example, Mingat's study (1996) spanning 1960 to 1985 shows that returns were the largest for the primary level in low-income countries. In these cases, primary education has even higher returns due to its role as a gateway to higher education and the economic benefits associated with secondary and tertiary schooling (Patrinos and Psacharopoulos, 2011). Microeconomic estimation through household surveys shows that in Pakistan, the wage premium to primary education is 8% and 0.8% as a direct cost of GDP (Burnett et al, 2013).

Table 13: Social returns to investment in education by level and per capita income group (%)

Per capita income group	Primary	Secondary	Higher
Low income	21.3	15.7	11.2
Middle income	18.8	12.9	11.3
High income	13.4	10.3	9.5
World Average	18.9	13.1	10.8

Source: Patrinos and Psacharopoulos (2011)

Aslam, Kingdon and Bari (2010) conducted a 1000 household survey in 2007 in Pakistan and found that while basic-order skills promote women's entry into lucrative wage occupations for men, a wider cognitive skills set is required to aid entry into the more rewarding occupations. Much of the direct effect of cognitive skills disappears after conditioning on schooling suggesting that the effect of cognitive skills operate through schooling attainment. Their findings also point to a direct return to schooling for men (and no return for cognitive skills), whereas for women, there is a suggestion of a return to cognitive skills. The data support the human capital hypothesis for women and a credential hypothesis for men. Further investigation shows that much of the effect of schooling operates through positive behavioural traits possessed by individuals when aged 15. Thus, a direct return to schooling may not simply reflect credentialism and could be seen to reflect a return to non-cognitive traits valued (and hence remunerated) in the labour market.

Hawkes and Ugur (2012) conducted a systemic review of 22 key research terms, 43 LIC names in 19 electronic databases. It yielded 39 papers in total

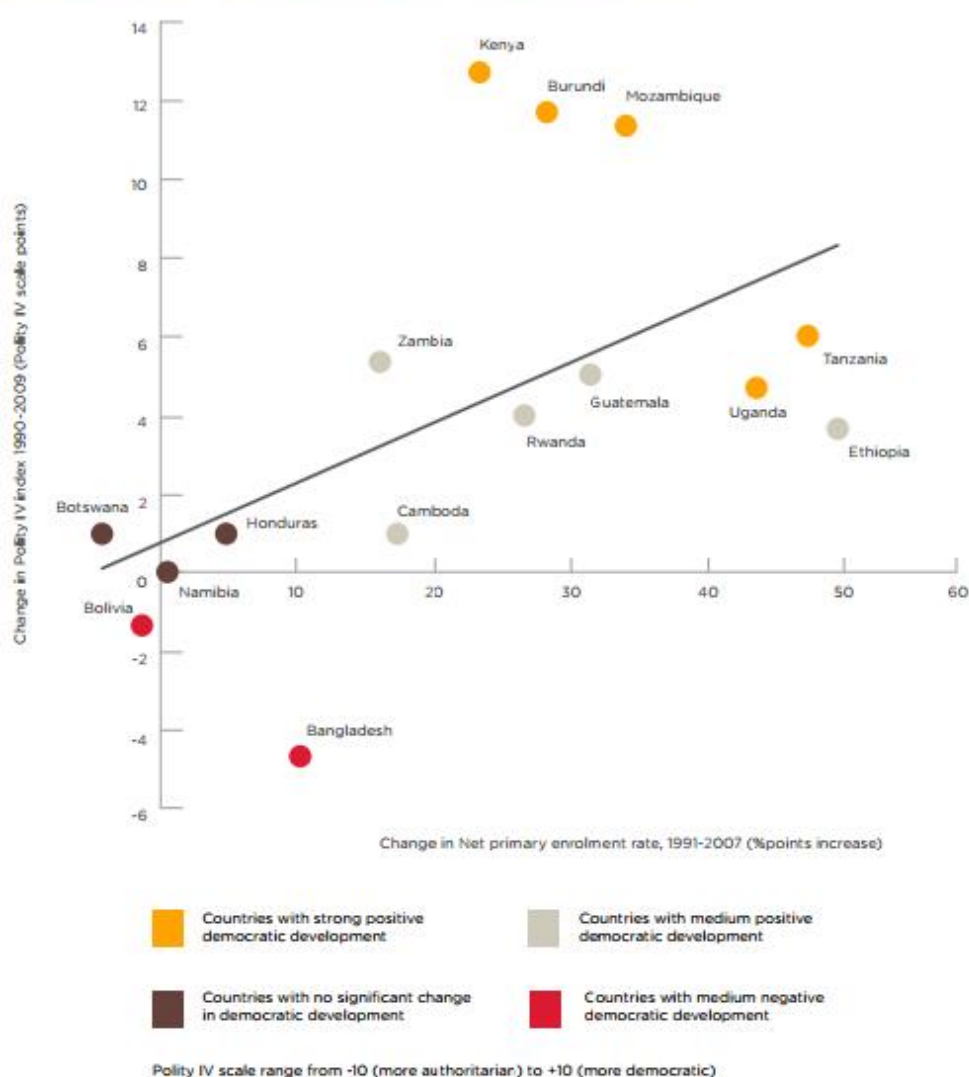
including 33 empirical and 6 theoretical studies. This systematic review suggests the widely held belief that investing in education and skills promotes economic growth in LICs is correct overall. The key finding is that there is a positive effect of education and skills on economic growth in LICs. The results presented here find a consistent positive effect of education and skills on economic growth in LICs from studies that controlled for education measure, growth measure and a range of control variables including data type used and estimation strategy employed. This suggests that investing in human capital development in LICs is likely to be a key determinant in economic growth and development. This review therefore provides evidence that funding education and skills development in the populations of LICs produces a positive return on the investment in the form of higher economic growth. These three tables provide more country examples:

Political

Primary education is also associated with the increased and improved political participation and engagement of citizens. Research show that there a positive and significant relationship between several primary education indicators and democracy-related measures such as democratisation, representative form of government, political rights, and civil liberties. Drackner and Subrahmanyam (2010) found that low income countries like Ethiopia, Tanzania, Uganda and Mozambique, where large primary enrolment increases (over 20 percentage points) occurred, also experienced large advances in democratic developments as illustrated in Figure 11.

One limitation to these findings is that while correlation is established between education and democratisation, causality is not. In addition, there is at least a 10 year time lag between the increase in enrolment rates and their effect on the democratisation process. Burnett et al (2013) also notes that increases in primary enrolment rates had to be at least 20% to reveal any clear association with the democratic development process.

Figure 11: Net Primary Enrollment versus Polity IV Index (1990-2009)



Psychosocial

In times of conflict, primary schools have tremendous short-term benefits and additional positive impacts for children. It is claimed that schools can provide a safe haven and assistance in dealing with psychosocial trauma caused by conflicts as well as help students develop coping strategies. Moreover school building and education infrastructure reconstruction projects enable population to feel that life is returning to normalcy, while it also reaffirms the presence and legitimacy of the state, fostering confidence for the future.

Neutral

The literature reveals the ambiguity on whether public return or private return on education can be greater and hence how or whether they can be comprehensively quantified. In a study of farming output in Ethiopia, Weir (1999) provides evidence that the social benefits of schooling are larger than private benefits. Across 14 villages, completing an average of one extra year of school in the village was found to have a larger effect on farm productivity than increasing household educational attainment by an average of one year. On the other hand, a number of studies note that the macroeconomic returns

are lower than those for individuals, in part because of education being supported financially through public investments (Boissiere, 2004). This may be because macro-level rates of returns are generally calculated based on earnings and do not account for the benefits associated with positive social externalities, such as improved equity, public health, and security, which are difficult to quantify (Colclough, Kingdon and Patrinos 2009). Jimenez and Patrinos (2008) argues that, if externalities were included in calculations to quantify the true benefit of education, some analysts estimate that the social returns would double the private returns, with primary education producing more externalities than secondary and tertiary education.



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