

Continuing Education in Disaster-Affected Schools in Bangladesh: An Evaluation of the Education in Emergencies Project

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Abstract

This field report describes the Education in Emergencies (EiE) pilot project. EiE was implemented in 1,000 primary schools in ten districts in Bangladesh and designed to address the fact that project schools had been unable to continue providing education during previous natural disasters. Through the EiE project, however, school stakeholders participated in trainings and workshops, developed participatory contingency plans, and implemented various preparedness activities. Of the activities implemented, the selection of alternative learning places was found to be the most important because it enabled the disaster-affected schools to continue schooling when the school buildings were not usable. As a result of EiE implementation, schools were not closed for a single day in 2010. The pilot project has also benefited non-project schools as they have begun voluntarily adopting the project's strategy to cope with disaster. The results of EiE show that simple interventions (e.g., capacity building and contingency planning) can enable disaster-affected schools to continue providing education during and after emergencies.

Keywords: children, primary education, schools, disasters, Bangladesh

Introduction and Background

Bangladesh is one of the most disaster-prone countries in the world. Cyclones, floods, droughts, river erosion, tidal surge, water logging, and cold waves affect the nation on a regular basis. Because Bangladesh is one of the most populous countries in the world, a single disaster event can affect millions of lives and have severe impacts on overall development of the country. With the highest disaster mortality rate in the world, Bangladesh lost 516,239 of its men, women, and children between 1970 and 2005 in 171 disaster events.¹ While the average number of people killed and affected by disasters has fallen over the last two decades, on average more than 10 million people were affected by disaster in Bangladesh every year from 1986 to 2007.² The economic costs associated with disasters are increasing, causing significant burden on households and the local economy. For example, from 1970 to 2007, at least 800,000 houses were destroyed each year by disaster. These staggering losses are further exacerbated by the impact of climate change on rising sea levels and increased floods and rains (Alam 2009).

Furthermore, these disasters and emergencies displace people, separate children from their families, and affect the rights of children, including the important right to education. Yet, the consequences of disasters on children's access to education receives less attention than other priority areas—such as providing food, shelter, and other emergency aid—during disasters and emergencies. Peek (2008) notes that significant progress has been made in understanding children's mental health needs following disasters but there is still much to be learned about children's physical and especially educational vulnerabilities.

When any emergency or natural disaster occurs, one of the unfortunate outcomes is damage to infrastructure and services. This damage, combined with the need to flee to a safer location, may leave gaps in a child's education (Norwegian Refugee Council 2008). Schools are often destroyed or closed because of structural damage as well as the inability of teachers and school administrators to continue working. In this field report, we describe the implementation and results of one project focused on limiting the effect of disaster on primary education in Bangladesh.

Compared to other developing nations, Bangladesh has shown good progress in primary education, especially in enrollment and gender parity. But significant challenges remain in terms of quality of education, competencies, rate of repetition, and drop-out rates (Education Watch 2009). However, the question remains whether Bangladesh could have minimized these issues and achieved much better progress had disaster impacts been mitigated in education. Many Bangladeshi schools are located in areas prone to regular flooding, cyclones, tidal surges, and at high risk from earthquakes.

¹Calculation is based on various information from the Disaster Management Information Center/ Ministry of Food and Disaster Management and Centre for Research on the Epidemiology of Disaster (<http://www.cred.be>).

²Ibid.

Despite a lack of reliable data on the cumulative impact of disasters on education, the available data shows a frightening scenario. In 2004, 1,259 school buildings were lost to floods and 24,236 were damaged. In 2007, cyclones destroyed 496 school buildings and damaged 2,110 more schools in Bangladesh (Petal 2008). Since 1971, an average of 900 educational institutions have been destroyed each year by cyclones, floods, and river erosion.³ During the same period, an estimated 4,666 schools were affected by either floods or cyclones each year (Table 1).

Table 1. Disaster impacts on primary education infrastructure in Bangladesh, 1971-2007⁴

Disaster Type	Destroyed school	Partially damaged school
Floods	17,036	105,341
Cyclones	16,025	34,225

Recovery from disaster impacts on education infrastructure is complicated by national budgetary funding limits and priorities. During 2004 to 2007, three disasters alone caused BDT 11,196⁵ million in losses (calculated as recovery cost), which caused significant pressure on education funding (APIT 2007). Moreover, the funding to make educational institutions more resilient in disaster and funding for early recovery support after a disaster is unpredictable and often insufficient (Save the Children 2008).

Beyond financial constraints, one of the primary reasons disaster risk reduction in education is overlooked is the limited knowledge about the significance of the problem. To fill this void, Plan International Bangladesh, in partnership with Save the Children United Kingdom, implemented an 18-month pilot project between July 2009 and December 2010. Entitled *Education in Emergencies: Strengthening Preparedness and Response Capacity in Flood and Cyclone Prone Areas in Bangladesh* (EiE), this project, which was funded by the United Nations Children's Fund (UNICEF), covered ten of the most disaster-prone districts of Bangladesh, and directly reached out to 1,000 schools in those districts. This project aimed to document and understand the experience of disaster-affected schools to manage and continue education during disasters, in light of the project intervention. In this paper, we describe the EiE project and then discuss the results of an assessment of the project in a subsample of project schools.

The Education in Emergencies Project

The EiE project focused on building the capacity of relevant local and national stakeholders to make primary education in Bangladesh more resilient to disasters. The project was designed to address a select set of factors constituting risk of disaster to primary education in Bangladesh. The key problems this project was to

³ Ibid.

⁴ Ibid.

⁵ BDT 83 =US \$1

address included: a) loosely defined, and sometimes non-existent, disaster risk management plans in education; b) limited capacity of stakeholders in designing and implementing disaster risk management in education; c) unsystematic information management on education during disasters; d) ad-hoc coordination; and e) unpredictable and limited resources for risk reduction.

With these concerns in mind, the EiE project engaged stakeholders of various levels within primary schools, school management committees, disaster management committees, education offices, and civil society organizations. The specific objectives of the project were to:

1. Ensure effective and coherent education needs assessment, information management, and coordination.
2. Increase the capacity of stakeholders regarding sustainable preparedness measures to reduce disaster risks in education.
3. Ensure adequate contingency planning and preparedness planning to provide continuous access to education for children in disaster-affected areas.

The project was implemented in 1,000 schools situated in ten districts, 46 upazilas (sub-districts), and 98 unions (the smallest administrative unit). Bangladesh has 11 types of primary schools, of which four specific types were selected for the project: a) Government Primary Schools; b) Registered Government Primary Schools; c) community schools; and d) madrasa,⁶ which are the most common form of primary schools. In each union, the schools most vulnerable to flood and cyclone damage were selected for the project. The number of schools selected at the union level ranged from 10 to 12 based on the availability of vulnerable schools. At the district level, the number of schools selected was fixed at 100.

Project management used set criteria to select the individual schools. Private schools or those run by non-governmental organizations (NGOs) like BRAC (earlier known as Bangladesh Rural Advancement Committee) were excluded. Some of the major school selection criteria were as follows:

- Primary level schools most vulnerable to flood and cyclone damage;
- Poor water and sanitation conditions during normal and disaster time;
- Experienced erosion or inundation several times;
- Used as shelter for long periods during emergencies; and
- Non-resilient infrastructure of school (e.g., cemented, semi-cemented and non-cemented; low-lying school ground; old infrastructure) in need of repair.

To identify and enlist schools with those criteria, project managers used the following process:

- Collected information and data from Upazila Education Officers;

⁶ Madrasa are the same as government primary schools but their curriculum is different and based on religious education.

- Discussed and validated the information with the Assistant Upazila Education Officer;
- Discussion with Union Disaster Management Committees;
- Discussion with catchment areas' parents and students (at least one focus group discussion at union level);
- Visited schools for the final selection; and
- Met with Union Disaster Management Committees and the Education Standing Committee with the participation of the Upazila administrator for transparency and documentation.

After initial selection of the schools, the criteria and process were shared with the Upazila Education Officers. Their opinions were taken into consideration for finalization of school list, which was submitted to the District Primary Education Officers for their record and input. Table 2 and Figure 1 show the details and location of the selected districts. The project period was from July 2009 to December 2010 and school selection began in August 2009 and was completed by December 2009.

Table 2. EiE project district details, with study districts highlighted

District	No. of schools	Total Teachers		Total Students		School Management Committee Members		
		Male	Female	Male	Female	Male	Female	Total
1 Bagerhat	100	254	187	8,711	8,482	747	401	1,148
2 Barisal	100	308	242	11,016	11,591	757	347	1,104
3 Gaibandha	100	275	155	10,898	9,124	797	324	1,121
4 Khulna	100	246	207	9,984	9,499	746	390	1,136
5 Kurigram	100	387	181	11,030	11,448	800	332	1,132
6 Madaripur	100	223	183	11,250	11,458	772	400	1,172
7 Patuakhali	100	334	209	10,088	10,025	837	322	1,159
8 Satkhira	100	265	185	11,085	10,881	802	376	1,178
9 Shariatpur	100	273	227	13,265	13,557	795	384	1,179
10 Sirajganj	100	241	158	10,314	10,666	835	350	1,185
Total	1,000	2,806	1,934	107,641	106,731	7,888	3,626	11,514

Source: Latest Project Management Information System (MIS) Report

Figure 1. Project district location

Study Objectives and Study Design

A total of 46 out of 1,000 schools in the EiE project area were affected by flood in 2010. Some schools were destroyed and some were partially damaged. The study of the EiE project described in this paper was conducted at four of these affected schools. The districts are: Gaibandha, Sirajganj, Madaripur, and Satkhira (see Table 2, highlighted rows). The schools chosen for data collection include the Char Dhurail Sardarkandi Government Primary School, Madaripur; Gazna Registered Primary School, Satkhira; Koraibari Government. Primary School, Gaibandha; and 18 No Sheikhchadpara Govt. Primary School, Sirajganj. Data were collected during April 2011.

The overall goal of the study was to understand the implementation and effect of the EiE project in disaster-affected schools. The specific objectives were as follows:

1. Identify preparedness activities initiated before the disaster by the schools;
2. Understand the process of developing a contingency plan;
3. Identify measures taken to continue education during and after the disaster/emergency;
4. Document the types of support the schools received from the government, community, civil society, NGOs, and other bodies; and
5. Gather students' perspectives about disaster before and after EiE implementation.

Methods and Sample

The study was conducted using qualitative approaches. Focus group discussions with students, School Management Committee members, and teachers were conducted in each of the four schools. Key informant interviews were conducted with the staff of partner NGOs⁷ that implemented the EiE project. More interviews were conducted with Upazila Education Officers. Data generated from field observations of EiE activities at schools was also an important data source.

In total, we talked with 65 students, 12 teachers, 11 school management committee members, four Upazila Education Officers, and four partner staff members. Apart from this, we reviewed the latest MIS report of the project, contingency plans of all the four schools, and the latest four quarterly reports. Approximately 22 working hours of field observation was conducted in all four schools, which included visits to disaster-affected schools and alternative learning places.

Findings

Below, we outline the findings from the study and highlight the preparedness and response initiatives by the school authority, including the process of developing contingency plans. Successes and challenges are also outlined along with recommendations.

Preparedness Activities Initiated by the Schools

All four of the study schools initiated preparedness activities prior to the disaster but after the launch of EiE project. The schools developed contingency plans and employed preparedness activities based on these plans. One important initiative by three out of four schools was the selection of alternative learning places to continue education when the school building was damaged or destroyed. According to the teachers and school management committee members, it was ensured that the alternative places selected were easily accessible to students. One president of a school management committee and other community people offered their lands voluntarily to be used as alternative learning places during emergencies. One of the schools did not include alternative learning places in its contingency plan but had considered alternative places; the landowner promised the land to be used as an alternative learning place during an emergency but he did not want it to be documented. (His fear might be that the school would later claim the land as its own.)

To make the schools less vulnerable during emergencies, the school authorities undertook various preparedness activities such as school ground raising, school side wall repairing, floor raising, classroom extension, tube well installation or repairing, latrine installation or repairing to ensure safe drinking water and sanitation facilities, purchase of school learning materials to be used during disasters, repair of connecting roads and bamboo bridges, and boat scheduling to ensure safe transfer for the students during emergencies. School staff also conducted

⁷ The EiE project was implemented through various local and national NGOs, labeled here as partner NGOs.

educational programs like drawing competitions and essay competitions related to disaster to raise awareness among children.

Small grant support from the EiE project was one of the main sources of funding for these preparedness activities. A part of these projects were also financed by school management committees and individual contributions from community residents. School management committees and teachers said that through the EiE project, community participation was very encouraging and positive.

The Process of Developing the Contingency Plan

Developing a contingency plan in the schools was an integral part of this project. Therefore we aimed to learn about the detailed process of developing these plans, which may help development practitioners.

The community members were commonly resistant to the idea of continuing education during an emergency, instead prioritizing livelihood support and relief intervention. Moreover, the community was not aware that education could be continued during an emergency situation, even when the school building is unavailable. Many community members and school staff seemed uncertain about what roles they could play in this regard.

Thus to begin the development of these plans, local partner NGOs shared the project objectives with school teachers, school management committees, and students. They then arranged a workshop on developing school contingency plans with participation from these groups. On average, 22 teachers, members of school management committees and students from each school participated in the workshop.

Since the context and vulnerability varied from school to school, after the workshop, each project school developed its own contingency plan. First, each school held a meeting to identify the problems inside the schools during emergencies. These situational assessments were done through historic profiling, mapping, timeline creating, and group discussion. Historic profiling of past disasters, including the events, experience and predictions, as well as community perception about future emergencies were important inclusions in this process. One participant reported, "After the assessment, we generated a list of problems with active participation of the students. Then we prioritized the listed problems to identify those that we needed to solve first."

In the meantime, with the support of the partner NGO staff, participants completed capacity assessments to identify existing resources, possible community coping strategies, possible roles and responsibilities of each group of people in mitigating emergency impacts, and proposed suggestions and recommendations for best solutions given resource and capacity limitations. After selecting the school development activities under the contingency plan, the participants established a timeline for implementing each activity. In the school contingency plans, most of the schools emphasized temporary learning spaces. High land, embankments, and

strong houses in the village were selected as alternative places for continuing education in case of emergencies.

Teachers and members of school management committees said that they did not find any gaps in the process of developing the plans but that they would be better if representatives of the Upazila Disaster Management Committee, the Union Disaster Management Committee and the Union Parishad (the lowest level local government unit in Bangladesh) were involved in developing them. The plans were reviewed once during the project period by teachers, school management committees, and students from different classes. In the focus group discussions, members of school management committees and teachers mentioned that previously they thought that food, shelter and rescue operations were the only main issues during emergencies, but they now include education as well.

Measures Taken to Ensure the Continuation of Education During and After Disasters

The contingency planning for alternative learning places was tested in 2010. That year, when school authorities assumed that their schools were going to be damaged due to river erosion, they informed the Upazila administration to get permission to save school learning materials and shift the schools to their alternative sites. However, the affected schools could not save most of learning materials because permission came too late. With the help of the students and the community, they tried their best to save school learning materials once they got permission, but they could not save all of them.

In the alternative learning locations, teachers tried to ensure their presence in the school every day although this was difficult due to worsened communication. If they were not able to arrive to the school on time, they encouraged the students to continue studying with each other until they arrived. In some cases, school management committees took the initiative to set up a complementary class before the teacher arrived. School children also said that their parents encouraged them to go to school regularly. Teachers said that parents were very encouraging that year, which helped to continue education.

After the emergency some of the immediate repairing of the chairs, tables, benches was done with the financial assistance of the teachers, as well as some of the members of school management committees and community people. Thus, through a collective initiative all the activities described in the contingency plans were done to continue education during the emergency. In two schools, there were separate monitoring committees and implementing committees to ensure that everything proposed under the contingency plan was properly done. The monitoring committees were comprised of representatives from the partner NGO, Upazila Education Officers and Union Disaster Management Committees. The implementing committee was comprised of the head teacher, assistant teacher, and chairperson of the school's management committee. Members of the school management committees and teachers said that the training that they received from the EiE project helped them to manage education during disaster.

Types of Support Schools Received

Overall, it was not easy to rally the community, school management committees, teachers, and civil society under the same umbrella about the concept of continuing education in emergencies. During focus group discussions with members of the school management committees and teachers, they said that community people prioritized shelter, food, and rescue operations over education in the past emergencies. They also added, however, that when people understood that education is also a basic need and thus should be prioritized, most of them came forward to support the local schools. Financial and non-financial support was offered by the teachers as well as some school management committee members and community people. As mentioned above, they worked to save learning materials that afterward supported continuing education even when a school was damaged completely. Some local elite and one chairman of a school management committee offered their lands as temporary learning spaces. Some schools reserved a small portion of EiE grants to shift the school to alternative places and purchase learning materials during disaster.

Students' Experiences with Disasters Prior to EiE Implementation

Students in grades three, four, and five (ages 8-11) participated in the focus group discussions and shared their past and present disaster experiences. Regarding their past experiences, they said that school buildings were damaged or eroded completely during the emergencies and teachers remained absent during that time. Thus, school remained closed for many days and, as a result, many of the students' friends dropped out of school. Moreover many of their friends' families lost their houses due to river erosion and some of their friends became engaged in income-generating activities instead of school. Teachers and school management committees did not take the proper initiative to resume education immediately. The students wanted to continue school but slippery travel paths and communication problems prevented them. One student said, "Our school is a place of fun and joy for us always but when it remains closed for disaster, we feel very sad." They also said that they were afraid to go back to school after it remained closed for many days because they had put aside their daily study and as a consequence their performance, especially in Math and English, became weak. They were worried about taking exams after this gap in their education. There used to be no excuse for missing or delaying an exam, and students worried the same held true during emergencies. Some of the students also said that when school opened again after a few days they became scared of having snakes, scorpions, and the like inside the classroom. When the students went to school, people made fun by saying, *Vanga School-a ki jas* ("What is there in a broken school!"). The students indicated this took an emotional toll on them.

Students used to think that an emergency meant school would be closed for an uncertain period, but in 2010 they experienced it differently. Thanks to the implementation of EiE, schools did not close, and teachers were present throughout the period although sometimes they came to school late. Students of a school in Madaripur said that their school was under water for many days but they did not lose school learning materials. In another school, the students said that their school eroded completely but they were able to save some learning materials. In the focus

group discussions, students said, "None of our friends dropped out from school this year after the disaster this year." Some schools continued education in alternative places and some inside the school building. Students shared that learning in their own school is much more enjoyable than in an open place, but that an open place for continuing education is better than not going to school at all.

A few problems remained with schooling in alternative locations. Discussion with the students revealed that though they were able to continue school in alternative places, there was no safe drinking water or sanitation facilities, nor was there a proper sitting arrangement. In the alternative learning places, they had to use latrines of nearby houses where they did not have frequent access. Sometimes they needed to go to the nearest mosque to use the latrine. Students, particularly of primary level, are fond of having fun and playing but in the alternative places they were not allowed to do so. The adults of the nearest families used to rebuff them for that behavior and there was no place for playing. They also lacked adequate learning materials like blackboards, chalk, etc.

The Story of a School

The case of the Dhurail Sarderkandi Government Primary School provides an excellent example of the value of EiE. The school is situated in Dhurail union under sadar upazilla of the Madaripur district and is surrounded by a river. Though the school belongs to sadar upazilla, its geographical location makes it remote and hard to reach so teacher turnover is high there. During the rainy season, the whole area would flood and even when the flooding receded, water problems would remain. As a result the school always remained closed during this time until the water problem was naturally resolved. No school management committee, teachers, or community members led interventions or initiatives to keep the school running even in an alternative place during the flood periods. After remaining closed for many days when school opened again the education environment was depleted. The floor, chairs, tables, blackboards, doors and windows would be damaged. In these past disasters, many students would drop out.

Through the EiE trainings, a contingency plan was created. In 2010, they received BDT 16000.00 (US\$ 193) from the Jagarani Chakra Foundation (implementing partner organization) and started to work with this small grant. An alternative learning space was offered by the school management committee chairman. That year during the disaster when school learning materials were damaged due to flooding, the school was transferred to the alternative place and continued there for one month. All the initiatives were taken per the contingency plan. It required more money than the amount they got from the project but community people extended their helping hands when the school started those initiatives. This was the first time in the history of this school that they continued education during a disaster without closing for a single day.

Successes of the Project

From our study of the EiE pilot project, we identified the following major successes:

- Level of awareness among most of the project-supported schools and upazila-level stakeholders has increased and they have realized the importance of EiE.
- All project-supported schools made contingency plans and implemented them accordingly. School stakeholders reviewed and updated this plan once during the year. All schools affected by disaster that year continued education. Some schools are still continuing to provide education in alternative places. The dropout rate also fell that year compared to the past. (In the project baseline survey the dropout rate was found to be 3 percent and is now even lower.)
- The small EiE grants were used by the schools and the witnessed changes inspired others to contribute financially.
- After launching of the EiE project, the upazila education authority in Gaibandha has started to discuss the EiE issue in the upazila primary teachers' monthly coordination meeting.
- Communication among education stakeholders between the upazila and schools increased. A district education cluster was formed after launching the EiE project and the cluster organizes meetings bi-monthly.
- The EiE concept is being used in non-project areas of Gaibandha. Some of the schools in the non-project area of Saghata were damaged completely due to river erosion this year. But all of those schools were shifted to alternative places as per Upazila Education Officers' instruction and continued education.

Challenges of the Project

The following are the major challenges faced by the project, which are related to the timeframe of implementation, resource limitations, and getting assistance from local government.

1. The project only lasted 18 months. Most of the project activities in the schools did not start until six months after the project launched and many of the activities were implemented in the last month of the project. The time limitation to complete the activities may affect the quality of the planning.
2. Needs were many but with few resources it was difficult for the schools to ensure minimum needs like safe drinking water, sanitation, adequate learning materials and psycho-social support.
3. There was no vehicle support from the project for the partner NGO staff. It was difficult to closely monitor the project activities and especially to provide support to schools in the most remote area.
4. It was a big challenge to sensitize the government stakeholders about the project objectives since some were not optimistic about the success of the project. In the most vulnerable areas it was hardly possible to continue education even during normal periods; the question of continuing education during emergencies seemed to be nothing but an illusion for them.
5. The project implementation strategy required government stakeholders' participation in the project activities, but some of the officials did not cooperate to the expected level because they did not have an official letter from the respective authorities.

Conclusion and Recommendations

Primary schools in Bangladesh suffer a lot due to disasters which has negative consequences for children's education. This discussion of the EiE project has shown methods of continuing children's education during and after emergencies. Due to project intervention, the students, teachers, school management committee members and government education officials became more conscious about the importance of continuing education during disasters. Though shelter, food, and rescue operations are also priority issues during emergencies, communities increased their understanding of the importance of education and wanted to execute it side-by-side with other basic needs.

Based on the findings of the study, the following recommendations are suggested for future intervention programs similar to EiE. First, importance should be given to the school selection process. Only vulnerable schools should be considered for project support so that maximum use of resources can be ensured. Second and relatedly, schools do not have equal needs for grant support therefore support should be based on matching funds. More investment is also needed for capacity building among students, teachers and school management committee members on EiE. The trained students and teachers can share the learning from training with other students, teachers, members and parents. Third, for continued funding the government should allocate upazila-level contingency funding in Primary Education Development Programs so that this fund may be used during emergencies to continue education. Fourth, More emphasis should be placed on school mapping and development of contingency plans. More children's participation should be ensured along with representatives from the upazila education authority, local government institutions, and local people. Broader stakeholder involvement can help ensure transparency and proper utilization of resources. Fifth, a link between schools and the Union Parishad Upazila Disaster Management Committee as well as the Union Disaster Management Committee should be established and mobilized so that the issue of EiE can be included in their annual plan and budget. Finally, mock drills are one of the best ways to build awareness among children and community residents. This type of child-centered school development activity should be considered in future interventions. Also, village or school volunteer groups can be formed to provide support for schools' efforts to continue education during emergencies.

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