International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor (2018): 7.426

Post-Disaster Management in Schools-Loss, Remedial Measures and Reconstruction- The Headmasters' Perspective - A Descriptive Study from Rural Nepal

Boby Joseph Thadathil SJ

Research Scholar, Singhania University, Rajasthan, India

Abstract: ***Natural disasters have significant impact on education. This is a descriptive study to assess the extent of damage, managerial issues and remedies and reconstruction of rural schools badly affected by the 2015 Nepal earthquakes. Headmasters of nineteen schools from 4 of the worst affected districts were selected and interviewed on a one to one basis with a structured questionnaire. The problems faced in the immediate post disaster period, sources of immediate help, remedial measures for losses were recorded. The infrastructure available before the earthquake and the details of construction of temporary structures were recorded. The study gives a snapshot into the ground realities faced by rural schools in developing countries in wake of a massive natural calamity.***

1. Introduction

Massive natural calamities are an acid test for the managerial capacities and resilience of an individual, organization, community and nation as a whole. The earthquakes on 25th April and 12th May 2015 in Nepal wreaked havoc on a mammoth scale and paralyzed a nation which already had its share of economic crises and political instability. Nepal is an area of geological instability and earth quake prone area. The earthquake took place on Saturday 25th April 2015 at 11.50 noon, on a public holiday. The epicenter was at Barpack, a mountain village between the capital Kathmandu and a well known tourist center Pokara. It killed 8857 people and injured 21,952 and 3.5 million people become homeless. It occurred at 11.56A.M with 7.8Mw and depth is 8.2 Km.[2] The earthquake was followed by many powerful aftershocks. The second major earthquake took place in Nepal on 12th May 2015 at 12.50 P.M local time with a moment magnitude of 7.3 and the epicenter was on the border of Dolakha and Sindupal chowk, two districts of Nepal. The earthquakes and the numerous aftershocks destroyed about 25000 classrooms and another 10,000 require some forms of repair. [14](Nepal earthquake 2015, situation report no 20, UNOCHA, 2015) Children represent 42% of Nepal's population according to the2011 national census; have suffered immeasurable trauma and devastation. A total of 8308 schools (42% of Nepal's schools) were affected by the earthquake.[2] The earthquakes and the numerous aftershocks destroyed about 25,000 classrooms and another 10,000 required some form of repair.[14]

Management of educational institutions after the disaster needs a lot of time and space to create a positive environment in education. Management has to deal with the aftermath of destruction, building of temporary shelters, reconstruction of permanent structures, counselling of students and staff, psychological support, motivating the parents, and providing teaching aids and study materials while trying to continue education. All these can impact the future of the children. All these problems are magnified in rural settings in a developing country due to the scarcity of infrastructure and resources and remoteness of their location and inaccessibility to relief measures.

There is hardly any literature on management issues faced by schools in rural Nepal following large scale disasters like an earthquake. Therefore this study attempts to identify the managerial issues faced in the reconstruction of rural schools in Nepal following the earthquake.

2. Aim of the Study

To determine the scale of damage to rural educational institutions as a result of the 2015 Nepal earthquakes and to record the issues faced and remedial measures taken by the school administration to continue education in the post disaster period from the headmasters/ principals' perspective. The study records the infrastructure and equipments available before and after the earthquake and hence gives a snapshot of the ground realities of education in rural schools of a developing country.

3. Materials and Methods

This is a descriptive study. Principals of 19 rural schools from 4 of the worst affected districts were selected by stratified random sampling method. Study was conducted in rural schools in the four districts which were most affected by the 2015 earthquake. The 4 districts selected were Kavre, Sindhupalchowk. Gorkha and Dholaka. The study was done in the months of February and March 2017, that is approximately 22 months after the earthquake. This gave the researcher opportunity to assess the progress in the rebuilding activities in the post disaster period. Stratified random sampling method was used. In each district, one school each from a badly affected ward was selected. So six schools, one each from six wards in Kavre, five schools, one each from five wards in Gorkha, five schools, one each from five wards in Dholakha and three schools, one each from three wards in Sindhuplachowk were included in the study. In order to select representable sample schools, a checklist

of destroyed schools was developed based on a range of criteria relating to the purpose of the research.

This study was done after obtaining permission from the district educational officer, school management committee and headmasters of the schools. Verbal consent was obtained from all the participants after explaining the purpose and nature of the study. Those who did not wish to participate were excluded from the study.

A structured questionnaire was administered by the researcher on a one –to- one basis. The findings were recorded and analysed.

4. Literature review

The general impact of a natural disaster makes it one of the most challenging crises to be addressed by school leadership teams [1]. In most instances, entire communities are devastated by natural disasters. Such physical effects as ruined buildings, inaccessible roads and lack of resources drastically affect people's daily lives. [11]. Effectively managing and leading the school following post disaster can be a challenge to the school organisation.

The aftermath of a natural disaster often shakes the foundation of a school culture, not just the day-to-day operations. School is a complex human organisation with interactions between multiple parties who play a major role in the running of the school, including headmasters, teachers, students, support staff, parents, district level educational officers and community in general [3]. Each of these parties will react differently to a natural disaster and the reactions and the responses and interactions among them when studied will give a major insight into the efficacy of disaster management in schools at the ground level[7].
Comprehensive School Safety, a global framework for disaster risk Reduction and resilience in the education sector, adopted the Sendai Framework Priorities for the education sector[4]. Goals of Comprehensive School Safety: 1) Protect students and educators from death, injury, and harm in schools 2) Plan for continuity of education through all expected hazards and threats 3) Safeguard education sector investments and 4) Strengthen risk Reduction and resilience through education.

The foundation of planning for Comprehensive School Safety is multi-hazard risk assessment. Ideally, this planning should be part of Educational Management Information Systems at national, sub-national, and local levels. It is part of the broader analysis of education sector policy and management that provides the evidence base for planning and action.

Principal's Role in Crisis Management
An effective response is planned, prepared and practised well before the disaster strikes[8]. Principals should encourage drafting of emergency preparedness plans for disaster which involve the entire community. Principals should also enforce frequent safety drills. Teachers need the support, involvement and encouragement of administrators for successful implementation of disaster management programmes[19]. Turkey is placed in a seismically active region and the two major earthquakes in 1999 killed 18,243 people of which were 1,387 students and 178 teachers[12]. The reasons for the collapse were defects in engineering, especially in rural places, ineffective and insufficient supervision and of architectural deficiencies and lack of demand for earthquake safety among the public[10]. In 2003 earthquake in Turkey, 85 children and one teacher lost their lives under the collapsed building. Of the 42,000 schools, only 1,797 were tested for resistance to earthquakes. There is very little literature on the impact of natural disasters on rural education in Nepal and this study was conducted to assess the scale of damage and to assess the managerial issues faced by the rural schools in Nepal.

5. Findings and discussion

Post-Disaster Losses and Managerial Issues
The headmasters of the school provided information about the extent of loss faced by schools. One school (5.9%) suffered 25% structural damage of their buildings, three schools (17.6%) suffered 50% structural damage, seven schools (41.2%) suffered 75% structural damage and 6 schools (35.3%) had 100% structural damage. Loss of teaching aids: Three schools lost 25% of their teaching aids in the quake, another three schools lost 50% of their teaching aids, nine schools lost 75% of their teaching aids, three schools lost 100% of their teaching aids.

Only 47.4% of schools in the study had a library. 40% schools lost 25% of their books, 13.3% schools lost 50% of books, 26.7% schools lost 75% of books and 6.7% schools lost 100% of their books and 13.3% 2 schools did not lose any of their books.

All the schools were assessed by the government. One school reported a loss of 2 million NR whereas 16 schools were assessed as more than 2 million. For two schools the exact loss was not known.

8 schools recovered less than 5 lakhs. 6 schools recovered 5-10 lakhs. One school did not recover One school did not give any information.

Post-Disaster Management Issues
All 19 schools opened within one month of the earthquake. The problems faced in the immediate post disaster period is given in Figure 1. 2 of 19 schools faced the problem of clearing debris, 18 of 19 schools had damaged buildings, 15 of 19 schools faced a drinking water shortage after the earthquake, 16 of 19 schools faced a lack of toilets, 8 of 19 schools also faced a lack of other facilities after the earthquake.

Sources of immediate help are given in Figure 2.

18 of 18 headmasters who responded said that they had a good communication system with DEO after the quake.

10 of 19 headmasters interviewed said there was no reluctance of students/parents to return to school. 9 headmasters found that there was reluctance of students and parents. 17 headmasters persuaded children and parents to return to school. 2 headmasters did not have to persuade

them to return to school. 17 of the 19 schools kept records to ensure teacher attendance, whereas two schools said encouragement was sufficient to ensure regular attendance of teachers.

Problems Encountered and Remedial Measures

After the clearing of debris, when the schools reopened, 13 schools held classes in tent/ tarpaulin, 2 in tent tarpaulin and open places, 2 in open places and 1 held classes under a tree and one had classes in the classroom itself.

Immediate remedial measures for loss of teaching aids: 6 schools reported borrowed teaching aids from other schools, 8 schools were helped by DEO office, 2 schools were provided by villagers, 6 schools utilised government funds, and 10 schools acknowledged help by non-governmental organisations.

Immediate remedial measures for loss of books: 14 schools recorded help by non-governmental organisations, 5 schools were helped by local community and 8 schools received help from the district education office.

Other problems encountered: other difficulties faced by headmasters in the post-earthquake period were lack of students in 8 schools, lack of teaching staff in 1 school, lack of co-operation from management committees in 5 schools, other problems in 4 schools.

Temporary Shelters

Temporary shelters were made for loss of building. 14 of the 19 schools had temporary shelter areas and 5 did not have a temporary shelter built. Materials for temporary structure/ tarpaulin tents were sourced only locally in 4 schools and completely from other districts within the country in 10 schools. Materials for 2 schools were from local sources and other districts. 3 schools did not give details.

Time for Completion of Temporary Shelters

42.9% of schools completed the temporary shelter within 3 months, 35.7% completed within one month and 14.3% completed within 2 months and 7.1% took more than 3 months to complete.

Cost of Temporary Buildings

57.1% of the temporary buildings cost more than 3 lakhs. 14.3% of temporary buildings cost 1 lakh and another 14.3% cost two lakhs. 14.3% of headmasters interviewed did not say the exact cost.

Types of Temporary Structures

Tin sheet roof with tin sheet wall was the most common type of temporary structure which was seen in 9 schools, 2 of which had one more accompanying temporary structure. Truss with sheet was seen in 5 schools, 2 of which had another temporary structure. 3 of the schools(1 in Sindhupalchowk and 2 in Gorkha) had only tarpaulins as temporary shelters.

The findings highlight the difficulties and struggles of building even a temporary structure in remote rural areas which are difficult to access by road. Five of the schools did not construct a temporary structure. Of the 14 schools in which temporary structures were built, NGOs helped fully in 7 and shared the costs in another two. The government built one and helped in three others, Local community built one and contributed to building one more.

Labourers for clearing debris and /or construction of temporary structures were: 3 schools employed less than 50 labourers, 6 schools employed 50-100 labourers, 1 school employed 100-200 labourers, 5 schools employed more than 200 labourers. 3 schools did not give an answer. One headmaster was not sure of the exact number of labourers employed.

All the labourers employed were from the local community in 9 schools. Half of the labourers employed were from the local community in 5 schools, less than half of the labourers were locals in one school and none of the labourers were local in one school. 3 schools did not give an answer.

The above findings stress the complex and mammoth nature of the tasks involved in rebuilding of rural schools. In 50% of the schools, employed labourers were all from the local community. This not only ensured jobs for locals but also enhanced the feeling of ownership and participation in the community members. In another 27.78%, half the labourers were locals.

60% of schools which employed more than 200 labourers employed only local labourers. 50% of schools which employed 50-100 labourers and 66% of schools with less than 50 labourers did the same. There was no significant correlation between the number of labourers employed and the proportion of local labourers. See Table 1.

Table 1: Number of labourers employed for reconstruction and the proportion of local labourers

Serial number of schools	Number of labourers	Number of local labourers
1	>200	Half
2	50-100	None
3	50-100	All
4	<50	All
5	50-100	All
6	Nil	Nil
7	N/A	N/A
8	<50	All
9	100-200	half
10	50-100	All
11	50-100	Half
12	>200	All
13	Nil	Nil
14	>200	Half
15	N/A	All
16	>200	All
17	50-100	Half
18	<50	Less than half
19	>200	All

Construction work disturbed the classes in 12 of the 19 schools but it was not disturbed in 7 schools.

17 schools did not receive any subsidy for teachers' salary before the earthquake. 2 schools received subsidy. There was no increment in subsidy after the quake. 9 schools had government fully supporting the teachers' salary whereas 10

schools did not have full support from the government. The community was also contributing to teachers' salary in only 2 schools.

Infrastructure in Rural Government Schools in Nepal before the earthquake

This study gives a sneak peek into the infrastructure of rural government schools in Nepal. None of the 19 schools had earthquake resistant buildings before the earthquake. 8 of the 19 schools had random stone masonry and eight schools had non reinforced masonry. The fact that both the earthquakes happened when there was a school holiday saved many lives. Table 6 summarises the structure and type of school building and the organisation of learning spaces before the earthquake in the nineteen schools interviewed. This gives a snapshot into the infrastructure of the educational institutions in rural Nepal. See table 2.

Table 2: Type of School buildings before the earthquake

Serial number of schools	Type school building before earthquake	Number of classrooms before earthquake	Number of storey before earthquake	Roof before earthquake	Number of students /room before earthquake
1	Masonry without reinforcement, random stone masonry	14	1	Tin sheet	30-40
2	Reinforced concrete	35	3	concrete	30-40
3	Reinforced concrete & random stone masonry	10	4	Tin sheet	20-30
4	Masonry without reinforcement	11	1	Tin sheet	10-20
5	Masonry without reinforcement & random stone masonry	8	1 & 2	Concrete and tin sheet	<10
6	Reinforced concrete & masonry without reinforcement	28	2	Concrete and tin sheet	20-30
7	Reinforced concrete & random stone masonry	29	4	Concrete	30-40
8	Non-reinforced masonry	10	Nil	Nil	Nil
9	Reinforced concrete	16	3	Concrete	>40
10	Random stone masonry	7	1	Tin sheet	10-20
11	Random stone masonry	7	1	Tin sheet	10-20
12	Non reinforced masonry	18	2	Concrete and tin sheet	30-40
13	Reinforced concrete	16	2	Concrete	Nil
14	Reinforced concrete	32	2 & 3	Concrete	30-40
15	Non reinforced masonry	7	1	Tin sheet	>40
16	Random stone masonry	21	2	Tin sheet	10-20 & in some 30- 40
17	Random stone masonry	9	1	Tin sheet	20-30
18	Non reinforced concrete	27	2	Concrete & tin sheet	30-40
19	Random stone masonry	17	1	Tin sheet	30-40

Construction of Permanent Building: 17 of 19 schools had plans for a new building. All of them had planned for an earthquake resistant school building. Estimated completion time was put at 2 years by 10 headmasters. 5 schools within 3 years, 2 within 4 years and one within 5 years and one did not have an estimated time. 12 schools had an estimated cost of the new building as more than 1 million. 6 did not know the estimate. One did not answer the question.

Current Infrastructure/ equipments: 7 schools had charts, blackboards, computers and furniture. 5 schools had charts, blackboards and furniture. Blackboards and furniture were in 1 school. 2 schools had only charts, 2 schools had charts and blackboards only. 1 school had only furniture. One school had a blackboard, computer and furniture.

Of the 19 schools, 8 had a computer. 16 schools had charts, 15 had a blackboard and 14 of 19 schools had furniture. 2 schools interviewed lacked furniture, blackboards and computers and had only charts. One school had only a blackboard and furniture. One had only furniture.

Other Problems Faced by Headmasters

17 headmasters responded to this question. 47.1% said that lack of students was a major problem faced. 29.4% cited lack of co-operation from the management committee. Other unspecified problems were cited by 17.6% of headmasters.

Reluctance of Students and Parents to Return to School

52.6% of headmasters said there was no reluctance to return to school. 80% of headmasters in Dolakha encountered reluctance of students or their parents to return to schools, which was the highest among the 4 districts. See table 5.119

Persuasion by Headmasters for Students to Return to Schools

89.5% of headmasters used persuasion of students and parents so that the children would come back to school. The highest percentage was in Dolakha where all the headmasters interviewed used persuasion to get the students to return to school. As noted above this was the district with the highest frequency of resistance to return to school.

42.1% of the headmasters interviewed said that there were dropouts after the quake. 60% of the headmasters in Gorkha said there were dropouts. The numbers of headmasters reporting dropouts in the different districts are as follows. See table 3

Table 3: The percentage of dropouts among students in the schools interviewed

District	Serial number of school	no: students before EQ	Number after	Percentage of students
Kavre	1	270	190	70.37
	2	318	286	89.94
	3	60	60	100%
	4	90	92	102.2%
	5	38	20	52.63%
	6	348	348	100%
Gorkha	1	839	821	97.89
	2	45	45	100
	3	513	401	78.17%
	4	62	34	54.84%
	5	100	84	84%
Sindhupal chowk	1	500	525	105%
	2	210	210	100%
	3	611	570	93.29%
Dolakha	1	61	73	119.67%
	2	500	450	90%
	3	170	130	76.47%
	4	538	498	92.57%
	5	351	350	99.72%

Nepal's official education system began approximately sixty years ago. Since then, in order to reach the United Nations Education For All (EFA) and Millennium Development Goals, the country has made vast improvements in the quality of education. One of the main contributions to the improvements has been increased government education expenditure. The Nepalese government now spends 4.7 percent of its GDP on education compared to 2.9 percent it spent in 1999. In addition, the Nepalese government is working to decentralize education by allowing local schools more autonomy in the education system. Overall, attendance in Nepal has increased, although it varies by urban and rural areas. In urban areas, net attendance was above eighty percent during 1995 —1999 and reached almost ninety percent during 2000 — 2004. In rural areas, the net attendance increased by ten percent, from approximately sixty percent to seventy percent over the same period[5].

Mudavanhu (2014) studied absenteeism and school drop outs following natural disasters in Zimbabwe[13]. They found that absenteeism was highest in the rainy season between January and March. 1015 of 5730 children of school-going age in the study area were not enrolled in any of the schools. Many of the children had to wade through overflowing rivers and streams and reached the school wet, which made them uncomfortable in sitting with others and led to their dropout. The study also recorded a high teacher turn over and a paucity of qualified teachers in the remote areas which were also disaster prone. This could also be the reason for high dropouts and absenteeism.

In a study by Gouda et al (2014), according to national health survey only 75% children of 5-16 years in India attended school, of which 14% never attended school and 11% had dropped out due to various reasons[9]. The dropout was higher among girls (17% versus 11% in boys) and in the rural areas (17%). Dropouts were 4 times higher among children of illiterate parents than of literate parents.

In a report on Nepal by the centre on conflict and development Texas (2016), earthquakes had a statistically significant negative effect on school enrolment and school attendance in children between 5 to 18 years [5]. The correlation was most significant in the worst affected districts. The dropouts were higher among older children (15-18), children from lower castes, children from less well-off families. In a study by Pane et al (2008) on Louisiana storms, 25% of students returned to the schools in less than 3 weeks and 20% took more than 7 weeks to return to school[15]. Pane et al (2008) studied the displacement of students following hurricane Katrina[15]. 38% of students temporarily discontinued education and joined back after a break without joining elsewhere. 31% relocated to another school of which 7% returned back to the original school and 24% who never returned back to the original school. More than 31% of students did not enroll in any schools in Louisiana. They may have moved to another state or discontinued education. 65% of the displaced students belonged to ethnic/ racial minority groups.

Siriwardhana et al (2013) investigated the relation between student absenteeism and traumatic events like tsunami and armed conflicts[17]. In a study of 1505 students aged 12-17 from Sri Lanka, previous exposure to tsunami was significantly associated with absenteeism whereas previous exposure to conflict was not. 49.1% of those exposed to tsunami met the criteria for absenteeism whereas only mental disturbances were significantly associated with absenteeism. Male gender, younger age (12-14 years), residence in a coastal or plantation area was also indicators of absenteeism.

Beaglehole et al (2017) examined the impact of earthquake on academic performance and school leaving of adolescents and found that there was no evidence for poor academic performance or increased school disengagement as a result of earthquake[6]. The majority of the students displayed resilience and post-disaster growth. The authors attribute it to a well developed and effective post-disaster responses and measures.

In a study of 88 principals in New Jersey by Scott Rocco, a significant correlation was found between the level of emergency preparedness knowledge and source of training and both confidence of the principals and preparedness behaviour[16]. The findings indicate the need of proper training of headmasters and teachers because it influences their confidence and preparedness behaviour. The relation between attitudinal favorability of principals to emergency preparedness and confidence is significant but it did not correlate significantly with preparedness behaviour of the principals. The confidence of the principal plays a significant role in emergency preparedness. The organisational structure of the schools, i.e.; school emergency plans, its contents and its revisions also significantly correlated with the confidence of the principals but not with preparedness behaviour.

A community based reconstruction programme in Java and Sumatra provides a good workable model which can be adopted in Nepal. The details of the programme are summarised. Following the 2009 earthquake in Sumatra and

Java, a School Reconstruction Programme (SRP), jointly sponsored by USAID and Australian government, has reconstructed 57 schools, 18 in West Java and 39 in West Sumatra, enabling 9,412 students (target 9,500) to return to school (4,536 female and 4,876 males)[18]. The reconstructed schools had a higher proportion of poor students than the average proportions in the two provinces. The highlight of this reconstruction program was that a community-selected school reconstruction committees (SRC) managed school reconstruction and engaged with the local community. The SRCs were responsible for recruiting local labour, sourcing local materials and managing and reporting on the progress of construction. Through these processes of local community engagement, the partnership between the local community and the school was reportedly strengthened. These workers had actively sought to be engaged in SRP for the future benefit of their children. Thus school reconstruction was provided to support local economic recovery from the disaster and development. The community-based construction model contributed to local economies through the engagement of local labour and using local suppliers for procurement.The SRPPC reported that more than half of school principals and SRC heads believed that this increase in economic activity was the most important aspect of the community based construction program. Community-based construction is an appropriate model for post disaster school reconstruction programs as each community has unique characteristics and peculiarities. Community approaches can be described in several ways. One model uses five stages of community involvement: community mobilization, community consultation, community participation, community management, and community led.This model would serve as ideal model for reconstruction of rural schools of Nepal.

6. Conclusions

The government schools in rural areas of Nepal were already working under constrained circumstances and with limited facilities. The 2015 earthquake destroyed most of the infrastructure they had. The rebuilding process is slow and is mainly affected by the lack of funds. Twenty two months after the earthquake, none of the schools had a permanent earthquake resistant school building although the plan for the building was ready. Most of the schools had only a temporary structure which was built with the help of the government and nongovernmental agencies. Despite the arduous and challenging circumstances, head masters have done their best within their power to make sure that the students continue their education.

7. Suggestions/ Future Scope

The findings in the study reveal a snapshot of the conditions prevalent in rural schools of Nepal and the difficulties faced in the disaster management by the major stakeholders. The researcher concludes that collaboration between different agencies with a public private partnership would be the best hope for an effective disaster management strategy in rural schools.

References

[1] Alba, David J. and Gable, Robert (2011), "Crisis Preparedness: Do School Administrators and First Responders Feel Ready to Act?" NERA Conference Proceedings 2011. 7. Downloaded from https://opencommons.uconn.edu/nera_2011/7
[2] Aon B (2015). 2015 Nepal earthquake event recap report. Available from http://imageforecasting.com
[3] Astor RA, Guerra N , Van Acker R(2010). How can we improve school safety research? Educational researcher ; 39; 69.
[4] Comprehensive school safety. A global framework in support of The Global Alliance for Disaster Risk Reduction and Resilience in the Education Sectorand The Worldwide Initiative for Safe Schools. March 2017.
[5] The impact of natural disaster on education.Evidence from Nepal. Published from the Center on Conflict and Development (ConDev, condevcenter.org) at Texas A&M University and The Bush School of Government and Public Service Spring 2016 capstone course.
[6] Beaglehole B, Bell C, Frampton C,Moor S (2017).The impact of the Canterbury earthquakes on successful school leaving for adolescents. Australian and New Zealand journal of public health.vol 41 no.1 , 70-73.
[7] Brown T and Yasukawa K (2010). Learning and adapting for organizational change: researching union education in Australia. Studies in continuing education, 32:1, 61-71
[8] Gilderman, M. (2006, October 25). Staying safe at school: Conclusion of a threepartseries. Pine Journal, p. 2.
[9] Gouda SM, Sekher TV (2014).Factors Leading to School Dropouts in India: An Analysis of National Family Health Survey-3 Data . IOSR Journal of Research & Method in Education (IOSR-JRME)e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 4, Issue 6 Ver. III, PP 75-83
[10] Gurdilek, R. (2000), "Depremicinevodevi", BilimveTeknik, August, pp. 94-6
[11] Jaques, T. (2010) Reshaping crisis management: The challenge for organisational design. Organizational Development Journal, 28:1, 9-17.
[12] MPMCC (Management of Prime Ministry Crises Center) (2000), Earthquakes, MPMCC, Ankara.
[13] Mudavanhu(2014). The impact of flood disasters on child education in Muzarabani district, Zimbabwe. Jamba Journal of disaster risk studies, vol6 , no:1.1-8
[14] Nepal: Earthquake 2015 Situation Report No.20 (as of 3 June 2015). United Nations Office for the co-ordination of humanitarian affairs. Available from http://reliefweb.int/report/nepal/
[15] Pane JF, McCaffrey DF, Kalra N &Zhou AJ (2008) Effects of Student Displacement in Louisiana During the First Academic Year After the Hurricanes of 2005, Journal of Education for Students Placed at Risk (JESPAR), 13:2-3, 168-211, DOI: 10.1080/10824660802350169
[16] Rocco S. (2014). The impact of principal knowledge, attitudinal favorability and organizational structure on emergency preparedness in New Jersey's public schools.Seton Hall University Dissertations and Theses

(ETDs). 1963. Downloaded from http:// scholarship.shu.edu/dissertations/1963.

[17] Siriwardhana C. Pannala G, Siribaddana S, Sumathipala A Stewart R (2013). Impact of exposure to conflict, tsunami and mental disorders on school absenteeism: findings from a national sample of Sri Lankan children aged 12–17 years. BMC Public Health, 13:560

[18] Teese I, Kusumahadi M and Dewhirst R. (2011).School reconstruction programme in West Java and West Sumatra.Independent completion report.

[19] Yoon, JS.; Gilchrist, J. Elementary Teachers' Perceptions of "Administrative Support" in Working with Disruptive and Aggressive Students.

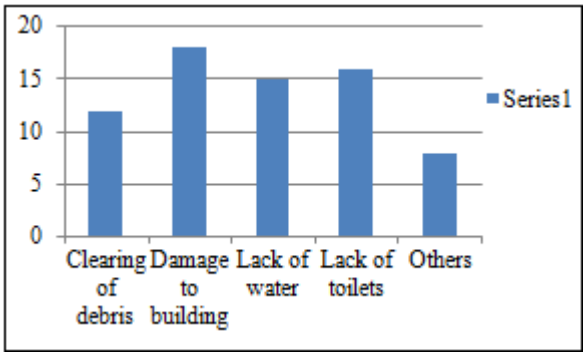

Figure 1: The issues faced in the immediate post disaster period

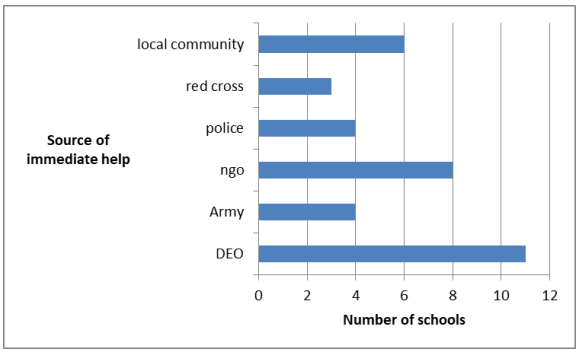

Figure 2: Sources of immediate help in the post disaster period*.
*Multiple responses allowed

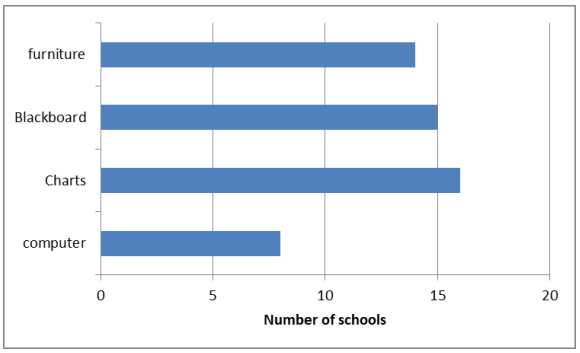

Figure 3: Infrastructure/ equipment available at the rural schools at the time of interview