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Case Study

Local level socio-economic impacts and responses to the earthquakes-2015: A case of Kirtipur Municipality

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Abstract

The series of earthquakes and aftershocks affect Nepal in 2015. However, very few studies were carried out to assess and analyze the local-level impacts and responses. The present study focuses on impacts and responses to earthquakes in the Kirtipur Municipality based on secondary data and primary information generated from the open-ended questions to the purposively selected samples. Higher number of human casualties was observed among the elderly and children, but no such difference in terms of gender. The wards in core areas, particularly in Panga and Chovar, were affected the most because of century old houses without any disaster resistant technologies. The social bonding and cohesion were strongly observed during rescue and relief phases. The separated families united during the first two phases whereas the united families separated to nuclear families in recovery and reconstruction phases. The major reasons were main political transition, lack of financial resources and social factors.

Keywords: disaster; earthquake; impacts; responses; Kirtipur

Background

Kirtipur is an ancient city which is dominated by Newar ethnic people with their unique culture and lifestyles for generations. It was declared as a municipality in 1997 under the Municipality Act 1983 by merging 8 adjacent village development committees (VDCs) – Palifal, Layaku, Bahirigaun, Chithubihar, Champadevi, Bishnudevi, Balkumari, and Chovar (ICIMOD, 2003). There were 19 wards when it was formed that have been reduced to 10 wards after the successful execution of the elections at the local, regional and central levels in 2017 (Fig. 1). According to the new federal system, municipalities and rural municipalities are the key government executing agencies with increased power and authority at the local level. The new Kirtipur Municipality has the total population of 65,599 (55.60% Male and 44.40% female) in the total households of 19,441 and land of 14.76 sq. Km (CBS, 2014; Kirtipur Municipality, 2018).

However, the city has faced rapid changes in recent years due to speedy urbanization, modernization and migration of

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the people from different parts of the country. Haphazard, rapid and unplanned growth is common phenomenon in Nepalese context that is prevalent in the municipality as well since it is situated next to two densely populated metropolitans in the country – Kathmandu and Lalitpur Metropolitans. Also Because of existence of Tribhuvan University in its premises, the city is also attracted to the people from all over the country, especially for students, staffs and other residents due to comparatively fresh and clean air and water facilities and cheap rent and land.

Number of disasters caused by natural and human interventions including earthquakes, floods, epidemics, and droughts occurs and affects the livelihood and economy in Nepal at the local and national level. The epicenter of 7.8 magnitude earthquake on 25 April 2015 was Barpak of Gorkha district of Nepal, 80 km Northern West of Kathmandu and that of 7.3 magnitude earthquake on 12 May 2018 was Sindhupalchowk district, 40 Km Northern East of Kathmandu. These major shocks and subsequent aftershocks had major consequences of 8,790 people died and around 22,300 injuries were recorded from the casualties at the national level. A total of 498,852 houses were completely destroyed and 256,697 houses were damaged partially from the earthquakes (NRA, 2016). The World heritage sites such as Kathmandu Durbar square, Patan Durbar square, Bhaktapur Durbar square, Changu Narayan temple, Swayambhu Nath stupa and Boudha Nath Stupa were severely damaged. Gorkha, Lamjung, Kathmandu, Ramechap, Dolakha and Sindhupalchowk districts are also severely affected during this tremor (Roy et al., 2015). The Fig. 2 shows the number of small and big quakes between 25 April to 12 May 2015. Some quakes were still continuing even after 12 May 2015 as well. Since series of small and big earthquakes occurred within short duration of 1-2 months, it is defined as the major earthquakes.

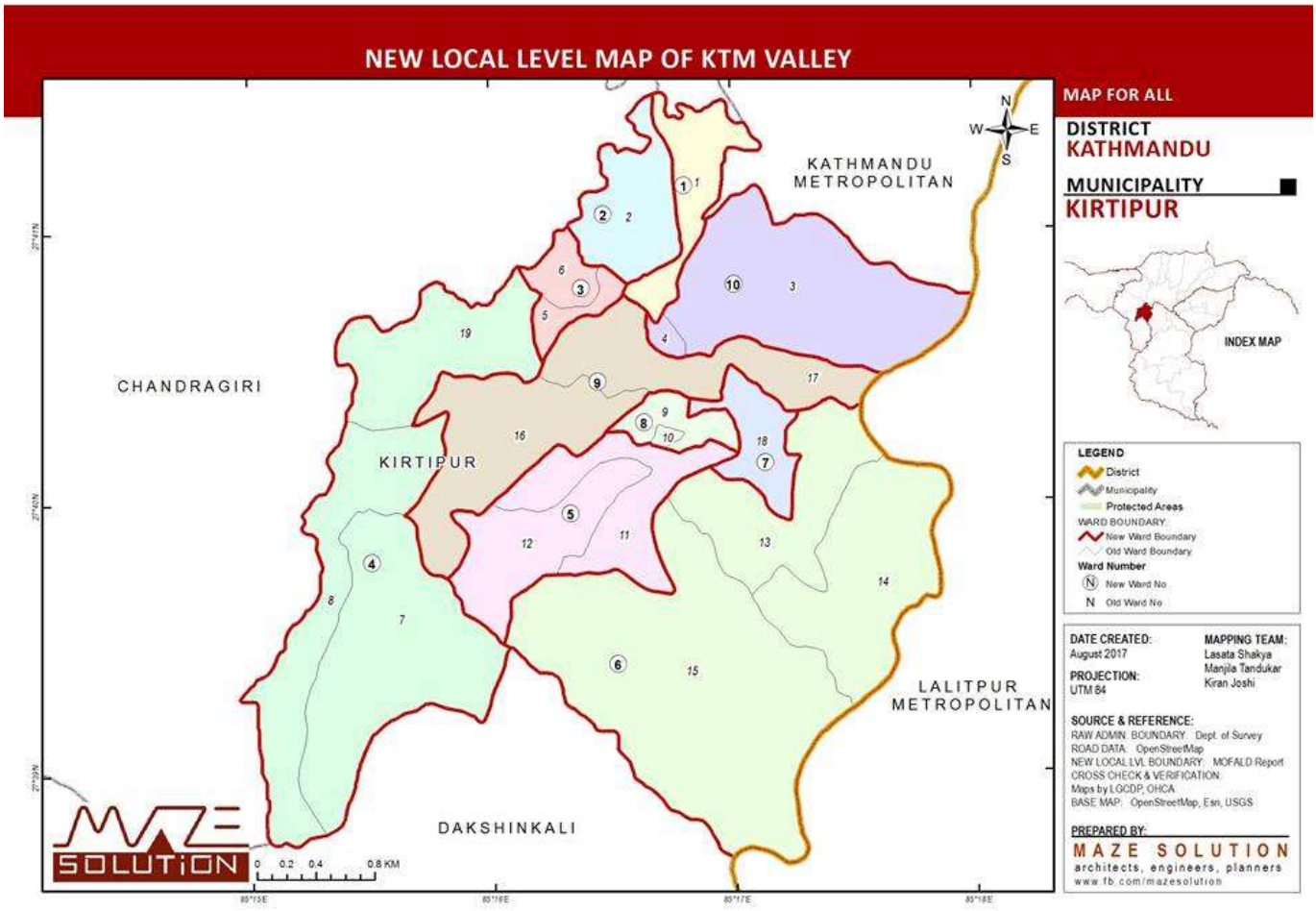

Fig. 1: Map of Kirtipur Municipality showing the old 19 wards merged into 10 new wards

[Source: Maze Solution, 2018]

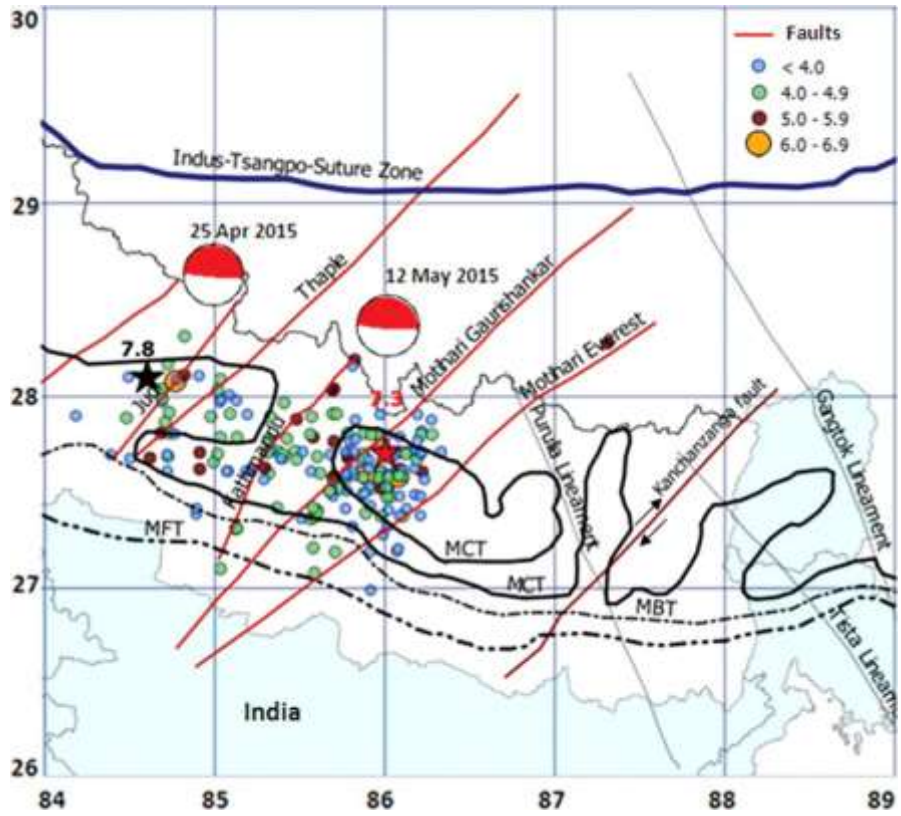

Fig. 2: Map showing number of small and big earthquakes in 2015
[Source: Prakash et al.,2016]

In the history of almost a century, Nepal faced number of small and major earthquakes affecting the lives of the people including the socio-economies and human casualties that ultimately affected the national economy. In terms of human casualties, the maximum numbers of people killed in 1934 (8.0 magnitude killed 9,935 people) and 2015 (7.8 and 7.3 magnitudes killed 8,790 people) earthquakes with the total of 18,726 people (Table 1). Though, earthquakes occur in relatively small geographical areas, it has huge impacts in terms of human casualties, mainly due to weak and lack of resistant physical structures. However, droughts and floods strike in comparatively larger geographical areas. The drought affected the maximum number of people (i.e., 4,903,000 people) in the Nepalese history. In terms of frequency and total amount impacts in the monetary value, flood has the most repeated disaster events impacting the maximum amount of damage economically. The impacts of landslides and storm are still be unknown that needs to be evaluated and reported further (PreventionWeb and UNISDR, 2015). Many supports from the international humanitarian organizations, governmental and civil society organizations and people themselves provided to overcome these disaster realities, impacts and consequences in the past.

This study intends to assess the impacts at the local level and also the progresses on recovery and rehabilitation in Nepal with the case of Kirtipur Municipality with the specific objectives of exploring and assessing the impacts of the major earthquakes and responses to the major earthquakes in different wards of the Municipality. Earthquake is identified as the most fearful disaster in the municipality followed by fire, hailstorm, road accident, landslide, epidemic, lightening and flood based on stakeholders' analysis (Kirtipur Municipality, 2071 B.S.). Prior to the study, some assumptions were made on the impacts and responses at the municipal level. In relation to the impacts, it was assumed that women, elderly and children are affected the most from the earthquake whereas in terms of response, it was assumed that the social cohesion is strong among the communities, families and extended families. Very few studies have been conducted on the impacts of earthquake on socio-economies and livelihood at the local level, particularly in Kirtipur Municipality utilizing the secondary data sources and/or first-hand information. This study will provide the scenario of socio-economic impacts and responses to the earthquake in the municipality, which is important for building resilience. The disaster preparedness plan developed at the municipal level also underlined on minimizing the potential impacts and analyzing the risk zones and analyzing the capacities (Kirtipur Municipality, 2071 B.S.). Aryal (2012) also emphasized on assessing vulnerabilities and impacts in particular geographical local for building resilience in addition to comprehensive historical disaster impact analysis.

Table 1: Total impacts of major disasters in the history of Nepal (from 1900 to 2014)

Disaster types	Event count	Total deaths	Total affected people	Total damage ('000 USD)
Drought	6	0	**4,903,000**	10,000
Earthquake	6	**9,936**	729,950	306,000
Epidemic	17	3,883	124,555	0
Extreme temperature	7	217	25,210	123
Flood	**50**	7,186	3,651,001	**1,041,842**
Landslide	23	2,265	627,512	0
Storm	3	113	0	0
Wildfire	2	88	54,000	6,200

[Source: www.emdat.be (International Disaster Database) as cited in PreventionWeb and UNISDR (2015)]

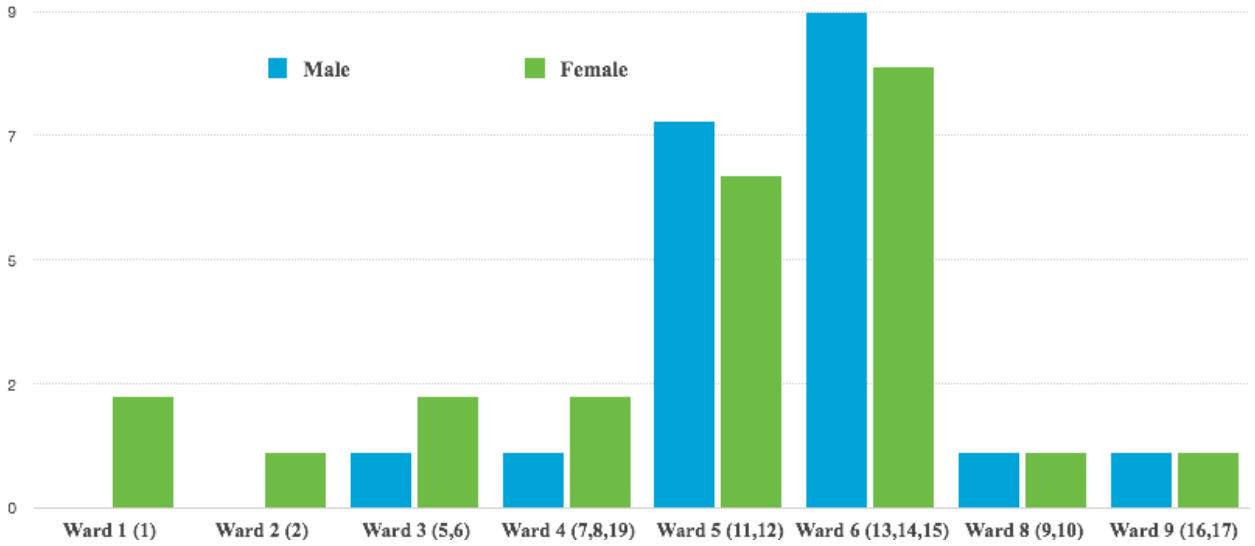

Fig. 3: Human Casualties from Major Earthquakes in Kirtipur Municipality

[*Figure in parenthesis represents the old wards prior to the demarcation of federal system according to Kirtipur Municipality]

Methodology

There are number of studies on impacts of earthquake at the national level based on the secondary data sources. This study utilizes the secondary sources of data especially from the municipality and the National Reconstruction Authority – NRA[2], Kirtipur chapter, Nepal since the study is concentrated in the Kirtipur Municipality. Furthermore, the municipal staff including the ward staffs and some representatives of the youth groups, civil society groups and affected people (#22) are also approached and interviewed purposively with open-ended questions concentrating the impacts and responses to the earthquakes and supports provided by the government and civil society groups. The information and data gathered were assessed and analyzed qualitatively including the descriptive analysis that later interpreted based on similar studies in Nepal and abroad including the analysis of the implications in the present context.

Results and Discussion

Impacts of The Major Earthquakes in The Municipality

Human casualties:

A total of 43 (21 Male and 22 Female) people passed away in the municipality due to the major earthquakes in 2015. The maximum number of people died in the ward 6 with the total of 17 people (9 M, 8F) followed by ward 5 with the total of 13 (7 M, 6 F). Both of these wards are located in the core areas[3] of Panga and Chovar (Figure 3). However, only

[2] National Reconstruction Authority (NRA) is a government's newly formed body (25 Dec 2015) mandated for earthquake recovery and reconstruction by providing strategic guidance to identify and address the priorities (urgent and medium to long term) in Nepal.

[3] Core areas indicate the areas with the century old and connected houses, narrow roads, densely populated.

few people are reported from the core areas of the Kirtipur area of the Kirtipur Municipality[4]. It is believed that the core area of the Kirtipur area is located on the top of the big stone or plate that's why minimum impacts of the earthquake. However, the disaster preparedness plan of the municipality reported it as the false belief among the local residents (Kirtipur Municipality, 2071 B.S.). This area had least impacted due to earthquake even in the history including the 1934 earthquake. No human casualties were recorded in ward no. 7 and 10. The age of dead people ranges from 1-month kid to 92 years old elder people. Out of 43 dead people, 13 people are more than 60 years of age and 15 people are below 19 years of age, which clearly indicates the severity of impacts to the elderly and children whereas there is not any such difference in terms of gender since the male and female affected are almost similar. It is also reported that 13 people are outsiders who have rented the old houses in the core areas and 7 people died in other places out of the municipality. If the tremors had occurred in the night time or in the weekdays, the human casualties would be even more. Grunewald and Burlat (2016) also affirmed that the impacts would be more tragic if the shaken took place on a working day when children were in their schools and people at their workplaces.

Physical Injuries and Impacts in The Households

In terms of households affected, ward no. 6 has the maximum households affected which is followed by ward no. 4, 5, 10, 8 and 3. The number of households approached the NRA and municipality for compensation or benefits also follow the similar pattern except ward 8 and ward 10. Ward no. 8 has higher number of households receiving compensations/benefits than ward 10 (Fig. 4). The total people physically injured from the earthquakes are 18,204. The gender ratio of physically injured people appears almost equal. However, the number of people injured in the wards varies. Ward numbers 6 and 4 recorded the maximum number of injuries followed by ward numbers 5, 10 and 8. This trend again showed that core areas are severely impacted from the earthquake (Fig. 5).

The total number of houses completely destructed from the earthquake also followed the similar pattern whereas the houses partially destructed has different pattern. Ward no. 6 has the maximum houses affected followed by wards 2, 3, 10, 4, 9, 5, 1, 8, 7 (Fig. 6). The complete destructions of the houses are prominent in the core areas since most of the houses are old, made up of bricks and mud without any disaster protection. Grunewald and Burlat (2016) also reported the high physical vulnerability in Nepal because most of the houses in Nepal are without any hazard and disaster resistant technology. However, it is observed that the houses in the new settlements are also partially affected from the earthquakes. Even the new houses have not considered the earthquake resistant technologies. The disaster preparedness plan (2071 B.S.) developed by the municipality also highlighted unplanned and haphazard constructions, lack of awareness among the residents and lack of proper execution and monitoring of building codes in the house construction are the reasons for increased impacts (Kirtipur Municipality, 2071 V. S.). DPNet-Nepal (2015) further emphasized on lack of effective land use and settlement regulations has contributed in the increased impacts. Furthermore, Kathmandu is situated at the major seismic fault zone with high impacts and rapid and haphazard urbanization without complying the building code, unqualified engineers and masons, encroachment of buildings in open spaces have drastically increased the risks and vulnerabilities (Grunewald and Burlat, 2016). As per the municipal record, only couple of training on earthquake resistant buildings to the masons in the municipality. Moreover, lack of the specific policy, guidelines and code of conduct on house construction and also proper compliance and monitoring from the municipality are the major weaknesses.

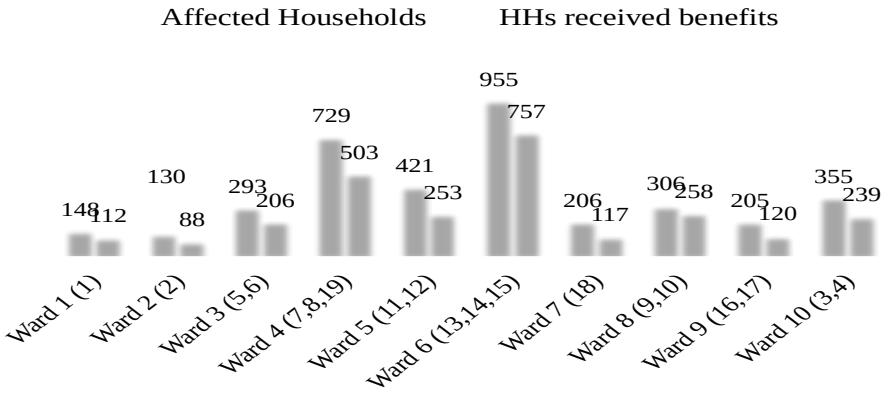

Fig. 4: Affected households from the Major Earthquakes and households receiving benefits
*Figure in parenthesis represents the old wards prior to the demarcation of federal system according to Kirtipur Municipality

[4] The term 'Kirtipur' is used for the Municipality and also the core area within the Municipality.

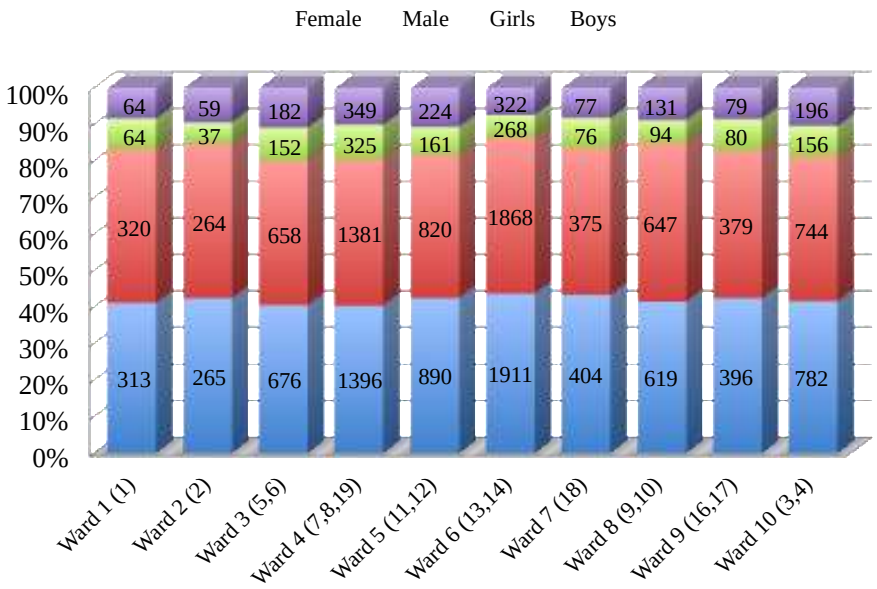

Fig. 5: Gender wise physically injured people from the Major earthquakes

*Figure in parenthesis represents the old wards prior to the demarcation of federal system according to Kirtipur Municipality

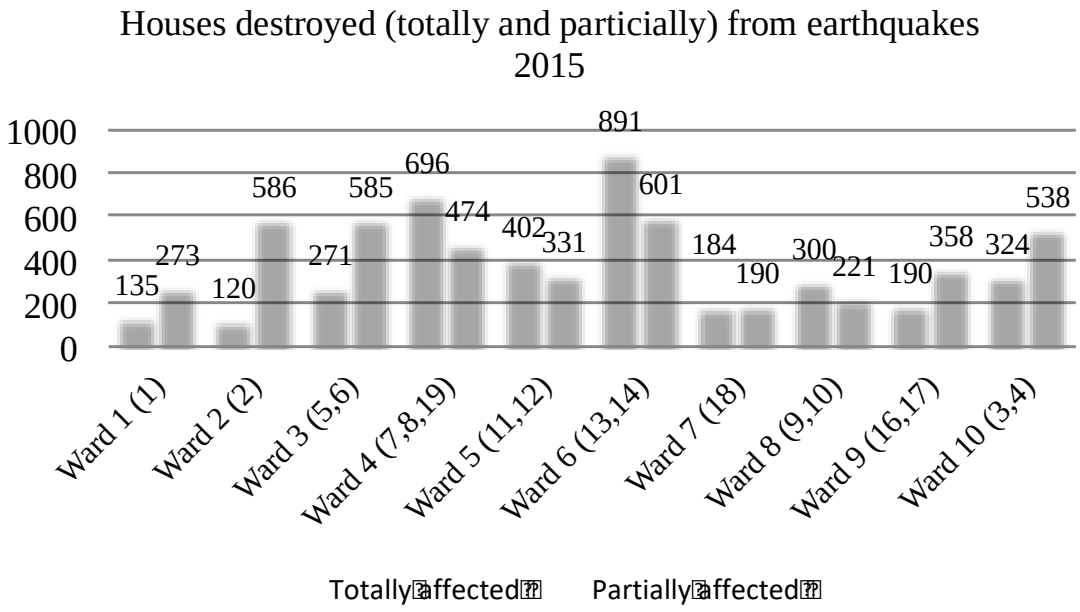

Fig. 6: Destruction of households (totally and partially) due to Major earthquakes in the municipality

*Figure in parenthesis represents the old wards prior to the demarcation of federal system according to Kirtipur Municipality

In recent decades, disasters have increasingly and unprecedently affected the people and also caused economic losses (DPNet-Nepal, 2015). The impacts are seen more severe in core areas in the municipalities as compared to the new settlements since the houses are very old made up of bricks and mud. Most of the houses in the municipality even in the new settlements are without any earthquake proofing technologies. Furthermore, people are unaware and unprepared to face such major and continuous shakes since such major strike faced by the people almost 80 years ago. Most of the people only heard the stories from their grandparents about the 1934 earthquake. Moreover, the roads in the core areas are narrow that is common phenomenon in most of the core areas in Nepal, which also obstruct in the rescue and relief activities immediately after the strikes. However, social cohesions and relationships were very strong during and after the quakes to support each other especially for rescue and relief activities. The communities themselves initiated the community disaster management committees (CDMCs) for the rescue and relief activities. Furthermore, the individuals, groups and relatives living abroad have also supported by raising disaster funds through different channels. It was observed that the separated families also united during the rescue and relief phases, but joint families also separated during the recovery and reconstruction phases.

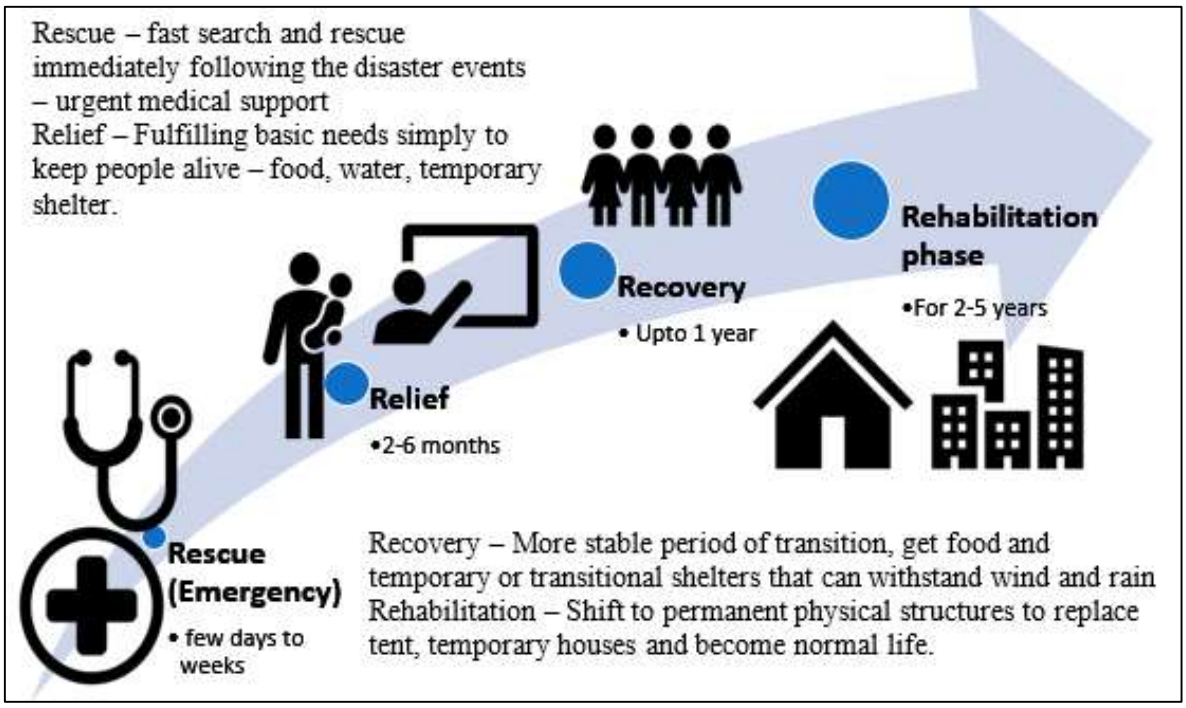

Fig. 7: Response phases found in the municipality

Responses to The Major Earthquakes

Based on the responses to the major earthquakes in the municipality by the communities themselves and with the support of local and external agencies, it can be categorized into 4 different phases – Rescue phase, Relief phase, Recovery phase and Reconstruction/Rehabilitation phase (Fig.7). However, the disaster preparedness plan-2071 B.S. has specifically highlighted the pre-disaster, during disaster and post-disaster responses (Kirtipur Municipality, 2071 B.S.). Since the study has concentrated on post-disaster impacts and responses, the paper has emphasized on these 4 different phases.

Rescue (Emergency):

The rescue phase immediately started after the shake due to earthquake. The community, youths, neighbors started the fast search and rescue of the people buried due to quakes despite the continuous fear and tremor. It was scary and dangerous because of series of continuous shocks and aftershocks. However, the people endlessly searched and rescued the affected victims. It was also facilitated by the Nepal police, army and fire brigades and international volunteers. The red cross and health post provided the urgent medical and first aid support to the injured people and some of the local and national non-governmental and external agencies provided the food and temporary shelters such as tents to the victims. Most of the people spent their entire time in the temporary shelters for a week or more during rescue and relief phases. The community disaster management committees (CDMCs) were formed in each ward mainly to manage the search and rescue works and also to fair and equitable distribution of the food and other materials provided by individuals, groups, different national and international organizations. Grunewald and Burlat (2016) emphasized on strengthening the capacities of search and rescue teams for instant, rapid and safe search and rescue activities. The development of national rescue and relief capacity should be the priority.

Relief:

The relief phase overlaps with the search and rescue phase as it's a continuous process of rescue and relief activities by the communities, youths and supporting agencies including government, non-governmental and international agencies including the diaspora groups and individual supports from abroad. The major supports to the communities concentrated during these phases are mainly on first aid and medical supports, food and basic necessities. The government, mainly municipality provided NRs. 10,000 as urgent relief and NRs. 15,000 for temporary shelter and Tarpaulin Aluminum sheets per household. The individuals and groups living in foreign countries raised the fund through crowd funding and channelized to the municipality. Such funds from USA, Europe, Japan, Korea, Australia, middle east countries were reported to the municipality. However, it is required to improve the coordination further with the international relief support in the early phase. Numerous government agencies supported the relief efforts. Municipality and Ward offices are crucial in distributing the relief materials and monitoring the impacts and casualties at the local level (Daly et al., 2017). Some additional international and national non-governmental organizations such as Action Aid Nepal, World Vision Nepal supported the victims in addition to the ongoing support of Lumanti Nepal, Child Workers In Nepal (CWIN). Due to these

supports at the community level, some local level institutions are also formed particularly for disaster.

Recovery:

Recovery is comparatively more stable phase, but it is still a transitional phase after rescue and relief in which communities have become more or less normal though the victims still lived in the temporary shelters or rented houses and able to cultivate and harvest their own crops and transit to more or less normal lives. They started to celebrate different feasts and festivals despite they lived in the temporary shelters. Some of the people moved to the relatives and rented the houses. The municipality has formed the Disaster Management Committees (DMCs) in each ward and municipal level, which has the same roles and functions as the CDMCs formed during the rescue phase, however these CDMCs were collapsed after the rescue and relief activities since it was formed informally by the community's own initiatives. In the recovery phase, most of the active members of CDMCs engaged to their regular works/jobs and studies. However, the municipality has envisioned the importance of such bodies at the wards and municipal level, thus formed DMCs to perform the similar functions in more organized and formal manner. The DMCs mandates to meet regularly to plan and implement disaster related activities at the ward and municipal level.

Furthermore, disaster management fund is also established at the ward and municipal level to support the DMCs. The structure of DMCs at the ward and municipal level is presented in Table 2. These DMCs have not met and planned regularly since number of representatives from different government and non-government organizations and experts are included in the committees as members since the representatives from different government and non-government organizations and also experts from different sectors which basically leads to many minds and many thoughts. Moreover, most the experts are engaged with their regular jobs. That might be the reason these DMCs are not functional as planned prior to its formation. Also, the guidance and responsibilities may not be clearer to the executive bodies to perform to achieve the goals and objectives. It is supposed to meet regularly and carry out disaster related awareness and activities in the municipality and ward level. Furthermore, the people have an attitude of working only when it is urgently required. Some of the committees at the wards such as ward no 5 and 8 have not met for a single time after its formation, however the DMC in ward no 9 met for 2-3 times, but not been able to make a concrete step forward in terms for planning and implementing any activities related to disaster in the ward. The chairperson of ward 9 and 10 had participated the training related to disaster which was held in Chitwan couple of months before. It is also observed that the representatives from the local people such as women's group, youth groups are not included in both municipal or ward level DMCs. It is more essential to have the representatives of the local residents at least in the ward level DMCs. However, the municipal level disaster preparedness plan has underlined the inclusive and meaningful participation of the communities in the planning process (Kirtipur Municipality, 2071 B.S.).

Reconstruction/Rehabilitation

The reconstruction/rehabilitation pace particularly the construction of houses is considerably slow in the municipality as compared to the national level reconstruction/rehabilitation speed. Karki (2018) reported 64% accomplishment of private housing as of Jun 2018, whereas it's only 25-32% accomplishment in the Municipality. Out of the total houses completely destroyed from the earthquakes, only 2,869 houses applied for the benefits from the municipality and National Reconstruction Authority (NRA), however, only 2,538 houses made the agreements with the NRA within the municipality. The staff of municipality and NRA monitored the houses that made the agreement in order to release the first installment that is NRs 50,000 (equivalent to 425 USD). It is required to provide the damp proof course (DMC) certificate and house construction plan. The houses receiving the second installment (NRs. 150,000 that is equivalent to 1,280 USD) and third installments (NRs. 100,000 that is equivalent to 850 USD) were drastically reduced to 822 (32%) and 636 (25%) respectively, which indicates that only few houses have been able to reconstruct their houses and claimed for the amount distributed for the reconstruction and rehabilitation from the major earthquakes (Table 3).

The government formulated the reconstruction and rehabilitation policy and guidelines 2072 B.S. (2016) mainly for housing grant distribution, environmental impact assessment, land acquisition and registration, public procurement, reconstruction regulation (NRA, 2016). However, Grunewald and Burlat (2016) emphasized on rapid adoption of new disaster management act to minimize the gaps on implementing the policy and guideline and proper supervision and monitoring. They, further, prioritized on the development and effective implementation of building codes in the urban, peri-urban and rural areas. The slow progresses of later two phases are mainly due to many factors – political, financial and social factors are prominent among others. The government prioritized more on the central, provincial and local level elections and the elected bodies couldn't immediately take over the issues of reconstruction and habilitation. The issues of skills and capacities of the elected bodies are also prominent to instantly implement the disaster responses.

Table 2: The structures of DMCs at the municipality and ward level

Municipal level DMC	***Ward level DMCs***
Mayor – Chair Vice Mayor – Vice Chair CEO of Municipality – Secretary Ward Chairs – Members (10) Representatives of Red Cross, Police, Armed Police, Engineer, Electricity, Water, Telecom, Youth club – 1 each Representatives of Experts – 2 Representatives of NGOs – 3	• Ward Chair – Chair • Ward Sec – Secretary • Members – Members (4) • Representatives of Police, Red cross, Local NGOs, Experts – 1 each

Table 3: The households that received the reconstruction/rehabilitation support from National Reconstruction Authority (NRA)

Wards	Total HHs applied for benefits	Agreement made	1st Installment	2nd Installment	3rd Installment
1 (1)	114	107	103	43	33
2 (2)	93	79	71	22	11
3 (5, 6)	212	195	188	55	42
4 (7, 8, 19)	517	444	434	183	153
5 (11, 12)	317	275	211	91	76
6 (13, 14, 15)	823	730	674	187	152
7 (18)	129	103	94	44	33
8 (9, 10)	285	277	216	90	67
9 (16, 17)	140	118	96	52	39
10 (3, 4)	239	210	199	55	30
Total	2869	2538	2286	822	636

[Source: National Reconstruction Authority (NRA), Kirtipur, 2018]

Many groups, individuals and institutions supported in the rescue and relief activities, but very few such supports found in recovery and reconstruction phases. Perhaps the amount required for the financial supports in the later phases is the major issue since most of the people in abroad become busy with their normal jobs and day to day life. Furthermore, most of such supports are diverted to their families and friends in the later phases rather than the common pool of resources like in rescue and relief phases. Some of the new organizations are also formed with the additional supports channelized from international support agencies. One of such examples is the formation of CDS Nepal with the support of Action Aid Nepal in ward 5. The CDMCs formed during the rescue and relief phases became inactive in the later phases mainly due to lack of proper guidance and funding supports. Furthermore, all the active members of the CDMCs become busy with their normal lives in the phases. In fact, disaster preparedness plan, which was developed by the Municipality 4 years before the earthquake has listed most of disaster management plan (Kirtipur Municipality, 2071 B.S.), however it lacks the specific timeline and required budget for proper execution and the sources of budget. Thus, the development of policy or guideline or plan is not sufficient, its proper execution is essential. In order to execute it effectively, the skilled human capital, institutional set up and financial resources are crucial.

The municipality formed new DMCs at the ward and municipal level as a replacement of the CDMCs, however not fully functional at the moment. Some of the DMCs have not had even a single meeting after its establishment. Lack of prioritized activities, funding support specific to the disaster related activities are the major issues of not fully functional DMCs, though disaster fund was also established at both ward and municipal level. The disaster fund also lacks specific guidance and mechanism. Furthermore, the municipal and ward staff lacks the skills and awareness on proper implementation of disaster related activities in different phases. The municipality has already developed the disaster preparedness plan with the list of disaster related activities, however it has not properly owned by the current municipality since it was developed 4 years before. The institutional set up for disaster management is lacking

though recently DMCs is formed at the municipal and ward levels. Furthermore, it needs effective implementation and allocation of budget. If the those listed activities were executed properly, the impacts of earthquake could be comparatively less. DPNet-Nepal (2015) predicts the increased enormity and frequency of disasters in future thus much visionary and strategic approaches are necessary in developing countries like Nepal.

Majority of the affected households are still living either in temporary shelters or rented houses as only few % of households have received 2nd and 3rd installments of the compensation/grants from the NRA. Most of the affected households have rebuilt their houses either by selling their lands or supported by remittances or loans from different sources. Many development banks announced the home loans with minimum interest rate (up to 2%) for the affected households but wasn't effectively executed. The issues of land demarcation between the neighbors and siblings is remarkable in the process of rebuilding houses. Plan of house pooling by constructing similar houses with one door for cultural preservation was planned in the core areas, but wasn't successful despite series of consultative meetings

Conclusion and Way Forwards

The impacts were severe in the core areas that area highly dense, old houses and narrow roads. Despite the core and high density, Kirtipur core areas is not much affected. The rescue and relief activities are rapid and faster, however the recovery and rehabilitation/reconstruction activities are very slow due to many factors – political, financial and social factors including the skills and capacities of the elected bodies and staffs are prominent among others. The social support and community initiatives are strong in the earlier phases (rescue and relief). New organizations formed and also supported due to earthquakes. Family unification was high in rescue and relief phases, but separation of families is reported in the recovery and reconstruction phases.

The government, especially at the local level, needs to strengthen the skills and capacities of the municipal and ward staffs to speed up the response activities. Furthermore, the effective implementation and monitoring of building code and mobilization of the allocated budget for disaster. The DMCs formed at the municipal and ward level have to initiate, plan and implement the disaster related activities on regular basis. The most importantly, the ward office should prioritize disaster activities same as other development activities and at least regularly meet and discuss on it and execute promptly. The roles of civil society groups, youth groups, women groups and communities themselves are crucial in effectively managing the disasters. The DMCs formed at the municipal and ward level are the multi-stakeholders' forums could be effectively if manage it effectively.

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