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IMPACT OF EARTHQUAKE ON MIGRATION A POST-EARTHQUAKE ASSESSMENT: THE CASE OF SANKHU. KATHMANDU

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Abstract

The central objective of this study was to explore to assess the immediate impact of the 2015 Earthquake on Livelihood. Limited studies were carried out after the 2015 earthquake, except for a few notes no academic research was available till the period of this research done about Sankhu. Here the researcher himself from Sankhu tried to explore the Post-earthquake Impacts of Migration a historic town in Sankhu. This study was based on the qualitative research methodology, and revealed, immigration started in the community that has a lot of impact on culture, economy, and infrastructure in the community. Historically, since the Panchayat regime, there was no trend of immigration. The purpose of out-migration was for education to business. On one hand, the 2015 earthquake forced them to migrate from Sankhu and on another hand, the implication 2015 earthquake on migration forced people to change their residences and different parameters of livelihoods.

The results of this study conclude that volume of migration within the Sankhu is higher than the volume of migration outsides to the Sankhu, short distance migration preferred after the 2015 earthquake. The immediate impact of the 2015 earthquake was on infrastructure, occupation, education, health, the culture which are the means of livelihood, several displacements was the first step of the impact of the 2015 earthquake before migration for better livelihoods.

We observed that migration is selective, our study reveals that priority basis migration with the selection of opportunity of earning, place either at the vicinity of Sankhu or Kathmandu city. As well as the recent change of center place in Sankhu proved by members of business enterprises increasing surrounding the Sankhu than Sankhu town inside which was a historic business place. The people who are staying in Sankhu struggling with difficulties for better Livelihoods destroyed.

Keywords: Arthquake, Displacement, Migration, Livelihoods

Introduction

Sankhu lies in the north-east of the Kathmandu valley and it was the main route to Tibet in most of the Ancient, Medial, and Modern Nepal and till the early 1960s before the construction of the Kodari highway from Kathmandu-Bhaktapur-Banepa and Khasa, Tibet. Sankhu is a traditional settlement of Kathmandu valley dating back to the ancient Lichchhavi period (Shrestha, 2012) in the history of Nepal which flourished due to its strategic location in the trade route to Tibet. Sankhu town is a culturally rich town with an inhabiting Newar community and is the place of rich heritage. There are many public and private heritages and very historical and valuable temples such as Bajrayogini Mandir. In that area, most of the temples and public buildings were also severely damaged by the earthquake. Apart from that, many government buildings such as schools and government offices have also been collapsed and damaged. Most of the destroyed and damaged houses were constructed with brick and mud joints which were built 70 to 80 years ago. Though people in Sankhu, as well as outsiders, still believe that Sankhu contains a thousand houses in 1997, it appeared that there were only 789 on a total population of 5,3401. The data collected was only inside the historical boundary of Sankhu town, the survey did not count the boundary outsides Sankhu. The recent data (2015) of municipality shows that 2545 households are comprising 11,825 populations in Sankhu.

A strong earthquake of magnitude 7.8 Richter having an epicenter in Barpak, a mountain village in Gorkha district, Nepal hit the country on April 25, 2015. The quake was followed by more than several hundreds of aftershocks and another huge earthquake of magnitude 6.8 Richter having an epicenter in the Sindhupalchok district hit Nepal on May 12, 2016, causing more death, injury, and damages. As a result, 8,790 people died and more than 22,300 people were injured. PDNA 2015 accessed the findings of the immediate impacts of the 2015 earthquake in livelihoods means - deaths and injuries, there was huge physical loss was the primary impacts. Direct impacts on physical infrastructure showing the loss of NPR 530 million, estimated damage of NPR 5,300 million was seen leading to a total loss of NPR 5,830 million. There was a total loss of NPR 5,830 million. Subject to the case of temples in remote areas NPR 900 million was damaged with a complete loss of NPR 90 million summing to a total loss of NPR 990 million (NPC, Nepal Earthquake 2015 Post Disaster Need Assessment, 2015).

Studies have been conducted to assess the impact of devastating earthquakes in Nepal by both native and foreign scholars. Yet few studies are revealing the impact of the earthquake in Sankhu - the traditional town of Kathmandu valley. Sankhu witnessed both out and in-migration after the devastating earthquake. Damage assessment was carried out by a technical team of the engineering college several traditional buildings and monuments in the Kathmandu Valley were collapsed to the ground, completely changing the built form of several traditional towns such as Bungamati, Khokana, and Lubhu. In this regard, traditional town Sankhu is also not an exception (Shrestha et al., 2017).

Earthquake-induced migration and internal movement is a recent phenomenon in the country after the great disaster hit the country on April 25, 2015. The magnitude of the disaster is not limited only to the country itself but it had affected the country too, most parts of India and China too (Thomas, 2010). Oxford dictionary (2014) refers to "disaster as a sudden accident or a natural catastrophe that causes great damage or loss of life, migration as the "movement of people to a new area or country to find work or better living conditions". The International Organization for Migration (IOM, 2015) defines displacement as the concept of forced movement and a forced migrant is one who migrates to 'escape conflict, repression, natural and human-made disasters, ecological degradation, or other situations that endanger his lives, freedom or livelihood.

Unpublished data of Friends of Sankhu conducted "Sankhu census 1996"

Migration after displacement is a final decision for the earthquake-affected population for better livelihoods. Livelihood is a means of subsistence, comprising a complex and diverse set of economic, social, and physical strategies (UNDP, 1991). A rural livelihood comprises one or more often several activities, which variously provide food, cash, and other goods to satisfy a wide variety of human needs (G.R., Chambers R. and Conway, 1992). This impact implies that the impact on stress reactions of additional traumatic experiences at the individual level is dampened when the community as a whole has been heavily damaged and likewise that the impact of more intensive community destruction is dampened for individuals who experienced high levels of individual trauma (Elizabeth Frankenberg, 2012).

Disaster impacts may include loss of life, injury, disease, and other negative effects on human physical, mental and social well-being, together with damage to property, destruction of assets, loss of services, social and economic disruption, and environmental degradation. The potential disaster losses, in lives, health status, livelihoods, assets, and services, which could occur to a particular community or a society over some specified future period (UNISDR, 2009). One of ICIMOD's studyconcluded that geo-hazards induced by the 2015 Gorkha earthquake were landslides, river channel constriction and damming, and avalanches with debris flow and airburst (Shrestha, AB; Bajracharya, SR; JS; Kargel, Khanal, NR, 2016).

Bandita Sijapati et al. (2015), a research work published in "MIGRATION AND RESILIENCE". The research was carried out in the districts Sindhupalchok, Kavre, Dhading, and Kathmandu have shown the linkage between earthquake and migration displacement. The study revealed more of those households with male migrants reported that their absence harmed their families during and immediately after the earthquake (71%t of households with male migrants, 23% of the households with female migrants).

Central Department of Population Studies, CDPS (2016) carried out a study about the demographic and social impact of the Gorkha earthquake drawing the sample from the 14 most earthquake-affected districts. The fieldwork was carried out from 20 November - 15 December 2015 and a total of 3,000 households were surveyed. Key findings of the study were; the marital status of 88 household members changed following the earthquake: a majority of married women (59.1%) turned to be either widow or divorced/separated. Following the earthquake, two in five members of the entire households surveyed had changed occupation from agriculture to wage labors, household works, and others. Nearly 3 percent of the household members reported suffering from psycho-social problems. More than 7% of the households reported that at least one member of their family had migrated for foreign employment during the last year before the earthquake and had not returned even once after the earthquake. The increasing trend of labor migration overseas in search of better work after the earthquake was highlighted by FGD participants from Nuwakot, Sindhuli, Kathmandu, and Sindhupalchok.

In this context, the key aim of this study was to identify the reasons behind in and outmigration in/from the location, to examine the status of migrants in Sankhu and cultural change, and to assess the impact of migration on livelihood after displacement due to the 2015 earthquake. Sankhu, Sankharapur was selected based on highly affected by the recent earthquake in the country which also have resulted in high mobility of the population.

Data and Methods

The field study in Sankhu was conducted during the 2075 BS year in the field, the researcher observed the damage caused by the earthquake, conducted focus group discussion with the affected communities. The study includes a descriptive research design. It is exploratory, as it attempts to explore the livelihood strategies of the migrants. A rapid assessment, observation, KII, FGD and case studies were undertaken over the period from June 12-29, 2018. Six research team members were deployed to three sites in the study area for KII and FGD and two for case study along with earthquake-affected people identification in each location to guide FGD/KII participants.

All three teams, two members in each team conducted a short survey to capture key elements of the migration condition due to the devastating earthquake and how that might have affected households and their livelihoods. The teams interviewed people using a checklist that covered the general effect of the earthquake and the immediate impact of the earthquake at the household level.

To investigate 34 major and minor cultural practices that we're doing in the past around a year. Each member who participated in the focus group were asked individually about the practices. 12 participants in a group first and 11 participants in group second (comprising a total of 23 individuals) were asked regarding the practices.

Basic information of the research was collected through the observation and available documents from the Municipality. The research identified three categories of respondents. however, all three were the victims of the earthquake. The first category is identified as a victim who was living in Sankhu at an original house, the second category is victims who were living in Sankhu but were displaced from the place of origin to the other communities within Sankhu, the third category is identified as a victim of the earthquake who migrated or displaced out of the study area

The research team identified respondents for key informants' interviews. The research team selected respondents based on information collected from the Municipality office and Nepal Police. Based on the information 9 respondents from three different locations were selected. Three respondents were selected in each category (3- in-migrants, 3 out migrants, and 3 people living in the original place). The research team selected further five people for a case study and two women groups (23 participants) for focus group discussion.

Results

During the survey, we also collected the data from local government agencies such as the municipality, wards. According to the Sankharapur Municipality record, during the earthquake of April and May 2015, a total of 112 people died and 179 people were injured in Sankharapur municipality. In terms of property loss, a total of 694 houses collapsed and 961 houses partially damaged. Only some of the houses which are recently built with RCC structures are safe for living. As Sankhu town is densely populated compared to other areas of the municipality, it suffered much. In Sankhu town a total of 40 people died and 52 people injured.

In-Migration after the Earthquake - people from different places are also coming to Sankhu and living in the surrounding of Sankhu and they are involving in different wage works, small business. Few people from Solukhumbu have constructed houses at the southwest corner of the Sankhu (Table: Annex I).

Except, few majorities of the individuals working in daily wages are from other districts such as Sindhupalchok, Nuwakot, and Dolakha. The trend of immigration from outside districts for labor works has increased after the earthquake. This scenario created a heterogeneous society in the community, on one hand, people are coming from outside to Sankhu and in another hand, Sankhu people are moving outside the Sankhu, especially upper mid-level people from the origin are moving outside either for seeking jobs or for business and most of the lower mid-level population are residing in Sankhu seeking opportunities within the Sankhu.

Out-Migration after the Earthquake –

According to the participants of FGDs (Focus group discussion), it revealed that the affected families are moving to and from different places surrounding the Sankhu its vicinity, and displacement occurred finally, some are planning to migrate and some are migrated outsides the Sankhu. Displacement found first step mobility before they decide to migrate.

The volume of migration from Sankhu is towards the Kathmandu city where they are either already a place to live or planning to live there. FGD members argued that many going to Kathmandu will not return as they already have settled business or house in Kathmandu (Table: Annex I1)

Analyzing the FGD and KII information, several reasons evolved for out-migration from Sankhu due tothe earthquake. After the earthquakes, people have lost their houses and properties, people have no place to live in their place of origin home. People have to look at alternative places for immediate living accommodations.

People have no place to live in their original home as local municipality reported that more than 90% of houses damaged/collapsed in Sankhu, people have been looking for the alternative place for living, our rapid assessment at eight clusters of Sankhu have shown following statics our field survey reveals. During the survey people are still living in the area of their place of origin in Sankhu - some in tents or CGI tin trust made sheds, some in the repaired collapsed house (renovating to one story)

People are looking for better livelihood opportunities, our interview with a headmaster of higher Secondary School says that most of the youths from Sankhu are seeking optional opportunities outsides the Sankhu and abroad too. Few youths, those who have linkage abroad have already gone to Gulf for employment, some are on pipeline and some are processing for passport and visa. Similarly, our KII explored similar issues like youth attracted for external migration for foreign employment, as their houses collapsed, the middle economic status of Sankhu engaged in small business and services have lost their house and business locations. They have been displaced internally and some moved to the surrounding communities such as at Indrayani, Jorpati, and Kathmandu city

Living status of displaced people in Sankhu, our observation during the survey we found that worst living environment of internally displaced people of Sankhu, among every five houses in one house, some of the family members are sick, leaching water from the roof, damp floors where they are sleeping, single room for a whole family, the kitchen at the same room, little space available for storing grains- agriculture products and other foodstuff Hygiene/ sanitation/drinking water, Temporary toilets nearby the kitchen.

An observation regarding the environment for education, no conducive environment for reading to kids at temporary living places, no recreation center available in surrounding for children.

Impact of migration on the livelihood of the people of the location due to in-migrants as well as out-migration - Change in community structure - from homogeneous group to heterogeneous group, Conflict situation - Families who moved to their own (alternative) relative's house is also facing the problem of personal conflict after living together. Perceives destination as facilitative of socioeconomic mobility (e.g., pay scale, lifestyle, and general well-being), relative to an origin

Long term problem for out-migration

People who are living in a joint family, some family members left Sankhu, those who live in the house have no land certificate so they are not able to renovate the collapsed houses and have pushed them to migrate outsides the origin. Data from the land Revenue office (Sankhu land Revenue office, 2073 Baishakh) reveals that 75percent of land owned by Sankhu origin has been sold. One can observe barren land here and there in the vicinity of Sankhu due to changesin land ownership, which has a huge negative impact on agriculture production. Following factors have encouraging Sankhu people to sell their agricultural land as an immediate solution for solving the recently emerged problem due to earthquake and which fuels to push them to migrate outsides the origin:

Recently developed semi-urban characteristics of the rural people have diluted the social networking, discontinuation /dissolution of social institutions such as Guthrie, Parma, paincho, rituals, festivals became a negative catalytic agent to liquefy traditional sustainable social harmony, this also has a negative implication on of cultural activities.

Impacts on infrastructure and livelihoods

People have no place to live in their original home, more than 90% of houses damaged/collapsed, affected families are not in the position to renovate/ reconstruct the damaged/collapsed houses as they have been waiting for grants from the government and other agencies, they have been living in a joint family and have no individual Land registration certificate, it also hampering them for reconstructing houses.

People have to look for better opportunities for livelihood and safe living place-People could not continue their original business as they have no place left/ lost the equipment/ money/ materials, and could not earn as before because of less mobility of people. As well as people engaged in agriculture work has no land as they have used their land for temporary settlement or sold for meeting daily needs or for collecting money for constructing new houses/ or starting new business

People feared from the earthquake and aftershocks have chosen safer place to live. and People look for a safer environment for the study of their children/ health care as well as the recent change of center place in Sankhu proved by members of business enterprises increasing outsides the Sankhu than in Sankhu town which was a historic business place. During the survey, the researcher counted the business enterprises in Sankhu before and after the earthquake, the result shows the numbers decreased to 420 from 500. The numbers of business enterprises inside Sankhu town was found half only, showing displacement of Centre Place of Sankhu.

Change in cultural practices due to displacement, As people have shifted or displaced from their original place of living and have settled in one way or another, they have to live with some new neighbors in the new environment, so the community structure changed from a homogeneous group to heterogeneous group, we observed distortion of their traditional practices such as; Mela (Engaging in agriculture labor), Parva (observing rituals), less participation in Jatra (Festival), and Perma (contributing agriculture labor by one for other and reciprocal) and Except major festivals other few are following minor ² festivals events and except the *Si-guthi* only a few people meeting for *Guthis* such as Guthis related to minor Jatra - Krishna Jatra, and Ganesh Jatra.

Discussion

We observed changes in cultural practices due to the displacement of Sankhu people in Sankhu after the earthquake, people have fair about the loss of identity due to a loss in cultural practices. In this regards our discussion with the focus group discussion researcher investigated 34 major and minor cultural practices were doing in the past year. Our finding reveals that in the past before the recent earthquake, a cent percent population (except those who have changed religion) of the Sankhu were continuing 34 ritual events. After the earthquake, people are continuing these events but the percentage of the population who continuing has been decreased by ten percent. Most of the displaced people stopped celebrating minor festivals at a rate of decreasing 10 to 60 percent. But 99 percent of the population is following the major festivals such as Dashin, Main Bajrayogini Jattra, and Tihar (Swonti).

An interview with the priest of the Sankhu says that "most of the people are not performing Shraddha (funeral ceremony) too, before the earthquake I have to visit at least 10 house in this summer season, but this year hardly one two houses per day invite me to perform Shraddha, last year we three members from house need devote to cover those events in a day everyday".

The researcher also shortly interviewed with a Buddhist priest and astrologist says that "I have advised to not necessary to follow all kind of funeral process who was died due to earthquake. As there is no space to perform all kind of process, still houses are not built, people are in the temporary stay, therefore, cannot perform complete processes". The priest also responsible for the Bajrayogini festivals, he added that "we are also not able to lunch all the process (Tantric process) during Bajrayogini Jatra (festival) too because of less participation in the Jattra and summarized the process". In the past, people invite

Major festivals means national festivals and Vajrayogini jatra, Dashain etc...Minor means other mini events of the festivals - Annex VII

us to assist us in different ritual installations in and around a year but after the earthquake very few invite us therefore, our income drastically slumped this year. As a priest nobody requesting for attaining the ceremonies like birthday, birth rituals, marriage, and death rituals. Major sources of income and those who can pay for the celebration process are not residing in Sankhu nowadays.

Damage of Livelihoods and Miserable Living Conditions

Non-migrants of Sankhu were also inquired about their living conditions and also observed by the researcher. Their living condition was very much miserable and risky for health hazards. There was very limited space for accommodation in tents and trust made temporary sheds. They have to live in crowded, poor sanitation facilities having no clean drinking water. They drink water by leaching from the roof. People sleep on a damp floor. There was a single room for a whole family. There was no separate kitchen. People live in places unprotected from insects and snakes/ poisonous insects.

Schools were also damaged and there was a poor environment in school for children. Similarly, people could not continue their original business as they have no place left/ lost the equipment/ money/ materials. They could not earn as before because of less mobility of people and they could not find a job and they have to take risks of adopting new occupation. People also feel threatened as they have to with unfamiliar people – the in-migrants as well as the relief workers.

As people have moved or been displaced from their place of origin and have settled in one way or another, they have to live with some new neighbors in the new environment, so the community structure changed from homogeneous group to heterogeneous group. Some of the key informants also reported that some households have sold their lands (if data please') to cope with the situation. Most of them who sold land and willing to sell have no plan of making investments for better income than to meet the current expenditure for livelihoods. Because of less land, as some land has been used for temporary shelter, others sold for collecting money for reconstruction of house and other needs. It was also difficult in constructing even the temporary shelter, and in some cases, the conflict in settling boundaries of land was also evident.

Family relations have also been changed due to the earthquake. Families who moved to their own (alternative) relative's house are also facing the problem of personal conflict after living together. People who were living in a joint family, some family members left Sankhu, while others left in Sankhu. Those who were living in the house had no land certificate so they could not able to renovate the collapsed houses timely.

Conclusion

From the above discussion, it can be concluded that migration took place in short distances after several displacements which were the immediate impacts of the 2015 earthquake. The 2015 earthquake has an immediate impact on infrastructure -private buildings, public buildings/cultural heritage, and the health of the families in the affected communities negatively. Finally, our findings reveal that it has an impact on infrastructure, occupation, education, health, a culture which are the means of livelihoods.

The results of this study conclude that in post-disaster, migration of Sankhu, the volume of displacement within the Sankhu is higher than the volume of migration outsides to the Sankhu and proved that migration is selective in the study area, similar to the example in Sankhu shows, priority basis migration with the selection of opportunity of earning, place either at the vicinity of Sankhu or Kathmandu city. In the field, it was also evident that some shorts of conflict within the family and neighbors also occurred. Whether migration is permanent or temporary one has always been a traditional response or survival strategy of people confronting the prospect, impact, or aftermath of the disasters. Our findings from Sankhu reveal that some strategic towns like Sankhu experienced both out-migration and in-migration. In the study area, migration took place from rural to urban areas even in the short-run there is no employment opportunity. As well as the recent change of center place in Sankhu proved by numbers of business enterprises increasing surrounding the Sankhu than in the Sankhu town. During the survey, the researcher counted the business enterprises in Sankhu before and after the earthquake, the result shows the numbers decreased to 420 from 500.

It was found that when rapid onset disasters occur, people often leave the affected area to avoid physical harm or loss of life. Cultural practices are found declining.

For respecting the people who are staying in Sankhu struggling with difficulties and for the people who love the ancestral place of Sankhu, providing greater relief reconstruction, managing loans, and prioritization of reconstruction are urgent. The role of the government is twofold: first, to help in the reconstruction of an infrastructure that can help modernize the economy, and second, to introduce development strategies that rely on human capital.

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Annex: I Population migrated to Sankhu from a different destination

S.N.	Origin	Tentative Nos.	Purpose	Remarks
1	Melamchi	10 families	Daily wages	Temporary
2	Talamalang	5	Daily wages	
3	Ghumarichowk	12	Daily wages/ other works	
4	Palubari	10	Daily wages/ other works	
5	Solukhumbu	20	Services/ Daily wages/ other works and business	15 houses built

Source: Field survey 2075

Annex II: Population migrated from Sankhu to a different destination

S.N.	Destination from Origin	Tentative (%)	Туре	Distance from Origin
1	Sankhu periphery	35	Semi-permanent	500 to 4.5 km
2	Along the route to Jorpati	5	Temporary	8 km
3	Jorpati/Chabihil	25	All	12 km
4	Kathmandu city	15	Permanent	18 km

Source: Field survey 2075

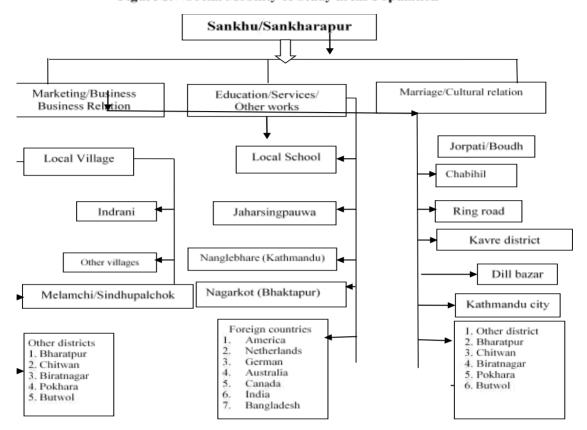


Figure 1: - Social Mobility of Study areas Population