RESILIENCE OF EARTHQUAKE AFFECTED DALIT PEOPLE IN DHADING, NEPAL

A Dissertation

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Degree of

DOCTOR OF PHILOSOPHY

In

ANTHROPOLOGY

By

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LETTER OF RECOMMENDATION

We certify that this Ph.D. dissertation entitled "**Resilience of Earthquake Affected Dalit People in Dhading, Nepal"** has been prepared by **Bhesh Raj Acharya** under our guidance. We hereby recommend this dissertation for final approval by the Research Committee of the Faculty of Humanities and Social Sciences, Tribhuvan University, in fulfillment of the requirements for the Degree of

DOCTOR OF PHILOSOPHY in **ANTHROPOLOGY.**

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Date: January 2024

APPROVAL LETTER

This dissertation entitled, "**Resilience of Earthquake Affected Dalit People in Dhading, Nepal"** was submitted by **Bhesh Raj Acharya** for final examination by the Research Committee of the Faculty of Humanities and Social Sciences, Tribhuvan University, in fulfillment of the requirements for the **Degree of DOCTOR of PHILOSOPHY** in **ANTHROPOLOGY**. I hereby certify that the Research Committee of the Faculty has found this dissertation satisfactory in scope and quality and, therefore, accepted it for the degree.

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Date: January 2024

DECLARATION

I hereby declare this PhD dissertation entitled "**Resilience of Earthquake Affected Dalit People in Dhading, Nepal"** is my own work and that it contains no materials previously published. I have not used its materials for the award of any kind and in any other degree. Where other authors' sources of information have been used, they have duly been acknowledged.

_____

Bhesh Raj Acharya

Date: January 2024

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Bhesh Raj Acharya
Date: January, 2024

ABSTRACT

This is a systematic anthropological study about the impacts on the social, cultural, and economic life of the Dalit community in Jibanpur village of Dhading district of Nepal caused by the devastating earthquakes in 2015. The dissertation elucidates those impacts, covering primarily three dimensions: rescue, relief, and resilience, revealing unique enabling factors relating to the social, cultural, and livelihood domains of the community. Resilience, rescue, relief, displacement, and rehabilitation are socio-cultural phenomena. These phenomena are integrated into the everyday life of the local people and communities. The research employs a holistic approach placing cultural explanation as the central point of argument and analysis. The fundamental objective of this research is to explore the resilience process of the Dalit community. This study applies the anthropology of disaster as a major theoretical framework in dealing with the issues of rescue, resilience, and recovery process.

Methodologically, both qualitative and quantitative data collection tools are applied to explore the earthquake resilience phenomena. Primarily, this research is an ethnographic work. For the collection of primary data, the research applies the household survey, key informant interviews, participant observation, and focus group discussions.

There are different dimensions to reveal in this research. For instance, how the communities responded to the earthquake in the difficult phases of resilience**?.** Dalit people have indigenous practices in the safe management of dead cattle. A disaster like an earthquake also shaped the knowledge of local people on how they responded to the disaster, not just the public but also those professionals working in emergency management, law enforcement, and other governmental agencies.

It is estimated that around nine thousand people lost their lives, twenty-two thousand were injured, and over a half-million houses were destroyed in Nepal due to the 2015 earthquakes. The earthquake took the lives of four people and completely destroyed 167 houses, with the loss of dozens of livestock in the study area of Jibanpur village. The impact was severe in the lives of the Dalit community, with human casualties, destruction of houses and death of cattle.

The resilience phenomena within the same social, cultural, and ethnic groups are not linear. Resilience is heterogeneity in nature, even within the Dalit community. For example, Tallo Mijar Tole is more resilient than Mathillo Mijar Tole in solid social capital and family income milieu. The family and community itself and

established local social and cultural practices and local financial institutions play a significant role in being resilient to disaster. Importantly, regular income, wealth, assets, labor exchange practices, indigenous saving practices, and cooperation among the people in the community are enabling resilience factors in the front line.

The findings from the study suggest that the engineering standpoint guides the current blanket approach of the reconstruction model of private housing for earthquake-hit families rather than social and cultural need assessment. The traditional houses provide shelter to local Dalit people and are part of the social and cultural necessities. The bottom-to-top approach of the reconstruction model, with the meaningful participation of local people and needs, meets the cultural and social aspects of resilience.

The local community is heading toward returning to their everyday life after more than five years of the earthquake. Mainly three categories of resilience factors support the Dalit people to be resilient. First, individual or family-associated factors are key elements. Second, community assets and cohesion have crucial roles in resilience. Third, state and non-governmental agencies' institutional support and interventions also help disaster-hit families to be resilient. Notably, the cash grant of the government has a significant role in the long-term resilience process of Dalit people in a sustainable manner. However, the cash grant provided by the government to the communities for the construction of earthquake-resilient houses is a basket policy approach without reflection of the social, cultural, and economic dimensions of the local people. Therefore, the policies are effective only when they are built into the local context.

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ABBREVIATIONS / ACRONYMS

3R	Rescue, Relief and Resilience
AD	Anno Domini
ADB	Asian Development Bank
APF	Armed Police Forces
BS	Bikram Sambat
CBS	Central Bureau of Statistics
CDA	Central Department of Anthropology, Tribhuvan University
CDSA	Central Department of Anthropology/Sociology
CEF-DM	The Center for Excellence in Disaster Management and Humanitarian Assistance
COVID	Corona Virus Disease
CPN	The Communist Party of Nepal
CSIR	Community Supported Immediate Rescue
DFID	Department of International Development
DIDR	Development Induced Displacement and Resettlement
DPC	Damp Proof Course
FGD	Focus Group Discussion
GoN	Government of Nepal
HH	Household
IDNDR	United Nations International Decade for Natural Disaster Reduction
IGP	Inspector General of Police
INGO	International Non-Government Agency
IUCN	International Union for Conservation of Nature
KII	Key Informant Interview
MA	Master of Arts
MPhil	Master of Philosophy
MoHA	Ministry of Home Affairs

NDMRH	Nepal Disaster Management Reference Handbook
NDRF	National Disaster Response Force
NGO	Non-Government Agency
NPC	National Planning Commission, Nepal
NRA	Nepal Reconstruction Authority
NRs	Nepalese Rupees
PDRF	Post-Disaster Recovery Framework
PDNA	Post-Disaster Needs Assessment
PhD	Doctor of Philosophy
PRA	Participatory Rural Approach
RA	Research Assistant
SL	Sustainable Livelihood Framework
SFG	Small Farmer Group
TU	Tribhuvan University
UML	Unified Marxist–Leninist
VDC	Village Development Committee

CHAPTER ONE
INTRODUCTION

1.1 Background

This research delves into an ethnographic examination of the disaster resilience of Dalit communities that have inhabited the Dhading district in the Bagmati Province of Central Nepal for centuries. The primary emphasis is on assessing the impact and resilience capabilities of these Dalit communities following the catastrophic earthquake of 2015 in Nepal. The aftermath of this disaster has significantly affected the lives of individuals and the community as a whole. Nepal, prone to various natural disasters including floods, landslides, lightning, drought, fire, and earthquakes, has experienced profound challenges.

Following the concept of Thomas et al., (2009), disaster is a multi-faceted phenomenon that incorporates social, cultural, political, and economic aspects. Furthermore, social vulnerability includes different elements such as income disparity, gender, class, age, literacy, family, and household. Resilience, rescue, relief, displacement, and rehabilitation are socio-cultural phenomena. These phenomena are integrated into the everyday life of the people and local communities. The issues include how local people respond to the earthquake during the difficult period and how family members and community people engage in response. This is a particular concern of this research.

Baker and Chapman (1962) argue that disaster shapes the knowledge of local people on how they respond to disasters, not just as members of the public but also working in emergency management, law enforcement, and other governmental agencies. Thus, it is worthwhile for those who study disasters to gain a thorough and systematic understanding of how disasters are interpreted in various contexts and time periods. They argue that resilience and recovery from natural disasters are difficult to normalize. They further analyze disaster vulnerability, preparedness, mobilization, and prevention. Meanwhile, Henry (2005) also states that there is a special concern with how cultural systems, such as beliefs, behaviors, and institutions, are characteristic of a society or group. Similarly, the severity of the impacts of such a

phenomenon is more prominent among the socially and economically excluded groups in the country **(**Tamang et al., 2020).

As indicated above, the anthropological perspective of the disaster focuses on people's response, perception, and knowledge of hazard response and coping mechanisms with the utilization of local value, resources, and community assets. Therefore, local people are placed in the central theme of argument and analysis in anthropological studies. Anthropology concentrates on the study of the everyday life of local people covering social, cultural, and economic phenomena. More specifically, it is the study of culture and people with the application of a holistic approach.

The disaster has social, cultural, economic, political, and psychological dimensions at the individual, family, community, and country levels. Meanwhile, Oliver-Smith (2005) states that hazards and disasters are totalizing phenomena, subsuming culture, society, and environment together, indicating an event and a process. Maguire and Hagan (2007) state that resilience is the ability of a social system to respond to and recover from disasters. It is a cognitive, social, and cultural adaptation of the system to threats. Meanwhile, it is an inherent condition that allows the system to absorb impacts and cope with an event, as well as post-event, adaptive processes that facilitate the ability of the social system to reorganize, change, and learn in response to a threat (Cutter et al., 2003).

When two or more disasters occur together in the same region in close succession in time, they can produce a convergent catastrophe. The convergent catastrophe can be understood through the analogy of disease. In other words, it can be said that a strong and healthy person can resist the epidemic, whereas the poor and weak can be affected instantly. However, when people are first struck by one malady and are afflicted by another disorder, recovery becomes tenuous, and the likelihood of demise increases. Therefore, definitions of resilience make several assumptions about the nature of communities and the practices that enable their ability to cope with the impact of disaster (Barrios, 2016, p. 32).

Moreover, resilience refers to the ability to absorb changes or disturbances (Handmer & Dovens, 1996; Adger et al., 2005), cope with potential impacts (Klein et al., 1998), and survive (Nicholls & Branson, 1998). Environmental changes, whether

gradual phenomena such as climate change, more abrupt ones such as hurricanes, or immediate ones such as terrorist attacks, require actions to mitigate their adverse effects. These actions can appear in anticipation of risk, reaction to impacts, or recovery from the effects. Simultaneously, the provisions of rescue and relief represent social and cultural phenomena extended to families affected by disasters.

The disaster, for this study, refers to the 2015 major earthquake and aftershocks that induced several social, cultural, economic, political, and psychological consequences. The social factors include various social relationships within the same and with other caste groups and networks. These networks prevail in the study area and link beyond the study areas, for example, support from relatives and people who currently live outside the study area for work but they are originally from the study area and have a social connection. Cultural factors include social assets, labor practices, traditional institutions such as saving groups, and community and family bonding. The economic and political factors include income, wealth, possession of land, and capital. The psychological consequences are limited to emotions and trauma that resulted from the tragic earthquake. The support that the local people received during the earthquake and after work from state and -non-state agencies are also covered. The local environmental context, like the use of local resources/leafy materials for the preparation of temporary shelter immediately after the earthquake, is covered as local ecological domains.

Therefore, the study primarily focuses on rescue, relief distribution, and resilience. In addition, the study also concentrates on the social, cultural, and economic life of the local people after the earthquake. The disaster has also triggered the displacement of local people to new places. The displacement has several underlying causes, such as natural, social, cultural, and political. In general, communities, social values, and cooperation always stand on the frontline for immediate rescue and relief support at the community level. The 2015 earthquakes also displaced people in the country, although the study is less focused on the displacement of the earthquake-hit people in Nepal.

The terms recovery and resilience often come together in the academic discourse on natural disasters. For this study, recovery also denotes the same meaning

as resilience. Meanwhile, resilience and coping mechanisms are highly stated subjects in recent anthropological studies (Cutter et al., 2003). Resilience is a measure of the ability of ecological systems to absorb changes in state variables, driving variables, and parameters (Holing 1973, p. 18). The term has been applied to describe the adaptive capacities of individuals, human communities, and larger societies (Tiernan et al., 2019, p. 55).

In another context, Dombrowsky (2010) states that resilience is a buzzword that can be defined in various ways and according to disciplines, such as psychology, ecology, sociology, and medical science. However, Van Breda (2001) identifies different types of resilience, children and adults, families, communities, workplaces and policies, resilience-based policy, resilience theory in social work, cross-cultural perspectives on resilience, and deployment resilience. Furthermore, Buckle (2006) also categorizes levels of resilience as an individual, family, tribe or clan, locality or neighbourhood, community, social associations such as clubs and faith congregations, organizations such as a bureaucracy or a private sector firm, and systems such as environmental and economic systems.

Likewise, Marrow (1999) mentions requirements of resilience as knowledge of the hazard, accurate perception of the risk, understanding of available alternatives, and the resources and flexibility to respond successfully. These factors are not spread equally through societies; rather, their distribution is largely determined by social and economic forces, many outside the control of much of the population.

There are different forms of resilience. Physical resilience refers to the strength to deal with an impact, such as the ability of a house to withstand high winds or the physical health of an individual to survive a disaster. The robustness and diversity of the economy to survive and recover from a disaster define its economic resilience. Biologists refer to ecological resilience. Social resilience deals with the abilities within human societies to adjust to change, particularly to absorb recurrent disturbances such as hurricanes and floods to retain essential structures, processes, and feedback (Adger et al., 2005, p. 1036). At the community level, it is closely tied to the economic and political circumstances of a community as well as to the strength of its social institutions and social networks. At the individual or household level,

resilience is associated with economic and cultural resources, such as literacy and education, and social resources, such as family and friends (Heinz, 2002). Wildavsky (1988, p. 77) states that resilience is the ability of an actor or system to absorb shocks and bounce back to its original state. Meanwhile, different factors are responsible for the resilience of disaster-affected communities, such as social, economic, cultural, and political factors; and the role of governmental and non-governmental agencies. An extensive explanation of resilience factors is mentioned in the section entitled 'Conceptual Framework'.

In the above context, the study reveals the impacts of the earthquake in various social, cultural, economic, and political domains in the rescue and resilience process of Dalit people. For this study, the social aspects include age, skill, capacity, jobs, family/relative networks, and educational level of family members and their direct and indirect role in earthquake-affected families' resilience process and rescue. Families of active age and skills are crucial in constructing new houses through the exchange labor system.

Equally, the surrounding open place near their house is a vital social space for saving people's lives during the earthquake when people gather, discuss various earthquake issues, and eat together until the next permanent arrangement is made. Meanwhile, cultural aspects cover the exchange of labor practices in the community, social cohesion, traditions, and religious practices. Meanwhile, the economic aspect is all about family income, expenditure, capital, wealth, possession of land, livestock, employment, and business. Furthermore, the political aspect is an administrative network and participation of Dalit people that play a role in rescue and resilience for a prompt response.

1.1.1 Dalits in Nepal

The literal meaning of the word Dalit is shattered, over-burdened, suppressed, squeezed, stepped up, kneaded, ground down, shame by being required to bow to someone else's feet, or silenced through suppression (Nepal Academy, 2010 cited in Shahi, 2017, p. 99). The modern definition of Dalits is different from its traditional and literal meaning. Tiwary (2007) mentions Dalits are traditional groups of communities whose members have been socially backward, economically poor, and

politically weak. In the context of Nepal, National Dalits Commission defines 'Dalits' as "those communities who, by atrocities of caste-based discrimination and untouchability, are most backward in social, economic, educational, political and religious fields, and deprived of human dignity and social justice (Shahi, 2017, p. 99). Meanwhile, Gurung (2005) has mentioned three Dalit categories comprising 18 Dalits in Nepal. They are Parbate (Hill) Dalits (Badi, Damai, Gaine, Kami, Sarki), Newar Dalits (Chyame and Pode), and Terai Dalits (Bantar, Chamar, Chidimar, Dhobi, Dom, Dusadh, Halkhor, Khatawe, Mushahar, (Rai, 2010, p. 19).

The social structure of the Hill caste Hindus is simple, representing few groups in the overall Hindu hierarchical model. All of these groups speak Nepali as their mother tongue and look physically similar to each other. They can be broadly grouped into high, middle, and lower-caste Hindus. Brahmin and Thakuri, Chhetri are in the higher stratum, whereas Sanyasi falls within the middle, and Kami, Sarki, Damai, Badi, and Gaine belong to traditionally lower caste ethnic groups (Dahal et al., 2002, p. 3). The Central Bureau of Statistics (CBS) has categorized ethnic/caste groups in Nepal into nine social categories in which Sarki lies in Hill Dalits. According to the recent census, 2021, the population of Kami (Bishwokarma), Damai (Pariyar), and Sarki (Mijar) constitutes 8.53 percent.

Dalits per se are not a homogenous group. Like the other ethnic or caste groups in Nepal, their population is equally divided, and their heterogeneity extends to language, religion, and culture. More specifically, their heterogeneity and hierarchy can be better explained in three broad regional groups; Dalits in the Hill community, b) Dalits in the Newari community, and iii) Dalits in the Tarai community (Dahal et al., 2002, p. V).

Meanwhile, the Sarki community comprises a total population of 16,242, securing the fifteenth position among the 33 caste groups in Dhading district. In Dhunibesi Municipality, specifically, the Sarki population is 1,384, with 674 males and 710 females (Municipality profile, 2017). The total population of Damai (Pariyar) is 565932, making up 1.94 percent of the national population, with a female population of 301212 (CBS, 2021). The traditional occupation of Damai people is tailoring and music. They are scattered throughout the country in all ecological zones.

Damai speaks Nepali as their native language. Kami (Bishwokarma) is the largest caste group among Dalits, with a population of 1470010. The population of Sarki (Mijar) is 452229 (CBS, 2021).

1.1.2 A Brief History of Earthquake in Nepal

This section attempts to depict a brief picture of the earthquake in different periods in Nepal. Nepal is one of the most disaster-prone regions in geological terms. It is noted that during a period of ten years, from 2005 to 2015, over 700 thousand people lost their lives, over 1.4 million were injured, and approximately 23 million were made homeless due to the disaster. Furthermore, more than 1.5 billion people were affected, and the economic loss of more than $1.3 trillion was caused by disasters in various ways (Nepal et al., 2018). The country has thus experienced several earthquakes in its history. This situation is a serious challenge to people, their work, and their everyday life.

Nepal's first recorded earthquake in 1255 AD killed one-third of the population of the Kathmandu Valley, including King Abhaya Malla. There have been earthquakes causing severe human and physical loss in 1934, 1980, 1988, and 2011 (PDNA, 2015, p. xi). The last greatest earthquake (of magnitude 8.4) was in 1934 A.D. It was a major earthquake with an 8.4 Richter scale magnitude. That earthquake took the life of 10700 people and damaged 126 355 private houses. It was estimated that nearly ten thousand people lost their life in Kathmandu Valley alone from this earthquake (Shamsher, 2015). Most of the infrastructure and major heritage sites were damaged in that event. Some elderly people still remember the 1934 earthquake, popularly pronounced as *nabbe salko buichaalo* (nineteen-ninety earthquake).

Furthermore, smaller earthquakes were recorded in 1980, 1988, and 1994 killing people and damaging private houses, infrastructures, and cultural heritages (CFE-DM, 2020). The latest big 2015 earthquake was one of the biggest natural disasters in the history of Nepal, with 8997 human causalities and physical infrastructures, including private housing, public structures, and cultural heritages. The available report shows that 22,309 people were injured, 288,793 private houses were completely damaged, and 254,114 houses were partially damaged.

Table 1.1

Nepal's Major Earthquake

Year in AD	Magnitude	Major Damages
1934	8.4 Richter Scale	10, 700 dead 126,355 houses damaged and 80893 buildings destroyed
1980	6.5 Richter Scale	125 dead 248 seriously injured 13,414 buildings were damaged, and 11,604 buildings destroyed
1988	6.8 Richter Scale	721 dead 6,553 injured 6553 buildings damaged and 1566 livestock dead
2015	7.8 Richter Scale	8,997 dead 22,309 injured 288,793 buildings were damaged, and 254,114 buildings were partially damaged

Source: CFE-DM, 2020

1.1.3 Nepal’s Earthquake in 2015

On 25 April 2015, an earthquake of 7.8 Richter scale magnitude shook the country, having an epicenter in the Gorkha district in the central region. Barpak village in the Gorkha district was the epicenter of the earthquake, which is situated in the Northern part of the Gorkha district. Serious aftershocks also occurred, but that major aftershock was on 12 May 2015. Major shocks and aftershocks greatly impacted local people's social, economic, and physical life for several reasons, such as

loss of family members, damage to houses, loss of livestock, and cowsheds, cultivated land, and many more (Tamang et al., 2020). It is estimated that the major earthquake in 2015 devastated the country, causing 706 billion of Nepalese currency in damages and losses. The earthquake took 8,997 people's lives, left 22,309 injured, and destroyed over 288,793 private houses. The earthquake also affected many parts of central Nepal since the country has not faced a disaster of such scale for over eighty years (CFE-DM, 2020, p. 59). Unfortunately, the earthquake left 800,000 people without homes (Tamang et al., 2020).

Table 1.2

Damages of Houses by 2015 Earthquake

S.N.	District	Completely Collapsed		Damaged but Standing		Not Damaged		Total	
		No	Percent	No	Percent	No	Percent	No	Percent
1	Sindhulpalchok	69.329	78.1	18,578	20.9	834	0.9	88,741	10.1
2	Nuwakot	37,581	67.8	37,756	30.9	1,811	1.4	77,148	1.4
3	Dolakha	34,070	56.2	25,543	42.1	1,026	1.7	60,639	6.9
4	Dhading	33,389	48.7	51,646	48.9	7,087	2.3	89,122	8.8
5	Gorkha	25,153	45.5	49,269	51.2	3,652	3.3	78,074	5.8
6	Kathmandu	23,283	37.5	26,163	57.9	1,678	4.6	51,124	10.2
7	Kavrepalanchok	22,471	36.7	68,832	58.6	6,716	4.6	98,019	3.8
8	Lalitpur	12,154	33.5	19,403	63.8	1,536	2.7	33,093	3.4
9	Ramechhap	10,679	32.2	46,554	63.1	1,390	4.7	58,623	8.9
10	Bhaktapur	10,101	22.9	19,273	70.2	823	6.9	30,197	11.2
11	Rasuwa	8,567	18.2	3,903	79.4	174	2.4	12,644	6.7
12	Sindhuli	7,815	12.9	51,407	75.8	9,528	11.3	68,750	4.5
13	Makwanpur	7,235	11.4	56,294	74.8	27,465	13.9	90,994	7.8
14	Okhaldhunga	5,064	8.0	29,832	61.9	4,456	30.2	39,352	10.4
Total		306,891	35.0	504,453	57.6	65,176	7.4	876,520	100.00

Source: NPC, 2015

The earthquakes killed seven hundred thirty-three people, three hundred forty males and three--hundred ninety-three females, in Dhading district in Bagmati Province of central Nepal (CFE-DM, 2020). The earthquake had severe impacts on 14 districts, particularly in the hilly regions. Sindhupalchock district stands in the first position, whereas Dhading district is in the fourth rank in terms of physical damage and human casualties due to the earthquake. The earthquake left severe impacts on the lives of socially excluded and economically poor social groups, particularly Dalit people.

This study analyzes the impact of the 2015 earthquakes with a high focus on rescue, relief, and resilience factors of the Dalit community, which is socially and economically excluded in the Dhading district of central Nepal. It also highlights local people's social, economic, and cultural status after the earthquake. Furthermore, the earthquake was also connected with various emotional factors such as feelings, love, care, and trauma due to the loss of family members, relatives, and community members. The study area is situated in Dhunibeshi Municipality Ward No. 4 of Dhading district in Bagmati Province.

Dalits are placed in the lower social, economic, and political spectrum in Nepali society, which is based on the caste system. Dalits per se are not a homogenous group. Like the other ethnic/caste groups in Nepal, their population is equally divided, and their heterogeneity extends to language, religion, and culture. More specifically, their heterogeneity and hierarchy can be better explained in three broad regional groups: (a) Dalits in the Hill community, (b) Dalits in the Newari community, and (c) Dalits in the Tarai community (Dahal et al. 2002, p. V). The Dalits in this study area are from a hill community that was affected by the 2015 earthquake in Dhading. In this research, Dalit refers to affected families who lost their family members, houses, and properties due to the earthquake. In this study, however, the term Dalits refers to three subs-caste groups: Sarki, Kami, and Damai. **T**hey are collectively denoted as Dalit people and the Dalit community in Dhading district.

1.1.4 Policy Outline of Disaster Management in Nepal

Effective disaster and impact management hinge on the government's policy and institutional frameworks. The success of these activities, along with mitigating

adverse effects, relies heavily on systematically formulating policy strategies, and legal provisions, defining institutional roles and responsibilities, and ensuring the effective implementation of these measures (Quarantelli, 1985). Therefore, it is crucial to delineate the relevant policies of the Nepalese government for managing disasters and their impacts. The existing policies directly impact how local communities receive rescue support, including the authority of agencies to provide relief materials and financial assistance for post-earthquake housing construction. In a broader context, government policies on disaster management also play a significant role in shaping the resilience status of communities affected by disasters.

Various legal and institutional arrangements deal with disaster management activities in the country. The major legal initiatives of Nepal include the National Relief Act of 1982, the Local Self-Government Act of 1998 (the Local Government Operation Act replaces the 1998 Act), the Building Act of 1998, the National Building Code of 2004, and the National Strategy for Disaster Risk Management, 2009 (the Disaster Risk Reduction National Strategic Action Plan of Action 2015-2030 replaces the 2009 version), Climate Change Policy, 2012, Land Use Policy, 2012, Water Induced Disaster Management Policy, 2012, National Reconstruction, and Rehabilitation Policy 2015, Basic Guidelines related to Settlement Development, Urban Planning and Building Construction, 2016, National Urban Development Strategy, 2016, Constitution of Nepal, 2015, Local Government Operation Act, 2017, Disaster Risk Reduction Policy, 2018 and Disaster Risk Reduction National Strategic Plan of Action (2018-2030). However, 'An Act Made to Provide Reconstruction of the Earthquakes Affected Structures' is the principal policy outline for reconstructing the country's private and public earthquake-affected structures. The disaster-related initiatives and policy frameworks are extensively presented in Nepal Disaster Management Reference Handbook, October 2020. However, the section below will only review the Act Relating to Reconstruction of the Earthquake Affected Structures formulated in 2015.

The Act in question primarily addresses the reconstruction of structures affected by earthquakes, encompassing both private and public sectors. Empowering the National Reconstruction Authority (NRA), the Act aims to complete reconstruction in a sustainable, resilient, and planned manner. However, it has been

criticized for a narrow focus on rebuilding houses, neglecting cultural and social aspects. Despite this, the Act underscores social justice by addressing the resettlement and translocation of individuals and families affected by the earthquake.

Established in April 2015 following the earthquakes of April 25 and May 12, 2015, the National Reconstruction Authority (NRA) aimed to rapidly reconstruct physical damages in both public and private structures. Operating at different levels, including the district level, the NRA had overall responsibility for rebuilding earthquake-affected structures. Despite focusing on damaged infrastructures, the socio-economic dimensions, including livestock, local economy, culture, and rituals, were largely overlooked in the NRA's reconstruction approach. The government of Nepal dissolved the NRA in December 2021 after completing 92 percent of private housing reconstruction.

The Nepal Government and its Constitution advocate for an inclusive development approach, particularly for economically poor and socially excluded groups such as the Dalit Community. The country has a robust policy framework for disaster risk management and assisting affected communities. However, challenges arise in policy implementation and collaboration with governmental bodies and partner agencies. Mosse (2005) emphasizes that the success of development hinges on social interpretations vulnerable to policy changes. His ethnographic analysis explores the interplay between aid policy and practice, offering alternative perspectives for developing practices and policies, specifically in the context of the policy-practice dynamic.

Meanwhile, socially excluded groups, including the Dalit community, are highly vulnerable to disaster. The representation of the Dalit communities in administration, politics, government, and the entire socio-political ecosystem is less compared to others. The ultimate impact is in group disaster response and management.

1.2 Statement of the Problem

The disaster covers various aspects of the work and life of the people. The major dimensions of disaster resilience are environmental, social, cultural, political,

economic, physical, and technological factors. Natural, biological, and socio-cultural dimensions are also taken into consideration for disaster recovery policies, strategies, and actions. Looking at the existing literature on disasters, most of them have examined this phenomenon by taking a few indicators, mainly loss of life and property (Oliver-Smith, 2005). Dalits are in lower social and economic indices in Nepal. Equally, they had high impacts from the earthquake. The impact of the 2015 earthquake on the social and cultural aspects focusing on the rescue and resilience process of the Dalit community are inadequately addressed in the anthropological studies of Tamang et al., (2020), Khatri (2021), and Spoon et al. (2021). In this context, this study concentrates on how earthquake victims became resilient during the earthquake.

Many systematic and extensive sociological studies on disasters have occurred in the West during the last five decades (Quarantelli, 1985). Moreover, anthropologists have studied disasters since post-World War II, which became a focus of anthropological research, especially in the West (Oliver-Smith, 2002). Yet, anthropology has not explored much into this area, although it can contribute immensely to the disaster discourse due to its inherent multidimensionality and methodological rigor. In this context, Wallace (1956) answers why anthropologists kept disasters as a peripheral issue of the query. He further states that anthropology and social sciences generally devote their attention to normal patterns of human behavior, and disasters break the pattern. They are regarded as isolated and annoying interruptions of the norms and seen only as unique appendices hanging in a sort of conceptual limbo.

Studies conducted by Turton (1977), Torry (1978), Zaman (1989), Tobin and Whiteford (2002) state that the adaptive strategies are in a relatively isolated world population. They have traditionally been used to respond to and cope with disasters from the environment, such as floods, drought, conflict, earthquakes, volcanic explosions, and diseases. However, these studies are largely silent on resilience phenomena lacking holistic explanation. Meanwhile, anthropologists Anthony Oliver-Smith and Hoffman (1999, 2002) and Cutter et al. (2003) have analyzed different dimensions of disaster and resilience.

Human beings are social beings. While living in society, they develop specific environments and contexts. The same environment and context are used to determine the socioeconomic and political contexts. After 1960, several anthropological writings came to address the burning issues of disaster and its response. They have conducted a number of anthropological researches on the disaster, its effects, rescue recovery, and reconstruction. Disaster researchers in academia, including anthropologists, geologists, and psychologists, deal with different disasters across the globe and their immediate consequences. Such studies focus on the immediate negative effects of the disaster – how this disaster affected the lives of the local people and their culture and society. One of the most fundamental features to which individuals and communities must respond is the nature of the environment in which they dwell, and none of the disasters come suddenly. It has a pattern of occurrence over time (Oliver-Smith, 2002). Despite Oliver-Smith's series of works with an anthropological orientation in conceptual framework and methodology, he hardly discusses the role of family members and community people in hard times of disasters in rescue management and the aftermath resilience phenomena. This study focuses on the most marginalized Dalit people.

Likewise, the study by Campbell (2018) in Tamang households also reveals collective efforts in resilience. The villagers have their collective priority to rebuild their Buddhist temple, re-accommodate their fragile family of statues, and, thereby, restore their internal communicative order to recognize the recovering citizenship of household dharma, from which blessings and power can circulate. However, the study lacks in extensively analyzing the social, cultural, and economic domains of the resilience and rescue process.

At the same time, studies on the rescue and resilience of earthquake-hit communities have been rare in Nepal. Furthermore, previous anthropological studies, for example, Tamang et al. (2020), Tiernan et al. (2019), Khatri (2021), Chambel (2018), and Oliver-Smith (2002) are less focused on how family members, neighbors, and community people engage in rescue and resilience. These studies also inadequately deal with the resilience process of the most marginalized Dalit community with social, cultural, economic, and political dimensions. By examining

the present situation of rescue, relief, and resilience caused by the 2015 earthquake, the present study fills this gap.

Local people are key actors, agencies, and beneficiaries of earthquake event-related problems. The study treats the major factors that enable the community to be resilient. Conceptually, these factors include interventions of state agencies and non-state agencies. The local resources also play an affirmative role in the temporary stay of earthquake-hit families until the management of a permanent house. Meanwhile, the local community, people, and culture are on the frontline in the resilience process. Furthermore, the socio-political and economic dimensions of the earthquake-affected families are also linked to the intervention led by the state and non-state agencies.

The state agencies include different layers of government from federal to provincial to local level. However, the focus is on the cash grant provided by the government of Nepal to build new houses and rescue and immediate relief support from the local government. The non-state agencies include local organizations, community groups, non-governmental organizations, financial institutions operating at the national and district level**s**, and women's groups. However, a holistic understanding of the rescue, relief, and resilience in consideration of the state and non-state agencies is in its infancy in anthropological studies.

Furthermore, anthropological research on disasters is still an unventured area in South Asia. In this regard, Mathur (1998), Mehta (2009), and Patnaik (2001) have conducted longitudinal studies in anthropology to understand the process of social reconstruction in disasters in South Asia. All these studies are more concerned with resilience and displacement due to development rather than disasters. Although ethnographic perspectives of disaster provide extensive information on local context and settings, anthropological studies often lack an exploration of local knowledge and skills in the utilization of the reconstruction after the earthquake. How local people respond to immediate rescue and relief at the community level by using capital and social assets is also an anthropological interest. Social and cultural domains of rescue and relief also imply such resilience as reconstruction and rehabilitation processes of disaster-hit communities.

The exploration of disasters through an anthropological lens, with a specific focus on the marginalized Dalit people, is a novel area of research. Meanwhile, the comprehensive study Tamang et al., (2020) on community resilience capacity in Nepal stands as a benchmark in the field of disaster resilience. However, this study primarily highlights the roles of different actors, both governmental and non-governmental, in recovering from earthquake disasters. It falls short in addressing the cultural processes of resilience and recovery among various groups, and notably, it lacks a specific focus on the Dalit community.

Addressing these identified gaps, this study delves into the multifaceted effects of the earthquake across social, cultural, economic, and political dimensions, with a specific focus on the Dalit community. It examines the earthquake's impact on local residents, their adaptability, and vulnerability. Simultaneously, the study elaborates on the roles played by local institutions, as well as state and non-state agencies, in mitigating the disaster's impacts and comprehensively examines the resulting changes in social, cultural, and economic aspects. Another crucial aspect explored in this research is the earthquake's influence on various social, economic, and cultural factors.

Mosse (2005) argues for divergence in the development policies and practices in his book entitled ‘Cultivating Development: An Ethnography in Aid Policy and Practice. How the need of local people is reflected in the policy to accommodate existing social, cultural, and livelihood aspects is also a serious concern. The reflection of community realities in the policy only sustains the development. Therefore, development success only depends on socially sustained interpretations. The study demonstrates the research gap in providing academic and policy-level rationality in anthropology based on the above context. Anthropology is a holistic science. Therefore, to argue for holism is to state the obvious in anthropology (Parkin & Ulijaszek, 2007). As a student of anthropology, I provide a holistic picture of the earthquake disaster with special reference to the Dalit community.

The study is highly focused on the most marginalized caste, and therefore, this study produces new knowledge of exploring problems from the grassroots and solving all problems putting weaker communities in the center of formulating policies and

carrying out actions. The new perspective provided by this study is that it is not based on a myopic picture of the disaster but rather provides data and information obtained from the actual work and life of the people affected by the disaster event. Based on the above research gap, the study tries to answer three research questions as follows:

a. what is the rescue, relief, and resilience status of Dalit people affected by the 2015 earthquake disaster?

b. how did the earthquakes affect the social, cultural, and livelihood of the Dalit community after the quake disaster? and

c. why does the resilience process vary within the Dalit community, and how does the community become resilient?

1.3 Objectives of the Study

The general objective of this study is to explore and analyze the overall situation of earthquake victims in Nepal. The specific objectives of the study are as follows:

a. to explore and critically analyze the rescue, relief, and resilience process after the 2015 earthquake adopted by the local Dalit community;

b. to investigate resilience and the factors influencing it within the Dalit community, and

c. to ascertain and analyze the social, cultural, and livelihood status of the Dalit community after the 2015 earthquake.

1.4 Rationale of the Study

As concisely outlined in the above section 1.3, there is still a research gap in anthropology. Dalits are vulnerable in terms of their social and livelihood status. The anthropology of development provides a better approach to revealing the resilience status of the Dalit community.

The study provides a new vision and perspective to the academicians interested in pursuing their expertise in the field of disaster in general and the

anthropology of disaster in particular. The study attempts to depict detailed works and lives of the Dalit people who have been highly affected by the earthquake.

Moreover, the available literature on disaster provides a unidimensional aspect of a disaster that has occurred in different parts of the world, and they lack a holistic explanation. Therefore, this study attempts to comprehend a holistic, comparative, and comprehensive anthropological perspective on earthquake disaster-related problems and issues in the specific context of Nepalese Dalits. The present work is also a modest attempt to understand the holistic perspective of the earthquake disaster and its consequences.

The findings from this study provide a broad policy outline for different state and non-state agencies and development partners to implement feasible and need-based community-driven interventions. The study also has several policy implications. First, Nepal is highly vulnerable to earthquake disasters, and it stands 11th most earthquake-prone country in the world (NPC, 2015). One of the benchmark studies of Dalits by Tamang et al. (2020) was inadequate to reveal the social and economic aspects. Hence, this study is significant in this context.

To summarize, the study largely contributes to the theoretical domain, methodological approach, and policy aspects. The study applies both disasters of anthropology, particularly the social capital and livelihood approach, and cultural ecology as theoretical perspectives to examine the resilience process of the Dalit community. Equally, it blends qualitative and quantitative tools to capture subjective and objective realities of the earthquake-affected Dalit communities. Furthermore, the policies and plans that are based on community learning and practices are always valued greatly in policy sustainability and interventions in local social and cultural settings.

1.5 Theoretical Perspectives of the Study

The study asserts four major resilience factors covering social and cultural domains, government at three levels, non-state agencies/non-governmental organizations, local environment, and resources. A single theoretical approach is not enough to deal with the resilience process of the Dalit Community for this study.

Therefore, three theoretical approaches have been combined to conduct the research. The anthropology of disaster, following the anthropological perspective of Oliver-Smith (1999, 1996, and 2002), is the guiding approach of this study. These approaches comprise anthropology of disaster, cultural ecology, and political ecology. Along with this approach, the section below quickly reviews the cultural ecology and political-economic theories to understand the resilience process holistically.

Anthropologists holistically see the disaster. For them, disaster can be comprehended through its various dimensions, such as environmental, social, cultural, political, economic, physical, and technological. Likewise, natural, biological, and socio-cultural dimensions are taken into consideration for disaster recovery policies, strategies, and actions in various parts of the world (Oliver-Smith, 1996). Though there are various theoretical approaches to studying the resilience status of disaster-hit communities, the anthropology of disaster blended with the political economy is a theoretical approach of this study. The anthropology of disaster stresses vulnerability, resilience, and displacement due to the disaster. They see the role of political and economic systems in the recovery of the communities.

Meanwhile, cultural ecology recognizes that environment and culture are not separate spheres but are involved in dialectical interplay. Culture and environment have a cause-and-effect relationship, as one influences the other. The human ecological approach is ‘ethnoecology’’, which refers to research done from the perspective of communities. According to Julian Steward, the ecology or environment is a significant causal factor behind social institutions, and all aspects of a culture equally interact with the local environment (Steward, 1955).

Anthropology of Disaster: Vulnerability, Social Capital, and Livelihood Approach

As indicated above, the anthropology of disaster guides the theoretical approach of this study. However, this study concentrates on social capital, vulnerability, and livelihood in resilience. Woolcock and Nayarna (2000) state that community-based approaches are highly dominant in the study of disaster and development sectors. In this approach, the community attributes to the policy-making level with their knowledge and skills.

Social vulnerability to disasters is deeply rooted in historical contexts and current social structures, such as the lack of access to political power and the uneven income distribution. Therefore, social vulnerability leads to disaster and extensive human suffering. Race, ethnicity, and class are certain factors that help explain social vulnerability (Fordham et al., 2013). Therefore, vulnerability is embedded in complex social relations and processes and is situated squarely at the human-environment intersection requiring social solutions (Oliver-Smith, 2002).

Meanwhile, Chambers and Conway (1992) assert that the livelihood approach consists of capabilities, materials, social resources, and activities for means of living. It also includes income-earning activities, assets, and local natural resources. Furthermore, a sustainable livelihood framework for improving the livelihoods of the poor focuses on poverty, participation, and sustainable development (Ellis, 2000). Moreover, Chambers and Conway (1992) mention that the livelihood perspective is people-centered. In their view livelihood perspective facilitates a more thorough analysis of different social groups, including the distribution of benefits and access to resources from a gender perspective. Similarly, Steward (1955) asserts the adoption of the livelihood of people with low incomes in a participatory and responsive way is as below:

> Adoption of a livelihood perspective will, therefore, facilitate the identification of the multiple functions and purposes that agro-biodiversity plays. Be it for different social groups and different environments. It will place the food security of poor people at the center of the discussion. It is also responsive and participatory; poor people must be key actors in identifying and addressing livelihood priorities. Outsiders need processes that enable them to listen and respond to the poor (Steward, 1955, p. 122).

The study examines four major factors that directly and indirectly play significant roles in community resilience. Thus, this study considers resilience and rescue as collective efforts of family/individual efforts, social capital, hope, local technology, local know-how, policy interventions and support from state and non-state agencies, and local natural resources, both biotic and abiotic. Therefore, the

study is also connected to cultural ecology and political economy from a wider perspective.

Cultural Ecology

Anthropology of disaster has a wider scope to understand the resilience process of the community. However, knowledge of the anthropology of disaster is insufficient to understand the people's connectivity with the environment for their resilience.

The interplay of the biotic and abiotic environment is a significant concern of cultural ecology. Julian Steward (1995) specifies three steps in the investigation of the cultural ecology of society. The first step deals with the technology to process the natural resources available in society. The second phase outlines the social organization of work for local communities' subsistence and economic activities. The last and third step is tracing the influence of these two phenomena on other aspects of culture. Steward's theories are examples of specific and multi-linear evolution, where cross-cultural regularities exist due to similar settings.

Steward (1955) states that the principal meaning of ecology is an adaptation to the environment. He assumes that ecology, as a significant causal factor behind social institutions and culture, can be explained in terms of ecological adaptation. He further states that the ecological approach is highly applicable to relatively primitive communities and less complex societies with sophisticated technology that enjoy greater freedom from environmental limitations. However, the study area is semi-urban, and this approach is still relevant in the Dalit community. Equally, Geertz (1963) also states that ecological systems are an interconnection between culture, the surrounding environment, and biology. He states:

> The ecological system is the constant interplay between culture, biology, and the environment. His concept focuses on a complete set of mutual causality that is between human beings, plants, and animals along with the non-living environment. The ecological approach attempts to achieve a more exact specification of the relation between selected human activities, biological transactions, and physical

> processes by including them within a single analytical system, an ecosystem (Geertz, 1963, p. 3).

During the earthquake disaster, Dalit people use local resources and open places near their houses. This type of interaction of Dalit people to their local environment during the earthquake and afterward is analyzed through cultural ecology. Therefore, the cultural and ecological framework is applied in the resilience study of Dalit people.

Meanwhile, the study also asserts that local governments, including provincial, federal governments, and non-governmental agencies, are in the rescue and resilience. Therefore, there is always a close connection between political ecology with the resilience process. The section below briefly reviews the political ecology.

Political Ecology

Political ecology has been established as human-environmental relationship research (Walker, 2005). For analysis of the relationship between humans and the environment in the context of development, the political-ecological theory also emerged during the 1960s and 70s as the fourth approach to cultural-ecological anthropology. This concept links ecological issues to social and political processes which operate at all geographical scales. Political ecology came from a realization that the ecological process is integrated into the social system and could not be understood outside the contexts of local productive relations and the wider economic system (Benjamin, 1980). Moreover, the political, ecological school of thought also offered an insight into causal explanations for ecological transformation that stresses social and historical factors and agrarian peasant societies (Uprety, 2021).

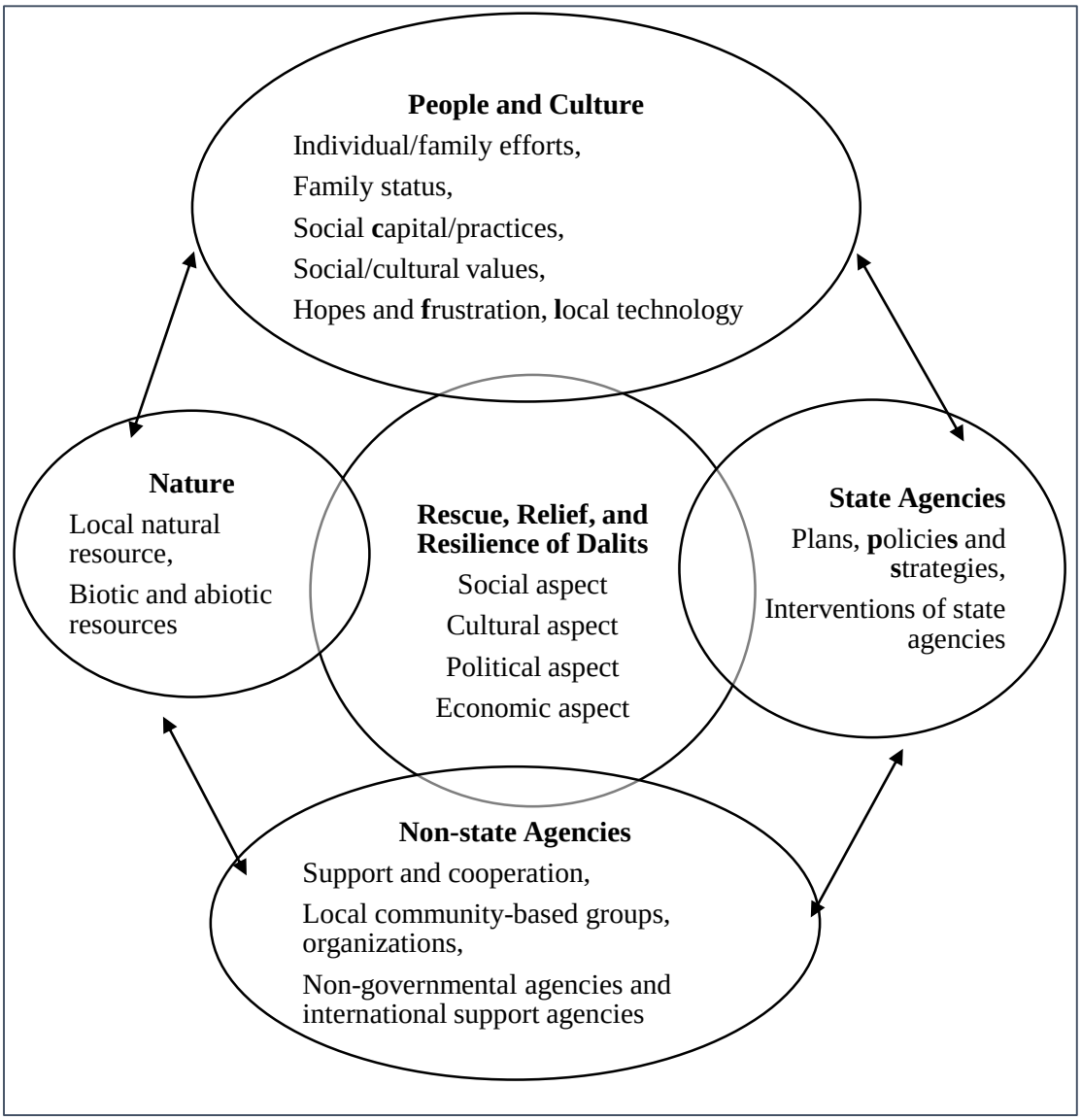
Based on these theoretical perspectives, the study explores the resilience process of the Dalit community after the earthquake hazard. The study's significant concern is how the recovery process took place regarding social, cultural, and environmental conditions. The political and ecological framework analyzes the government policy imposition of cash grants for the construction of new houses, favoritism, and bias in relief distribution.

1.6 Conceptual Framework of the Study

Resilience, rescue, and relief are the core focus of analysis with the various enabling factors. These factors are from social, cultural, political, and economic domains. According to this conceptual framework, four factors influence the Dalit community's resilience status included in this research study (see Figure 1.1). The subsequent paragraphs below present a detailed description of this conceptual framework.

Figure 1.1
Conceptual Framework showing Resilience Enabling Factors

The figure below provides a specific mind map by the researcher and the study area.



The basic concept of this conceptual framework for the study of resilience is primarily drawn from the works of Oliver-Smith (1996; 1999) and Hoffman (2002) for the core themes of the anthropology of disaster and its affecting factors and field observations in line with research questions and study objectives. Meanwhile, the concept of Steward (1955) and Walker (2005) for a causal explanation of the resilience and local environment, and political factors, including policies and interventions from state agencies and non-state agencies, have also been considered.

The resilience of the community depends on various factors such as people and community, support from state and non-state agencies, policies, and available local resources. In this study, the resilience of the Dalit community is an aggregation of four factors, as shown in the diagram above (See figure 1.1). Likewise, resilience has aggregated assimilation, adaptation, and adjustment forms in disaster-hit communities' social, cultural, economic, and political life.

Furthermore, the role of state agencies, the federal government, provincial government, and local government, and their support have a direct role in the resilience of the community. Meanwhile, plans and policies formulated for the earthquake-hit families also provided strong enabling factors of resilience; for example, the Nepal Government provided cash grants to severely earthquake-hit families to construct new houses. The second important factor is support from non-state agencies such as non-governmental organizations, local community-based organizations, and national and international aid agencies that play a role in reconstruction, financial services, and software components, and ground beneficiaries of the aid agencies are local communities. The nature of both biotic and abiotic natural resources is also directly linked to the resilience status of the Dalit community. Before constructing new houses, they built temporary ones using local resources such as wood, bamboo, *jasta pata*, tent, stone, soil, and water.

Moreover, local community and cultural values provided a solid foundation for rescue and resilience. Family members, family wealth, family efforts and cultural values, assets, exchanged labor practices and hope, and emotional value can play direct and indirect roles. These four factors are also equally responsible for creating resilience in the short and long run.

1.7 Organization of the Study

The study is organized into eight chapters. Chapter One introduces the readers to disaster and its impact on the Nepalese people. The statement of the problem, research questions(s), objectives, rationale, and theoretical framework, along with the conceptual framework, are presented in this chapter. Chapter Two extensively reviews the relevant literature on the anthropology of disaster. This chapter deals with the theoretical reviews and approaches to the disaster and empirical studies from global, regional, and national levels.

Similarly, Chapter Three presents the methodology of the study. The study applies a mixed method of qualitative and quantitative research tools. An ethnographic study is a dominant tool of this study, supplemented by the household survey, group discussion, and key informant interview. Chapter Four deals with the Dalit people and the study area where the study was focused.

Chapters Five, Six, and Seven extensively deal with the findings of this study. Chapter Five is about rescue and relief adopted by the Dalit community. Families, neighbors, and closed communities play a vital role in rescue and relief management in Jibanpur. Family members and immediate neighbors occupied front-line positions rather than local government, security forces, and non-state agencies in rescue during the earthquake. Moreover, the rescue is prioritized into three phases; first, they rescue elderly people and children to get out of their homes; second, they rescue their livestock; and third, they rescue immediate neighbors. Chapter Six deals with findings relating to the resilience process, including various social, cultural, economic, and political factors. Chapter Seven is about the earthquake's social, cultural, and economic impacts on Dalit communities, including both affirmative and adverse impacts. Finally, Chapter Eight presents the summary and conclusions based on the findings of the study.

CHAPTER TWO
LITERATURE REVIEW

2.1 An Overview

There are many studies on disaster, rescue, and resilience in social sciences, particularly anthropology. This chapter critically assesses the existing knowledge and literature in the field of disaster and resilience, including anthropological engagement and dominant theoretical approaches in disasters, such as livelihood framework, vulnerability, and social capital approach.

2.2 Conceptual and Theoretical Review in Disaster

This section provides an overview of disasters in anthropological literature, highlighting the major works of Oliver-Smith (1996), Hewitt (1997), Wolfe (1988), Lunini (2014), and Aldrich (2010), along with other relevant works from the scholars with an anthropological background.

Scholars such as Fritz (1996), Oliver-Smith (1996), (1961), Barton (1969), and Quaranotelli (1985) remark on the disaster in terms of physical agents and physical impacts. They also emphasize the need to theorize disaster-related possibilities in the context of natural power and culture. They emphasize disasters are multi-dimensional with social events and processes. According to them, the term disaster includes events and processes that range from the onset of events, such as earthquakes and nuclear accidents. Therefore, hazards and disasters combine phenomena, subsuming culture, society, and environment.

According to Oliver-Smith (1996), a disaster is both an event and a process with a physical and social event or process that creates a wide variety of impacts on natural and social phenomena. It is socially constructed, generating multiple interpretations that vary from individual to individual with different faces of imagined reality.

Like Oliver-Smith, Hewitt (2015) interprets calamity and disaster through an inequality and subordination perspective, i.e., ongoing societal and human-

environment relations based on how racism could produce susceptibility to specific environmental hazards.

Disaster is not a recent phenomenon. In this regard, Aldrich (2012) states that humankind has survived and lived with natural disasters from the days of the mythical universal deluge. Floods, volcanic eruptions, and earthquakes have plagued and devastated humanity since time immemorial. The man-made category of disaster is getting much on the agenda of social scientists. As man approaches the 21st century, he is increasingly exposed to the threat of manmade disasters, almost invariably resulting from a mismatch between ever-proliferating technological innovations and man's capacity to handle them. Natural disasters come in different forms: earthquakes, floods, landslides, oceanic storms, and tornadoes. With the help of technology, human action is also an underlying cause of disaster on earth (Aldrich, 2012).

Patan and David (2001) illustrate that the range, sweep, scale, and frequency of manmade disasters constitute a grim prospect for the well-being of humans in the coming century. There will be no calm in the pace of population increase, technological advancement, and industrialization in the foreseeable future. With the poor and developing countries racing headlong to catch up with the developed ones, industrialization can increase faster, causing more frequent disasters. In this context, the only way out is to evolve a suitable strategy to contain and minimize the risks involved.

Blaikie et al., (1997), Cannon (2006), and Hewitt (2015) state that the disaster of sociology is one of the subsets of the field of disaster. The traditional school of thought emphasizes the environment–society divides. However, it has become more generally accepted that focusing on the physical hazard alone will not reduce disaster risk or subsequent impacts. The once-dominant hazards paradigm, with its primary focus on the natural and the geo-physical, and its characterization of disaster events as exceptional and separate from everyday, met a significant critique (Hewitt, 2015). Meanwhile, it also adopted an avowedly political economy approach and took its examples and case studies, not only from the Third World but also from the perspective of the victims. This position was more closely allied to development theory than disaster research and inevitably paved the way for different

recommendations, solutions, and methods of inquiry (Kreps, 1984). These are tended away from the technical fixes of the hazards paradigm or the advancement of expert systems and command and control structures of organizational sociology (Hewitt, 2015) and toward participatory, community-based approaches (Maskrey, 1989) and vulnerability approaches (Blaikie et al., 1997; Cannon, 2006).

Likewise, the vulnerability perspective is anchored in political economy and analyses that identify the root causes of disaster vulnerability (Wisner et al., 2004) and the social geography of harm (Hewitt, 2015). The disaster further pushed the affected families into more poverty for various reasons, such as damage to houses/property, family members, and people displaced to other places.

A disaster is now generally understood as an event and process that overwhelms the capacity of a vulnerable social group, economic activity, or infrastructure to resist and recover. Disasters occur at the interface of society, technology, and the environment and are fundamentally the outcomes of these features (Paton & David, 2001). In another context, Torry et al. (1979) state that an imposing volume of research on natural disasters is already available. Such research works include geotechnical issues and contain mathematical models, sensing devices, and stress-resistant structural design, which account for accurate prediction procedures, and stronger buildings and public works.

Furthermore, Jones and Morphy (2009) discuss the cultural response to the disaster as a point of departure, our concern to present hazard-related and disaster-related linkages between fine-scale and broad-scale economic behavior, specifically: first, how the vulnerability is economically constructed; second, how primary producers adapt their production regimes; third, how traders and merchants adjust their practices; and fourth, how the state's political, economic objectives play out in recovery efforts. They emphasize that disaster is a tragedy experienced by humans at the hands of an identifiable event, mitigated by local capacity and broader intervention, and measured in terms of economic, spiritual, psychological, biological, political, or social impact (p. 4-5).

Meanwhile, anthropologists are more concerned with humanmade disasters at the beginning of the 21st century. Research and development in science have

minimized the occurrence of natural disasters, but through planned development, the events of human-made disasters have been maximized. The emotions, human feelings, fellow feelings, compassion, and fear of God have evaporated and dried in human beings due to scientific and planned development (Wolfe, 1988). Like Wolfe, Zaman (1989) also views disasters as indisputably and undoubtedly social phenomena causing disruptions. Disasters cause severe social disruption and adversely affect people's lives and livelihoods, unleashing immediate and long-term impacts on society (Oliver-Smith, 1998).

Although anthropologists (Agrawal, 2010; Henry, 2005; and Oliver-Smith, 1996) concentrate on defining and reasoning the disaster, there is a clear gap in understanding how local people, including family members and neighbors (attached and distant), respond during the time of hardship. Furthermore, there is a space to address local versions and know-how, particularly in the reconstruction of private housing with the initiation of the federal government. The construction of houses is not merely an engineering theme but an integration of local people's social, cultural, and economic contexts (Tamang et al., 2020). Therefore, the social and cultural explanation of the house and reconstruction of a private house is equally important in the resilience process.

2.3 Concept of Resilience in Disaster

Resilience is another important anthropological concept related to a disaster event. From a historical standpoint, resilience theory focuses on child psychology and medical science (Tiernan et al., 2019). It was conceptualized as an unexpected response to children’s uprising under disadvantageous, discriminating conditions. Resilience theory spent a long time in psychology, medical science, environment, and ecology to define resilience as the inherent quality of a person and system to face unpleasant events and way of life. However, at the current time, it is rising as a mushroom in several development branches and academic disciplines (Dombrowsky, 2010).

The term resilience was conceptually introduced by Holling (1994) to further an understanding of the capacity of ecosystems to persist in their original state despite external disruptions. There is no single broadly accepted definition, as the concept has

been applied in diverse settings. Tiernan et al. (2019) comprehensively review the evolution of resilience thinking and definitions applied to ecological systems and individual, social, physical, and community resilience and hazards research.

Like Tiernan, Wildavsky (1991) defines resilience as the ability of an actor or system to absorb shocks and bounce back to its original state. Resilience is defined as "the capacity to cope with unanimated dangers after they have become manifest, learning to bounce back" (p.77). But Cyrulnik and Malaguti (2005) argue that resilience is not a human or social concept. Instead, it is derived from the physical field and means the capacity and the degree to which a metal can resist damage and return to its original state.

In social sciences, resilience is the capacity of society to bounce back from better aftershocks to sustainable and culturally meaningful living through an inclusive process. The resilient capacity denotes five types of capital – human, social, physical, financial, and natural (Tamang et al., 2020). Resilience and recovery are used interchangeably in social sciences. They also distinguish recovery from reconstruction, and the term recovery is often confused with reconstruction. However, the reconstruction primarily refers to houses, roads, schools, cultural, and other physical infrastructures. Recovery also denotes bringing the situation to a certain level of acceptability after the earthquake hazard. Therefore, it encompasses constructing houses and local structures, installing livelihood enterprises, and restoring community life. Recovery means not merely bouncing back to the pre-existing conditions but bouncing back better, which means attaining a level better than what existed before the hazard (p. 35).

The resilience capacity is another concept to understand the overall resilience phenomena in social sciences. It refers to strategies and actions to prepare, respond, recover, and transform; cultural values, norms, informal institutions, and trust; governance for effective mobilization of capital and capacities; and coping mechanisms. The resilience framework includes different components. The community capital is a combination of support from state and non-state private agencies (Ternan et al., 2019).

The sociological area of disaster research has focused on many different domains of resilience, and no specific consideration has been presented in connection with sociological theories and approaches (2014). In a broader theme, Lucini (2014) elaborates on disaster as ecological, physical, and ecosystem domains with institutional resilience, economic resilience, environmental resilience, infrastructures resilience, organizational resilience, social resilience, community resilience, family resilience, and individual and psychological resilience. Family resilience includes belief systems, organizational patterns, and communication processes.

On the other hand, the term "sustainability" is related to resilience and usually describes some aspect of maintaining resources from the environment to the quality of life over time. Resilience refers to the ability of a locality to tolerate and overcome the damage, diminished productivity, and reduced quality of life inflicted by an extreme event without significant outside assistance (Mileti & Gailus, 2005). It is thus urged that disaster resilience promotes sustainability (Geis & Kutzmark, 1995).

In addition to the above, Turton (1977), Torry (1978), Zaman (1989), Tobin and Whiteford (2002) have shown how the local people coped and cooperated during the earthquake period and what type of mechanisms they developed to face the natural disaster. Therefore, the resilience of earthquake-hit families is also directly connected to the coping and cooperation mechanism of local communities. Several years of effort and lessons have signaled the absence of an effective coordination mechanism as a major problem in dealing with disasters. The established mechanism is found less effective. Disasters involve many institutions at local and national levels, but when the need arises, the absence of institutions is always felt in rescue and rehabilitation. International actors also get involved in some cases, but they are more focused on policies rather than aid to people in need.

2.4 Dominant Research Frameworks in Disaster and Resilience

There are various theoretical and conceptual domains of anthropological research. The section below briefly presents the recent research on disasters and resilience from different perspectives covering the deductive, inductive, and archaeological approaches.

Deductive Approach

There are also methodological concerns to addressing disaster and resilience studies. Nordstrom and Robben (1995)**,** Greenhouse et al. (2002), Jacobsen and Landau (2003) argue that critical research needs to delve into how social scientists can professionally yet ethically conduct research during and after disasters. The professional concerns include the identification of methodological biases, such that our work should remain both academically sound and yet policy-relevant. There are also ethical concerns that arise from the researcher's position of relative privilege and power. This is particularly true for international disasters in developing countries, where people experience more extreme forms of vulnerability and stress.

In recent years, disaster researchers have increasingly turned toward conflict and political-economic perspectives to guide their work (Stallings, 1995; Tierney, 2009), but even these studies tend to emphasize structure over culture. Instead of treating social structure as a dependent variable, researchers are beginning to view social structure as a causal force, which is an independent variable, behind the disaster. They point out that organizations play a significant role in reacting to disasters (Tierney, 2009) and that race, class, and gender stratification place some people at greater risk than others (Enarson & Morrow, 1999). Ultimately, perhaps the best way to better grasp the concept is to employ both the deduction and induction approaches. Thus, from a deductive approach, we could begin developing an inventory of cultural products with disaster themes and delineating some specific dimensions along with those items (Enarson & Morrow, 1999).

Inductive Approach

An inductive approach is the conceptualization of the popular culture of disaster that begins with empirical observations. According to this approach, it is necessary to survey the studies that have already been done on the topic. While the existing studies on the topic are varied and scattered, separating them into at least two broad camps is possible. One camp consists of those studies that assess the impacts of disaster events on some aspect of culture, like the earlier work on social structure; they treat culture as a dependent variable. The other camp approaches culture as an independent variable, examining the role of cultural beliefs and practices in

contributing to or exacerbating disaster (Varyow, 1998; Fothergill & Peek, 2004; Fothergill, Maestas, & Darlington, 1999).

Archaeological Approach

Archaeological research can contribute to helping managers cope with contemporary disaster events. From archaeological research, we may establish the principal components of a disaster, reconstruct the physical event itself, assess the physical damage it caused, and identify the response strategies of the exposed culture. More importantly, since archaeology operates over a large enough time scale, it can assess the long-term impacts of a disaster that might be overlooked in a modern study (Sheets & Grayson, 2013; Oliver-Smith, 1986).

A more flexible approach to the questions of what constitutes a significant response to disasters would also provide productive research. The disasters have either been ignored by archaeologists or used uncritically to account for cultural change. This 'all or nothing' approach glosses over what must have been a wide range of responses to disasters of varying magnitudes and frequencies by groups with different social and economic structures. Some of that range is illustrated in this volume, which demonstrates the value of looking at recent cases as well as those represented in the archaeological record, but many more detailed and critical studies are required before we have enough data to adequately assess the role of disasters in human history. Hopefully, these studies will demonstrate the importance of disasters in raising questions about human adaptation and change and will pave the way to further research (Torrance at el., 2000)

A recent perspective in anthropological research defines a disaster as a process and event involving a contribution of potentially destructive agents from the natural and theoretical environment and a population in a socially and technologically produced environmental vulnerability. The combination of these elements produces damage or loss to the major social, organizational elements, and psychical facilities, commonly to the degree that the essential functions of the society are interrupted or destroyed. It results in individual and group stern and social disorganization of using severity from this basis underrating; their general perspectives on hazards and disasters have developed in anthropology; (a) behavior response approach, (b) social

change approach, and (c) political, economic, and environmental approaches. However, the disaster of these three overarching entities acting as separate entities is fundamentally unnatural. They also address an issue related causally, developmentally, and conceptually (Oliver-Smith, 1996).

Despite the above approaches, the recent studies lack cultural and interconnectivity aspects among people among the clusters of the communities during and after the disaster for creating resilience.

The social science literature on the disaster has been analyzed from different perspectives and put into different policy frameworks and actions. These perspectives and frameworks have been discussed below.

2.4.1 Social Capital Framework

Initially, two social scientists, Putnam (2000) and Bourdieu (1986), contributed to studying social capital. Putnam's concept of social capital has three components: moral obligations and norms, social values (especially trust), and social networks (especially voluntary associations). Meanwhile, there is also an earlier concept of social capital, developed by Pierre Bourdieu in the 1970s and early 1980s. Bourdieu's concept is connected with his theoretical ideas on class (Siisiainen, 2003).

Social capital is the relationship between people based on norms of mutual support and the network extended within and beyond the community. Therefore, social capital has two components: first, it is a resource connected to group membership and social networks, and the second characteristic is social capital based on mutual cognition and recognition (Bourdieu, 1986). The analysis of Nakagowa and Show (2004) exemplifies that conceptual shift noted by Portes and Landolt whereby social capital is regarded as an attribute of the community (following Putnam), not as an attribute of the individual, as originally formulated by Bourdieu, Coleman, and others (cited in Portes & Landotl, 1998,).

Conceptualization is most common in the Quarantelli (1998), disaster and development literature, for instance. They conclude that the communities' social capital and leadership have been the most effective elements in enhancing collective

action and disaster recovery. This conceptualization is a possible unifying framework for the disparate interests of disaster and development, theory, and practice.

Woolcock and Narayan (2000) note how the literature has embraced all the social science disciplines and offered researchers, policymakers, and practitioners opportunities for cooperation and dialogue regarded as crucial for both conceptual and operational advancement. Scholars like Giddens (1991) argues that access to culture and social organizations is central to the long-term coping and resilience of a population in disaster. They state that in the Pied-noir case study, the role of culture in recovery is most visible once the short-term physical needs of the people have been met. For this reason, I suggest that disaster research would benefit from both longitudinal studies of post-resettlement trauma and the examination of the importance of community identity and culture in coping and recovery.

However, Aldrich (2011) distinguishes between three types of social capital; bonding, bridging, and linking. The first consists of social bonds within kin and ethnic groups and emphasizes high levels of familiarity. The second connects members of different kin/ethnic groups, creating extra-local networks and broader identities. The third creates social networks across class, power, or authority gradients in society. He also argues that social capital is the main engine of long-term recovery from disaster and an essential form of community revitalization and resilience. Therefore, it is essential for fixing social infrastructure and, in the case of associations, helping individuals and families to access key elements of culture, identity, and collective memory.

Community-based approaches have become the dominant paradigm in both disaster and development. Communities can represent both inclusion and exclusion and thus cannot be regarded as an undiluted social good. Social capital must be recognized as also having a downside. The theory is thus open to abuse through its purely technical application to disaster and/or development field study (Fordham, 2007).

Resilience and social capital are interrelated domains in the anthropology of disaster, which would provide a wide perspective in academia and practices. It is important to understand how social capital prevailing in local communities plays a

role in resilience is a key concern in anthropology. Based on the above context, however, social capital is often regarded holistically as an undermined domain of social science research.

2.4.2 Livelihood Framework

The concept of livelihood is the means of gaining or securing a living, including livelihood capabilities and tangible and intangible assets. A livelihood comprises the capabilities and assets, including material and social resources, and activities required for a living (Arun, 2004). A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future while not undermining the natural resource base. Livelihood security refers to secure ownership of, or access to, resources and income-earning activities, including reserves and assets, to offset risk, ease shocks, and meet contingencies (Chambers & Conway, 1992).

Meanwhile, Babbie (1995) states that livelihood strategies have focused on the individual, family, and village as a unit. Some approaches focus on the market, raw materials, production, skill, and infrastructure. Participatory tools like Participatory Rapid Appraisal (PRA) have been developed and tailor-made to help analyze livelihood scenario and generate pointers for interventions. While these approaches give us a wealth of data and information for designing interventions, there is uncertainty about whether they are appropriate. At the same time, we must be cautious of situations where interventions that benefit one group hurt another.

Arun et al. (2013) mention that there are six core principles of the sustainable livelihood approach: to reduce social vulnerability, they are people-centered, responsive and participatory, multi-level, conducted in partnership, sustainable, and dynamic. The external support is to fit into the current livelihood strategies of the people. The sustainable livelihood framework has value as an analytical tool exploring local people's livelihood priorities and how interventions affect them. The approach synthesizes the perspectives of different disciplines and looks beyond cash flows, direct impacts, and positive impacts to the wider range of issues that matter to people. Meanwhile, livelihood analysis generates practical recommendations to enhance the design and implementation of initiatives. It equally argues that the six

core principles of sustainable livelihoods were never people-centered, were not responsive and participatory, were not carried out at the multi-level, were not conducted in partnership, thus, and were not sustainable and dynamic. Therefore, the external support did not fit into the current livelihood strategies of the people (Arun et al., 2013). Meanwhile, Cannon (2006) analyzes that vulnerability reflects the institutional setting and also defines the overall context in which a person or a community experience and responds to the negative impact of a hazardous event.

Douglas and Wildavsky (1982) note, for instance, that scientific ratios assessing risk levels are incomplete measures of the human approach to danger since they explicitly try to exclude culturally constructed ideas about living "the good life." Risky habits or dangerous behaviors conform to lifestyles and thus become evaluated within other social and cultural phenomena being assessed. Food, money, or lifestyle may outweigh perceived vulnerability (Turton (1977).

Torry (1978), Zaman (1989), Tobin and Whiteford (2002) have shown some adaptive coping strategies that even relatively isolated world populations have traditionally used to respond to and cope with disasters from the environment, such as flood, drought, conflict, earthquake, volcanic explosion, and disease. However, the holistic approach is missing in their study.

As indicated above, the sustainability framework stresses the compatibility of the housing structures with the surrounding environment and local needs. This also refers to local people's ecological adaptation and suitability with new housing structures and their engineering. The assessment of the reconstruction interventions with the local needs and adaptation to the local environment is rare in global anthropological literature.

2.4.3 Nature-culture Perspective

Oliver-Smith and Hoffman (2002) state that disasters have an important cultural dimension. Disaster impacts culture, and culture contributes to disasters. There is a dialectical interplay between culture and disaster. It is also clear from the above quick discussion that the field of disaster research has begun to take a cultural turn. While other fields of study have gone much further down that path, disaster research is building momentum. In addition, as the studies reviewed demonstrate, the cultural path

is worth pursuing. In terms of a rationale for studying the popular culture of disaster, there are important conceptual and applied reasons for this type of research. At a conceptual level, work in this area should sharpen the understanding of popular culture more generally and inform ongoing debates about the role of elitists and locals in the production of culture (Oliver-Smith & Hoffman, 2002).

In the context of the globalization process, disasters are undertheorized and require an analytical approach that encompasses all the factors leading to their occurrences, especially from the vulnerability framework. Anthropological analysis of catastrophes began in the 1980s. It approaches the topic from a holistic and evolutionary perspective. It emphasizes the roles of history, social structure, political economy, and resource procurement in constructing vulnerability to calamity (Singh et al., 2013).

The conceptual value of studying the popular culture of disaster may not be obvious to some, but it is substantial. In the broader areas of social and cultural theory, popular culture can be analyzed in two vastly different ways (Mukerji & Schudson, 1991). Some theorists consider popular culture synonymous with mass culture and view it negatively. Drawing on the concept of hegemony (Kurtz, 1996) and the idea of a culture industry (Horkheimer & Adorno, 1996), they view popular culture as something that is produced by social elitists to control, which appeases the masses. Control is exerted by influencing people's understanding of public issues, shaping the tastes and preferences of consumers, and silencing genuine political debate (Holt, 2015; Mills, 1959).

From the perspective of cultural populists, culture is produced from the bottom, not the top. Mass society models emphasize elite ideological control; populists view culture as something that is locally produced and empowering. There are also important applied reasons for studying the popular culture of disaster. The role of culture must be understood whether one is concerned with disaster preparedness, response, recovery, or mitigation. In some instances, such as in the case of disaster subcultures, culture serves as a source of resilience for local communities. However, in other situations, culture contributes to disasters (Wenger & Weller, 1973).

Bunkle (2006) states that social scientists have learned much about the human

response to disaster over the past 50 years, particularly regarding social structure. They have shown, for example, that societies are resilient to disasters in large part because elements of the social structure, such as organizations, become flexible and adaptive in responding to extreme events. They have also revealed ways in which stratification within the social structures encompassing race, class, and gender makes some groups more vulnerable to disaster than others.

Meanwhile, disaster offers a lens through which we view the relationship between ideological and material culture. Cultural construction and the way they are enacted are often posted against the realities experienced in disaster preparation, impact, and recovery. People formulate the meaning of what has occurred, and another aspect of the social process comes to light in the formulation process. Numerous interpretations of events are produced, bringing up control of definition and story along with talks of praise and vilification (Feldman, 1995).

In recent years, studies stressing the impacts of past natural disasters on ancient societies have increased dramatically, although most of these are still authored or inspired by natural scientists and astronomers rather than archaeologists (Ambrose, 1998). For instance, Tobin and Montz (2009) provide a graphic catalog of disasters during the typical single year of 1985.

If we look at the modern world as a model for what we might expect to find in the past, we find that severe climatic events wreak havoc on human communities, destroy homes and livelihoods, and inflict high levels of mortality that are surprisingly frequent and widespread.

Torry (1979) provides a clear vision of the role of anthropologists in the specific context of relationships between human culture and their environment. Anthropology attempts to engage its subjects holistically and comparatively, placing its focus on the broader context of human interactions in contemporary, historical, and pre-historical times, as well as the interrelationships between cultural, social, political, economic, and environmental domains. In its approach to studying disasters, this has meant calling attention to how risks and disasters both influence and are products of human systems rather than representing simply isolated, spontaneous, or unpredictable events. There is a special concern with how cultural systems (the beliefs, behaviors,

and institutions characteristic of a society or group) figure at the center of that society's disaster vulnerability, preparedness, mobilization, and prevention. Anthropologists often work in the developing world, where vulnerability to disasters is the highest; they have been positioned to comment on issues like risk, change, management, and assistance. The anthropological perspective provides a holistic picture of disaster phenomena under consideration (Turton, 1977).

Disaster always impacts human communities and their everyday life. The nature and culture relationship always valued in anthropology of disaster. The holistic explanation of such impacts is yet to be revealed in the anthropological domain for theoretical, methodological, and policy-level value addition.

2.4.4 Risk and Vulnerability Framework

Some scholars (Bourke, 2005; Flynn, 2004) have used cultural narrative perspectives to understand disaster risk and vulnerability. Ideas about how people are likely to cope in an emergency or a disaster are shaped by prior experience but also by a cultural narrative that creates a set of expectations and sensitizes people to some problems more than others. It provides a frame through which people understand and make sense of their experiences.

Bourke (2005) suggests that the two distinctive features of today's fear culture are the independent existence of fear as a problem in its own right and the unstable, free-floating, and raw character of fear. There is little consideration by policymakers of the possibility of reducing our vulnerabilities rather than just prevention, remediation, and damage limitation. One of the terms commonly used by anthropologists of disasters is vulnerability (Bourke, 2005). It is an interesting choice of words in that it anticipates a delicate imbalance; it empowers the observer to predict disaster retrospectively. Vulnerability means the "characteristics of a person or group in terms of their capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard" (Blaikie et al., 1994).

According to Flynn (2004), the sources of our vulnerabilities are threefold. The first are concentrations of energy, such as explosive and toxic substances (largely industrial storage and process industries), highly flammable substances (e.g., dry or diseased woods, brush), and dams (one of the concentrations we can do little about).

The second is concentrations of the population (in risky, though desirable areas), especially when high-density populations also have high concentrations of explosive and toxic substances. The third is the concentration of economic/political power, as with concentration in the electric power industry, on the Internet (e.g., the "monoculture" Microsoft has created), and in food products such as beef and milk. Concentrations of economic and political power allow the concentration of energy, generally using deregulation, and these tend to be where there are concentrations of populations. Flynn's (2004) vulnerability perspective is also useful for understanding the effects of earthquakes. It provides sources of vulnerability in three forms.

In the process of recovery, cultural boundaries have been reinvented, and culture-based discrimination has resumed. During this process, some people and community groups sought advantages while others were deprived of benefits and opportunities for recovery (Flynn, 2004). Despite the indiscriminate effects of disasters, it is generally recognized that disaster risk and vulnerability are not equally distributed, particularly in the recovery state. Thus, the recovery process is seen as sensitive to ethnicity and social stratifications, especially those that emerge post-disaster (Enarson & Fordham, 2000; Morrow, 1997). Moreover, culture and social organizations are central to the long-term coping and resilience of a population in disaster. It is also suggested that disaster research would benefit from both longitudinal studies of post-resettlement trauma and the examination of the importance of community identity, culture, and recovery (Hollenback, 2012).

Along with the natural and physical vulnerabilities, there are economic, social, political, technical, ideological, cultural, educational, ecological, and institutional vulnerabilities (Patnaik, 1996). A local reading of these vulnerabilities will differ from that of an outside observer. If we look at the shape that recovery efforts are taking and where discourse tends to be the most active, the affected people perceive themselves to be economically vulnerable above all else, followed closely by political, institutional, and technical vulnerability (Fritz, 1996).

Disasters divulge matters of time and space use. They bring to the fore the power of place attachment. They undrape canons and laws, customs and practices, the novel from the entrenched tradition. In this way, disasters often reveal the deeper

social grammar of people that lies behind their day-to-day behavior. Disasters also display and articulate the linkages between the local community and larger structures (Oliver-Smith & Hoffman 2002). Disasters result from a complex mix of natural hazards and social-political and economic processes. The socio-historical, political-economic, or vulnerability approach does not deny the significance of natural hazards as trigger events. It also focuses largely on the structural and systematic cause that generates disaster by making people vulnerable. Studies (Zaman, 1989; Winchester, 2014) have projected how disaster impacts are compounded by the pattern of resource control, land ownership, local stratification, and inequities that define the everyday lives of disaster victims (Zaman, 1999).

Oliver-Smith and Hoffman (2002) state that disasters are the procession phenomena that occur over the years through the conjunction of the human population and potential destructive agents of nature and ecology. Disasters have past, present, and future, where they arise from events that people consider sudden, such as an earthquake, drought, and toxic exposure that occurred unperceived over a long period only to be recognized well after their initial manifestation. This kind of disaster becomes unavoidable in the context of the historically produced pattern of vulnerability evidenced in the location, infrastructures, social-political organization, production distribution, and ideology of sociality. The social pattern of vulnerability is a core element of disaster (Oliver-Smith & Hoffman, 2002).

Throughout the full unfolding of disaster far more profoundly than the physical force of the destructive agent, we cannot study disasters in isolation as we need to study jointly with hazards.

Human beings and their social, cultural, and economic factors significantly turn ecological vulnerability into disaster. Hazards and disasters are manifestations of the interconnections of these three factors and expose their operation in the material and cultural world. When hazards threaten and disasters occur, they both reveal and become the expression of the complex interaction of the physical, biological, and sociocultural systems. The development of a society is the development of the environment, and the resulting relations emerge from the multiple continual processes of exchange through the porous boundary between them. One of the fundamental

features to which individuals and communities must respond is the natural environment where they dwell. Most hazards are the systematic elements of certain environments. When hazard becomes activated, the degree to which they bring about the disaster in society is an index adaptation or maladaptation to the environment (Nelson et al., 2015; Oliver-Smith, 2002).

The researcher in the third world countries called for the rethinking of the disaster from a political-economic perspective, based on the high correlation between disaster proneness, chronic malnutrition, low income, and famine potential that led to the conclusion that the root causes of disaster lay more in society than in nature (Oliver- Smith, 2009). No society experiences disaster in the same way or to the same degree. Each undergoes catastrophes in the context of its profile of vulnerability. The same disaster agent shows significant variation in patterns of destruction as well as interpretation of cause, effect, and responsibilities (Nelson, 2015; Smith & Hoffman, 2002).

Meanwhile, anthropologists (Wolf, 1988; Cernea et al., 2000) have also emphasized local models of risk construction and stressed the importance of understanding the socio-cultural context of judgments and indigenous linguistic categories and behaviors about what is dangerous and what is not. They note that public perceptions about risk and acceptability are shared constructs; therefore, they understand how people think about and choose between risks in the study of culturally informed values and their social context of poverty or power. Yet, a holistic cultural approach to disaster management and resilience is missing in the above literature.

2.4.5 Ritual Perspective

Another important issue is associated with the nature, meaning, and purpose of community remembrance following a disaster. The study of communal memory is linked to the studies of the social recognition of death and associated rituals that generally can be traced back to anthropological and sociological roots at the beginning of the twentieth century. Ethnographers such as Arnold Van Gennep (1960) became interested in the general ritual patterns in societies celebrating changes in social status and position. The rites of passage he discussed include those marking the physical and symbolic transition from being alive to being dead, these states being both biologically

and socially defined. Arnold Van Gennep (2004) and Emile Durkheim (1964) have discussed the different dimensions of ritual performance.

Sociologist Durkheim (1964) develops the study of collective rituals, their integrative effects, and how they bind communities together. For him and later sociologists such as Parsons (1917) and Bellah (1975), religious rituals were an expression and affirmation of collective ideals. They functioned to reflect, sustain, and legitimize the social and moral order of society. Such functionalist approaches to ritual are relevant to our study of post-disaster rituals as far as they reflect and endorse a sense of family and community, expressing and reinforcing a shared sense of meaning and understanding, even if that sense of order and meaning has been suspended at a time of shock and loss. Following a disaster, when a fundamental sense of order and security can feel threatened, the potential value of such rituals in reestablishing feelings of control, belonging, and social solidarity within and beyond one's immediate community is understandable. These anthropological and sociological approaches to the study of rituals as symbolic actions make an important link for disaster researchers between the physical or biological status of death and the social aspects. They highlight the nature and meaning of disaster rituals into deeper significance and purpose and the transition they mark between one state of individual and social being and another. They suggest that disaster rituals might also be as much about social and political identity and change as about individual expressions of loss, change, and status.

Human environment creation is an important phenomenon related to nature-culture discourse, including ritual practices. The works of Rambo (1983) and Harris et al. (1966) emphasize the human side of the human–environment creation the human side of the human–environment creation exclusively, focusing on the adaptation of culture to nature while ignoring environmental change to human intervention (Rambo, 1983). Marvin Harris et al. (1966) provides the concept of 'Techno Environmental Determinism,' operating under the assumption that the technological means of environmental adaptation is the prime mover of the Cultural Revolution. Harris asserts that the relationship between technology and the environment determines forms taken by all other aspects of culture.

On another note, Cernea (2000) mentions that the conventional planning approaches that may be displaced and allow only a few to be rehabilitated down adequately protect against risks and loss of entitlements and rights without social safety measures have led to recurrent failures. In most cases, they have been capable of preventing the victimization, recapitalization, and impoverishment of those affected. However, repeated resettlement without rehabilitation has sharply become a congenital defect in many countries' current domestic policies, not just in the planning produced. He mentions that such "development" policies and the resulting planning methodologies must be corrected or changed.

In general, disasters and rituals are studied under the system approach. Although there are various arguments concerning the connection between culture, nature, and disaster in the long term, ritual practices**,** and resilience in terms of housing and resettlement pattern are yet to be identified. The relationship between the disaster-hit communities and surrounding space is a novel issue in the anthropology of disaster.

2.4.6 Political Power Framework

Godelier (1999) and Oliver Smith (1996) argue that disaster, politics, and power are interrelated concepts. Political power is considered an important aspect of addressing issues related to disaster-related problems. According to them, disaster is an opportunity to cause local political socialization and mobilization. Meanwhile, disaster is also responsible for alternations in relations with the state. These themes examine how disaster shapes, maintains, destabilizes, or destroys political arguments and links cultural references. Wisner (2004) and Godelier (1999) provide a model and a detailed suite of variables help researchers define a range of possible responses for a given population. How various models fit for ideology in the everyday economic life of people is a matter of concern. Rather than reducing ideology to justify social order, ideology to us is very material in its consequences. It is the way that we organize our economic behavior, such as through rituals that celebrate productive activities or through altruism, competition, and the reciprocity of everyday life. Godelier (1999) argues that disaster research has become a relatively mature field of inquiry in the last 30 years, and we think the greater theoretical organization of existing material and future research questions would help. The political economy of hazards and disasters

provides one such opportunity to link broader collective processes with the daily life of individuals in their households and communities to understand mechanisms for creating vulnerability before, during, and after extreme events.

Similarly, anthropologists have also noted how disasters can alter political organizations and power relations between individuals, the state, and international actors. Disasters may provide a kind of structuring idiom that allows people to apprehend their political situation and their position of power (or marginality) relative to that of the state. States or political parties can exploit the situation by being major players in relief; relief efforts can bolster the dominant political interests of those already in power (Blaikie et al., 1994).

Moreover, the anthropology of disasters assumes that those suffering under crisis are not empty vessels stripped bare of their cultural makeup; on the contrary, cultural institutions are at the center of a society's disaster vulnerability, preparedness, mobilization, and prevention. It follows that disaster preparedness and relief and reconstruction aid could be more appropriate, efficient, and economical if an understanding of the experiences and perspectives of local communities and institutions were considered. This includes understanding the larger social and organizational cultures that may interfere with practices of sustainable, long-term development (Chairetakis, 1991; Button, 1992).

Political power is one of the components of resilience. But, the impact of the political power of state and non-state agencies is not adequately addressed in the previous literature. Studies on Dalit and marginalized communities are rare in South Asia and even in Nepal.

2.4.7 Gender Framework

Ariyabandu and Wickramasinghe (2005) and Ariyabandu (2006) argue that local cultural norms alone are not the source of women's vulnerabilities. They argue that erroneous assumptions, prejudices, biases, and plain ignorance permeating official thinking also result in women facing a host of discriminatory and exploitative situations in post-disaster situations.

While analyzing the relationship between gender and disaster and assessing the impact of disaster upon men and women separately, Ariyabandu (2006) and Wickramasinghe (2004) argue that the impact and response of disaster differ across the line of gender. Both men and women have different needs and roles to play culturally, and their responses and suffering to disaster vary individually and cross-culturally. It is not that all men and women go through the same process of suffering universally. Gender issues that are manifested at the time of disaster are not the impacts of disaster; rather, they have relevance in the situation characterized by the specific cultural context of a society. Gender relations in society are broadly reflected in gendered identities that are a combination of physical and behavioral characteristics, which set apart boys from girls, and men from women. Similarly, perceptions view how they are differentiated in their roles as men and women. Likewise, attitude is an action guided by perceptions. In addition, status refers to the place men and women occupy in the family, community, and society. Gender relations come into effect in all spheres of life: personal, social, economic, and political; they are not equitable and usually unfavorable and prejudiced towards girls and women.

Importantly, women's roles are rarely represented in leadership and decision-making positions at formal, public levels, as their domain is largely identified within the home and family, even under normal circumstances. This largely concerns social attitudes, accepted norms, and prevailing patterns in the gendered division of labor, which continue into disaster recovery (Enarson, 2008).

Generally, it is found that women have higher life expectancy suggesting that they have higher physical resilience. The unique impact of disasters like earthquakes on gender, especially in the Dalit Community, is yet to be researched profoundly in education, health, economy, and culture.

2.5 Empirical Studies

This sub-section reviews some pertinent empirical literature. Some empirical studies are relevant to state here for extensive explanation and understanding of the status of empirical research in the anthropology of disaster. For easy organization and review of the empirical studies on resilience and disaster, the section highlights

available literature on global, regional, and local contexts. The social, cultural, and livelihood dimensions vary in time and space. Therefore, three categories of empirical studies in the anthropology of disaster are highly relevant.

Globally, there is plenty of literature relating to disaster and resilience; however, there are limited versions of a holistic approach. Morren (1983) notes that Kalahari Bushmen in Africa, on the front lines of disaster as first respondents to drought, can be remarkably effective in limiting loss and facilitating relief. The concept that the level of damage from the crisis would influence the path of recovery is intuitive and was highlighted by Doughlas Dacy and Howard Kunreuther's pioneering work on the recovery process and the federal government's role in hazard mitigation following the 1964 Alaskan earthquake. They argue that it just seems reasonable to assume that the speed of recovery following a disaster will be determined primarily by the magnitude of the physical damage (Torry, 1988). The tremendous damage from Hurricane Katrina flooded approximately 80% of New Orleans. Many believe that the road to recovery will be extended. This would contrast with smaller-scale disasters in North America, such as tornadoes, which may touch and strike only a few homes; in such cases, it may be weeks or months before the lives of residents return to normalcy. It is found that strong networks create communities more resilient (Aldrich, 2015).

In studies of recovery from the early twentieth-century earthquake and fires in San Francisco, California, researchers argued that lower-class individuals had to face more difficulties to restart their lives effectively. Other studies have underscored that many of the victims of Hurricane Katrina in New Orleans were individuals with low incomes and little education. Their livelihoods suffered more than survivors of higher status (Aldrich, 2015). Importantly, Oliver-Smith, writing about immediate responses to avalanches and earthquakes in Peru, notes that previously existing stratifications like class and ethnicity can temporarily disappear in a short-lived wave of altruism. Once national and international aid appears, however, old divisions can re-emerge, and conflicts over access to resources begin again (Oliver-Smith, 1979, 1992). Oliver-Smith (2002) mentions Peru’s five hundred years of earthquakes and their sociocultural consequences.

Meanwhile, Bolin and Kurtz (2018) reveal disaster vulnerability in the first world. Davies et al. (1981) also reveal the consequences of earthquakes and tsunamis in Alaska and note that disaster assistance increased the integration of native groups into the state. Alternately, disaster and relief can stimulate the development of subaltern means, identities, or interests.

Moreover, Robinson et al. (1986) discuss local responses following the 1985 Mexico City Earthquake and note how neighborhood and student organizations recovering from the quake felt empowered to mobilize and demand more accountability from the political party in power. On the top-down biases of emergency relief, anthropology needs to continue to seek practical ways to incorporate local technical knowledge, insight, skills, desires and needs into the management of disaster situations. In this context, local people and institutions identify problems and offer solutions for managing their condition and that local capacity to resist future emergencies. Meanwhile, Morren (1983) is one example who studied Kalahari Bushmen in Africa on relief issues.

Furthermore, Thomas et al. (2009) elaborate on the nuances of social vulnerability: how vulnerabilities compound one another, and what can be done to foster change, ultimately reducing vulnerabilities and building capacity following the Indian Ocean tsunami, Hurricane Katrina, and Chilean, and Haiti earthquakes in different timelines. They assert disaster induces social vulnerability regarding income disparity, gender, class, age, literacy, family, and household.

However, the available studies still lack differentiation of the resilience status and degree within the same linguistic and cultural group. There is heterogeneity in terms of income, capital, assets, and demography. Therefore, a holistic explanation of different resilience factors always carries anthropological interest.

The regional literature focuses on South Asia, including India, Sri Lanka, Japan, and Bangladesh. Sampson (2016) provides an ethnographic analysis of the social, cultural, economic, political, and psychological aspects of the earthquake aftermath in Gujarat state of India. The author explains people of Gujarat experienced the earthquake aftermath - for them. There was chaos and conflict.

Similarly, Gamburd (2013) highlights the tsunami in Sri Lanka in 2004, in which society was poorly scattered. Both rich and poor had lost everything – that was swept away by the flood. However, the poor largely benefited during the reconstruction and recovery period. Examining tsunami aid in Ampara District in Sri Lanka has demonstrated that local social structures and networks should not be ignored in humanitarian aid distributions, particularly when many ethnic and social groups are involved. This will not only fail in contexts such as that of Ampara but also in contexts such as that of Ampara. It also allows interest groups to use such programs to their advantage while further jeopardizing the destiny of the people affected. Disasters are collective, which are being experienced and resolved through social and cultural lenses. At the household and community levels, catastrophic events often result in disruptions of daily life and social routines or a loss of the sense of order and continuity in one's life and identity (Giddens, 1991).

Unlike in Nepal, there were ample opportunities to sell their labor as well as equal opportunities to receive relief and recovery aid. People were very much optimistic about quick improvement and recovery of the situation. The flood of international aid waved to the country opened the door to opportunities for both working-class people and the country at large (Gamburd, 2013). According to the study by Aldrich (2015), many communities struck hardest by the 2011 Tohoku earthquake and tsunami were older, retired residents with little savings and no home or earthquake insurance.

Moreover, Ariyabandu and Wickramasinghe (2005) studied the Kashmir earthquake on gender issues. The study states that women's higher death rates have been attributed to them being more likely to be inside dwellings, which were susceptible to collapsing; many had only limited independent access to health care in the absence of gender-sensitive health facilities and personnel in a socio-cultural context where it is inappropriate for male health practitioners to attend to women. The intensification of women's multiple roles and the invisibility of their contribution to emergency management and recovery were observed post-tsunami (Ariyabandu, 2006) and post-Katrina New Orleans (Enarson, 2005).

Moreover, Nakagawa and Shaw (2004) apply social capital to examine post-disaster communities in Japan and India. Muslims and Tamils have become more conscious of their ethnic identity after the tsunami. Vulnerable groups, comprising artisans, fishermen, laborers, and isolated communities, have not received their fair share of tsunami aid. The tsunami humanitarian aid process failed to make use of public institutions in the district for aid distribution and thereby missed the opportunity to promote accountability and transparency of public institutions (Nakagawa & Shaw, 2004; Giddens, 1991).

Furthermore, Ye et al. (2019) state that the freezing temperatures and heavy snowfall in Mongolia killed more than 8 million livestock, and 44,000 pastoralist families lost all their livestock. They assert that the loss of livestock has an impact on the global capitalist market due to the disasters that the loss of livestock impacts the global capitalist market due to the disasters that occurred from 2008 to 2009.

However, there is a clear knowledge gap on the resilience aspects of marginalized communities like Dalits. The social structure of Nepal and India is based on the Hindu caste system, with Dalits lying at the bottom of the caste hierarchy. The impact of the disaster, including the earthquake, is high on the marginalized community as they have weak social and political connections to governmental and non-governmental agencies; therefore, how they are resilient is a serious concern of this study.

Empirical literature about disaster, earthquake, and resilience in Nepal is limited both in academia and project reports. During the earthquake in 2015 AD, everyone claimed to be highly affected by the disaster. The government and political leadership also failed to categorize them and decided to distribute aid in a rampant blanket approach. As a result, poor and badly affected people were excluded from real aid support, whereas the less affected and privileged community accumulated a high volume of support. Largely, international media houses and right-based organizations, including development agencies, have blamed these poor and underprivileged communities for not fulfilling the minimum building construction code. As a result, large number of rural buildings collapsed and have occurred huge casualties.

Unfortunately, those international media and aid agencies failed to observe those communities' social-economic and cultural hardships (Nelson, 2019).

Standing et al. (2016) reveal that women were more vulnerable than men in Nepal's earthquake in 2015. It was found that there was a lack of basic feminine hygiene products available to displaced women. Due to the taboos around menstruation in Nepal, women and girls may be reluctant to ask health workers for supplies, putting them at risk of violence and abuse. A survey of families displaced from the Kulekhani reservoir, as stated in, Cernea's (1990) work, shows that the poor became poorer after a dislocation. The study highlights the counter-development consequences of population displacement.

Interestingly, one year after the Gorkha earthquake, three new books were published, and one of the previously published books was reprinted. The major books about the earthquake include 'Courage in Chaos' edited by Yogesh Raj and Bhaskar Gautam, *'Apriya April* (Unpleasant April), and *'Nepalma Bipad'* (Disaster in Nepal), written by Ajaya Dixit and reprinted as *Nepalko Mahabhukampa* 1990 B.S. (Great Earthquake of Nepal 1934) written by Brahma Shamsher. These books help get the know-how on Nepal's earthquake on historical patterns. However, they certainly lack ethnographic elaboration. The book 'Courage in Chaos' deals with the rescue and relief responses following the April 2015 April in Nepal. Meanwhile, *Apriya* April (2016) is a collection of twenty-seven Nepali (Fiction and non-fiction) writers dealing with disaster, society, and government agencies. Their work also focused on people's coping capacity, helping behavior, and the impact as a socially constructed phenomenon.

Sudmeier-Rieux et al. (2013) study the landslide-affected communities of eastern Nepal, highlighting factors of landslides with social-cultural and economic resources, cultural resources, and environmental and ecological resources. They highlight several factors, such as communal feelings in the community, and adequate availability of water resources, facilitating the people normalizing their livelihood in rural settings; as a result, local people develop recovery and resilience within a short period. However, the study hardly deals with the resilience and recovery phenomena among socially backward communities.

Meanwhile, the Central Department of Anthropology, Tribhuvan University, extensively conducted research in the earthquake-affected districts on various resilience factors and the status of community people in different social groups. The impact of disaster is high, and more vulnerable in lower social strata communities. The socially backward communities are less resilient after the earthquake. Studies in Nepal in various caste groups reveal that the effects of the earthquake on Dalit communities are high-rated prevalence in the long term (Tamang et al., 2020). Although the study focuses on the resilience and recovery status of different caste groups with influencing factors, it lacks ethnographic and holistic elaboration among the most disaster-hit Dalit communities.

Furthermore, Spoon (et al., 2021) reveals that recovery dynamics focusing on tangible and intangible impacts in highly affected earthquake rural Nepali communities in Gorkha and Rasuwa districts to understand recovery and transformation. The findings suggest that relief and recovery policies and interventions do not account for cultural and biological diversity, history, livelihood, place, or inequalities. Khatri (2021) also asserts the vulnerability and resilience capacity of the Tamang people, including those displaced in the Nuwakot district, revealing that the resilience process is varied at the individual, household, and community levels. However, both studies are lacking in social and cultural dynamics of the relief and resilience process in the most marginalized Dalit communities.

2.6 Identification of Research Gap

Although plenty of studies focus on disasters in social sciences, including in anthropology, scholars working in disaster studies have focused on describing the severity of earthquakes in terms of loss of life, loss of property, and the points registered on the magnitude. So far, research on disaster carried out by different scholars in different time and space have concentrated on how it took place, to what degree it destroyed property, and how it affected human life but has not yet been able to see the behavioral, social, cultural and agricultural issues through the viewpoint of earthquake-hit communities.

In a nutshell, anthropology offers the field of disaster studies through historical, political-economic, socio-cultural, adaptation, or ecological, and broad

comparative, contextual, and cross-cultural perspectives (Hoffman, 1994). Therefore, anthropology also attempts to engage its subject matters holistically and comparatively, focusing on the broader social context of human interactions in contemporary historical, cultural, political, and environmental domains. The holistic approach examines the complex interrelationships between humans, culture, and their environment, from the human actions that may influence the severity of the disaster, social vulnerability, and disaster impact to the range of sociocultural adaptations and responses, including the impact of aid and the infusion of donor money (Dynes, 1993).

Meanwhile, the earthquake is also considered a destructive agent from the natural or technological sphere and the population in a socially produced condition of vulnerability (Smith & Hoffman, 2002). Furthermore, hazards and disasters also challenge the existing structure and organization of society, occur at the interface of society, technology, and the environment, and are fundamentally the outcomes of these features that bring the number of manifest and latent changes in terms of their capacity to anticipate, cope with, resist and recover from the impact of natural hazards (Oliver-Smith, 2002).

As extensively indicated in the above section about the review of theoretical approaches and conceptual frameworks, there is still a lack of coherent theoretical models in anthropology. In contrast, anthropologists have worked in cultural and political ecology, which are useful for understanding disaster and resilience. Moreover, the vulnerability and livelihood of local disaster-hit communities are highly stated domains in anthropological studies that certainly invite more holistic elaboration.

Global, regional, and local literature still lacks on the most marginalized communities. Dalits are a marginalized and socially backward community in Nepal. Nepal's social structure is largely based on the caste system. Therefore, this study is purely based on the Dalit communities of Nepal and how they overcome the impacts of the earthquake. In this context, this study aims to bridge the research gap covering social and cultural domains and the role of state and non-state agencies in a community to be resilient. Some macro-level data on disaster and resilience in Nepal

cover death and damage to houses, infrastructure, heritage, and property. These macro-pictures of disaster studies provide a general trend of disaster and resilience capacity, particularly in quantitative domains rather than covering social and cultural qualitative aspects.

However, such macro-level data are insufficient to understand the local-level dynamics of the disaster and resilience, particularly in socially backward communities. Considering this gap, the study explores the local perspective of the Dalit community's resilience and its associated factors. Studies in anthropology either focus on Dalit work and life or focus more on disaster, its effects, and consequences. An under-linkage between an earthquake and its impact on Dalit work and life has been lacking. This is strongly behind that the study produces new knowledge on the relationship existing between the Dalit community and their response to the disaster-related effects and consequences.

CHAPTER THREE

RESEARCH METHODOLOGY

This is an ethnographic research on the disaster resilience of the Dalit community. This chapter deals with the rationale of the site selection, the research philosophy, tools of data collection, and personal reflexivity. The household enumeration tool was applied to collect quantitative data. Ethnographic fieldwork was carried out by employing participant observation, key informant interviews, group discussion, and case studies were used as major research tools. This chapter presents the process and practice of field research.

3.1 Rationale of the Site Selection

Three reasons attracted the researcher to conduct fieldwork in the Dalit community of Jibanpur in Dhading district. First of all, the district has occupied the front line in terms of physical damages to other earthquake-affected districts. Therefore, the impact of the earthquake was high in terms of death and damage to houses and infrastructure. Dhading is one of the most affected districts by the 2015 earthquakes in Nepal (NPC, 2015). Physical damages by the 2015 earthquake in Dhading district stood in 4th position in terms of effects and damages. This assessment was measured by the National Reconstruction Authority (NRA) on account of physical damages caused by the earthquake. It not only caused physical damage to the houses and cowsheds of local people but also to the livelihood and social and cultural institutions. Second, the study area is physically near the Kathmandu Valley, which helps understand how local people were resilient with the support of state and non-state agencies. Third, the researcher was already familiar with the Dalit community in the Jibanpur area, who had worked with a foreign team to study the coping mechanism of the earthquake victims. Finally, the researcher found that the Dalit community is an appropriate research area to answer the research questions.

Just after the earthquake, the researcher got a chance to work with a foreign team to investigate the coping mechanism of earthquake victims in the Dhading

district. During the study, the researcher observed settlements of caste and ethnic groups. The researcher found a big settlement of the Dalit community in the district. The researcher also observed the weak social and poor economic status of the Dalit community. In other parts of Nepal, Dalit settlements are generally scattered, but in Dhading, their settlement is clustered. This short field visit made the researcher familiar with the Dalit community. At that time, the researcher had a question about why even the areas close to the capital city could not get relief materials at the time of the disaster. From this visit, it was found that getting relief materials for Dalits was more difficult than for other so-called high-caste groups. The Dalits are a socially and economically marginalized community. Therefore, the researcher chose Ward No.4 (Jibanpur area) of Dhunibesi Municipality to explore the resilience practices of the Dalit community.

3.2 Research Philosophy

The research is guided by the trinity of philosophical foundations: epistemology, ontology, and axiology. A brief description of such foundations is presented below.

3.2.1 Epistemological Approach

There are different approaches to producing knowledge in general. Therefore, how knowledge is produced is epistemology. First, positivism, through which the subjective realities of the earthquake, such as impact level, emotion, and trauma of Dalit people, have been observed. Second, constructivism, in which knowledge and findings have been suggested based on interactions and discussions (Denzin & Lincoln, 2005). The researcher has applied both positivist and interpretive worldviews to understand the resilience process of the Dalit community. This research uses qualitative and quantitative approaches to guide the research activities to understand the community's subjective and objective behavior and actions.

3.2.2 Ontological Approach

Ontologically speaking, there are multiple realities or truths based on one’s construction of reality (Denzin & Lincoln, 2005). The community has multiple subjective realities, such as the perception of disaster and socio-cultural factors of resilience. The subjective realities were recorded through key informant interviews,

observation, and discussion using qualitative research methods. The perception of trauma, resilience, emotions, and impacts of the disaster differed from person to person, reflecting multiple realities. Meanwhile, objective realities, such as demographic information, were recorded through household enumeration.

3.2.3 Axiological Approach

The study, in general, is based on the perception and resilience of the earthquake-hit community. It also records the status of the earthquake disaster, resilience, narration, and oral statement**s** of local people. However, the study and the approach of this study are value-free and are not ideologically loaded. The study only reveals the objective and subjective realities without any biases and partial judgments.

3.2.4 Mixed Methodological Approach

Each scientific discipline has developed a set of techniques for gathering and handling data (Bernard, 1988). Anthropologists use qualitative research method tools in natural settings. However, they also got criticism labeled as participatory-centered and subjective-oriented, which might lack measurable terms. However, the trend has been changing. Those qualitative researchers also apply some statistical tools and techniques in their analysis. Fricke (1993) and Dahal (1983) are a few examples of anthropologists in whose works the integration of both qualitative and quantitative methods has been done (Uprety, 2007, p. 6).

This research also blends both qualitative and quantitative research tools to get subjective and objective realities of rescue, relief, and resilience of earthquake-affected Dalit families. In the mixed method, the qualitative approach, which is an enumeration of earthquake-affected families, was applied to get the socioeconomic variables and level of earthquake impact at the community level. Meanwhile, the qualitative data tools were used to interpret and analyze different resilience variables, such as why and how Dalit people became resilient. However, this study has dominantly applied ethnographic tools of qualitative research.

The quantitative approach involved enumerating earthquake-affected families initially at the household level. Additionally, the qualitative approach utilized methods such as group discussions, participant observation, and key informant

interviews for data collection. Anthropologists frequently employ qualitative research in natural settings to interpret phenomena based on meanings. However, this approach faces criticism for being participatory-centered and subjective, lacking the objectivity and measurability found in quantitative methods. In response to this, the study integrated research tools from both qualitative and quantitative methods, as advocated by Denzin and Lincoln (2005).

3.2.5 Ethnographic Approach

The emphasis of the qualitative method is on process and meaning. Pelto and Pelto (1997) state that ethnographic fieldwork involves living in close contact with a research population to observe their daily routines, rituals and social acts, economic activities, and other aspects of cultural behavior. The ethnographic study is the key approach of this study. To study human culture in a holistic framework, anthropologists applied the qualitative research method. Later, the ethnographic research method became the methodological trademark of anthropology.

Meanwhile, the ethnographic method in this study comprised four major elements, field stay, participant observation, key informant interview, and case study. This field research work was designed for one year starting from July 2019, allocating the timeline broadly for literature review, devising proposal, and research design, data collection from the study area and their documentation, and thesis write-ups. The researcher stayed in the field in Dhading district for one agricultural cycle starting in July 2019 for an ethnographic study. During this period, the researcher first developed a rapport with the Dalit communities through formal and informal interactions, discussions, and participation in the marriage ceremony. Once having had a good rapport with the community, the researcher collected data through house enumeration, focus group discussion, and key informant interviews. The informants were informed about the research issues and objectives before the data collection. The detailed elaboration of ethnographic fieldwork experience is presented in section 3.8.

3.3 Nature and Sources of Data

For this research, both primary and secondary sources were used. The primary data was collected through household enumeration and participant observation, photography and videography, key informant interviews, and focus group discussion.

From primary data, information such as demographic composition, household size, literacy, and family income were collected. The visual observation included the construction of new houses and cultural centers in the study area. Meanwhile, qualitative data on resilience factors and local perception of the disaster were recorded through qualitative tools such as field observation, interviews, and discussion.

On the other hand, the secondary data were obtained from different publications and sources such as academic research works, various reports of earthquakes produced by the Nepal government, and international organizations relevant to this study. The researcher also visited libraries in Nepal, India, and the USA to review the literature on the anthropology of disaster that was hardly available online. Therefore, the researcher consulted plenty of literature as secondary sources to get an extensive literature review on the anthropology of disaster.

For primary data collection, the researcher, along with the research assistant, was involved. In the household enumeration, the assistant helped the researcher to collect the data by visiting door-to-door of Dalit families whose houses were completely damaged. The assistant also supported the facilitation of group discussion, whereas the researcher was highly engaged in the key informant interview and observation of houses that were under construction and of old huts used by Dalit people after maintenance.

The primary unit of analysis is the Dalit household with red cardholders. There are 167 Dalit households with red cards in the study area. At the same time, local social and cultural institutions and cultural heritage were also included in the analysis.

3.4 Census and Sampling

Ward No. 4 (Jibanpur area) of Dhunibeshi Municipality was selected purposively, where most of the population was from the Dalit community. The sub-groups of the Dalit were Sarki, Damai, and Kami. The people of the study area were red-card holder Dalits only. National Reconstruction Authority (NRA) provided red cards to households whose houses were damaged by the 2015 earthquake. The total number of red-card households was 167. All these households were enumerated for the study. The record of the families was taken from the National Reconstruction

Authority, Dhunibeshi Municipality office in Dharke, Dhading, as well as local representatives of the Ward No. 4. of Dhunibeshi Municipality, which comprised 13 small settlements where Dalits live in a scattered way. Following is the record of red card holder's households by settlements that are covered in the sample for the enumeration (see Table 3.1):

Table 3.1

List of Settlements Covered in the Household Enumeration

SN	Settlements	Households of Dalits	Nos of Households	Sampling Percentage
1	Tallo Mijar Tol	19	19	11.4%
2	Mathillo Mijar Tol	19	19	11.4%
3	Mathillo Kotkhal	19	19	11.4%
4	Kafle Pani	8	8	4.8%
5	Tallo Kotkhal	30	30	17.9%
6	Neupane Danda	8	8	4.8%
7	Thanti	14	14	8.4%
8	Gairee Gaun	13	13	7.8%
9	Dahar	7	7	4%
10	Jimmawal Gaun	5	5	3%
11	Chhap Gaun	23	23	13.7%
12	Kola Chaur	1	1	0.6%
13	Khani Gaun	1	1	0.6%
Total		167	167	100

Source: Field Survey, 2020

Qualitative sampling was used for the selection of the key informants and focus group discussion. A total of 20 key informants were selected considering their

age above 18, male and female. Meantime, three focus group was conducted in different Dalit settlements.

The household desinity in the Dalit settlements determined the frequency of the key informant interview. However, only one informant was selected from one household as possible. Therefore, 20 informants were also selected from different settlements of Jibanpur. Besides, those NRA engineers who were involved in the reconstruction process of the houses in Jibanpur were also the key informants of the study. Similarly, one academician residing and working in Kathmandu but originally from the study area was also interviewed to understand the historical context of the earthquake. Therefore, the sampling method was purposive, and the rationale for the selection of various occupational groups of key informants was to explore the impacts of the earthquake and the perception of the people of different strata of the community.

Meanwhile, three focus group discussions were held to capture the variation of resilience status among the earthquake-hit Dalit Community's respondents. The discussions were conducted in Kami Thanti, Tallo Mijar Tole**,** and Gairee Gaun to discuss various impact**s** of the earthquake and resilience status. During the discussion female**s** were highly participated in the discussion to reveal pre-, during**,** and post-disaster social relations and roles of family members in the hardship time of the earthquake.

3.5 Data Collection Strategies and Tools

3.5.1 Interview Schedule

A total of 167 interviews were administered with households. The interview schedule incorporated issues such as demography, income, livelihood status, rescue, resilience, and status of house construction of the households. Both males and females were interviewed. The ratio of males and females for the interview schedule was 70 percent and 30 percent, respectively. All red card holders' families in the study area were covered in the survey. The information on the families was obtained from the ward and municipality offices in Dhading district through a review of their documentation and field verification. The Research Assistant (RA) assisted the researcher in collecting data through key informant interviews and household surveys.

The community was already familiar with the research issues through frequent field visits of the researcher and the assistant. The researcher and the research assistant visited door-to-door to collect the data through the household survey. At the same time, direct observation was also made on the status of house construction and cowsheds.

A set of semi-structured questionnaires was developed incorporating different themes such as demography, livestock, and income of the households. Some questions were asked relating to the socio-cultural conditions before the earthquake. Annex 2 presents the questionnaires of the household enumeration.

3.5.2 Key Informant Interview

Key Informant Interview (KII) was one of the major tools for data collection. A set of checklists was designed to contain pertinent questions for the informants (see Annex). The researcher took the interviews at a convenient time for the informants. Interviews were recorded with the consent of the informants. Most of the interviews were held in the evening when informants were free from their daily work. During the field study, 20 KII were executed with various occupational groups, including homemakers, teachers, local elite women, ward members from the Sarki community, shop owners, farmers, and older adults (see Table 3.2). The selection of the key informants was a purposive method covering different occupations and social sectors so that the rescue and resilience process was documented holistically. Therefore, the informants who have knowledge of the social and economic aspects of the earthquake impacts were covered through the mapping of informants.

Table 3.2

List of Key Informants

SN.	Sectors and Caste	Numbers
1	Dalit-Small Business Group /Contractors / Lead Farmers, Local Dalit Elites	10
2	Dalits/Members from Women Group	7
3	Academician in Kathmandu (originally from Jibanpur)	1
4	Brahmin Women Representing Local Government	1
6	An Elderly Person from non-Dalit Group	1
Total		20

3.5.3 Focus Group Discussion

Focus group discussion (FGD) is one of the techniques of the Participatory Rural Appraisal (PRA) method used to generate necessary data and information from the field (Uprety, 2007). For this study, this technique was used to collect information on relief distribution, rescue during the earthquakes, the status of the victims, and the resilience process. Three FGDs were conducted with Dalit women, women from other caste groups, and males in Tallo Mijar Tol, Gauree Gaun, and Kami Thanti clusters, respectively. The number of participants varied from 6 to 12. All of the participants were from similar socio-economic backgrounds. Checklists framed the focus group discussion (refer to Annex 2 for checklist) on the social, cultural, and economic life of Dalit people before and after the earthquake hazards. The discussion was recorded with due consent and the research assistant also helped to document the issues of the discussion based on the checklist. In the discussion, women freely presented their experiences with plenty of information; therefore, such information was then transcribed in the evening in the themes, sub-themes, and categories. Dalit women participated in the discussion revealing the scenario of the earthquake and their roles in the hardship time. They clearly expressed how the rescue process occurred after the earthquake and the process of relief distribution. The social, political, and road bias factors were expressed by the Dalit women in the relief distribution.

3.5.4 Participant Observation

Observation is a primary tool of data collection in the field. An observation checklist was in place to ensure data coverage in detail. Ellen (1993 as cited in Uprety, 2007, p. 6) states that the ethnographic fieldwork not only argues the empirical database of the discipline but also of the strongly held feeling (although not always fully articulated) that the act of having done the fieldwork is a sine qua non for admission to full professional standing and to the recognition by one's peers of the validity of a claim to be an anthropologist.

Engaging in participant observation within the Dalit community as a Brahmin posed a challenging undertaking due to caste ideology and commensality norms inhibiting interactions. There were doubts among participants about how a Brahmin man could sit and eat in Dalit households. Nevertheless, my choice to eat and stay in their homes played a crucial role in establishing trust. Participant observation was conducted along with an informal interview. This helped the researcher to get social acceptance from the research community. The researcher shared the food living with the Dalit Community which created a good rapport with the people. The community people invited the researcher on several occasions for ritual ceremonies such as marriage and worshiping their deity. The researcher developed the field visit schedule, including observation of different Dalit settlements in the study area. First, I visited Bhanjyang of Jibanpur, where I obtained geological information and the situation of different settlements from the shop owner in Bhanjyang. Then slowly, I visited different Dalit settlements as per the schedule. However, the plan had serious impacts due to the COVID-19 outbreak. Meanwhile, there were no strict restrictions imposed by the local government and district administration; however, the researcher followed general precautions.

The primary data collection tool under this study's qualitative method was the ethnography of Dalits earthquake victims in Ward No. 4 of Dhunibeshi Municipality, Dhading district. The observation was a part of ethnographic field research. Information was collected through various forms of field observation, such as physical progress of house construction, size and the number of rooms in the newly built house, livelihood, settlement patterns, labor practices in house construction,

livelihood status, and waiting shed (Chautaro) that were taken care by Dalit people. During the field observation, it was found that some houses were under construction in Mathillo, Tallo Mijar Tol, and Kami Thanti, and most Dalits had already shifted to new earthquake-resilient houses**.** Dalit families also built a toilet in each place at the time of construction of new houses.

3.5.5 Case Studies

A holistic approach was used to understand the case. The case study is a research strategy focusing on individuals, programs, events, policies, and groups (Devkota, 1999). The method follows a case study as a data collection tool to support the statement and arguments. The researcher collected details of cash grants made by the government for earthquake victims. Borrowing loans from the informal institution to complete house construction, debt and interest payment information was collected using case study methods. These tools also helped to understand the relations between and among the Dalit and non-Dalit households. However, this study focused solely on the Dalit community and its resilience process. Meantime, social interactions between Dalit and non-Dalit people during the earthquake period when they stayed together until the next arrangement of shelters are included to reveal the caste relations after the earthquake.

3.5.6 Ethnographic Field Note

The notes include methodological, descriptive, and analytical notes (Bernard, 1988). Three types of notes were recorded in the ethnographic field studies. Note managing was the most important component of this research tool as the field stay provided ample information on various issues on rescue and resilience. This research applied two ways of field note-taking. Firstly, relevant information on the earthquake that was not included in the household enumeration was recorded in the field diaries. Secondly, people's proverbs and sayings were extensively compiled in the field diary in the evening and morning, and proper compilation of rough data was collected during the daytime. Methodological issues and problems were recorded in the methodological note, whereas the descriptive note included the substantial data obtained from the interview, discussion, and observation.

The researcher applied a field note tool for data compilation and management in the field, especially during leisure time. Meanwhile, scattered information was compiled through listening and interviewing people during tea gossip and morning walks and observing their settlement patterns and everyday life. Anecdotes and proverbs of Dalit people were collected and documented in the field note. Such anecdotes and proverbs provide significant meaning and are quoted with their language with necessary elaboration in the data analysis section. However, the proper thematic description was carried out in Kathmandu after the study.

3.5.7 Interview Recording and Transcribing: Substantive and Descriptive Notes

Interviews from key informants and discussions were recorded with due consent from local people. The audio recorder was in place for recording. The research assistant and the researcher together transcribed the recording in the evening. The interview was recorded in Nepali, and the transcript was written in the same language. The transcript was again translated by the researcher into the English language with the required information. Such documented interviews were furthermore analyzed and transcribed in the field note, usually in the evening during field stay.

3.5.8 Analytical Notes

This type of note was a part of the preliminary data analysis. The analytical note was devised based on interviews and transcription from the field note for a causal explanation of data obtained from the field. The note contained data on different themes; rescue, relief, resilience, and socioeconomic status after and before the earthquake.

3.5.9 Data Triangulation

The collected information was triangulated with different methods. The researcher visited the households more than three to four times to get detailed information and triangulation of such collected data. Sometimes, the researcher had to ask the same question to the same informant at two-three weeks intervals to cross-verify the information. This triangulation method was also applied to key informants' interviews. A series of one-to-one meetings and cross-verification were performed to

ensure rescue and relief distribution information. Dalit people often blamed the local government and agencies who supplied the relief for unfair distribution. Therefore, further information on this issue was gathered through cross-verification to get the actual scenario of relief distribution. Along with Dalit informants, the cross-verification was also carried out with the shopkeeper from the non-Dalit community in the study area. Although the study primarily focuses on the Dalit community in Dhading district, the research assistant interviewed key informants from the non-Dalit community in the study area and Kathmandu. The local community, even the non-Dalit community, knew about the research project due to the researcher's long stay and frequent field visits. They were also consulted and interviewed to top up information and for cross-verification. The research assistant also updated the Facebook status frequently as per the availability of the Internet. One of the Facebook friends of the research assistant from the Jibanpur area got information about the field visits through the photo of Jibanpur on Facebook. The friend also provided additional information about the earthquake and recovery status of the Dalit community during a tea gossip in Bagbazar, Kathmandu. The friend said that he was also engaged in rescue and relief distribution during the earthquake in the Jibanpur area. These kinds of activities helped to triangulate the data. From such cross-verification, the relief distribution was unfair. Dalits with political connections and along the roadside got plenty of relief.

3.6 Data Analysis and Interpretation

Data analysis is a process of categorizing, ordering, manipulating, and summarizing data to obtain answers to research questions. The qualitative description is a kind of measurement, an integral part of the complex whole that comprises scientific research (Bernard, 1988). The data analysis in this research includes both qualitative and quantitative analysis tools. Information, for example, educational level, occupation of Dalit people, the status of houses, and livelihood status was analyzed through the computer data analysis software. The analysis of the study is primarily based on qualitative data. The qualitative data was analyzed through thematic classification and description. The related data are organized into themes, sub-themes, categories, and sub-categories based on questionnaire and checklists.

The empirical data with analysis is presented in chapters four, five, and six. The qualitative data are presented thematically to organize the information systematically with themes, sub-themes, and categories. Furthermore, narrations and statements of local people are elaborated, stated, and connected to the related category, where themes are the domains of research findings. Therefore, qualitative data are organized according to the related category, sub-category, and sub-themes. The qualitative data analysis also depends on the presentation of the selected anecdotes and comments of local people.

The collected information was presented in three themes. First, earthquake rescue, cultural dimension, social interaction, including fear and the trauma that happened due to the earthquake. Second, relief mainly includes three sectors; community level, government agencies, and non-governmental agencies engaged during the earthquake relief support programs. Third, the resilience in which the community came into the normalization covering the role of family members, neighbors, community, society, governmental and non-governmental agencies, various resilience factors such as income, family wealth, skills, and community level capital utilization for construction of houses.

3.7 Encounter and Experience of Ethnographic Fieldwork

Before conducting ethnographic fieldwork, the researcher already had preliminary knowledge about the community and few contacts in the Dhading district. The researcher's friend provided initial information on local people, different Dalit settlements, local political parties, and local government. The researcher also applied these contact points and channels to communicate with the research community. This channeling was useful in reaching the community and making arrangements for the research's official entry. The logistic arrangement of the field stay was also managed with the help of a friend. With the suggestions of a friend, the researcher stayed in one of the Brahmin families. It is because the family had good relations with the community members and Dalit people. Therefore, I stayed with this family, although my observation was with Dalits. The family also operated one hotel in Jibanpur, Bhanjyang. Local people used to visit the hotel every day. The distance between the hotel and the researcher's house was about one kilometer. The researcher hired a

research assistant for the data collection. He was also a researcher's student at Tri-Chandra Campus. The researcher rented a spacious room with two beds on the house's ground floor.

The researcher took the help of the research assistant for household enumeration. First, the researcher guided him on data collection techniques and processes. He helped the researcher a lot in field data collection, management, questionnaire survey, focus group discussion management, and recording. After one month of fieldwork, the researcher's stepmother died, and the researcher went to his hometown Kapilvastu for the funeral rituals. In his absence, the research assistant continued collecting secondary data from different government and non-government organizations.

After a fortnight's stay in the hometown, the researcher returned to the field. He was surprised to receive better social acceptance from the research community. They started inviting him to their social and ritual ceremonies. The situation was changed due to the researcher's exposure by one of his newly made local friends. The researcher's local friend found through Facebook that the researcher was a renowned man with a political and social network. One day, they asked the researcher to attend a marriage ceremony in a Sarki house. Generally, non-Dalits are not invited to the Dalit house because the former do not eat food prepared by Dalits. Despite belongingness with Hill Brahmin (so-called high caste), they invited the researcher to the marriage ceremony to bless the bride and groom. The researcher offered Tika and blessed them. They also offered the researcher food and Sagun. According to Hindu cultural belief, the *Sagun* is an auspicious food item provided to visitors by the married family as part of a welcome and greeting. This event helped the researcher to get social acceptance from the research community. After this event, some of the households gave the researcher detailed information. However, earlier, they were skeptical about providing the researcher with detailed information about their family affairs. When the researcher spent long hours with this family talking about their marriage process and everyday life, he came to know the relationship between two sub-Dalit caste groups (Sarki and Kami).

The researcher lent a helping hand in tiny works when he was with community people. This helped him to build rapport with the research community. For example, during the field stay, one of the key informants having extensive know-how about the Dalit community in the study area denied responding many times. He was a local leader from the Sarki community, having nexus with political parties and local government. However, he hesitated to sit in an interview despite the researcher's numerous requests; he did not directly deny the request for the interview. He usually used to sit near the Kami Thanti Chautaro, where *Aaran* is situated, talking with village members. The traditional occupation of the Kami people is ironwork. The place where they make metal utensils is popularly known as *Aaran* in Nepali. After frequent requests, he finally agreed to sit for an interview.

While sitting in the Kami Thanti Chautaro, the researcher requested him to involve in an interview. He told the researcher that he had to bring a sitting stool (*Muda*) from a neighboring village about two hours from the Kami Thanti Chautaro. The researcher also went to the village, carrying him in the researcher's two-wheelers, and it took about 15 minutes for the researcher to bring the sitting chair to his place. After that, he became happy and agreed to sit for an interview.

Dissatisfaction of Non-Dalit Communities

Although the research issues focused on the Dalit community, the study area has a mixed ethnic composition of Brahmins, Chhetris, and Janajatis. From the field observation and review of literature on Dalits and social structure in Nepal, Dalit people are economically poor communities in the study area. Therefore, people from the non-Dalit caste, such as Brahmins, Chhetris, and Janajatis, initially became unhappy with the researcher. The researcher stayed at the house of a hotel owner who was from the Brahmin community due to the availability of rooms and food. The researcher sensed unpleasantness from the non -Dalit community. In earlier days of the fieldwork, they were happy and used to sharing their stories relating to earthquakes. With the passage of time, they realized that the research heavily focused on Dalit people, not them (high caste groups). After a week, those high-caste people did not respond, even in the teashop at Bhanjyang. Dalit people were quite happy with the researcher, whereas elite groups from the upper caste and members representing the local government were not frank with him. An elite group of people felt that Dalits

were highly focused on the reservation and also through studies. According to them, Dalits got more preference in relief distribution too. This research also did not put the Elite class in the center.

Making friends through social media is a new way of rapport building. Meanwhile, the researcher met with some local youths and members of an elite group in the study area. One local youth with whom the researcher shared tea at a teashop in Bhanjyang also got the researcher's Facebook account and connected. He disclosed the high-profile connections of the researcher to the community people, which he searched through social media. Meanwhile, the researcher had not revealed his political connection in the study area for several reasons: to maintain neutrality with the research community, to avoid unnecessary political debate that could divert research issues, to maintain an ethical standard for neutrality, and to establish a good rapport with Dalits. During the fieldwork, the researcher left the field for two weeks due to the unexpected demise of his stepmother to attend the funeral and ritual activities. To his surprise, when the researcher returned to the area, the local people from the non-Dalit caste again responded to him with good hearing and concern.

During the fieldwork, the researcher had a tragic event with the loss of his stepmother. Though there was a research assistant in the study area in the researcher's absence to collect data, the event slightly disturbed the researcher for a couple of weeks. The researcher was deeply connected to his stepmother, so he could hardly return to everyday routine life. The demise of his stepmother slightly altered the field visit schedule.

In November 2020, the researcher had a tragic period with the loss of his stepmother, aged 70 years, when he was with the Dalit community in Dhading district. The hometown of the researcher is Pipara of Kapilvastu district, 267 KM far from Dharke, Dhading. She had been struggling with a disease for five years. Her health condition became serious, and he received many calls from family members. After getting frequent calls from the mother and wife of the researcher, he decided to leave the field for 15 days. Leaving fieldwork to the research assistant, the researcher made his way to his hometown Pipara. The researcher started his home journey with the two-wheelers at 1 AM in the frosty cold morning with a feeling of mourn. There

was no light on the way to Dharke; the rays from the bike's headlight helped locate the steep road at midnight. The trees were cut down on the way to the Butwal Kapilvastu section of the East-West highway for the road expansion project. The journey was cold as it was Magh, a winter month, and the researcher had not enough jacket to forbear the cold. It was painful and full of sorrow due to the demise of the stepmother.

In Brahmin culture, the mourning of death is observed for thirteen days by all the surviving family members, and other near relations observe it only for a day by bathing and fasting (See Bista, 2019, p. 15, for detail of death ritual practices). As all family members and relatives are supposed to participate in Brahmin's ritual death ceremony practices, the researcher also performed thirteen days of funeral rituals for his stepmother and returned to the field area after fifteen days.

The non-Dalit community of Ward No. 4, Dhunibeshi Municipality, entirely accepted the researcher in three layers. Firstly, non-Dalit communities and the elite were skeptical of the researcher and research assistant as our team was highly focused on the Dalit community. They clearly expressed their dissatisfaction over the heavy concentration of research work in the Dalit community. They thought that they (so-called upper caste groups) would be consulted on the issues of Dalits. In their view[1], I took the money from donor agencies and came to their village to show some works rather than academic research. Secondly, when the researcher socialized with the non-Dalit community through tea gossip and by giving them lift in his motorbike, they also started accepting him. Thirdly, when the researcher reached out to one adult respondent through Facebook, the researcher's acceptance, even in the non-Dalit community, was established. The research assistant also received good acceptance even in the researcher's absence. When the researcher returned to Jibanpur after performing the funeral ritual of his stepmother, his understanding of the non-Dalit community regarding the research issues changed positively. The local people now wanted to talk to him in a more friendly and cooperative manner.

Therefore, in mixed ethnic communities, the acceptance of the researcher in the community is very important to get a wide range of information. The wider

[1] They are here with the US dollar.They will not do any research.

rapport-building approach with entire communities, including non-Dalit people, helped the researcher unveil extensive information and opportunities for information triangulation. Despite having his own car, the researcher took his motorbike to the field to create similarity and rapport building with the local community. It would allow the researcher to take the data with ease rather than the complexity of high expectations due to his wealth. The research community also judged the researcher's economic status and affiliation of the researcher. The researcher had a two-wheeler motorbike as a means of transportation. No public bus services were reaching Dalit settlements. The road connecting to the settlements was muddy and earthen. However, the road to Jibanpur from Dharke on the East-West Highway is blacktopped.

The researcher's two-wheeler was in good condition when he started his field study journey from Kathmandu. Riding on the earthen road, conditions on the bike became bad, and it took a few minutes to kick off and start. The research assistant often helped him push the bike, and then it would start. Sometimes, the researcher offered a lift to respondents on their bikes if they were in an emergency. Consequently, they thought of him as a member of their community.

3.8 Ethical Considerations

Silverman (2006) states that methodological concerns need to be addressed, including ethical considerations. More serious research is needed to find how social scientists can professionally yet ethically conduct research amid disaster and afterward. The professional concerns include the identification of methodological biases, such that our work can remain both academically sound and yet policy-relevant.

This study also considered ethical considerations as suggested by Silverman (2006); Beatley (1998); Burby (2006); Babbie (1995), and other social scientists in the study of earthquake victims in central Nepal. Respondents' identities and statements were stated properly, with a serious concern for confidentiality and research ethics. Pseudo names of respondents/informants and places were written to avoid the real identify the respondents in serious subject matters in some cases.

There are also ethical concerns that arise from the researcher's position of relative privilege and power. This is particularly true for international disasters in developing countries, where people experience more extreme forms of vulnerability and stress. Through its concern for local sensitivities, anthropology needs to ask how it may better structure questions and better seek information in ways that inflict the least harm on people under situations of severe duress.

3.9 Limitations of the Study

Theoretical Limitation

The study is limited in terms of theoretical approach as resilience was studied through the theoretical perspective of anthropology of disaster and cultural ecology. These theoretical approaches are insufficient to deal with the whole resilience process. The resilience process is also linked to political and economic factors.

Methodological Limitation

The study only covered red card holders' Dalit families. It does not include the resilience status of non-Dalit families. Therefore, the earthquake-affected families' comprehensive social and cultural status might not have been adequately dealt with in this dissertation. In this context, the study does not claim to have accomplished all its original objectives with the reflection of heterogeneity in the study area.

Empirical Limitation

Although the researcher visited the study area in different timelines in the year 2019 as preliminary field visits, extensive ethnographic research was conducted five years after the earthquake in 2020. Dalit people had forgotten their tragic stories, and it was hard to recall them at the time of the ethnographic study. Resilience is highly focused on the social, cultural, and human side of impacts caused by disasters. The construction of private houses as a real problem faced by local people was also taken into consideration. However, this study focuses on the socioeconomic recovery status of Dalit communities in Jibanpur rather than on the governance of disaster, political institutions, and post-disaster development approaches. Meanwhile, the study also did not quantify perception.

3.10 Operational Definitions of the Key Concepts Used in this Study

Resilience: The term resilience in this study primarily means the capacity of people to cope with an animated disaster like an earthquake.

Earthquake: Earthquake is one of the major forms of disaster, as used in the main text of this study. This means the earthquake in the Dhading district of Nepal in 2015.

Disaster: Disaster primarily means the study of an earthquake disaster.

Disaster Affected People: The disaster affected people, especially the Dalit People who lived in Ward No. 4 of Dhunibeshi Municipality of Dhading district, whose house was completely damaged by the earthquake and who got the red card from the National Reconstruction Authority (NRA).

Jibanpur area: It indicates the entire research area in Ward no 4 of Dhunibeshi municipality of Dhading district.

Dalit Community: In this study, the term Dalit is used to denote the presumed lower caste groups such as Damai, Kami, and Sarki, now collectively called Dalit, to give them a new prestigious status.

CHAPTER FOUR

THE SETTING AND THE PEOPLE

This chapter describes the setting of social contexts where the research has been carried out. It delineates Dalit sub-caste groups, topography, demography, local economy, and livelihood of the study area. The description of these elements is directly and indirectly linked to the resilient status of the local communities, showing a logical and meaningful relationship.

4.1 Physical Setting

Dhading District

Dhading district is situated in Bagmati Province. Dhading is surrounded by Gorkha district in the west, Kathmandu and Nuwakot in the east, Makawanpur and Chitwan in the south, and Rasuwa in the north. The district extends from 27º 40′ N to 28º 14′ N Latitude and 84º E to 85º 1′ East longitude. Tibet also borders the northern frontier region of the district. The district has a total area of 192487 hectares[2] with elevation ranging from 488 meters to 7409 meters from the mean sea level. Ganesh Himal is also located in Dhading district as the highest peak. Lamidanda *pahad* (hill) spread over the study area. The study area is spread over both sides of Lamidanda *pahad*. The hill is directed from the North-East to the South-West. A small river, Maheshkhola, is in the South East whereas Kolpukhola is in the North West direction. According to the 2021 census, the total population in Dhading district is 325710, of which 13843 are Kami, 8484 are Damai, and 16015 are Sarki (CBS, 2021).

Dhunibeshi Municipality, Ward No. 4 (Jibanpur Area)

The study area in Dhading district in central Nepal lies in Ward no. 4 of the Jibanpur area in Dhunibeshi Municipality. Ward No. 4 of Dhunibeshi Municipality in Dhading district was formed by merging previous Ward Nos. 1, 2, 3, and 4 of the Jibanpur Village Development Committee (Municipality Profile, 2017). According to the new political-administrative structure in Nepal, the study area lies in Bagmati Province. Promulgated in 2015, Nepal's new constitution is based on the federal

[2] The information is available at https://shantinepal.org.np/about-us/about-dhading/.

structure that comprises seven provinces. The study area can be reached by motorable road from Dharke on the northeastern side. It is just 7 KM away from Dharke. It is also reachable through Kathmandu Sitapaila Road, with 22 KM in length. The study area is semi-urban, showing characteristics of urban and rural society. The study area constitutes 577 households with mixed ethnic compositions ranging from Brahmins, Chhetris, and Dalits. According to the 2021 census, the total population in Dhunibeshi Municipality is 29149. The municipality constitutes 642 Kami, 509 Damai, and 1325 Sarki (CBS, 2021).

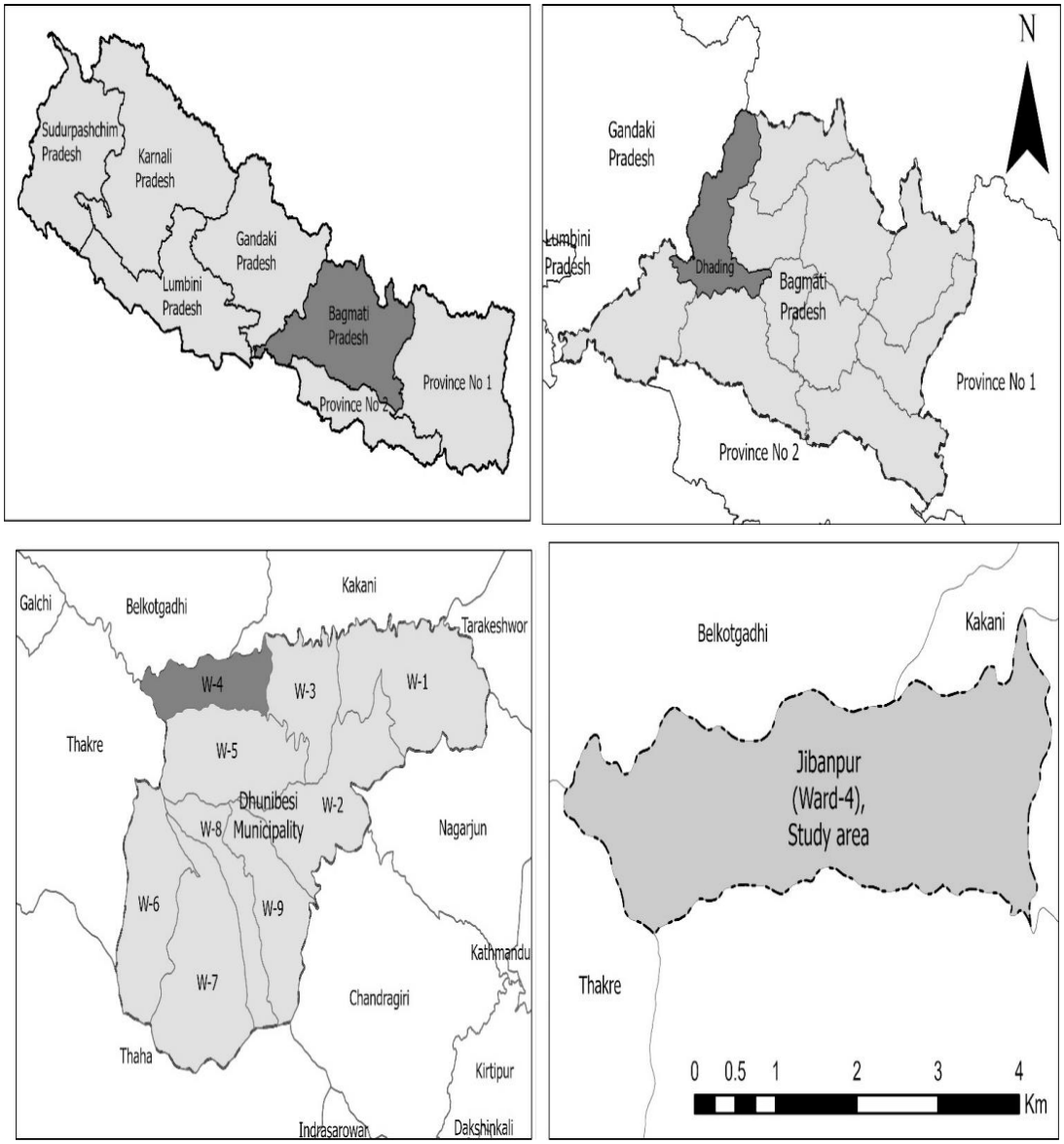
There are several road networks in the study area. The top of the hill motorable road that goes to Kathmandu is the lifeline of local people that is used to supply vegetables and dairy products to the various market centers in Kathmandu. Meanwhile, another road connects the study area to the section of the Pokhara Kathmandu Highway at Dharke. This road is earthen. People use this road to visit the municipality office located in Khanikhola. People who have farming land at Dhunibeshi Phat also use the same earthen road. Similarly, there is one alternative road to Dharke through the upper part of Dahar from Bhanjhyang. However, the road is a bit long, and locals rarely use this route to visit Dharke.

Meanwhile, two small roads lead to the Kolpukhola River. These two roads are busy as local people frequently visit their farming land in Belkhotgadhi Municipality in the Nuwakot district, passing through the river. Likewise, one road passes through the lower part of Tallo Kotkhal, reaching Kaflepani and finally to the Kolpukhola. Another road at the lower part of the Thanti goes to Kolpukhola through Magargaun. However, vehicles often use the road passing through Chhapgaun to Barhabise. This road goes to the Nuwakot district. The road linkage and networks are directly linked to the rescue, relief, and resilience process of Dalit communities. A detailed elaboration is presented in Chapter Five.

There are different clusters of Dalit settlements in the study area. There is an isolated settlement called Dahar which has seven households. The motorable road goes to Dahar via Jibanpur. Dahar is also close to farming land, Dhunibeshi Phat. Four families have farming land in Dhunibeshi Phat.

Map 4.1

Location Map of Study Area



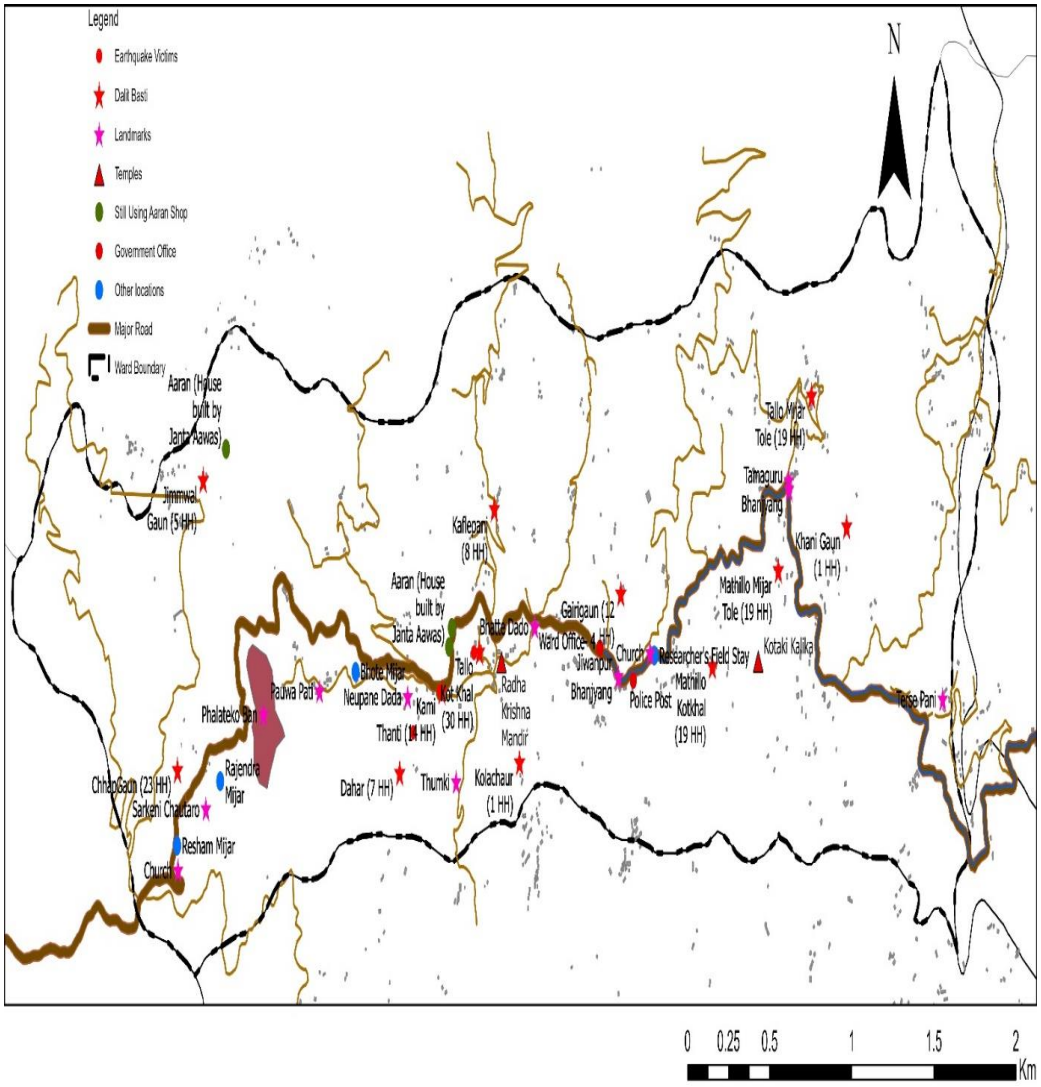
Dalit Settlements

The major Dalit settlements in Jibanpur include Tallo Mijar Tol, Mathillo Mijar Tol, Mathilo Kotkhal, Tallo Kotkhal, Neupane Danda, Thanti, Gairee Gaun, Dahar, and Chhap Gaun in Jibanpur (see in Map 4.1). However, there are 13 settlements of Dalits in Ward Number 4 of Dhunibeshi Municipality. The major Dalit settlements include Tallo Mijar Tol, Mathillo Mijar Tol, Kaflepani, Neupane Danda, Kami Thanti, Gairee Gaun, Dahar, Jimmal Gaun, and Chhap Gaun. These 13 Dalit settlements with 167 households whose houses were completely destroyed and got red cards from NRA are the research respondents of our study.

Their cluster-wise settlement pattern and the number of households are mentioned below (see in Map 4.2). Mathillo Mijar Tol, with 19 families, is further comprised Storemod and Tallo Mijar Tol, with 19 households. Meanwhile, Mathillo Kotkhal also has 19 households. There are eight households in Keflepani and Neupane Danda each. There are 14 households in Kami Thanti, 13 in Gairee Gaun, and 7 in Dahar. There are five families in Jimmawal Gaun and 22 households in Chhap Gaun, one in Kola Chaur, and one in Khani Gaun. There are 30 households in Tallo Kotkhal. The resilience status of Dalits is different cluster-wise with the road networks, availability of irrigated land, and variation in social and cultural capitals in each settlement.

Map 4.2

Map Showing Dalit Settlements in the Study Area



According to the Census report, in 2021, the total population of the Dalit in Dhunibeshi Municipality was 2542, with Sarki of 1384, Kami of 662, and Damai of 495. Dhunibeshi Municipality had a total of 6,759 households. Ward number 9 had the most households, with a total of 899, while ward number 4 had the least number of households, with a total 577 number of households (CBS, 2021). Meanwhile, the total population of Jibanpur is 2554, with 1257 males and 1297 females.

There is homogeneity in the Dalit sub-caste groups in the study area in terms of language, religion, and culture. Three Dalit sub-caste groups generally have similar cultural, social, and economic characteristics except in traditional occupations in the study area.

4.2 Social and Cultural Space

In this section, the researcher briefly presents different places in the study area. They are social and cultural spaces to understand the relationship between local people in the study area. This space provides local people with a meeting place, and people gather on different religious and cultural occasions. In anthropology, such spaces always carry socio-cultural interactions and values. Local people have emotional attachments, symbolic meanings, and belief systems with the places. Therefore, such places are physical structures and communal spaces for local people for sociocultural interactions and relationships.

Bariko Pato

Literally, *Bariko Pato* is an edge of land near the house. It is generally a plain and spacious area. When the earthquake occurred, people left the house and halted in this place for safety. It did not provide production or economic contribution directly to the family but had many benefits and use value. For example, this place is a strategic place where sometimes people use kitchen farming, tying their cattle. *Bariko Pato* is an open place near home that provided social space for Dalit people during the earthquake. For them, *Bariko Pato* is not just the periphery of the land but also became a safe haven where they can stay safe. Meanwhile, it became a place for rescue and relief distribution. Family members and attached neighbors came to this

space for survival when the earthquake came. Local people shared that this *Bariko Pato* was a safe place for the villagers, where they gathered and discussed immediate rescue plans. They stayed there in locally available tents. They cooked the food and shared their feelings there.

Kami Thanti Chautaro: Identity of Kami

People stayed in the open space of Kami Thanti during the earthquake, where their houses were destroyed into debris. Kami Thanti Chautaro is situated in Dhunibeshi Ward No. 4 in the middle of Jibanpur. This Chautaro is also a popular resting place for villagers and is situated at the height from where a picturesque panorama is seen. At the same place, there was *Pauwa* (resting place) constructed by the ancestors of Kami. *Pati* and *Pauwa* are popular resting places in Nepal, especially in the hilly region. Pedestrians and pilgrims traveling to their destination used to stay in Pati/Pauwa at night. Earlier, there were no hotels and restaurants like today, and Pati/Pauwa provided shelter for travelers. Therefore, the name of this place was coined Kami Thanti. But the Pauwa was destroyed 30 years ago due to a proper lack of conservation and renovation.

Near *Chautaro* (waiting shed), a woman's family was also running a grocery shop in her house. She was elected women's representative in the Ward office. She was in her forties and from the so-called upper caste. The house was also very close to this *Chautaro*. It was revealed that the land was bought by the woman's family fifteen years ago. Once they bought the land, they started to build a new house. Although informants were hesitant to disclose the land encroachment of the *Chautaro* premises by the family, the observation of this area revealed a high chance of unlawful land occupation.

The nomenclature of Kami Thanti is associated with the name of Dalit people. This place represents the history and identity of the Kami caste group and emotionally connects all Dalit caste groups to the study area. Kami Thanti *Chautaro* was coined with the name of the Kami caste group. Kami and Sarki people still feel proud of this name and place.

This *Chautaro* with the giant Peepal tree had emotional and historical significance for the Kami and Dalit people. They had their deity *Bhimsen's* idol at the bottom of the Peepal tree, to whom they used to pray with utmost reverence. Juthe Kami (a local person) says that the Peepal tree was almost 200 years old and was revered as Lord Bishnu's incarnation (the Hindu Trinity protector). Along with that, villagers played swing in that Peepal tree during the Tihar festival. It was also a place of local judgment where the Mukhiya (village leader) resolved the conflict between the two parties. Although Thanti was damaged by the 1934 Earthquake, the Peepal tree represented Kami Thanti, a monumental idol for the Kami People. Still, Ram Bahadur, a person from the Kami caste, runs a traditional occupation (Aaran) near the *Chautaro*. But, after the 2015 Earthquake, the tree was cut down without consultation with the Dalit stakeholders by showing the risk of the Peepal tree dismantling the nearby house of a ward member (from Brahmin caste). It is taken as an outrageous step to wipe out the identity of the *Kami Thanti* by the local Dalit people.

A new cemented *Chautaro* was constructed by the local government after the earthquake. According to local people, this new *Chautaro* did not reflect their identity as there was no *Chautaro* with a big *Peepal* tree. A new cemented *Chautaro* was planted with a *Sami* tree, which was different species than Peepal (Sacred fig). But, interestingly, that new sapling of Sami tree was uprooted time and again until Peepal was planted there. As the local government argued, the Peepal tree's presence was also a risk to the grocery shop and pedestrians. The local government allocated the budget for the construction of the *Chautaro,* destroying the previous one.

People from both Dalit and non-Dalit communities opined that the place was not built with a historical theme and design. People used to gather there and sing Khayali songs at festivals, such as Dashain and *Maghe Sankranti*. According to Jiban Ram Regmi of Jibanpur, the singing of the song lasted for three to four days during different Hindu festivals during the paddy-harvesting season. Kami and Magar people were popular in singing the song. Once they started singing the song, it was believed that *Saraswati Devi* came into their throat. They continued to sing melodies of *Khayali* songs due to the divine power of the *Sawarasati*.

There is a newly constructed *Chautaro* (waiting shed) in Kami Thanti (see Figure 4.1). Two versions represent two social classes of the newly constructed cemented Kami Thanti Chautaro. First, a representative from local authorities represents the upper class and local elite. Second, the Dalit community has preserved the *Chautaro* as a gift from their ancestors. Bidur Mijar of Mathillo Mijar *Tol*, who is also a member of the local government, argued that cutting down trees was a must with cutting down of the *Peepal* since it was very old. He said, 'That tree was older. There was fear for pedestrians due to this tree.'

Jiban Regmi, a shop owner who represents the so-called upper caste group in Jibanpur, strongly argues that cutting down the tree was not good. He said there was no proper discussion with Dalit people about cutting down that tree. He states that the place is of the trust and belief of Dalit people. The tree had to be preserved.

Local people and a member of the Dalit people, Krishna Bahadur Kami, argued that renovation of *Chautaro* was possible in a way that could preserve their ancestral identity. They argued that their Chautaro and Peepal tree, with ancestral significance, was uprooted in the name of an Earthquake. They believe that this tree would not fall during the earthquakes and did not fall too during the 2015 Earthquake. However, two informants representing the local government strongly argued that cutting down the tree was necessary since it became older and dangerous to nearby houses**.** This shows how in the name of natural disasters, there have been instances where places of historical importance have been wiped out artificially.

Figure 4.1

The Pre-and Post Disaster Photos of Kami Thanti Chautaro

Sarkini Chautaro: Identity of Sarki

The expansion of a new motorable road nearby has destroyed the significance of traditional *Sarkini Chautaro* in Jibanpur. Bhote Mijar preserved *Sarkini Chautaro* by utilizing the money from selling his *Bari*. *Sarkini Chautaro* is an identity of the ancestors of Bhote Mijar. He is 85 years old now. This is an example of the Sarki People preserving historical and cultural places in Jibanpur using their resources. This *Chautaro* was made by Deurupi Sarkini, grandmother of Bhote Mijar, with a plantation of *Bar* and *Peepal* trees. It is situated in *Deurali Danda* between the forest in *Falate* and *Acharya Pokhari*. Later, the place's name was coined *Sarkini Chautaro* preserving the identity of the *Chautaro* maker. The Sarki people consider the *Chautaro* as the gift of their ancestors.

Father of Bhote Mijar used to maintain the *Chautaro* in every Bhadra (September) of each year till 2046 B.S. At that time, his neighbors and friends used to gather to help him maintain the place. After his father's death, there was no preservation of this *Chautaro,* which became bushy and looked wild. Later, Bhote Mijar invited neighbors to maintain the place, but nobody came. Then he started to preserve the place with his own efforts. He also spent about 56,000 of his money on buying stones and other construction materials. He also worked alone for four months to make the wall of the *Chautaro*. Again, he called the villager**s** to help him, but only four people came forward for help. Moreover, he has a further plan to build the *Chautaro* with a cemented wall, but he has not enough money. He has a strong determination to conserve this *Chautaro*. He also requested the local government and the Ward office Chair to allocate the conservation budget. Before his death, he had one dream: to renovate this place in utmost good condition so the upcoming Sarki generation could know *Sarkini Chautaro*. He is also worried about cutting off Peepal trees in *Kami Thanti Chautaro*. The section of the road that passes through this *Chautaro* was the historical road network for pedestrians from Pokhara, Tanahu, and Gorkha visiting Kathmandu. At that time, pedestrians stayed in Jibanpur the night before constructing the Pokhara Kathmandu highway.

Bhanjyang: Local Market and Information Center

Bhanjyang is the local market and information center of the study area. Dalit people and non-Dalits usually visit the Bhanjyang teashop of Jibanpur. Bhanjyang is one of the local marketplaces. Local people, particularly household heads (male), visit the place to sell milk in the dairy and buy groceries. The market center usually has more than 100 people every morning and stays about one and a half hours on average daily. There are separate tables and benches for Dalits and other caste groups. Dalit people sit on the bench outside of the shop, whereas Brahmins and Chhetris used to drink tea on the bench inside the shop. However, there were no restrictions and taboos to sitting inside the shop. They were habituated to sitting in a separate row of tables. However, Dalit women were unhappy with this trend of visiting Bhanjyang with their male members daily. They considered it simply a waste of time and money. The time can be utilized for household chores and could have a productive time. Dalit women said, 'it is better to help us at this time rather than visiting to Bhanjyang. We (*Mahila)* have a very tight routine, but they visit the place only for talking and drinking tea.'

On the other hand, the Dalit male stated that visiting this place provided them with new information and activities happening in their village. They considered it as an information center, and visiting everyday morning has rationality. Similar types of local market centers were functional, particularly in villages in hilly areas in the country before market penetration of communication like radios, television, and the Internet. Such centers and local tea shops provided information to villagers, not only about Nepal but also about the whole world.

This local market center also provides a platform to update how local people perceive and think about my research through the shop owner, who is from a non-Dalit caste group. My research assistant and I usually ate food in the morning and evening in that shop. Earlier people, particularly from the non-Dalit background, were unhappy with us. From this center, the researcher understood the mindset of local people of both Dalit and non-Dalit groups on the academic research project and how they think about the research assistant and me. The different sections of society accepted us at the different timelines of the field study. First, the Dalit community had accepted the researcher and provided information as requested, hoping that the

research issues were closely tied to them. Other caste groups were susceptive and not friendly to the researcher due to his high concentration in the Dalit community. Second, once the researcher went to his homeland to perform the death ritual of his stepmother and was back in the field after two weeks, the entire perception of non-Dalit communities also changed positively. They accepted the researcher in a more friendly way.

4.3 Socio-Economic Characters

Demography

Demography is an important socio-economic character in social research. This study assumes household number, family size, and male and female composition as major demographic characters. The Jibanpur area has a mixed caste composition with Brahmins, Chhetri, Newar, and Dalits. Ward No. 4 of the Municipality constitutes 205 Dalit families. Of the 205 households, 167 Dalit families had fully damaged houses with red cards. Sarki is a major sub-caste group of Dalits in the study area. In the household enumeration, one-hundred sixty-seven informants were covered. Dalit caste group includes Damai with ten households, Kami with 22 households, and Sarki with 135 households (see table 4.1).

Table 4.1

Dalit Sub-caste Group in Study Area

Dalit Sub caste Groups		
Dalits Sub Caste	**HH Number**	**Percent**
Damai	10	6.0
Kami	22	13.2
Sarki	135	80.8
Total	167	100.0

Source: Field Survey, 2020

The average household population in Dalit is 4.77, with males 394 and females 403, as Table 8 shows above. The average family size of the study area is similar to the national level average family size. The average family size is slightly

seen higher among the Damai group. Although, the study is not relating to how household head composition impacts the rescue and resilience phenomena of the local community. Interestingly, the study area is dominated by the female household head, with 403 against 394 male household heads (see Table 4.2).

Table 4.2

Male and Female Household Head Composition

Caste/Ethnicity	Average HH Population	Total Male	Total Female
Damai	4.90	25	24
Kami	4.86	53	54
Sarki	4.75	316	325
Total	4.77	394	403

Source: Field Survey, 2020

Marital Status

For the study of rescue and resilience, the marital status of informants is not directly linked. Meanwhile, it was important to reveal the status, because married couples have responsibilities to their families and children, particularly feeding them and taking care of their expenses. Therefore, the marital status was counted in terms of unmarried, married, widow/widower, and divorced/separated as part of the demographic information. It was found that 82 percent of informants were married (see Table 4.3). Informants from the Sarki community revealed a high tendency to divorce after the earthquake because of the financial hardship they had. However, only 5 percent of respondents had divorced or separated from their spouse.

Table 4.3

Marital Status

Caste/ Ethnicity	Marital Status								Total
	Unmarried	Percent	Married	Percent	Widow/ Widower	Percent	Divorced/ Separated	Percent	
Damai	1	0.6	9	5.4	0	0.0	0	0.0	10
Kami	0	0.0	18	10.8	4	2.4	0	0.0	22
Sarki	5	3.0	110	65.9	12	7.2	8	4.8	135
Total	6	3.6	137	82.0	16	9.6	8	4.8	167

Source: Field Survey, 2020

Educational Status

In general, education plays a major role in the resilience process with informed decisions and management after a disaster like an earthquake. Therefore, the presentation of the educational status of informants was about how education plays its role in the resilience process. It was found that the majority of informants, 111 out of 167, had no formal schooling. Meanwhile, only 34 percent of informants have formal education from grades one to twelve (see Table 4.4). Formal education is not a dominant resilience factor, as only seven informants have a high school education. Although, the study by Tamang et al. (2020) reveals the impact of education on the resilience of local communities.

Table 4.4

Educational Status

Caste/ Ethnicity	Educational Level									
	No formal education	Percent	1 to 5	Percent	6 to 10	Percent	SEE	Percent	Plus 2	Percent
Damai	3	1.8	3	1.8	2	1.2	1	0.6	1	0.6
Kami	17	10.2	1	0.6	4	2.4	0	0.0	0	0.0
Sarki	91	54.5	13	7.8	21	12.6	6	3.6	4	2.4
Total	111	66.5	17	10.2	27	16.2	7	4.2	5	3.0

Source: Field Survey, 2020

4.3.1 Occupation and Livelihood

The occupation and economy of Dalits have a key role in resilience. The livelihood patterns of local people of mixed types with agriculture include livestock rearing, *jyala majduri* (wage labor, both skilled and unskilled), small business, traditional occupation, and household work. The traditional occupation of the Sarki people is leatherwork, that of Kamis is ironwork, and Damai is tailoring work. However, agriculture also dominated occupation with 80 percent, including animal husbandry and cash crops such as vegetable farming. Informants (8 percent) also had businesses on both small and large scales. Then, wage labor, both skilled and unskilled workers, included 7 percent. Meanwhile, five informants had the traditional occupation of ironing and leather works (see Table 4.5). However, foreign employment has not dominated as an occupation type in the study area. Other occupations include transportation sectors such as driving. The informants had various occupational engagements. A single type of livelihood pattern was hard to support Dalit people to survive. Therefore, they adopted mixed occupational patterns. It was found that representation of the Dalit people in the governmental job and wealthy private sectors was rare, and just one woman was a primary teacher at the local school.

Table 4.5

Occupation of Respondents

Caste/ Ethnicity	Occupation															
	Agriculture	%	Business	%	Service	%	Wage	%	Traditional Occupation	%	Others	%	Household work	%	Student	%
Damai	3	1.8	3	1.8	1	1	1	0.6	1	0.6	0	0.0	0	0.0	1	0.6
Kami	6	3.6	1	0.6	0	7	4	2.4	4	2.4	4	2.4	0	0.0	0	0.0
Sarki	71	42.5	10	6.0	5	28	7	4.2	0	0.0	10	6.0	9	5.4	2	1.2
Total	80	47.9	14	8.4	6	36	12	7.2	5	3.0	14	8.4	9	5.4	3	1.8

Source: Field Survey, 2020

One local youth from Tallo Mijar Tol worked as Social Mobilizer at NRA, and 1 Sarki girl teaches at a local primary school. However, some skilled youths, particularly from Tallo Mijar, are in skilled jobs: shoemaking and jewelry shops in

Kathmandu and Pokhara. However, the livelihood pattern is changing from subsistence-based agriculture and livestock to alternative cash-generating occupations such as improved farming and market-oriented business.

People engaged in other occupations, such as skilled workers and jobs, also do agricultural work with different ratios of time inputs in the morning, evening, and holidays. The numerical calculation of time inputs and income from agriculture and farming is hard to estimate. Modern farming is termed *Bikashe Kheti* by the local people. *Bikashe Kheti* is a major source of the cash crop in the Jibanpur as many families do vegetable farming and sell them in nearby markets; Dharke, Kathmandu, and Pokhara. This type of occupation is the primary source of cash collection by selling vegetables. Traditional farming support needs of families for up to six months, but vegetable and poultry farming provides a source of cash income. *Bikash* is connected with money in local perception; therefore, people call cash crop farming *Bikashe Kheti*. *Bikashe Kheti* includes cash-generating crops, particularly vegetable farming, improved livestock rearing, and poultry farming. In the Dalit community, *Bikashe Kheti* includes Poultry farming and vegetable farming.

Income and Expenditure

Income and expenditure trends also help to understand the resilience status of Dalit people in the study area. The average annual income of Damai is higher than that of Kami and Sarki in the study (see Table 4.6). Dalit people with high incomes and land are in good condition even after the earthquake.

Table 4.6

Average Annual Income

Caste/Ethnicity	Household Income in NRs (Mean)	No of Households
Damai	216500.00	10
Kami	123909.09	22
Sarki	184170.37	135
Total	178167.66	167

Source: Field Survey, 2020

Land ownership is a major asset that ultimately relates to the resilience status of the Dalit. It is a source of income for Dalit people through farming and cash crops. The government offers cash grants to families with a landholding certificate to construct new houses. It also provides collateral security to borrow the loan from local banking institutions. Therefore, landholding size is directly connected to the resilience of local people. Out of 167 surveyed households, only 151 families have their lands with three types of farming land; *Khet* (with irrigation facility), *Bari* (land with no irrigating facility), and *Pakha* (barren land), as given below: (see Table 4.7)

Table 4.7

Average Land Holding Size of Dalit Households

Average Landholding in Hector					
Caste/Ethnicity	**HHs**	***Khet***	***Bari***	***Pakha***	**Landholding**
Damai	8	0.00636	0.23209		0.23844
Kami	19	0	0.11880	0.07898	0.19778
Sarki	124	0.07614	0.18055	0.05294	0.30963
Total	151	0.06286	0.17551	0.05342	0.29178

Source: Field Survey, 2020

Although 17 households have no land, the NRA provides a cash grant to them to construct houses. They can get the land through the system of use rights in which they can build the house in mutual understanding that the reconstruction grant's beneficiary would use the land in the future without any disturbance.

The expenditures of the Damai are higher than those of the Sarki and Kami people in the study area, as shown in the table below. The money was used, ranging from foods purchase, health support, education, and clothing as a major component. Sarki people are more resilient than other Dalit sub-caste groups. Therefore, the expenditure trend was connected to the resilience of the Dalit community (see Table 4.8). A detailed explanation is provided in Chapter Four and Chapter Five.

Table 4.8

Expenditures of Dalit Households in the Study Area

Caste/Ethnicity	Expenditures in NRs (Mean)	Nos of Households
Damai	123850.00	10
Kami	98772.73	22
Sarki	125631.56	135
Total	121986.59	167

Source: Field Survey, 2020

Before the earthquake, agriculture, including livestock, constituted the major source of occupation. The earthquake damaged their *Goth* (cowshed) with the loss of buffalo, cows, and goats. They had no money to reconstruct *Goth;* as a result, they left the traditional types of agriculture for a few years. However, with the improvement of their economy and income, they slowly started rearing livestock but not a major source of income. Water sources in Tallo Mijar and Kotkhal disappeared due to the earthquake. Landslides in the steep hills *Baari* and *Khet* (land having an irrigation facility) also reduced the productivity of traditional crops.

Jyala Majduri and farming are major occupations in Mathillo Mijar. People also have livestock farming. The *Parma Pareli* labor exchange tradition is weak in this *Tol*. Production from their farming land can feed them for up to six months as Dalits have limited farming land (*Khet*). Though the settlement is small, there is a diversification of occupation in Tallo Mijar Tol, ranging from agriculture to skilled *Jyala majduri*. After the earthquake, people from Tallo Mijar constructed new houses by *Parma Pareli* (exchange labor practice). This type of labor arrangement is effective and strongly bonded for the timely construction of new houses. No additional workers were required to construct houses for Dalit people, whereas non-Dalit people hired workers to construct their houses. Dalits also arranged workers *by Parma Pareli* in crop plantation, harvesting, and other community works. The damaged drinking water pipe and supply system due to the earthquake was also constructed by using money from their traditional Dalit Saving Group.

Meanwhile, four families also sell milk on a dairy farm in Bhanjyang. One dairy farm is situated in the village where people from Jibanpur sell milk every day. The rearing of animals is also a source of income for local people in the study area. The possession of land, both farming and barren land, is directly connected to a source of income and directly supports the Dalits' resilience.

There are two Tols (settlements) in Mathillo Kotkhal; Damai Tol and Sunar Tol. There are six families in Damai Tol. Out of six, three families are doing tailoring occupations in Bhanjyang. They started tailoring shops after the earthquake. A few youths from four households were also engaged in transportation sectors, particularly in Kathmandu Valley and Dhading District. There was a traditional type of livelihood pattern in Sunar Tol before the earthquake. The occupational pattern diversified after the earthquake with the availability of training and skill enhancement program. Families have small types of businesses as a source of income in Bhanjyang, Kathmandu, Dharke, and Pokhara.

Kaflepani is the settlement of the Dalit and Magar caste group in Jibanpur. There are eight Dalit families in Kaflepani, with agriculture as the major source of income. At least one or two household members are also engaged in *Jyala Majduri* (paid labor). Two people from two families have the occupation of foreign employment where they knit leather shoes in Dubai and India. Two families do tomato farming as *Bikashe Kheti* (cash crop). They started tomato farming after the earthquake hoping to earn good money.

After receiving training on earthquake-resilient houses from governmental agencies, some people work as skilled workers in constructing houses in Jibanpur. The training also enhanced their technical know-how in earthquake-resilient houses. They also earned good money after getting the training. With the high demand for workers to construct houses in Jibanpur and nearby villages, Dalit people had no time to do agricultural work and livestock rearing, which triggered shifting in livelihood patterns. Goat rearing was also found in every household in Kaflepani.

Tallo Kotkhal is situated near the temple of Kot Devi in Jivanpur. The economy is based on agriculture and skilled job in making leather shoes. Sarki people have traditional knowledge and skill of making leather items, particularly shoes.

Local youths make leather shoes in Kathmandu, Pokhara, and Chitwan. They earn more money from shoemaking than from agriculture. Women are heavily engaged in agriculture and household chores. Sarki people have limited land for agriculture. The earthquake completely damaged all houses in Tallo Kotkhal, and they had no sufficient money to build a cowshed. Therefore, rearing livestock is not possible in this village. They have no homemade fertilizers. As a result, productivity is decreasing. Buying chemical fertilizers from the nearby market is also expensive.

In this Tol, only a few houses are under construction, and the government's money is insufficient to construct one-storied two-room houses. The government provided only three lakh Nepalese Rupees to each earthquake victim's family. Therefore, people borrow loans at various interest rates from local financial institutions, cooperatives, small farmer groups, and saving groups. The interest rate ranges from nine percent to eighteen percent. In a different scenario, five elderly people are living alone in a small-sized house (*Ekapakhe Chhapro*) made up of mud and stone. They have not constructed new houses. The grant money is also used by elderly people in needy conditions rather than for the construction of houses. People still now are not able to construct cowsheds damaged by the earthquake. People in Kami Thanti are not rearing other livestock but only have goats. Goat domestication is easy and needs a small place that is available in the corner of the house area. A separate cowshed is not required to domesticate goats. Some families in Kami Thanti also sold land to settle the loan borrowing from a local contractor and local financial institutions. The money provided by the government was not sufficient to construct their houses. However, they have only one option to be free from a loan: selling land.

Sarki people in Thanti have the same livelihood patterns as that of Mijar Tol and Kotkhal, with agriculture, *Jyala Majduri*, and skilled workers in jewelry design. Three Aarans belong to three families in Thanti, where sickles and other agricultural tools are repaired and manufactured. The local government has provided technical and financial support to three families to support their livelihood from *Aaran* (occupation works of blacksmiths). Ironing metals in *Aran* is a traditional occupation of the Kami people in Kami Thanti.

Ram Bahadur Sunar also lost his wife and granddaughter in the earthquake. His wife's name is Kanchi Sunar. When the earthquake jolted, he was in Dharke bazaar. He **was** not be able to see his wife. They took out the trapped bodies with his son and relatives three days after the earthquake. There was no *Katro* (clothes to cover the dead body) to put the body and the dead bodies were wrapped up by the bedsheet while bringing them for funeral functions. Therefore, they performed the dead ritual after three days. Nine people were involved in this process, including his son, the sons of a brother, and his own brother.

Neupane Danda is a scattered settlement in Jibanpur. It is situated in the upper part of Thanti and expands up to the Dahar settlement. The majority of people are engaged in agriculture to support their livelihood. Some family members from Neupane Danda are in Pokhara for shoemaking work, and a few are doing cash crop vegetable and goat farming. A few families, for example, Mangale Sunar and Sukre Sarki, are doing *Bikashe Kheti*. Litchi farming is also found in Neupane Danda. Dahar Dalit Tol has seven families. The dominant occupation is agriculture with fish and poultry farming and improved vegetable farming as *Bikashe Kheti*. The families also have both *Khet* and *Pakha Bari* for cultivation.

To sum up, the economy of Dalit people in Jibanpur is a mixed type with traditional caste-based occupation, farming, livestock rearing, and *Bikashe Kheti*. Unfortunately, the earthquake interrupted the economic and livelihood pattern of Dalit people for two years with a decline in agricultural outputs and a reduction of income from livelihood as the hazard completely damaged cattle and cowsheds. They restored their economy and livelihood with the support of the local government, government agencies, community, and utilization of family capital, both human resources and assets, and local non-state agencies. However, foreign labor migration from the study area had no role.

4.4 Summary

The study focused on the Dalit community in the Dhading district of central Nepal. The study area has a mixed caste composition with Brahmins, Chhetri, Newar, and Dalits. Ward No. Four of the Dunibeshi Municipality constitute 205 households of Dalits families. Out of 205 households, 167 Dalit families had totally destroyed

houses and got red cards from NRA. The Government of Nepal has categorized damaged houses into three types: fully damaged, partially damaged, and normal, with red, yellow, and green cards, respectively. The occupation of Dalit people in Jibanpur is mixed with traditional caste-based occupation, farming, livestock rearing, and *Bikashe Kheti*. The earthquake hazards interrupted the traditional economic and livelihood pattern of Dalit people for two years, with a decline in agricultural outputs and a reduction of income from livelihood as the hazard completely damaged cattle and cowsheds. However, they restored their economy and livelihood with the support of the local government, community, and utilization of family capital, human resources, assets, and local non-state agencies. There are many historical places, such as Kami *Thanti* and Sarkini *Chautaro,* as the cultural identity of Dalit communities in Jibanpur. The conservation of such sites is a serious concern for Dalit people.

Local people, particularly Dalits, were more concerned with preserving cultural identity, livelihood, and economy and constructing private houses. For them, resilience is a holistic theme that includes the resilience of homes, livelihood, local economy, and culture. Therefore, there is a close link between local people with their cultural identity in their village for reconstruction and conservation, as anthropology is a holistic study, in general, focusing on everyday life, culture, livelihood, and social phenomena.

CHAPTER FIVE

RESCUE AND RELIEF PROCESS OF 2015 EARTHQUAKE ADOPTED BY LOCAL COMMUNITIES

This chapter presents data relating to the rescue and relief process of the Dalit community during the earthquake. It also contains the perception and experiences and the trauma caused by the earthquake. The rescue and immediate relief phenomena at the community and institutional levels are extensively presented in the chapter.

5.1 Local Experience and Perception

There are different terminologies, myths, and perception**s** relating to the earthquake among Dalits in the study area. These myths and perceptions are based on their culture, belief system, and religion. Dalits have their own logical explanation of their mythology and perception rather than a logical explanation of modern natural science.

Informants have two separate dialects to denote the earthquake. Local people pronounce earthquakes as *Bhuichalo* in the Nepali language and also the community dialect. The dialect comprises two words: *Bhui* means land, and *Chalo* means shaking movement. The literal meaning of this dialect is the trembling of the land. In another dialect, it is also known as *Bhukampa* in the Sanskrit language and has come into Nepali. Both have the same literal meaning. *Bhuichalo* is a locally accepted term. Elderly people easily understand this term, whereas *Bhukampa* is a common term among youths and educated people with formal schooling and education. However, both terms provide the same meaning in the study area. The term, *Bhukampa*, is frequently used by NRA officials, government authorities, and news channels, for example, radios and television.

Informants of the study area have different beliefs about earthquakes and its cause. For example, Dalit elders of the study area assume the earthquake is a divine power and relate to the different mythological stories. They argue that people have forgotten their duties, responsibilities, and moral values in recent days. Therefore, sin (*pap*) is accumulated. The divine power and God punished them through the

earthquake. For elderly people, the earthquake was the result of sinful acts performed by human beings. However, students and informants having formal education disagree with this mythological version, and they relate it to a geological process. People in *Mathillo Mijar Tol* considered the earthquake unfortunate and left the life of Dalits in a more panic situation. For them, the earthquake came as an unfortunate event due to greedy and evil people. Santa Kumari Sarkini shared her belief on the occurrence of the earthquake below:

> I do not know how the earthquake happened! The land shook violently. It came to destroy. Do you know how the seawater goes to the sky and the rainfall continues for seven days? From where do the sun and moon come? Like this, the earthquake came from somewhere.

Similarly, one of the informants from Gairee Gaun states the situation of the earthquake day as follows:

> The annual ritual was performed on that day in our house. Relatives and invitees (one hundred people) occasionally came to my house. We had just finished the *puja* and started to eat. A few members had already finished eating. However, there were many invitees waiting to eat the food. At the same time, the land moved haphazardly. Earlier, we could not get what was happening. Members who were eating the food also left the plate and ran. Surrounding houses and cowsheds were also destroyed. Dust and soil from wrecked houses spread in the sky. All members came to the *Bariko Pato*. However, my house did not fall down. But we feared a lot. Members contacted to their family members by phone calls. I was also trying to call my relatives but could not contact them. The phone network was not working effectively.

In this context, Gamburd (2013) mentions that religious and belief systems also play a crucial role in understanding natural disasters. About the occurrence of the earthquake, locals assumed that religious practice and belief systems as major factors. For example, Dalits with the Hindu religion argue that the expansion of Christianity in their village invited the earthquake. Local people from Mathillo Mijar Tol shared that the Kotkalika temple near their settlement saved them from the earthquake. The

earthquake has a nominal impact with no loss of livestock and human causalities in this Tol. Meanwhile, there is no complete collapse of houses.

People from both religions strongly believed that there was a role of supernatural power in the earthquake. Dalits stated that they survive due to the auspicious blessing of their almighty God in the Church. During the earthquake occurring day, Christian people were in the Church to pray.

Ratne Sarki, aged eighty-four, from Kaflepani, was returning from the house of his third elder son (*sailo chhoro*). The earthquake came when he moved down from the kanlo (slope land separating two land areas). Remembering the situation, he expressed his feelings as 'I was out of the home, so I survived. I saw the collapse of my house with my eyes. After that, the house of my son, Bachhe, also collapsed. I believe God saved me.'

The aftershocks continued for a couple of days in Tallo Mijar *Tol*. Many rumors and gossip circulated among locals during their tent stay (*Pal*). The statements of local people reflect how they thought during the earthquake hardship time. They also assume that the earth might collapse with a big earthquake one day. Based on the narratives and statements from the study area, we can understand that the local people's perception is not shaped by fact but rather by their intuition, prejudice, and culture. Therefore, intuition is very strong among the informants of the study area developed over the centuries (Gamburd, 2013).

Trauma and Fear

Disaster is always connected to trauma and fear. Families who lost their family members and relatives never forget the earthquake. It is a matter of emotion, love, family bonding, and psychology. Although there were few human casualties in Jibanpur, Dalit families consider the earthquake a significant loss and tragic event. The study by Tamang et al. (2020) shows that 1.5 percent of all households lost at least one family member by the earthquake. Most of them were household heads and active-age family members (p. 26). Three people were dead in the earthquake in the study area.

Anthropologists also state that the trauma and fear due to hazards, natural hazards, earthquakes, tsunamis, floods, wars, and conflicts exist between family members, relatives, and close ones for a long period. This existence never erases the pain, sorrow, and emotions that are raised from multiple hazards.

Tamang et al. (2020) also mention that fear and trauma were the third impacts of the earthquake. They state that fear is shaped by culture. Fear and responses differ by culture. Social norms, patterns, and systems are suddenly dissolved, and individuals are left on their own with only bare life (p. 30). However, Bishnu Mijar from Kotkhal states that people forget the tragic damages from the earthquake, "People slowly forget the damages made by the earthquake."

There are vivid experiences of the informants regarding trauma and fear of earthquakes in the study area. As shared by local women, the earthquake jolted in the noontime as a result, and there was no more human loss. Family members were out of the home. According to the Nepali calendar, the first powerful quake occurred in the 12th Baisakh, and the second was in the 29th Baisakha of 2072 B.S. Nine people died due to the earthquake in Ward No.4. Out of nine, three Dalit women of different ages of 2, 5 and 61 years died in Tallo Kotkhal and Kami Thati respectively. The dead bodies of Kanchi Maiya Sunar, Maiya Sunar, and Sani Mijar were buried in their houses and were taken out the following day of the earthquake. Families who lost their members were emotionally sad and speechless, with drops of tears in their eyes many times while taking the interview.

Men were out of their houses, and women were in their homes doing household chores. Women are responsible for cooking food, clearing, and performing household activities, especially in rural areas. Women's roles are limited within the house, whereas men perform activities such as farming, paid labor, and foreign employment. When the land moved due to the quake, local people staying inside the house came outside shouting. Later, men came to their houses to rescue family members. The level of fear increased with uncertainty. As argued by Bourke (2005), there was no high anxiety that led to looting and terrorism in Jibanpur after the earthquake. However, the earthquake further strengthened cooperation and mutual help among Dalit people. Dalits shared food and grain during the hardship time.

It was found that four people became mentally ill due to the earthquake. Three youths from Tallo Kotkhal and Kaflepani also became ill due to the financial burden caused by the earthquake. One woman with a Bachelor's level education was also traumatized, showing symptoms such as crying, sobbing, walking alone, and trembling due to fear. She was also hospitalized in Trauma Center in Kathmandu and admitted for eight days to return to normal condition. Meanwhile, one mentally ill youth got treatment at Patan Hospital in Kathmandu Valley and became healthy after treatment.

On the other hand, local people had no substantial earthquake resistance planning and information, so they feared and cried more. Meanwhile, the earthquake was the first experience for young people. This generation of youths and adults has not faced social, cultural, and economic impacts caused by the earthquake in their lifetime. All populations of the study area had a new experience with such a mega-disaster. There were very few people who had an understanding of the 1934's earthquake. However, narration of that earthquake was transformed for the next generation through oral communication. As reported in the discussion, they talked about the situation of the earthquake for several days, along with fears and sad news.

In the above context, it is relevant to review relevant anthropological literature to conceptualize the fear and trauma domains of the earthquake. Recent disaster reconstruction studies have focused on community resilience and its importance in the recovery of communities from collective trauma (Zhang, 2016). Anthropological engagement on trauma and fear factors of hazards have been documented in the literature. They explore those issues through the historical construction of trauma, especially in its transformations by 19th and 20th-century scientists, and the study of war-traumatized Second World War soldiers and Vietnam veterans (Henery, 2005). Furthermore, Parker (1992) states that any implication that a traumatic disaster is temporary ignores the fact that many people live with chronic insecurity, economic frailty, and extended states of trauma.

Meanwhile, Tiernan et al. (2018) state that disasters can have traumatic impacts on the health of populations and communities resulting from losses,

displacement, and deaths. Deaths from disasters are rarely due to infectious diseases, except in the case of epidemics.

In the study area, dozens of local people had mental problems due to the fear of the earthquake. Meanwhile, two people were hospitalized for treatment. There is Thakuri Gaun adjoining the Damai village. The earthquake had high impacts, and three people were trapped in the damaged houses. People from Damai Tol helped to take out the trapped three bodies. 2 out of 3 people were dead in the Thakuri Gaun. Kami people also joined in rescuing the dead bodies and cattle in Thakuri Gaun.

Fear instinct is very powerful among the population. These fears are hardwired deep in our brains for obvious evolutionary reasons. Fears of physical harm, captivity, and poison once helped our ancestors survive. In modern times, the perception of these dangers still triggers the fear instinct (Rosling et al., 2017). However, Parker (1992) states that many Dalit families are at the stage of forgetting the tragic moment of the earthquake hazards. However, families who lost their members still have painful memories, hardly forgetting the hazardous phenomena and loss. At the same time, Dalit people also forget their tragic stories, and it was hard to recall them during the ethnographic study. To recall such panic subject matters also triggered me to become emotionally weak and speechless. Some informants did not like to speak about their forgotten tragic past of the earthquake.

5.2 Rescue and Immediate Relief

A similar immediate rescue and relief distribution pattern is found in all the study settlements. Local people themselves engaged in immediate rescue and relief management as front liners at the community level. Following the rescue and relief process, Khatri (2021) states that community members were the first eyewitness and experienced a disaster, expressed through a rescue by immediate relatives and neighbors, which was possible due to the maintenance of humanitarian and cultural practices.

Rescue and immediate relief are broadly classified into two types: community-supported rescue and institutional-level rescue support. For easy understanding, the Community Supported Immediate Rescue (CSIR) is further categorized into three

types: first, the rescue and help from family members; second, the help and support from attached neighboring families; third, a rescue from community members regardless of caste and ethnicity. The family networks of the Dalit to the outside also had a critical role in rescue and immediate relief support. Young family members in Pokhara, Kathmandu, and Butwal also returned to their village on the following day, evening, and night. They also participated in the rescue and relief. Their role was crucial in the management of relief in the study area.

Role of Family Members

Family members are on the front line of the rescue support in the study area. In this rescue, support was offered by adult members who were at home or nearby homes to save their family members. The family members helped each other within the family. Notably, adult men and women played a crucial role in immediate rescue when they were at home, saving significant numbers of people and cattle.

Children and the elderly who could not get out of their homes were rescued first and placed in safe open places and *Bariko Pato*. They also took out their valuable things and goods to safe places. This type of rescue is limited to family members. After rescuing trapped family members and administering them in a safe open place, the family also rescued their livestock. Although there was a high level of fear due to continuous earthquake aftershocks, they continued to rescue. One informant told me that people also delivered messages and updates of family members through telephone contact just after the earthquake's devastation. However, with high telephone traffic calls, people were not able to make contact with each other. The first rescue stage is the whereabouts of the family members and close relatives. A women informant said that after confirming the whereabouts of their family members, they were concerned about the immediate neighbors. The family members of Dalits were in different cities when the earthquake occurred. Some of them were in Kathmandu, Pokhara, and other parts of the country and aboard. Mishu Mijar elaborates on the situation of the earthquake day as follows:

> I was near home at the time of the earthquake. I was sitting in the shaded area (*Chhahari*). My wife was in the forest cutting the grass. I was waiting for her. Later, she also came home. There was no time to

> take out the rope (*damlo katne samaya*) of the livestock. The house collapsed. Neighbors were crying at that time. We were sitting at one place with villagers. We felt that neighbors were important in a difficult time.

Phunte Bayalkoti, aged seventy years of Gauree Gaun, expressed how he saved the life of his buffalo as below:

> After returning from the puja ritual of my neighbor, I was thinking of having a nap in *matan*. I do many works from the kitchen to the cowshed. The land suddenly shook tremendously. I took the sickle (*hasiya*) placed in *Pidi*[3] and cut the *Damlo*[4] of buffalo. The buffalo survived.

During the earthquake, people in Bayalkoti village stayed together in the same place regardless of their caste composition. The invitees in the *Puja* ritual also stayed with them. They slept over the plastic that night without having a sound sleep. They also shared the food prepared in the morning with invitees in the *Puja*.

Some young people from Gauree Gaun stayed in Kathmandu with their family members doing jobs and work. For example, the elder son of Phunte Mijar also sells vegetables and has his own house in Kathmandu. However, he returned to his village the next day after the earthquake. He also brought food with him. He again shared the support that the villagers received as 'Son and daughter-in-law came to the vegetable collection center. They b**r**ought relief materials. They distributed to surrounding neighbors. We also ate food for long days'.

Society, in general, is functional at difficult times despite the shortage of housing and food items. In all Dalit settlements, family members played key roles in managing rescue and relief support as front liners. First, they rescued family members and then livestock. The family members residing outside their homeland also provided help and support.

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[3] An open area just before (before entering the main door) the courtyard. It is a part of the house area in the study area. It is an integrated part of house in village area where people use to sit and eat light foods and tea before entering the kitchen.

[4] Special man-made thread that used to keep the cattle in the cowshed so that they could not go outside the shed.

Neighbors and Relatives

Attached neighbors offered some form of rescue. Once the attached family finished rescuing their members and livestock, the family immediately helped needy attached neighbor families. In this case, houses were either joined with others or situated near a physical setting. The family knew the scenario of neighbors during the earthquake so they could make arrangements for rescue and relief. This rescue pattern is seen in Tallo Mijar Tol, Dahar, Mathilo Mijar Tol, and other settlements in Jibanpur. Kishor Bishunkhe shared his feeling about the earthquake situation below:

> Nobody entered the home on the earthquake day due to fear. We all sat together in the open place. All had the same problem of house collapse. Later, we built a cottage for temporary stay for each family. We had no money for the construction of a house at one time. Therefore, we had *armaparma* (labor exchange) for making temporary shelter. Villagers received help from each other. We also helped neighbors.

One of my informants from Tallo Mijar Tol said, "No Army and police came to the rescue after the earthquake. We did the needy work ourselves. Out of 19 families, two stayed with the Kuwar family." Three families living in the lower region of Neupane Danda stayed together in groups during the earthquake. They had fear while staying separately, and therefore they stayed together. The place where they stayed was sleepy and hilly. Brahmin communities were around them, but they went to Kotkhal to look at their caste groups. We went to Kotkhal looking for our caste groups.

According to Bhunte Mijar, adult people in his family went to the *mela* (gathering) on the earthquake day. He was at his home. Goats were grazing in the nearby *chaur* (open grassland). He knew that earthquake was coming, then he untied (*damlo pukalnu*) the knot (*damlo)* of the goats of his neighbors. After saving the life of the goats, he went to Luitel Gaun for help. Other people of the village also gathered there for support. He shared that situation as stated here:

> Villagers from Luitel village asked for help, and I went there. Half part of the buffalo was trapped in the debris. It was not possible to take it

> out despite many efforts. Many people came to the village to take out the buffalo. The trapped buffalo died due to continued tr**e**mers of the earthquake, and we could not take them out.

Moreover, attached neighbors provided and received support for the rescue of cattle rather than the rescue of family members since the family itself rescued the elderly and children first. Handling their own family and livestock management, they offered support to attached families and neighbors. However, the rescue support primarily depended on the situation and the immediate need of that time. It is concluded that rescue management's priority was saving people's lives and then livestock. Looking at the above descriptions, cooperation, and coordination are very common among the households of the study areas.

Community People

In the third category, rescue and relief are performed by community members. When there were severe injuries and death cases due to the devastating earthquake, people from the community came to the particular home for support. Particularly, this rescue was for managing buried dead bodies and dead livestock.

Cattle were dead due to the earthquake. The rotten smell from the dead livestock was spread over the Kuwar *Gaun* because the Kuwar people did not know the science of the disposal of dead animals. According to Ram Bahadur Mijar, after one week of the earthquake, Kuwar Gaun was full of foul smells. Then, the Sarki people went to re-dispose of the dead bodies as they had traditional knowledge of the proper management of dead livestock such as cows, buffalo, and goats by putting them in a pit with salt. Other caste groups of people did not have this indigenous knowledge to manage the dead cattle. Therefore, Sarki People helped Chhetri people with the management of dead livestock by using their indigenous knowledge during the earthquake.

Meanwhile, local people also provided help and support to other people in their communities, such as rescuing trapped livestock. This type of reciprocal relation on a need base is not mandatory. Suresh Mijar reveals the value of community support, "After the earthquake, the help provided and received among community

members was very important. Our community was united. We stayed together. We ate by sharing whatever we had". Prakasha Mijar from Kotkhal reveals his experience of the earthquake: "That day, we stayed in an open place in height (*danda*). We sat together in a single tent. We also ate together. Our houses completely collapsed. We ate the rice taken out from the collapsed house."

Rama Magatari of Neupane Danda described the situation of the earthquake day as below:

> On the earthquake day, I went to *mela* to pick up tomatoes. My children went to the maternal house. The earthquake came on the same day. We thought that we would die and had no hope of life. We returned to the home immediately and took the goats to an open place so that there was no loss of the goats. The cowshed was also destroyed. There was a newly born calf of the cow in neighboring Luitel brother on that day. Both the calf and cow were trapped in the debris. We removed the debris, but the cow was dead. The dead cow was put in the pit with the help of neighbors.

Dalit people also shared the available foods among the community members, as said by Rama Magarati below:

> On that day, we stayed together. There was no tent and food to eat. Torn hanker was used at night. We did not eat anything on that day. On the next day, people took out the food by removing stones and debris, and then we ate. We received relief after five days.

Informants from Gauree Gaun shared how they helped needy people in a neighboring village as below:

> We got unverified news from the neighboring village that several people were trapped in the debris. Young people went to that village for help. There was no loss of locals in Gauree *Gaun* despite the cracking and breakdown of houses. The environment was so scary that nobody wanted to have food. People eating the food ran away, leaving the food at the place, and some stayed without the food throughout the day and night.

People from Tallo Mijar Tol also prepared a plan for managing dead livestock, discussing it among the community. They calculated the number of dead livestock and pit**s** to manage them. They also built fifteen pits to dispose of those dead livestock. A pit was about the height of one average person, where three cows and six goats could be disposed of. Single-family is not able to handle dead cattle; therefore, community people have to gather for management. Therefore, cooperation and mutual support of local people are very necessary aftermath of the disaster.

In the above-mentioned context, community support and help each other in the needy situation during the earthquake. Helping each other in an emergency is common in Dalit community. Tamang et al. (2020) also state that different social groups have solidarity, cooperation, and support during the earthquake period in Nepal. Community members were on the front line during the earthquake to provide and receive support.

There was a high level of cooperation among community people in rescue and relief distribution during the earthquake period. The help and support also extended between Dalits and non-Dalits people. Interestingly, caste and untouchability seldom played a negative role in rescue and relief distribution in the study area. Therefore, there was no caste barrier in rescuing the people who needed help during the earthquake period. Dalit people also helped non-Dalit people, which shows inter-caste cooperation. For example, the Sarki people in Mathillo Kotkhal also rescued the upper caste group (Thakuri people) by visiting their homes. Tallo Kotkhal is the largest Dalit settlement in the study area. The settlement lies in the border area of Dhunibeshi Municipality and Thakre Rural Municipality. Meanwhile, the second largest Dalit population in the study area is Chaap Gaun. Although the earthquake damaged all houses, this village had no human causalities. Similarly, there was not a complete collapse of all houses in this settlement, with no human casualties and livestock in Mathillo Mijar Tol. The earthquake took the life of one Dalit girl at the age of two years in Tallo Kotkhal. The girl was trapped in her own house. The onsets of the earthquake damaged all houses in the area. The girl's parents could not find her on that day. The family members and neighboring families also looked at her, but nobody was able to find her. They were scared.

Local police came to the place the next day to search for the missing girl. The police also were not able to find her and returned to the station in the evening. They also suggested the family continue looking after the girl. At first, they searched on the playground. Finally, they searched inside the house. A local youth continued searching for the girl, and they got the girl's dead body the next evening; she was found stuck in *Jatto* (a grinding machine made of stone) inside the house. The parents of the girl had a business in Dharke bazaar. The bazaar is the nearest market center of the study area. Her mother was highly traumatized due to the loss of her daughter, and she used to stay alone in the hou**se**. She did not speak more. Father motivated and counseled her to forget the tragic loss of her daughter. Finally, the family decided to leave the house and started a small tailoring business in Dharke.

People lamented the loss of the girl. Many people in this Tol did not eat any food on that day due to the loss of the girl, as many community members engaged in searching for the girl. Meanwhile, there was no food for cooking. They lived in the open space of Kotdevi temple without eating anything. People also stayed in the open room of Radha Krishna temple. Fifty people stayed in temple areas where open space was available.

One youth, Rajan Magrati, is one among seven members who work in a shoe-making sewing job in Pokhara and also returned to this settlement with some food items such as noodles, *Chyura* (beaten rice), and biscuits at midnight of the earthquake day. They distributed such items to the people. The youth came to Dharke on a reservation of microbus from Pokhara and walked for about one hour to reach their village. Relief material (*Rahat*) was distributed in the village two days after the quake. Two older people were severely injured due to the earthquake and got traditional treatment at home. The primary health post was closed.

There are two perceptions of the severity and impacts of the earthquake. Elderly respondents suggested God saved them as this settlement is near Kotkalika Goddess. The Goddess also saved the lives of poor and helpless villagers. Meanwhile, young informants with formal education opined that the impact of the earthquake is not the same as the degree of variation due to waves. It was found that the reasoning of the young informants, including impacts, was related to geology. In this context,

Zhang et al. (2021) document the impacts of earthquake knowledge and risk perception on the preparedness of rural residents in China.

Gaine Sarki of Kaflepani shared his experience of staying with family members from different caste groups after the earthquake as below:

> Almost all houses were destroyed in this village. People scattered to stay in the night time. I went to Kotkhal in Magar village, where my relatives live, taking my grandsons and daughters. Bachhe Sarki went to the open place near the house of Anuyaj Gautam. The family of Sanu Damai went to Thakuri village and stayed. Nobody stayed together at that time.

The family of Nabaraj Mijar stayed with neighboring families together for three days after the earthquake. They also ate foods such as *Gundruk (*dried mustard leaf*)* and rice together with the villagers during their stay at Bariko Pato. Gundruk is generally considered a fast-food curry. It is mainly eaten when other curry items are unavailable in the house. Regarding cultural adaptation to the local environment, Steward (2005) states that there is a close connection between culture, history, and environment. It is the ecological adaptation of local people to their local environment. He further states that local human society is connected far beyond the immediate physical environment and biotic assemblage.

Furthermore, this division of rescue and relief domain is based on an easy understating of how individuals, families, and community members engaged in a difficult time of the earthquake hazard in the time and sequence. However, there is no theoretical foundation and approach for this demarcation. It is only for how society as a whole participated in this process of rescue and relief management, especially at the community level.

The community-supported rescue, including their network outside the village, plays a crucial role in saving family members and livestock and managing dead bodies. During the earthquake period, family members and attached neighbors stood in the front line to save the elderly people and livestock. There is close bonding and cooperation, particularly in rural areas in Nepal. Dalit people in the study area also practice the same tradition of help and support in hard times.

The rural society is functional and adapted even in hard times despite the pain and loss due to the earthquake. Moreover, the family members are not limited to fixed geography in the study area. In the case of Dalits, sons, daughters, and other family members came to their village to provide rescue and support. At that time, a family member of local people was not living in the same house. They were outside the village for their work to earn money. Therefore, the traditional definition of family in anthropological studies is a subject of review and research.

Family members living out of Jibanpur returned to their homes and villages for rescue and relief. They provided help and support to needy people in the study area. Anthropology assumes structures and functionality of society and culture through structural functionalism. The institution in the society and culture performs specific tasks that the society functions even in a difficult situation, for example, at the time of disaster (Davis, 1959)|. Therefore, the study on rescue and resilience is better studied from the ground level at the community through a holistic approach with networks and availability of family members, neighbors, and the community.

Institutions and Organizations

Apart from the community level, Dalit people received support, rescue, and relief from the institutional level in the study area. The rescue was also offered from formal institutional arrangements such as security forces, local government, clubs, and community-based organizations. For this study, institutions are both governmental and non-governmental organizations. There is no significant difference in operational characterization in these two terms, and therefore, both terminologies provide a similar meaning.

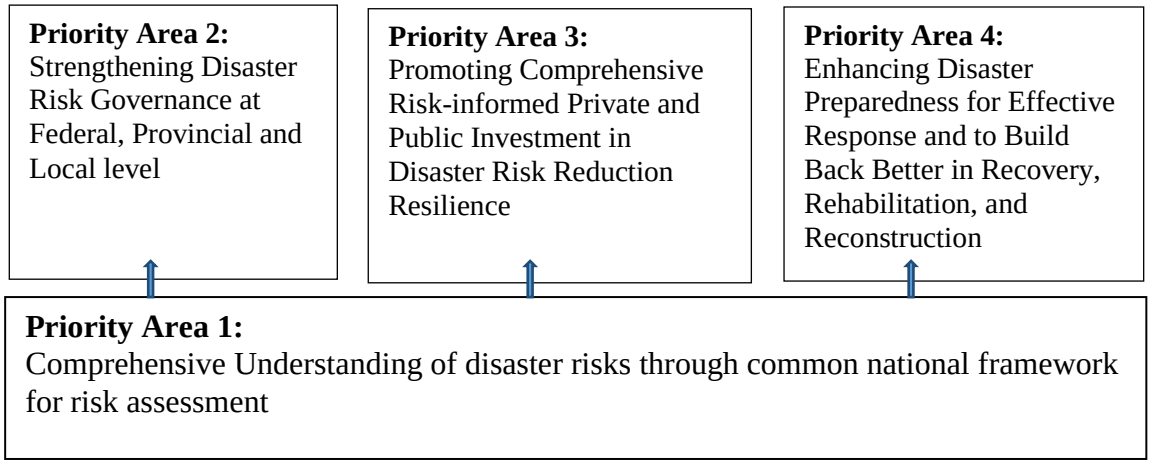
This broader theme denotes the initiatives of the Nepal government mechanisms and international agencies at the central, district, and local levels and local non-state agencies and organizations. Before dealing with the local environment in Jibanpur of this type of four rescue and relief patterns, the section below briefly reviews the national framework.

After the 2015 Earthquake, emergency relief and humanitarian assistance were provided to the affected population with the active support of and contribution of over

60 countries as well as the United Nations and other international agencies. The Ministry of Home Affairs (MoHA) was the lead for the response and took the lead in responding to the disaster at the national level. At the policy level, the Natural Calamity Relief Act of 1982 directs MoHA to formulate, implement, and promote disaster-related plans, programs, and projects. Nepal's National Disaster Response Framework (NDRF) has served as a key tool for the coordination of earthquake response, facilitating decisions and instructions from the central government (NDMRH, 2020). The Government of Nepal has developed four priority areas of disaster risk reduction (see Figure 5.1).

Figure 5.1

Priority Area of Disaster Risk Reduction in Nepal



Source: Field Observation, 2020; NDMRH, 2020

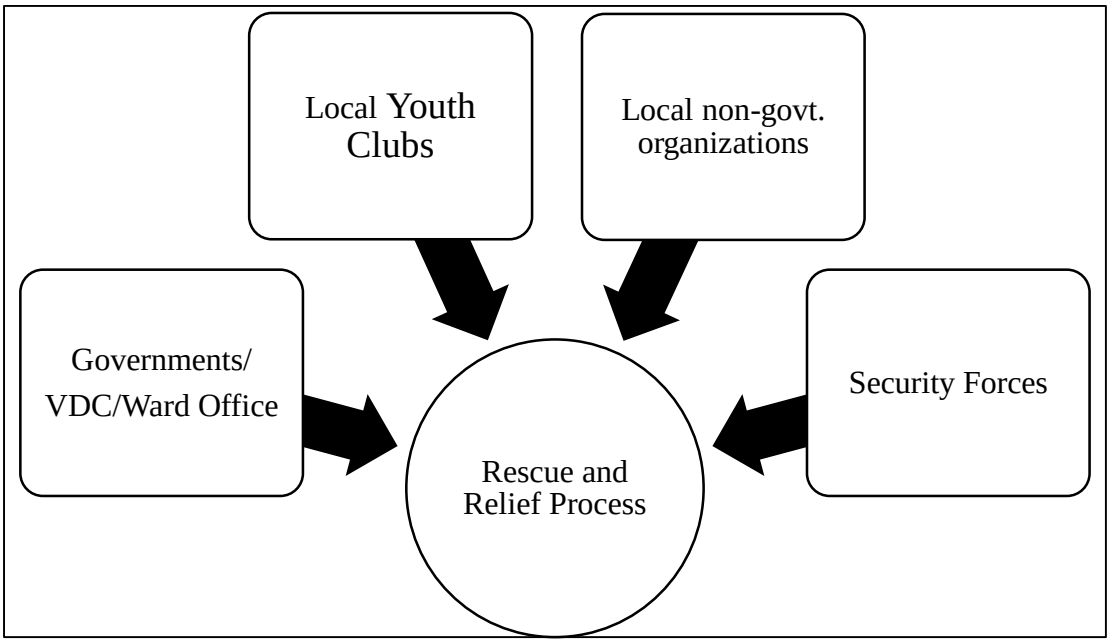
Priority area 1 is understanding disaster risks through a shared national assessment framework. Based on the common understating, priority area 2 has focused on strengthening disaster risk governance at three layers of government – federal, provincial, and local. At the same time, priority area 3 focuses on comprehensive risk-informed private and public investment in disaster risk reduction resilience. Priority 4 is about enhancing preparedness for effective response and building back better in recovery, rehabilitation, and reconstruction.

Meanwhile, Agrawal (2010) elaborates on local institutions' roles and various strategies in adapting to climate vulnerability. Therefore, all institutional efforts depend on specific arrangements and regulations. During the earthquake, the local institutions, including non-governmental organizations, also played roles in relief,

rescue, and, finally, in the resilience process of the Dalit community. In the study area, four different institutional layers managed the relief and rescue. The VDC Office has a local government, local youth clubs, local organizations, and security forces (see Figure 5.2 below).

Figure 5.2

Rescue and Relief at Institutional Level



Source: Conceptualized from the Field Observation

During the earthquake period, local government (VDC office) and security forces played a crucial role in the rescue and record-keeping of damages made by the earthquake. In particular, Nepali Police and the Nepal Army were engaged in the rescue of local people and livestock during the quake. Rama Magarati states, “The police forces came to our place after two days of the earthquake for record taking, but they did not come for rescue. We worked together and solved our problems ourselves”. At the same time, the local youth club also participated in rescuing and distributing relief foods to the local people. Immediate rescue and relief were received and provided by community people and relatives in Jibanpur. Adult people and women provided support in the rescue of children and elderly people who were trapped inside the fallen houses. Since there were no human casualties in Mathillo Mijar Tol, there was no role of the local police and army in immediate response. Yet, local police and government took records of the earthquake's impact from each household in Dalit settlements.

Relief materials from the institutional level, primarily included tarpaulin sheets, essential food items, blankets, bedding, and other supplies. Like in other parts of the country, different donor agencies, INGOs/NGOs, religious institutions, private organizations, and individuals helped with relief collection and distribution (Tamang et al., 2020).

Rescue and Relief Management in Dalit Settlements

The pattern of rescue and relief management in major Dalit settlements is similar to a large extent. Needy people received help and support, whereas survivors also provided support to villagers in need. Family members, neighbors, relatives, and community people stand on the frontline of support. The following section briefly presents each settlement's rescue pattern and immediate relief management.

Kami Thanti is an adjoining settlement of Tallo Kotkhal. The earthquake damaged all houses in the Kami Thanti. The attached neighboring families are also engaged in helping each other. Meanwhile, the buried dead body was rescued by the police at Kami Thanti. The quake took the lives of two people in this settlement. The wife of Ram Kumar Sunar and her granddaughter lost their lives in the quake. The wife was napping after the morning meal, and suddenly earthquake jolted the house while her granddaughter was playing with her friends. Aftershocks jolted the earth's grounds, and people got scared. People from Kami Thanti, Kotkhal, and Neupane Danda gathered in one place. People searched for the wife and granddaughter but were not able to find them on the quake day.

The immediate rescue was impossible due to aftershocks that created fear and a scary environment in the village. After getting an update on two dead bodies, the family cried to seek help from family members. The attached neighboring people came to this family for rescue, but having continuous aftershocks, the rescue of dead bodies was impossible. The buried dead bodies were taken out after one day of earthquake day. Youth and adult people in Kami Thanti rescued the dead bodies from buries at 10 am the next day. Thirteen people participated in the death ritual of two dead bodies. The local people and police came to the place for the evidence (*Muchulka*) collection for death causality and loss of property. It is a record-keeping system practiced in rural areas in Nepal as a part of the public inquiry. It is usually

practiced by local police with local people as witnesses. There is an open space in the Kami Thanti Chautaro, where people stay for two days. After getting relief materials, each family built Chhapro on their own land.

Local youth returnees formed an action plan to manage rescue and support survivors. According to the plan, first, support was offered to the families at death funerals; second, taking out the utensils and food from buried houses; and third, management of dead livestock. The youths proactively engaged in the overall management of immediate rescue in the village. They could handle the panic even in the absence of local police forces.

Police forces were only engaged in the rescue of people based on need. The fragile houses triggered by the earthquake were supported by rope to reduce further damages to be caused by the houses. Two elderly members were trapped in the wall of houses in Kotkhal. They were brothers by blood relation. They were rescued by their neighbor and taken to a local medical center for first aid treatment.

Local people from the upper region of Neupane Danda provided and received support from the people from Kami Thanti, whereas people from the lower region reciprocated the help from the people of Kotkhal. Therefore, geographical proximity played a highly significant role in the exchange of help during the earthquake period. Krishna Bahadur Sarki of Neupane Danda was busy on the plantation of ginger in his *Bari.* His son and daughter were inside the home during the earthquake time. Suddenly they ran out of the home, but the house had already fallen. They were trapped inside the house, and their parent rescued them by removing wood from the fallen house. Krishna Bahadur himself was also injured to rescue his siblings. The family stayed at *Barikopato* for a couple of days. Injured Krishna Bahadur did not get formal medical treatment for almost two weeks. Until then, he got home treatment based on their traditional knowledge. He got formal medical treatment at Kul Chandra Lower Secondary School in Kami Thanti. This medical camp was run by the Korea Maitri Hospital situated in Bhaktapur.

Meanwhile, local people of the non-Dalit community also facilitated for conduction of the medical camp. Later on, the camp closed its services due to fear of earthquake aftershocks. Krishna Bahadur Sarki seriously had an injury in the elbow of

his right hand. His siblings (*Bhuraharu)* helped him and took him to Bariko Pato. He also got treatment in a medical camp at the school, where doctors provided him with medicines and vaccines.

Six youths from Kotkhal lived in Pokhara for jobs. They returned to their home on the earthquake day to help their family members. They collected some money from their friends in Pokhara and bought noodles, biscuits, and *chiura.* These food items were distributed to the local people in Kotkhal. Youths also helped to take out the trapped elderly member to open the place. One informant shared his situation as follows:

> I was trapped inside the house. My sons and brothers rescued me and saved my life. They were brought to the house of Dhital. We stayed in a heig place in the evening. Young people coming from Pokhara gave me biscuits to eat. The biscuit gave me relief when there was nothing to eat.

One youth who returned from Pokhara to Kotkhal shared his experience as stated below:

> We were in Pokhara on the earthquake day. I contacted the home with many efforts. We brought some materials, as houses were falling down. We bought noodles, biscuits, and bitter rice at Dharke Bazaar. We (five/six people) came to the village on a reserved bus. There was a big loss due to the earthquake. We reached home at nine in the night. We had many materials to distribute to neighbors and distributed them. People were carrying in throughout the night. The earthquake was also coming repeatedly. We also rescued and helped during this period. On the next day, we took the wood and steel of the damaged houses to make a temporary shelter.

On the earthquake day, there was a *Kulpuja* in Damai *Tol* of Mathillo Kotkhal. *Kulpuja* is a celebration of ancestors to please them. Relatives and families from the community gathered on this occasion. They slaughtered hens in the name of their ancestors. Suddenly, an earthquake shook the land, and they were not able to make chicken and food. Then they moved to *Bariko Pato* and stayed in an open place. They collectively took the rice, a soup of chicken mixed with potatoes. However, one

Damai family had no food to eat that day, and the family did not get any food from the neighboring Damai people. The family had no good relationship with neighbors. Kirana Pasal (grocery shops) were closed. The next day, the family ate *Chyura* (beaten rice) with sugar from a nearby shop. The government *rahat* (relief material) came to the village four days after the earthquake, and they became happy.

The settlement is near the road, road networks with good conditions, strong community bonding, and a network got quick rescue facilities and relief materials. More than this, the community itself becomes functional even in a hard time with different social and cultural institutions such as family, neighbors, settlements, local networks, and local administrative and political entities.

5.3 Relief Materials

Relief distribution is a major humanitarian support in the hardship of the earthquake period in Jibanpur. The distribution is broadly categorized into three types, i.e., individual, community, and institutions According to the informants, the immediate *Rahat* was offered by the local youth team who worked outside the village. Such type of *Rahat* was provided individually to those families along the roadside. Local government and non-state agencies distributed the institutional *rahat. Rahat samagri* included noodles, biscuits, rice, beaten rice, salts, pulses, clothes, blankets, and tents. The used clothes were also distributed as relief materials, but the Sarki people did not accept those items. Other people along the roadside received new garments; therefore, they thought it was an inferior feeling to take such clothes.

The first relief was distributed two days after the earthquake. Madhab Gautam, a local shopkeeper, distributed the relief. Each household received one tent. This first phase of relief distribution helped the local people a lot as they had nothing to sit on and eat after the earthquake. The houses were collapsed. Meanwhile, foods and clothes were turned into debris. After that, local people got relief foods such as rice, oil, salt, noodles, and biscuits from different non-governmental organizations. Interestingly, Small Farmer Cooperative also distributed cash relief to its village members. Anuyaj Gautam, currently residing in Kathmandu but originally from Dunibeshi, also distributed relief to the local people. Meanwhile, one professor from the Nepal Law Campus and originally from Dhading also provided relief to local

people. Even a small amount of relief worked a lot at that difficult time. The government provided ten thousand Nepali rupees to buy warm clothes in the winter, and local people benefited very much from this case incentive. Furthermore, people received one Korean blanket for one family in Neupane Danda. Again, the GIZ[5], through a local partner entitled Lumanti[6] also provided blankets and steel to the victims one month after the earthquake. Meanwhile, the Indian embassy in Nepal also distributed food and blanket to the victims.

The above descriptions show that individual, agencies and organizations were frontlines for distributing relief materials. There is foundamental nature of Nepali society to help others who are in hardship. However, according to informants, relief distribution was not entirely fair. The following sub-heading discusses the grievances in relief distribution.

Grievances in Rahat Distribution

The informants of the study area said that R*ahat* distribution was largely fair, but some affected households were not properly informed about the distribution day, time, and venues. According to informants, there was no proper channel of relief distribution. In this regard, informants from Tallo Mijar Tol argued that there was lacking a fair and need-based relief distribution management system from the local government. As said by a local government official, the local government formulated one door policy of relief distribution to address the grievances of local people about the unfair and unjust distribution of the relief. The policy was to ensure that relief would go to the victims after the earthquake to regulate the distribution of relief materials in coordination with the local government. The officials from the local government said that the non-governmental agencies opposed this policy of the ineffectiveness of the governmental channel for relief distribution. However, the local government tried to manage the relief distribution through a single mechanism of the

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5 The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has been active in Nepal since 1974 on sustainable development, economic development and health sector (Accessed from https://www.giz.de/en/worldwide/378.html dated on 04-03-2021).

6 Lumanti is non-governmental organization working in poverty alleviation providing habitat supports (Accessed from http://lumanti.org.np/page/history.html dated on 04-03-2021).

local government. Even with the implementation of the one-door policy, local people argued that there was unfairness in the relief distribution. According to informants from Tallo Mijar Tol, food items decayed in stored rooms due to negligence and weak management in the distribution.

According to local people, grievances in relief distribution to earthquake-hit families occurred without having proper coordination, management, and need assessment. The lack of a fully-fledged local government operating in Jibanpur also had a shortcoming in the appropriate management of relief materials distribution. Dalit people were not happy with the role of the bureaucratic-led local government at the time of the earthquake management process in Jibanpur.

Roadside bias in relief distribution has been reported in Tamang et al. (2020) report. Like in Tallo Mijar Tol, the informants opined that there was no fair relief distribution in Mathillo Mijar Tol. According to them, clever (Batha Tatha) people took advantage of distributed relief materials. With political nexus to local government and administration, the local elite misused the relief materials. Upper caste groups, political party representatives, and leaders from the Sarki community are included as elite in the study area. Families residing in the road area got plenty of offers from *Rahat*.

The statement of Ram Krishna Mijar states about unfairness and irregularities in relief distribution. According to him, “Some people put enough relief materials full of the truck in their houses. We had nothing then”.

The geographical factor is important for the distribution of the relief. People on the roadside and in urban areas more easily got relief materials than those living relatively in remote areas. The families near and along the road got information about relief distribution. They saw the relief materials from their homes, whereas families living far from the road were deprived of taking relief materials. As a result, families along the road site received plenty of *Rahat,* such as grain, food, and clothes, regardless of need. Dalit people were not happy with the process and management of *Rahat*. They argued that *Batha Tatha (*local elite) people got plenty of food, clothes, and tents, whereas families with lower political and social strata received a small number of relief materials. They said the relief distribution was unfair, so it could not

go to needy families. The informants said that nepotism and favoritism prevailed in relief distribution, especially in Dalit communities. Purna Bahadur Mijar accused Brahmins and Chhetris of taking the relief materials by writing the surname of Dalits behind their names.

The relief distribution within the Dalit communities in Jibanpur can be analyzed through social networks, ties, and connection approaches. Theoretically, the process is framed by the social network theory. The importance of networks in society has put social network analysis at the forefront of social and behavioral science research. Many aspects of societal life are organized as networks. Families having poor social networks in terms of political, social, and administrative positions did not receive materials of good quality.

In this context, Bista (1991) dissects Nepal's overall process and development phenomena with a fatalistic approach to the culture of fatalism. Bista argues that the traditions of *chakari* and *afno-manche*, discrimination against minorities, lack of systematic planning, etc. harm economic development.

> When one explanation does not seem to work, the social scientist must search for alternative hypotheses. Bista (1991), however, begins with a pre-conceived notion about the inverse relationship between ´fatalism´ and development and selectively uses social, cultural, and historical material to ´prove´ his ´theory.´ Throughout the book, he remains closed to any alternative explanation for the phenomena he highlights. Bistha refers to *chakari* as a ´fatalistic´ practice in Nepali society. However, *chakari* is a highly purposeful, manipulative, and conscious form of social action where the one who makes *chakari* attempts to impress on the receiver of *chakari* that he is committed and loyal to the latter´s cause, whatever that may be. In return for his labors, the *chakariwala* expects goods and services that would be out of his reach under normal conditions. Now, this might be highly undesirable and repugnant and may even retard economic progress. *Chakari* may

mean many things, but it certainly does not indicate passive acceptance of fate or *karma*[7] (Pahari, 1991).

Meanwhile, informants from Gairee Gaun shared that they had received relief four days after the earthquake. The Village Development Office (VDC) (not existing in the present local administrative structure) provided relief materials first. However, the relief was not sufficient to feed them. The ward secretary was originally from Bhaktapur, with the Newar caste group. The secretary was responsible for handling relief items and distribution in the absence of the people elected to the local government. However, an all-party mechanism (*Sarba Daliya Samyantra*) was functional in the absence of local government. Villagers were not happy about her role in relief distribution. One day she was planning to distribute relief items to another place together with the VDC, but not in Jibanpur. However, the relief had come to local people in Jibanpur. So, that day locals decided to take relief materials and distribute them from the truck by hijacking the truck. They had no trust in the VDC office and the secretary of the ward. One truck that was loaded with cooking oil was captured by young people and distributed to locals.

Furthermore, local people also argued that the secretary supplied relief items to her hometown in Bhaktapur. Similarly, irregularity in the relief distribution is also supported by the statement shared by the informants from Gairee Gaun, who said that mattress with black color was distributed, but only a few people received plenty so that they could use in the cowshed that I saw with his eyes.

To conclude, there was a lack of transparency and accountability in distributing relief items. Dalits had serious grievances regarding relief items distributed to them on the issue of fairness, responsibility, and quality. Relief distribution is thus a complex task. There is a lack of a proper record-keeping system for earthquake-affected households. Similarly, reliefs were distributed by the government and non-government agencies without coordination among them. Because of this reason, some households got more relief materials, and some could not get them. In this regard, Tamang et al. (2020, p. 16) argue that there was no

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[7] Anup Pahari on review of Fatalism and Development critically dissects the approach of Bista on development, Nepali society and societal traits and belief system extensively. See detail at https://www.himalmag.com/fatal-myth-a-critique-of-fatalism-and-development/

coordination mechanism to identify needy areas, and materials were distributed haphazardly according to each organization mechanism's own assessment of accessibility, connection, and allegiances.

Anthropologists often engage in community relations in cultural traits in a holistic approach combining livelihood, economy, social and cultural aspects in their approach to study. Sarki people themselves engaged in the immediate rescue of family members, immediate neighbors, and community people. The rescue is prioritized into three phases; first, they rescue elderly people and children to get out of their homes; second, they rescue their livestock; and third, they rescue immediate neighbors. Social capital and bonding played a high role in rescue and immediate relief settings within closed neighbors. There is a strong bond and social capital in Tallo Mijar Tol and Dahar.

The interest of anthropology is more in the wholes generated by network linkages–systems of households, bands, lineages, communities, corporations, and governments–than in the individual persons linked. Even now, when personal network communities are getting so much attention, network analysis can clarify the more complex wholes such as multinational corporations and supranational systems (Tantipathananandh, 2011).

5.4 Summary

The relief and resilience process of the disaster-affected local community should consider the holistic approach integrating factors that cover social capital, household assets, income, social and political connection to the institutions, and many more. Family members, adjoining neighbors, and community people play a key role in rescue and relief management. Three categories of support provided can be placed in a single domain of the CSIR for easy understanding. This domain is an operational category of rescue and relief support for this study. Family members and immediate neighbors occupied front-line positions rather than local government, security forces, and non-state agencies in the rescue period of the disaster. It is better to equip them with hazard preparedness, management tools, and techniques for future policy implications rooted at the community level to mitigate the impacts of hazards.

The rescue is prioritized into three phases; first, they rescue elderly people and children to get out of their homes. Second, they rescue their livestock; and third, they rescue immediate neighbors. In this context, social bonding, networks, and cooperation play a high role in rescue and immediate relief settings within close neighbors. There is a strong bond and social capital in Tallo Mijar Tol and Dahar, showing their good rescue and resilience status. In anthropology, the community generally consists of individuals, family members, neighbors, and community members with common ties in terms of culture, religion, language, communal feeling, and traits. Rural communities in Nepal are functioning even in hard times through cooperation among family members and community people where formal state institutions are not available and not ready for rescue management immediately.

Moreover, caste hierarchy and the practice of untouchability are important social relations in rural areas in Nepal. Natural disasters like earthquakes also play a key role in the assimilation of inter-caste groups. Assimilation is counted in terms of receiving and providing support to each other in the community. This is a good example of the functioning of Dalit society in a smooth way during a hard time. The overall function of social norms, values, and traditions in Tallo Mijar Tol and Dohar can be analyzed with the functionalism approach and Mathillo Mijar Tole and Chhpa Gaun with the disaster of vulnerability.

CHAPTER SIX

RESILIENCE AND AFFECTING FACTORS IN DALIT COMMUNITIES

This chapter extensively reviews the resilience and factors affecting Dalit communities to become resilient. The chapter focuses on the construction status of the new houses in the study area that, ultimately, relates to the resilience of local people. This chapter also shows how policies translate into practice in the study area. The resilient factors are dealt with in line with the conceptual framework of the study.

6.1 State's Role in the Construction of New Houses

Conceptually, the resilience factors are mainly confined to the role of state agencies, plans, policies, and interventions for earthquake-hit families. The support from three layers of government in the country, including financial support, policy formulation, and implementation of such policies, are also included. The NRA played a key role in reconstructing private housing throughout the country. The government also formulated related Acts and Guidelines for the NRA. The relevant Acts were briefly mentioned in Chapter One. Though the state machinery includes three layers of government, state bodies, and software interventions, the cash grant to the earthquake-hit families was the major intervention of the government to build earthquake-resilient houses. The section below reviews cash grants provided by the NRA to earthquake-hit families and the release process.

Cash Grant for Construction of New House

Financial capital for the earthquake recovery includes the government-provided cash grant for the construction of houses, the role of saving, and credit services provided by local financial institutions, facilities, and relief distribution, including food and clothes. There were several criticisms of slow reconstruction paces both inside and outside Nepal. Many organizations, including donors, have urged the Nepali government to expedite the reconstruction and the distribution of grants (Lam et al., 2017). The reconstruction progress only started to accelerate in August 2016, when a campaign was undertaken to finally distribute the reconstruction grant

installment of Nepalese Rupees (NRs) 15,000 to the affected families that had signed grant agreements. NPC states:

> This long-awaited installment was part of a series of installments that the Nepalese government had promised to grant and distribute to all earthquake-affected families applying for the grant and signing the necessary grant agreement. This grant agreement requires affected families to rebuild an earthquake-resistant home in accordance with government-formulated standards and guidelines to receive further aid. (NPC, 2015).

To be precise, Nepal **G**overnment resilience scheme is mainly confined to the cash grant of Nepalese rupees of three hundred thousand to construct earthquake-resilient and safer houses. The government has provided cash grants in three installments. The NRA implementation guideline provided the installment through the local government with inspection of the assigned NRA Engineer (see Table 6.1).

Table 6.1

Cash Grants Release for Construction of House

Installment	Amount (NRs)	Time	Milestones
First	50,000	Ashoj, 2072 B.S.	In starting phase, after getting a red card for making a plot suitable for building
Second	150,000	After DPC completion	DPC foundation of a house, Verification by NRA assigned Engineer
Third	100,000	After wall construction	Wall construction and addition roof, Verification by NRA assigned Engineer

Source: Field Survey, 2020

The NRA has already designed policy guidelines for systematic and resilient private houses of earthquake-hit families. The guideline is policy backing for the reconstruction of private houses systematically. The guidelines entitled *Niji Aabas Punanirman Prabhidhik Nirikshana,* (*Pahilo Samsodhan*), *Karyabidhi*, 2075 B.S., which the NRA developed, contain relevant information about the criteria of grants,

house design, and code. The guidelines mainly focus on the technical component of house construction, such as technical requirements, detailed structures, maps of houses, official processes, monitoring and evaluation process of houses, and milestones. The guidelines also state the different types of houses to be built by beneficiaries and the milestone for receiving the grants. However, it is silent on the social aspects of house construction, how local people perceive the design of houses, and local people's approval of the various processes of reconstruction.

According to a rough estimation of local people from the non-engineering aspect, two hundred thousand rupees is required to construct a one-storied house with two rooms with muddy walls and a steel roof. The house with cement supported structure, popularly known as *simentko bim* (cement-supported structure). However, the building has to be approved by the technical staff of the NRA to ensure compliance with the guidelines. The cost for the same structured house but with the *kathako bim* (wood-supported structure) is about NRs 130,000, whereas the cost for constructing houses with two rooms with cemented walls and a roof with steel is NRs 500,000. Therefore, the grant is insufficient for the construction of spacious houses. Particularly, economically poor Dalit families could not top up the additional money to build new houses. In this context, the NRA technical approval provision and a nominal cash grant to the families play key roles in building new houses, not in local needs and settings. Newly built houses have similar patterns without *Kaushi* (verandah) and matan (upper ceiling surface) and open structures inside the house. It is due to a lack of financial resources.

6.2.1 Local Broker in Construction of House: New Social Space

Dalit people got the first installment of Nepalese rupees 50,000 five months after the earthquake. However, there was no alternative income for economically deprived Dalit people for everyday expenditures. Red cardholding households had no money to build the first foundation of the house. They received the first installment during the festival season of Dashain and Tihar. The season triggered the expenses of local people on food and clothes. Therefore, they merely utilized the grants for the construction of houses.

Unlike the government plans and reconstruction policies, the broker's role was significant in completing the reconstruction of the houses in the study area. This extra social layer provided money to local people for the construction of houses until the release of the second installment by the government. The rise of *Sahu* (middlemen) after the earthquake was observable in the study area. Such middlemen were local contractors. They have both skills and resources for the construction of houses. In the study area, most of the houses were constructed by the contractors with their investment, and later they received installments from the affected households. For this deed, there was a negotiation between the owners of the households and the contractor for the reconstruction of the house. In such negotiation, the contractors took the red card provided by the NRA for the earthquake-affected households for payment. At the time of installment payment, the contractors also went to the respective office along with the owner of the households and took the grants in lieu of his services.

The middleman is an additional social existence for utilizing cash grants to construct new houses. The middleman trusted local people for lending purposes. Once they received the second installment, the middleman used to take the money in return. One of the informants from Mathillo Mijar Tol stated that "the contractor took the second installment." There is a mutual commitment between the contractors and the locals to construct the houses. The contractors are neighbors or relatives and well-known people in the local community. For example, Bidur Mijar is a representative of the local government of Ward No. 4. He has been working as a local contractor who built the house after the earthquake. Bidur Mijar was also a Dalit representative in the Ward Office from the Dalit community. He also used to make the house on a contract basis as a contractor. Respondents also argued that Bidur Mijar himself also worked as the middleman. Bidur Mijar said, "Other contractors took the second installment in return for building the DPC foundation. However, I did not do it." Bidur Mijar also accepted that some local contractors took the second installment. In return, the contractor built the house with the DPC structure.

As per the guidelines, the recipient household should have a DPC foundation for a new house to get the second installment. A few local households took a loan from the local contractor (*Sahu*) for the construction of the foundation. *Sahu* is the middleman that provides the money to the Dalits for the construction of the DPC

foundation of the house**.** The contractor built the DPC foundation per NRA's requirement to get the second installment in Nepalese rupees 150,000. The Red Card was used as collateral for getting a loan from the local middleman. The tentative cost for the construction of the DPC is about Nepalese rupees 80,000.

Such recipient households did not get the amount of the second installment. But the middleman received the second installment on behalf of the red card holders' families. According to Jiban Mijar and informants from Jibanpur, the middleman profited from the incident and took extra money from the second installment. However, the recipient family who worked through middlemen still had to get the last installment worth Nepalese rupees 100,000.

Anthropology is all about the social interactions, processes, and relationships of people in the community (Eriksen, 2004). New social relationships with people at the local level were developed due to the grant policy of the government. Although it was a type of borrowing money at the individual level, it had a big social meaning. Local people not only took money from the middleman but also established new social relations in the community. All middlemen did not give cash to beneficiary families; rather, they supported them in constructing a new house to form the DPC foundation. The supports were in the form of kindness, cash, construction materials, and labor supply. In return, they took a second installment provided by the government.

The rise of local brokers also has implications for the resilience process, particularly in the construction of new houses. The cash grant was enough for those families who built the houses without contracting brokers by exchanging labor among community people. They did not borrow loans for the construction of new houses. Meanwhile, families who contracted the broker for the construction of houses had borrowed loans from the local banking institutions. Therefore, the cash grant was not enough to build new houses to those families.

Path to New House

There were two different shelters for people before moving to the new house. Immediately after the earthquake, they settled in an open space under the tent. They

also took out the food from their house into the tent. Before the construction of the new house, they also managed a temporary house (*chhapro*) with leafy materials, soil, stone, and local wood. The leafy materials and local wood were available in their village. Therefore, they also utilized local resources in the building of *Chhapro* and the new house.

Reconstruction Status

This section presents the status of damaged houses and the update of new houses after the earthquake, as house conditions play an important role in Dalit people's resilience. However, the damaged houses were classified and noted in line with the government's labeling for uniformity and consistency. Furthermore, the section also highlights the conditions of homes in major settlements to compare and contrast resilient factors.

House damage was the major impact of the earthquake. However, the earthquake also destroyed the cowshed and other physical infrastructure of local people, along with stored grains. The damaged houses were classified into three types. The first type was totally destroyed. The second type was partially destroyed, and the final type was not destroyed. The government provided a red card for completely damaged houses and a yellow card for partially damaged houses. In the study area, 167 houses were completely damaged, as given below (see Table 6.2).

Table 6.2

Level of House Damages by the Earthquake

Caste/Ethnicity	**Degree of House Damages by the Earthquake**	
	Total Damage	Percent
Damai	10	6
Kami	22	13.17
Sarki	135	80.83
Total	167	100

Source: Field Survey, 2020

The study area has a dominant population of Sarki people (Cobblers). The earthquake totally damaged 135 houses of Sarki families, followed by Kami with 22 houses and Damai with ten houses. In anthropological terms, the loss of cowsheds, shelters, or houses completely destroys the study area's social, cultural, and emotional attachments. There was no shelter to live in, no cooking place, no food, no clothes, no space for sleeping, and no place to rear livestock. During this difficult period, they just stayed on a *Bariko Pato* (open terrace). It was a social, cultural, and economic disorder and the most difficult time of their life.

The earthquake had serious impacts on livestock, such as buffaloes, cows, goats, and chickens. The earthquake also damaged all cowsheds in the study area. The cowsheds were necessary to keep livestock. Agricultural products, such as grains and cereals, were also lost during the earthquake period. A study carried out by Tamang et al. (2020) also extensively highlighted the loss of cowsheds and livestock by the earthquake and aftershocks.

Meanwhile, one study stated that about 17,000 cattle were killed by the earthquake throughout the country (NPC, 2015). Therefore, the house damaged by the earthquake was a complete destruction of the local economy of the study area. For example, cattle and animals provide manure, meat, milk, and cash. Therefore, there was a direct and indirect loss due to the earthquake in the study area. One study carried out by the Asian Development Bank (ADB) states that the total loss was about Nepalese rupees 706 billion, whereas the total damage to grains, crops, cattle and irrigation, and farming land was about Nepalese rupees 28.3 billion.

Resilience and recovery are always concerned with reconstruction. The reconstruction of private houses was a major concern of local people. It was found that 133 Dalit families out of 167 built new houses after the earthquake until the fieldwork (see Table 6.3). However, two Sarki families from Tallo Kotkhal have not started building houses yet. An extensive story on the reasoning for two houses and the overall house building status is given in the coming section.

Table 6.3

Status of New House Construction

Caste/ Ethnicity	Status of House Construction								Total
	Not Started Yet	Percent	DPC Only	Percent	DPC with Wall	Percent	Completed	Percent	
Damai		0.0	4	2.4	5	3.0	1	0.6	10
Kami		0.0	2	1.2	6	3.6	14	8.4	22
Sarki	2	1.2	8	4.8	9	5.4	116	69.5	135
Total	2	1.2	14	8.4	20	12.0	133	79.6	167

Source: Field Survey, 2020

The study has classified the status of new house construction into three types. First, families who had already completed the construction of a new house covered 133 households. Second, the DPC foundation, which 14 families completed. Finally, the third type was the house with a DPC foundation with a wall but without a roof, which 20 families constructed.

Family income always does not play the dominant role in the construction of new houses in the study area. For example, the annual income of Damai in Mathillo Kotkhal is higher than that of Kami and Sarki in the study area. However, surprisingly, only one Damai family had built a new house. Therefore, the income of Damai families was not found as the dominant factor for the timely construction of houses despite the high-income level. It was found that the families spent the money that they earned on clothing and the consumption of alcohol. Importantly, they lacked saving culture and social bonding and hardly helped each other in the construction of new houses after the earthquake.

Three types of houses were built after the earthquake as part of earthquake-resilient houses. They were *Pakki* (cemented houses), *Kachhi* (houses with dirty floors), and *Tahara* (temporary houses made from bamboo and leafy materials). Pakki houses consist of cement walls, iron rods, and cemented roofs. Kachhi house was made with mud, stone, roof, and wood. *Tahara* is a temporary center before shifting to a new house. In the construction of *Tahara*, local construction materials were used,

such as local wood, leaf, bamboo, and mud. It was found that 116 families had *Pakki* houses, 33 families with *Kachhi* houses, and 16 *Tahara* were under construction even five years after the earthquake (see Table 6.4).

Table 6.4

Types of New Houses

Caste/ Ethnicity	Types of New Houses						Total	Percent
	Pakki	Percent	Kachhi	Percent	Tahara (under construction)	Percent		
Damai	6	3.6	2	1.2	2	1.2	10	6.0
Kami	16	9.6	2	1.2	4	2.4	22	13.2
Sarki	96	57.5	29	17.4	10	6.0	135	80.8
Total	118	70.7	33	19.8	16	9.6	167	100.0

Source: Field Survey, 2020

Dahar

Geographically, this settlement is a bit far from the major settlement of Jibanpur. The settlement has market linkage to Dharke Bazar on the Pokhara Kathmandu Highway. This settlement is isolated and far from the dominant human settlement of Jibanpur. The motorable road goes to Dahar via Jibanpur. There are seven households in Dahar, and they have already constructed new houses. Out of seven houses, one house is two-storied with a pillar system. There are two houses with four rooms with steel roofs, whereas there are four houses with two rooms. One family also used an older house through maintenance. Each family in Dahar has one *Chhapro* that is used for the kitchen since many families have a house with two rooms. This is an additional structure made by local people to meet their local needs and space. There is no space for a kitchen in a newly constructed one-storied house with two rooms. There was no separate place like *Chhapro* for the kitchen before the earthquake. Dalit families had one room or separate space for a kitchen inside the same house before the earthquake. Older people had plenty of space for grain storage, kitchen, and sleeping space, whereas new houses had only two rooms with narrow space.

During the new house construction, Dalit people in Dahar only hired skilled labor on pay, and the remaining works were performed through the *Parma Pareli* labor exchange arrangement. The savings money was utilized for buying construction materials for houses. They did not have any loans for the construction of new houses, and the grants were found enough in general. Dahar is also close to farming land, Dhunibeshi *Phat*. Four families have farming land in Dhunibeshi Phat (irrigated farming land). They also cultivated land on *Adhiya* in which crop was divided into equal half to each land owner and the tenant farmer who cultivates the land. In this farming system, the half-agricultural output is shared with the landowner, and the half-crop is to the farmer. They only shared paddy with the landowner on *Adhiya* and not other crops. They also cultivated vegetable farming and earned money by selling them in Dharke Bazar. Five families also did poultry farming, from which they had a good income. This settlement has recovered in terms of livelihood, income, and house construction.

Tallo Kotkhal

Tallo Kotkhal is a dominant settlement of Dalit people in the study area. All families have constructed new houses except two in this settlement. However, this settlement struggled to escape from the pain of the earthquake. The newly constructed houses have only two rooms. Only two houses have their own farming land, and most families have no land of their own. Families having barren land (*Pakho Bari*) is not suitable for improved vegetable farming without a water supply. The government's money was insufficient to construct houses, and they borrowed loans. The young population is out of the village to earn money.

According to local people, there is no good cooperation among community members in Tallo Kotkhal. However, Bishnu Mijar, with his elderly wife, also resides in this village. The family has no offspring, and the earthquake damaged his old house. After the earthquake, families except Bishnu constructed temporary *Chhapro* for shelter. Nobody helped Bishnu with the construction of his *Chhapro*. Bishnu then borrowed a loan and paid the money to neighbors for the construction of the *Chhapro*. The *Parma* was not possible with this family. According to local people, in Tallo Kotkhal, the monetary relation is strong in their village rather than social capital and

exchanged labor practices. The village has not completely recovered from the earthquake-hit situation. Two families have no earthquake-resilient house in the settlement. Furthermore, the sources of income are limited, and social bonding is weak. Moreover, two people have mental problems due to the financial burden of the earthquake.

Mathillo Kotkhal

Mathillo Kotkhal is a less resilient settlement compared to other settlements in Jibanpur. Five families still had to build houses and only had a DPC foundation. The new house construction pattern is mixed with a pillar system, mud, and stone, showing diversification and inequality in general. The household heads of five families drink liquor excessively. Women of such households clearly expressed their dissatisfaction with the excessive liquor-drinking habit of the husband as the single reason for not constructing houses. They used the grants provided by the government for liquor drinking. Meanwhile, this settlement has weak social bonding and community-level cooperation. There was no common decision and understanding among the family members in this village. The feeling of competition among the neighbors is another reason for weak social bonding. For example, one family ate *Mashu Bhat* (meat and rice) on the earthquake day, whereas one adjoining family had nothing to eat and slept without food. Two families did not even share the food during the hardship of the earthquake. Each family treated neighboring families as enemies and competitors. Furthermore, there was a shortage of drinking water supply. Families in Tallo Kotkhal had insufficient farming land with mixed types of occupation.

Neupane Danda

Neupane Danda settlement is scattered with small clusters and is geographically distant from each other. All Dalit families have already constructed new houses. Neighboring families did not help each other in the construction of houses. Families also took a loan from local financial institutions putting the land title certificates as collateral. The family of Budhe Sunar is financially weak in this settlement. The family has no land to build the house and no source of income except *Jyala Majaduri*. The income from the *Jyala Majaduri* (paid labor) is also irregular. However, the government provided a cash grant to construct a house. Half the money

was used to buy *Ghaderi* and half for building a house. The family has a small place with one room. It is made up of mud and stone. Neighbors also did not help the families to construct new houses.

Except for a few families, people from Neupane Danda had various income sources, including vegetable, fruit, and goat farming. The Dalits people in this village also have their own land for farming. The exchange labor practice *(Parma Pareli)* also prevailed in the village during farming and house construction.

Kami Thanti

Kami people with the *Sunar* clan live in Kami Thanti. Kami people have already constructed new houses. Kami people have a traditional occupation of ironing. There are three Arans in this settlement. Some people also worked in jewelry shops in Kathmandu. The local government has supported the Kami people in the operation of their traditional occupation. Local people have a good income from the *Aran*. Women also engage in saving schemes in different saving groups. People also had saving behavior.

Gairee Gaun

All families have built new houses in Gairee Gaun. People have vegetable farming as a major source of income. The settlement has a good water supply, so vegetable farming is possible. Sarki people in Gairee Gaun are resilient regarding house construction and livelihood recovery. The family members of Bhunte Mijar had the occupation of vegetable buying and selling in Kathmandu. After the earthquake, the family immediately came to a normal situation with the help of that occupation. The family had no adverse effects from the earthquake. Two people from Gairee Gaun are in foreign employment that also supported the earthquake recovery process. The training on wood making that the people received after the earthquake consequently enhanced their skills, and they had employment opportunities in the local area.

Chhap Gaun

Two families had not built houses in Chhap Gaun till the research period. One family received the first installment of the government cash grant but did not construct the DPC foundation as per the NRA requirement. The pattern of house construction is a mixed type with two rooms made up of cement and brick. However, a few families have eight rooms in the new house. One family also returned to Jibanpur after the earthquake and started a small furniture industry that benefited local people in the construction of houses. Meanwhile, one youth returned from Saudi Arabia and worked in transportation with his own truck.

Many families in Chhap Gaun were not recorded in the beneficiary list. According to locals, there is a political reason for not documenting the beneficiaries in the NRA record. Dalit communities affiliated with the Maoist Movement for political, social, and economic transformation in the country were not listed. The movement was against the existing political parties, even at the local level, and security threats in the national context. In 1996, Maoists started an insurgency for social, political, and economic transformation by replacing the constitutional monarchy in Nepal (Ashraf, 2002). The Chair of Ward was from the Jimmawal family background, representing the upper class and upper caste. Jimmawal acted as a state representative at the village level with a primary tax collection responsibility before 1951 AD. Binda Bayalkoti, a former rebel and one of the red card holder informants of Chhap Gaun, argued that some spoke against the elite political people at the local level at the time of the Maoist movement. Therefore, Ward Chair in Chhap Gaun did not facilitate for registration of beneficiaries in the list. Meanwhile, many families did not get registration information.

Dalit youth clubs were not functional in other settlements in Jibanpur. However, one youth club in Chhap Gaun played a crucial role in the recovery process of Dalit people providing rescue and relief support after the earthquake. The club also helped the local people in the registration process.

Tallo Mijar Tole

This settlement has 19 respondents whose houses were totally destroyed. It has residents of Mijar surname people from the Sarki community. It is situated below Tamaguru. All the destroyed houses were fully reconstructed in this settlement. It is a fully resilient settlement. There is strong social bonding and social capital. As a result, they buil**t** new houses timely in Tallo Mijar Tol. The traditional saving group also played an important role in the restoration of the water supply after the earthquake. A detailed explanation of how the saving group played a role for the restoration of the water supply is presented in section 6.4.2.

Jimmawal Gaun

It is located below Chaap Gaun. The Dalit settlement is scattered here. Five respondents are there in this area. All destroyed houses were reconstructed fully in that settlement.

Kola Chaur

It is located above Thulibeshi Phat. There is only one female respondent in this settlement. She did not have private land. So, she was not able to fully reconstruct her house. Her house is under construction with only a DPC foundation.

Khani Gaun

It is located on the edge of Ward No. 4. It has only one respondent. The village has no road access or electricity. So, his son did not want to stay there and migrated. But Krishna Bahadur Mijar fully reconstructed his house and stayed there.

Mathillo Mijar Tole

It is located above Tamaguru village. It has the residence of Sarki people with 19 of our respondents. It had faced less damage from the earthquake compared to other villages. Almost all houses were not reconstructed in this settlement.

Kafle Pani

It is located down the side of Tallo Kotkhal towards the Kolpu Khola. It has the residence of the Mijar and Damai people. Among eight respondents, two houses were not reconstructed in this settlement.

In the recovery process, various factors have played a role in Jibanpur, including income level, availability of skilled workers within families, bonding of the traditional labor exchange system that is *Parma Pareli* (exchange labor practice), and access to information. For example, Dahar and Tallo Mijar Tol are highly resilient regarding infrastructure and livelihood with community-level cooperation, skilled workers, and personal determination to get a better life after the earthquake.

It was found that various recovery parameters for the recovery process include; household income, non-dependency upon wage labor, availability of remittance, access to education, information, and technology, basic services, social capital, and prior awareness of disaster risk reduction (Tamang et al., 2020). However, family income level is the first driving force for recovery. Remittance was not the dominant factor in the resilience process in the study area.

6.2.3 Overview of Incompletion of House Construction

The new house was a key indicator of family resilience. Therefore, it is essential to discuss the reasons behind the incompletion of house construction. Some families did not have new house even after getting the first installment from the government. Thirty-four houses in the study area have no complete construction. There were many reasons for the incompletion of the houses, particularly ownership disputes, the out-migration of family members, and spending of the first installment for the expenses during festivals. According to the informants, family members from various age groups would like to make separate houses than single houses for all adult family members. As stated during the field visit, the joint family would like to separate into a nuclear family, sharing the government grants among the brothers. Offspring (*Chhora chhori*) of Dalit families have stayed in Kathmandu, Chitwan, and other major cities for livelihood and income purposes. When the earthquake jolted in 2015, the offspring returned to their home village to meet their parents with relief

support. Officially, the offspring did not separate from the parents with the inherited property before the earthquake. However, they were separated from their parents practically as they used to reside with their own wives and children, like in nuclear families out of study area. When the government decided to provide cash support to earthquake-hit families with land certificates, they officially divided to get grant benefits from the government for the construction of new houses. Such beneficiaries did not live in Jibanpur but had land ownership and had already taken the first installment. Some beneficiaries who took the first installment of the cash grant were out of the village and migrated to cities for work and better opportunities. It was found that they would not return to Jibanpur in the future. Meanwhile, it was reported that 36 households were divided after the earthquake in Jibanpur to get the cash grant.

Furthermore, a few families in Chhap Gaun were not listed in the NRA registration record for several reasons, such as lack of cooperation of ward administration and access to information. Chhap Gaun is also located geographically distant from Dhunibeshi municipality. There is also a dense pine forest reaching the village from Jibanpur. People from this village are linked to Dharke Rural Municipality and own Dhunibesi Municipality for everyday transactions and interactions. Kanchi Mijar states that the grant provided by the government was inadequate for constructing a new house. Sankhar Bayalkoti further mentions that the amount was insufficient to construct a new house with the government standard. He states:

> Everybody in this village has a loan. The money was not insufficient to build new houses with the government standard. People will not have a loan if the government has not provided the money as people would build the house as per their own wishes and requirement. It was expensive to make the house with the government standard.

The reconstruction policies are effectively implemented when it considers local people's social, economic, and cultural needs. Therefore, the above statements of the informant suggest that the ground realities of the reconstruction should be reflected in the policy. The grant was insufficient to build new houses for those families who were financially poor and had no regular source of income. On the

contrary, Sante Mijar of Kotkhal believed that money had a significant role in the resilience process as below:

> We made a house, even though it looks small, like *chhapro* (temporary shelter). If the government had not provided the money, we would stay in *Taharo*. The money is enough for one person. We came to a normal situation like before the earthquake. The government provided relief, and I ate. Later on, organizations also provided black mats to sleep on. Nobody would look after a single man like me. The government provided and survived. The government protected me like children of their parents.

However, it was found that all Dalit informants unanimously agreed that the cash grant was insufficient to build new houses as per the government standard with rod and cement. Equally, there were two versions of local people about the cash grant provided by the government. Most locals were happy with the grant that supported them in building new houses. A few informants who had no regular income and were financially poor also stated that they borrowed loans from local financial institutions to build the new house. They were hardly able to return the loan with interest. To generalize the findings from the field, the cash grant support from the government was helpful in building new houses as they certainly needed new houses after the earthquake.

Tallo Kotkhal

Two families in Tallo Kotkhal did not receive the third cash grant installment. Ram Kumar Sarki could not form new houses and stayed in the *Chhapro* (temporary shelter). The new house has only a DPC foundation; however, the family received two lakhs from the local government under a cash grant. His father received the first installment due to his absence from home. He was out of the village for employment purposes at that time. The first installment was used for household expenses such as buying gas, a stove, and clothes for his children during the Dashain festival. His father was also sick with paralysis in his legs. The money received on the first installment was almost finished when Sarki came back home. When Sarki came to the village, he built the DPC foundation by borrowing money from the local moneylender. He also received the second installment of the cash grant. At the same time, his wife left him

with some amount of money. He was financially weak, with no additional sources of income, and therefore, he was not able to build his house. The first and second installments are used for the treatment of children and household expenses.

Chhap Gaun

Meanwhile, two families have not constructed new earthquake-resilient houses in Chhap Gaun. Ramesh Mijar took the first installment of the cash grant from the government. He is a single family that has not built even a DPC foundation after taking the cash installment. Mijar has land in Jibanpur under his name inherited from his family. He also took a loan from one financial institution by putting the land title certificate as collateral. He had no additional land to build the house. One agreement between Mijar and the NRA on the house's construction on his father's land concluded. However, his brother did not agree to provide the land to construct the house. However, he has a source of livelihood support income in Kathmandu. Later, he migrated to Kathmandu. On the contrary, opposing his son's version about the land, his father assured him that he was still ready to provide land if his son wanted to build the house. His father also booked construction materials from a local shop owner by providing some money in advance. Nevertheless, Mijar took this money from the shop owner.

Gopal Sarki also cannot build a new house due to his elderly age of about 90. The family has only a DPC foundation for the new house. His son does not live in Jibanpur and is out of contact with his father. The family has no additional source of income except the elderly aged social security allowance provided by the government. The grandson wanted to build the house but had no money. He did not get money on loan despite his numerous efforts. The grandson is in foreign employment. Once he returned from the foreign land, the elder dreamed of making a new house. Now the family is living in the old house after maintenance.

Gairee Gaun

Dipak Mijar in Gairee Gaun has also not completed a new house till the research period. He has one Chhapro that could last for a few years, although he plans to build a new house once he has money for the construction. The family has a DPC

foundation with four rooms. The first and second installments are also used for family support expenses, especially during the festive season.

Mathillo Kotkhal

Madan Damai in Mathillo Kotkhal has only the DPC foundation of the new house. The family is poor, with no regular source of income. The money received as a cash grant from the government was used for household expenditures, and now the family lives in *Chhapro*. The money is also used to buy food and clothes during the festival season. Meanwhile, his son uses the same money to buy a new bike. The family has a little money but not enough to make even a small house. The family also has no source of collateral to take the loan from a bank. Madan Damai's statement reveals that the government's money is not enough to build a new house. At the same time, the family has no sources of income and saving money to build the house. Dalit people shared[8] the government grants as "the money provided by the government is nothing to build a new house."

As argued by Tamang et al. (2020), families with poor economic conditions are unable to return to normality in economic, social, and cultural aspects. Regular income in the family also plays a key role in recovery. Meanwhile, Ramesh Pariyar, the first youngest brother of Madan Damai, has no new house in the village. The family already took the second installment of the cash grant; however, the family has only built the DPC foundation of the new house. Unfortunately, Ramesh Pariyar also committed suicide in 2020. The wife of Mr. Pariyar left the house and married for the second time. The children are living with their mother in Kathmandu. Ganesh Pariyar, the youngest brother of Madan Damai, also has built only the DPC foundation of his new house. He also has a tailoring shop in Jibanpur. The family has vegetable farming. Children study in a private boarding school in Jibanpur but have no new house. The family is also planning to build the house soon with the availability of money for the house construction.

8 *[Sarkarle diyako paisale chheu na tuppo pani hundai.]*

Some families living outside the village for work and employment options have not built new houses in Jibanpur because they do not need them. Binod Pariyar lives in Kathmandu with his family in a small business. However, the family has built the DPC foundation of the house in Mathillo Kothkal by taking the second installment of the grant.

There is a single Dalit family of Bishnu Maya Pariyar in Kola Chaur. The family had migrated from a nearby village to Jibanpur, Kala Chaur, with the help and cooperation of villagers by providing the land for house construction. The earthquake damaged it, and it was listed as the beneficiary of the NRA for a cash grant. However, the Dalit family has no land title certificate; therefore, the family is not eligible for the cash grant.

The above description shows that completed and not completed houses are contested ideas among the villagers. Some people viewed that they became poorer due to government grants. They said, “If the government did not give the grant, we would not take the loan to complete the house.” Unlike this view, other people were thankful for the government loan because it became helpful in making new houses in Jibanpur with the government’s grants.

6.2.4 Cultural Aspect of Home

The house is the cultural aspect of Dalit people in the study area. For Dalits, it is not only a means of shelter but also represents social and cultural domains.

Post-disaster reconstruction is a complex socio-political process impacted by numerous variables, including people's social vulnerability, the state's financing capability, reconstruction programs' modalities and approaches adopted by the government or donors, and their respective bureaucratic procedures (Karki et al., 2022). In the study area, earthquake-affected Dalit families constructed new houses with the support of cash grants from the government. However, the majority of families have a one-storied house with two rooms. As observed in the field, new earthquake-resilient houses do not have plenty of space for grain storage, sleeping, a kitchen, and space for *puja aaja (*worshiping), the god and goddess. Dalit people argued that the old house was good for them, although it was made of mud and stone

in winter. The reconstruction of new houses with the grant support of the government and the reconstruction policies of private houses have clearly undermined the needs of Dalit families in terms of space, required numbers of rooms, storage area, and *puja kotha* (worshiping space). The local government and other state agencies did not consult local Dalit people about the need for houses and the amount of money needed to build the house they needed. The government just provided the grant money in three installments according to the physical progress of private houses and the policy of the NRA. The same case was found in Brazil as Marchezini (2015) argues that the government organizations in Brazil have biopolitical discourses and practices that consider local cultures irrelevant or irrational. However, it is important to respect, comprehend, and incorporate the local cultures into disaster response and recovery.

The engineering of new houses is completely different from old houses. Old houses were designed according to the need and requirements of Dalit families in local environmental contexts and settings that consider space and weather. Therefore, the design also counted various aspects such as geology, soil and land structure, direction, space, and rooms in the settings. The houses had space for a kitchen, bedroom, restroom, storeroom, and *kaushi* (verandah). House is also a symbol of culture and traits. Therefore, a house is not merely a set of engineering but also consists of social, cultural, and religious dimensions. Shambu Sunar shared his experiences with old and new houses as:

> Before, there was a house with stone and mud. The house had two stories with *pali* (additional structure of the house in the frontward on the first floor) and without *matan (*verandah). That was good, although it was made up of stone and mud. Now we have a new *pakki* house with two rooms. It is a bit difficult in the new house if a guest comes.

Raj Kumar Sarki also compared the pros and cons of old and new houses in his version, “before the earthquake, the two-storied house was made up of stone and mud. The house had a steel roof. Now the cemented house has two rooms. It looks good to live, but it is difficult in grain storage in the new house.” One Dalit informant shared about how they manage the space in the new house as “the new house has multi-use purpose ranging from dried buffalo meat to garlic to maize and sleeping space.” Therefore, people have used single room for multipurpose in a new house (see

figure 6.1). It is because that new houses have no separate room for sleeping and storage of grains.

Figure 6.1

Internal Arrangement in New House

The families received NRs 300,000, which is insufficient for building earthquake resilient houses with proper space in local needs and settings. Meanwhile, Dalit people also did not have money to make two or three-storied houses with plenty of room and space to meet the social, cultural, and physical needs of houses in local settings. This situation compelled them to build the house with two rooms that the NRA technical person could easily approve. Once verified by the technical person, the beneficiaries are to receive a full installment of the cash grant. One informant said personal secrecy (such as cooking food, clothes, and grain) could not be maintained through the new house. The outsiders easily see what we are doing and eating inside the house from the outside. One can easily measure our socioeconomic status from the outside.

One Dalit informant shared the demerit of the new house as follows:

> When you look at my house, you can see everything that I have. The old house had many rooms, and nobody could see all rooms of the house. When you enter the new house, you can see all things inside the house at first look. I have nothing to hide. There is no privacy in the new house. All things are visible from the outside.

As reported by informants, there are many demerits of new houses, such as there is no separate space for a kitchen room. There is also not enough space for a sleeping room; all adult members share the same room for sleeping. An informant said that the house was made not only for men, it is also made for deities and gods. The new house was constructed only for human beings, not for their belief system. Although the traditional house was not of modern standard and earthquake resilient, it was functional where spaces were available for drying up crops, keeping goats, a place for guests, and gathering neighbors. As reported by informants, the new house is not suitable for the local ecology and climate, which is colder in the winter and hotter in the summer, but muddy houses adjust both temperatures.

The techno-environmental model of the cultural ecology of Steward is the environmental adaptation of local people to the surrounding environment. According to this model, the environment determines society's social structure and form (Steward, 2005; Orlove, 1980).

Ecological anthropology owes its existence to a number of swings on intellectual pendulums. Stated briefly, it emerged from the reaction to the incautious cultural evolutionism associated with Morgan, Tylor, and others in the nineteenth century. In this period, a number of writers developed models of cultural evolution. The specific details of the models and some aspects of the conceptualization of culture varied, but the writers shared the assumption that all cultures could be placed in a small number of stages and that cultures tended to move through these stages in a relatively fixed sequence. Morgan, one important figure in this school, established a set of seven evolutionary stages which Marx and Engels encountered and utilized (Orlove, 1980).

Orlove (1980) further states that this method of cultural ecology entails the study of the relation between certain features of the environment and certain traits of

the culture possessed by the sets of people living in that environment. Within the environment, Steward emphasized resource quality, quantity, and distribution. The aspects of culture that he examined most closely were technology, economic arrangements, social organization, and demography, although he also included other aspects (p. 237).

According to the informants, old houses provided shelter for Dalit families and represented their social and cultural aspects. The houses are designed for their local and cultural setting with space management, puja space, sleeping space, and storage of grains. Old houses of Dalit communities adjusted to their environment, including designation and engineering, with the cultural viewpoint of analysis. The earthquake damaged their house, cowshed, and surrounding environment. On the contrary, Dalit community have not adapted to the new house in terms of social and cultural aspects.

Meanwhile, some informants were also happy with new houses in consideration of safety. They believed that the house would not collapse in an earthquake in the future. Although old houses were compatible with the social, cultural, and religious setting of Dalit people that the earthquake damaged them. The earthquake provided an opportunity for the construction of a new cemented house. Dalits consider a house of cement and bricks strong and safe. Some families also have managed the worshipping space on the roof (*Chhat)* in new houses. Sita Magarati of Kaflepani shared her mixed feeling about the new house:

> We had a house of mud and stone with *Choto* and no *Matan*. The *Duipakhe* (two sides) house was 10 X 11 feet. Now we have a one-storied house of 12 X 24 feet with two rooms made up of cement and brick. This house is *Ekpakhe* (one side). It is good now as there is no place for the mouse. Here is no place for *rakhan dharan* (storage). It is very cold but strong, as there is no fear of earthquakes.

Maiya Mijarni also liked her old house and shared her version: “The old house was warm and nice. The new *Pakki* (cemented) house is cold.”

Figure 6.2

A Respondent using Old House in spite of having a New, Re-constructed House

Some of the families use the new and old houses simultaneously. The new houses have no separate sleeping room therefore they use the old house after reconstruction (see figure 6.2). They said Bukampako ghar (house-made after the earthquake) for a new house and said ghar (house) for the old house. Local people had true ownership of the old (house) that they built in consideration of their need assessment, where they stayed for long years before the earthquake. Therefore, many old houses Dalits people were using after repair and maintenance. In this context, Karki et al. (2022) state that many traditional homes in Nepal have considered specific norms in house construction to cope with local and natural hazards such as inundation, snake bites, landslides, and earthquakes.

Although many informants opined that they liked old houses constructed in their local environmental settings, they liked old houses made in their local

environmental settings; they wanted to build a new modern *Pakki* house after the earthquake. They wanted to build a *Pakki* house that looked like before, a modern *Pakki* house, and the same type of house as before the earthquake. However, the money provided by the government was not enough to form a modern *Pakki* house like the earthquake-resilient house. The table below summarizes the willingness of Dalit people on what types of houses they wanted to new build after the earthquake.

Table 6.5

Dalits' Willingness to Build New Houses after the Earthquake

Caste	Older Pakki	Percent	Modern Pakki	Percent	Same like old	Percent	Total	Percent
Damai	2	1.2	8	4.8	0	0.0		
Kami	1	0.6	21	12.6	0	0.0	22	13.2
Sarki	23	13.8	110	65.9	2	1.2	135	80.8
Total	26	15.6	139	83.2	2	1.2	167	100.0

Source: Field Survey, 2020

However, some families in Jibanpur, particularly non-Dalit, have built new additional structures of houses after receiving the third installment. Once they received the construction clearance from the NRA officials with the third installment, they used their own money to construct new structures and houses. They argued that the small houses that they built were for the government requirements and repaired the old house for the functional utility of the family.

6.3 Non-State Agencies

Local people often pronounce *sangh sansthaharu*, referring to non-state agencies ranging from community organizations, national NGOs, and INGOs. Local organizations, saving groups, Dalit women groups, and local financial organizations such as Small Farmer Groups played a high role in the resilience process of earthquake-hit families in the study area. The financial services provided by such institutions had a crucial role in the restoration of local livelihoods, house construction, and income generation in the study area. Small farmer groups also

provided a loan to earthquake-hit families with the support of national financial institutions.

According to local people, *sangh sanstha* also played key roles in normalizing earthquake-hit families by generating schemes such as providing goats, facilitating the reconstruction of drinking water supply plants, and providing a loan. PRAYAS Nepal and DEPROSC Nepal, as NGOs, played a key role in the livelihood resilience of local people. Non-stage agencies refer to non-governmental organizations operating during the earthquake and afterward.

In coordination with Dhunibeshi Municipality, Prayas Nepal, supported for restoration of two drinking water supply projects in Dhunibeshi Ward No. 4. Prayas Nepal's role is to supply one drinking water tap to each family. In contrast, the municipality provided financial resources for a water tank and underground reservoir. The NGO provides technical support on education, health and sanitation, water supply, livelihood support, women and child rights, and governance[9] in rural communities. Participation of local people is ensured by providing 30 percent on public labor donations, which is *Janshramdan* in the Nepali dialect. *Janshramdan* is a popular labor system in Nepal, particularly in rural areas, for labor arrangement in community-level development projects initiated by community people's utilization of their resources. It is an asset of Nepali society prevailing in each caste group in Nepal. The voluntary donation of labor was practiced in Jibanpur.

Community members used to build the school, *Pati Pauwa* (waiting shed), irrigation canal, and waiting shed through labor donations. This is a traditional labor-management practice in an irrigation canal, community centers, and schools in which one member from each household participates in the contribution of labor at the community level. With the commencement of the modern development approach on a contract base, this practice is now rare. In contemporary development projects, contractors arrange for workers to pay; however, the participation of community members is ensured at the policy level but not in practice in the real sense.

9 Working scope of PRAYAS Nepal is available at https://en.prayashnepal.org.np/about-us.html

The project provided water supply to different settlements: Mathillo Mijar Tol, Tamaguru, Kotkhal, Bhanjyang, Pallo Kotkhal, Kami Thanti, Kaflepani, Salleri, and Chhap Gaun. The earthquake completely damaged the local water supply system. Water supply was scarce even before the earthquake. There was no drinking water for livestock, and livestock farming became rare in the quake that hit Jibanpur. Dalit people, including the Sarki people, benefited from the project.

Deprosc Nepal also provided financial services to earthquake-hit families by promoting savings and providing loans to women. People who were deprived of banking facilities benefited from the financial services. The people received the services within one month of the earthquake through the formation of women's groups. Women also received seven days of training on saving, financial management, and utilization of loans from the project. There are five saving groups in Ward No. 4 in Dhunibeshi Municipality, with saving money of NRs 250 per month. Women, either married or 35 above age, are eligible to get membership in groups and financial services from the project. The project also provided informal education to the elderly population and women from poor and socially backward communities.

Action Aid Nepal also provided various training to local people in Jibanpur. Major training provided by Action Aid Nepal includes earthquake-resilient house reconstruction, welding and repairing, electricity, improved agricultural production, seed management, and livestock farming. Action Aid Nepal provides services on human rights, anti-poverty, gender equality, and livelihood resilience. Meanwhile, the organization also supported the construction of community infrastructures, an irrigation canal that supplies water to Kalitar farmland, and the construction of a village road with Nepalese rupees 900,000. Lumanti, under a local partner of GIZ, also provided two bundles of galvanized zinc sheets (16 pieces of steel) and two blankets to each earthquake-hit family. Lumanti also works on community-based disaster resilience programs with disaster mitigation activities. Dalit organizations also provided relief materials such as rice and blanket to Dalit families.

6.4 People, Society, Culture, and Social Capital

People, culture, social practices, and social capital also play a crucial role in the resilience. As mentioned by Lunici (2014), community resilience involves

community participation, balancing perceived control, facilitating community identification of problems, and developing strategies to solve and contain the issue in a way consistent with the needs, systems, and values of a specific community. This type of recovery process indicates the community-level supports that Dalit families received during the earthquake and afterward with their own efforts, decision, resources, and value. Tamang et al. (2020) also briefly described the community resilience capacity in consideration of different parameters such as household economic status, poverty, non-dependency upon wage labor, availability of remittances, access to education, information, technology, social capital, illness, and prior awareness of disaster risk reduction in different social groups existed in the country (p. xviii).

Studies in Dhading district also show that the community responded quickly in recovery. The initial response after the earthquake was to provide emergency relief, which included emergency cash, funding for the new community building, rice and grain distribution, and emergency supplies and materials, such as fertilizers, to ensure a normal planting season. In the first two months, by working together, the villagers managed to build a community center, a temporary school, and temporary shelters. These combined efforts ensured that community members were safe in such a way that they could have positive attitudes about rebuilding their lives. Furthermore, Tierney (Lucini, 2014) identifies four aspects of resilience, according to the fact that both the physical and the social aspects of resilience can be conceptualized in the following properties:

> Robustness: It is the ability of elements, systems, and other units of analysis to withstand stresses and demands without suffering damage, degradation, or loss of function
>
> Redundancy: It is the extent to which elements, systems, or other units of analysis exist that meet functional requirements in the event of disruption, degradation, or loss of functionality of primary systems
>
> Resourcefulness: It is the capacity to identify problems, establish priorities, and mobilize resources to avoid or cope with damage or disruption; the ability to apply human and material resources to meet priorities and achieve goals.

> Rapidity: It is the capacity to meet priorities and achieve goals in a timely manner. (p. 35)

Social networks, bonding, cooperation, we feeling played a high role, especially in a difficult time in Nepalese society. Such capitals have a high role in victims' immediate response and humanitarian support in need. Nepal is culturally rich and diverse in socio-economic conditions. Religious traits, characters, and communal feelings in closed communities, among neighbors, and society in general that prevail in Nepali society have a direct and indirect role in resilience. For example, *Parma Pareli* and *Guhar* (exchange labor) provide labor support without cash involvement and transaction.

Meanwhile, Tamang et al. (2020) find that boding capital indicates support within the community in the forms of food, cash, animals, or labor. Both within and outside the community, the support received and provided was found in the study area. Both types of social capital prevailing played a crucial role in the resilience capacity of Dalits in the study area:

> The disaster also awakened a deep sense of solidarity among community members and spurred altruistic actions. Immediately after the earthquakes, determined people, acting on their own, pulled the wounded from ruined walls, cleared the rubble to uncover the disappeared, and risked their own lives to enter falling buildings to save children. Many women were on the frontline of saving children, elders, livestock, and others (p. 30).

6.4.1 Exchange Labor Practice

Parma Pareli is the reciprocal labor arrangement system that prevailed in Jibanpur and played a crucial role in house construction. This traditional *Parma Pareli* system played a vital role in the construction of houses in the context of insufficient money provided by the government. Dalits had only a little money to hire paid labor; therefore, they highly benefited from this labor management system in constructing new houses. Meanwhile, Uprety (2021) mentions that Parma has been practiced by households with a similar socio-economic status in peasant society,

especially in peak agricultural seasons such as planting, weeding, harvesting, and transporting crops.

Jyala Majduri is a paid labor system that needs money, but the traditional labor arrangement system effectively builds houses. This labor exchange system is practiced within the same caste groups, between Dalits and upper caste groups. The practice of untouchability still prevails in Jibanpur, and a member of so-called upper caste groups do not eat food at Sarki houses. The same case is also applied in the Parma system. The upper caste members took lunch from their own homes if they participated in Parma on Sarki's farmland. They eat the lunch separately at lunch time at the farmland. Mangale Sunar of Neupane Danda clearly stated, "People did not use to eat lunch at the farmland of Sarki before. Now Brahmins and Chhetri also eat lunch sitting separately on the farmland. They also assured us not to disclose this thing to others."

Sarki people shared an interesting story about the eating of lunch in the Parma system. Youth members from the upper caste sometimes eat the lunch prepared by Sarki people for the assurance of privacy to others people.

It was found that the strong bonding of the traditional labor arrangement system is directly linked to the timely construction of houses by utilization of limited money provided by the government. Tallo Mijar Tol is found to be more resilient with the strong bonding of Parma Pareli, availability of skilled laborers and cooperative feelings at the community level, and no consumption of alcohol by the Sarki people.

Kanchi Mijar clearly explained how Parma pareli was important in the building of new houses after the earthquake as below:

> There is a practice of Bhara Parma in the construction of houses. It is reciprocal in nature with one-to-one give and take. If a man works in Parma, the man should reciprocate, whereas, in the case of women, both man and woman can exchange the Parma. Total days are exchanged by counting in Parma.

The labor exchange practice in Dalit communities can be linked to Malinowski's popular functional theoretical approach as:

> Malinowski developed a theory in 1922 by studying Kula Exchange System extensively under the functional theoretical approach where laborers exchanged without cash in a number of tribal societies inhabiting various island groups in Papua New Guinea. Such tribal communities are culturally, especially linguistically, heterogeneous, internally organized in clans and local communities, and predominantly possess a matrilineal kinship system (Ziegler, 2012, p. 16).

While working in the group through *Parma Pareli* in Tallo Mijar Tol, there was a transfer of the traditional practice of *Parma Pareli* to a new generation. Young people had no knowledge of this type of traditional labor-management practice as they stayed in urban areas and occasionally visited their homes. After the earthquake, the young returned to their village, and they had opportunities for traditional practices, helping each other, and communal relationships in the Sarki community. During the long journey in the construction of *chhapro* with local materials such as leafy materials, cottages, and houses, the new generation got opportunities to learn social relations and Parma Pareli from elderly people. According to the respondents, the young members who returned to the village from outside after the earthquake also learned the exchange labor practices that are strongly bonded in Tallo Mijar Tol. Thus, this system of *Parma Pareli* led to faster resilience in terms of new house reconstruction.

6.4.2 Indigenous Saving Group

There is a Dalit Saving Group named *Bachat Samuha* in Tallo Mijar Tol that provides financial support for restoring the drinking water supply in the village by utilizing funds and funding support from the local government. This saving group was formed two decades ago with the initiative of young in Tallo Mijar Tol. According to the local Dalits, there was a high-interest rate at that time. Therefore, they started to save money on a monthly basis and circulated loans to needy people at a low-interest rate. According to them, there were three types of interest rates in their village in the time of 1990s. First, *Ghiukhane byaj,* the borrower, had to submit five rupees for every hundred rupees to the money lender, who is a local elite person. Second, *Aane byaj*, the borrower, paid one ana for one rupee; third, *Dhyake byaj,* five, was charged

for *ek dhayak.* Baburam Regmi of Jibanpur states that the interest rate equals about 25 percent in *Ghiukhane byaj*. However, the money has not been deducted from the principal (*sawa*) at the time of loan settlement. The interest rate was equal **to** 25 percent in *Ana byaj*. However, respondents were unable to reveal the *Choke byaj*. They thought that this interest rate was high for them to borrow money from the *Sahu;* therefore, they decided to form a savings group.

The earthquake completely ravaged the water plant. As a result, the water supply was interrupted. The member of the Saving Group agreed to utilize the fund for the restoration of the plant. The money was utilized to buy pipes and cement and construct a water reservoir tank. However, community members work**ed** voluntarily without taking the wage. This type of social bonding and volunteer approach worked effectively in restoring the water plant in Tallo Mijar Tol. Traditional saving groups prevailed throughout the country in different caste groups. They provided financial needs at the local level in the absence of organized and modern financial institutions such as banks and cooperatives. Even today, mother groups, youth clubs, and women's saving groups operate to meet the needs for money on the soft interest rate or no interest rate depending upon the local needs, requirements, and understanding of the local social, cultural, and economic context. The community guides this practice of a need-based approach rather than the profit motive.

Chhetri (1987) elaborates on the caste-based local indigenous saving group-Dhikuri. This is a rotating credit association among the Thakali people in Pokhara and the Himalayan region in the country. These associations help the Thakalis to manage their social as well as economic problems and thereby make it easier for economic adaptation. The traditional Dhikuri system had a welfare motive to provide economic support to needy Thakalis.

This rotating credit association (Chhetri, R. (1), 1987) used to function based on the principle of a lottery. Today, in urban areas, it is run by the written tender system wherein the highest bidder of interest on the Dhikuri amounts gets it. It then serves the interest of businessmen rather than the poor and needy ones. Thus, we see an instance of the continuation of a traditional institution with changes in its

principles and motives as demanded by new urban situations. It is also an example of an institution that is a cultural element in general.

In this way, the indigenous saving group enhanced the capital formation in the Dalit Community, which led to the reconstruction of the destroyed water system and houses that empowered their quality of life.

6.4.3 Mobilization of Local Community-based Organizations

For mobilization of local community-based organizations and non-state actors, NGOs and INGOs provided financial and technical support in relief distribution and livelihood resilience to earthquake-hit Dalit communities in Jibanpur. Local community-based organizations refer to mothers, women's groups, small farmer groups -Sano Kisan Samuha- and Dalit groups. These groups were more functional just after the earthquake occurred. Support and aid from state and non-state local agencies intensified software support, training, orientation, and hardware support through local community-based organizations such as mother and women groups. The small farmer group (SFG) also provided a loan to the earthquake-hit families in Jibanpur. The SFG played key roles in providing financial services to earthquake-hit Dalits in an easy and locally friendly process that has an affirmative role in the resilience process.

Although Dalits have their own money management and regulation system as guided by their everyday practice and culture, external financial support also enhanced their skills in financial management in hard times. After the earthquake, local banking institutions also offered financial services, including training to local people on saving and money mobilization. Many Dalit people had no banking account before the quake. To receive the government grant for house construction, Dalits should have a bank account. Therefore, they opened a bank account.

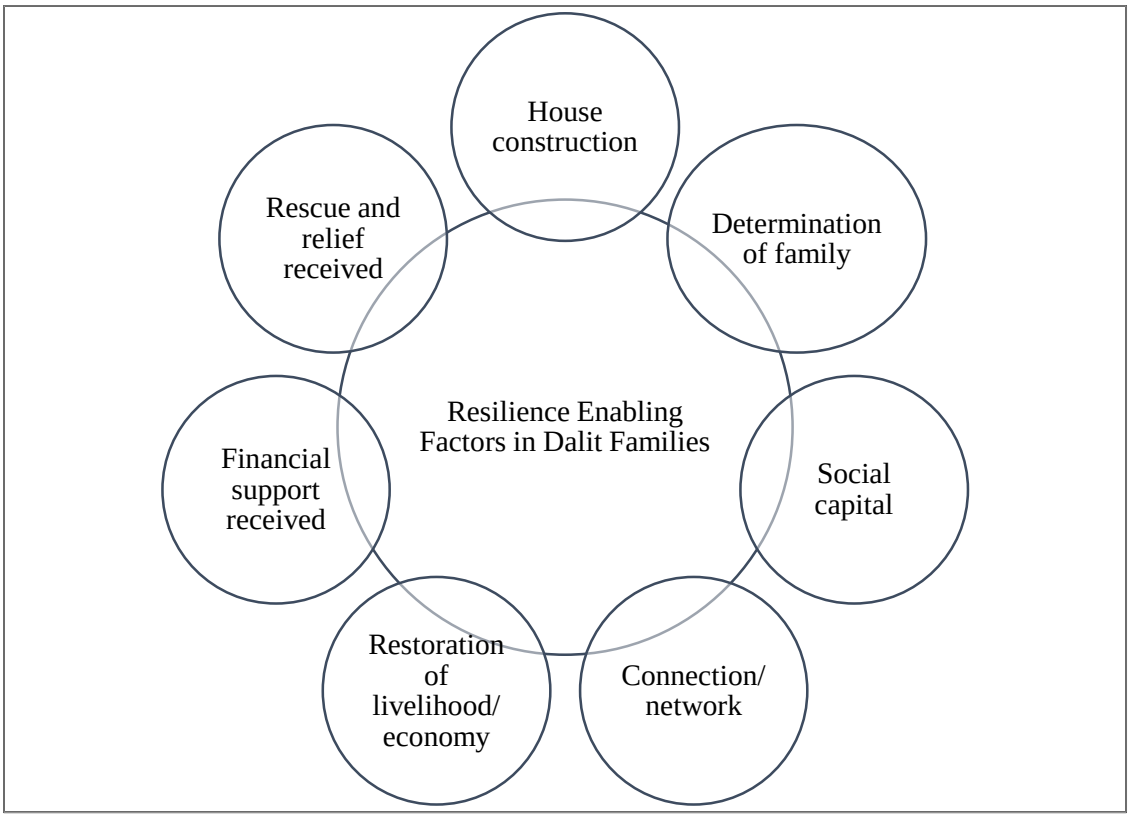
Sana kisan and other local saving groups operated in Jibanpur to promote financial services. According to local women, Dalit women also started to save money on a monthly basis. They also learned money management skills during the hardship period of the earthquake through different organizations and formal institutions.

6.5 Resilience Enabling Factors

This section is a summary note on enabling factors of resilience. This section is also a compilation and continuation of the above section for an easy understanding of enabling factors for the Dalit families to be resilient (see Figure 6.3).

Figure 6.3

Resilience and Recovery Enabling Factors



Source: Conceptualized from the fieldwork

6.5.1 House Construction

The new house is a major indicator of resilience in the study area. Once they built a new house after the earthquake, they are now resilient. The house is a basic need of Dalits. Although a majority of respondents are not happy with the new setups and engineering viewpoints for a number of reasons such as space, location, and arrangement, they perceive the house construction as a great milestone of their recovery status. Families with completely constructed new houses with plenty of space and local settings are happy with the present resilience status, whereas families

with just one-story-two-rooms houses are not happy. They are unhappy due to narrow space, dwarf houses, and without storerooms, *Koushi* etc.

6.5.2 Rescue Support and Relief Materials Received

The people received support on rescue and relief materials during and after the earthquake. At the same time, healthy and determined people supported needy people, especially elders and children, to remove the damaged houses and walls. Informants who received better support in rescue and relief distribution from the community, local government, various state mechanisms, and non-state agencies are happy with the present situation. It is found that the informants who received good and immediate rescue support and relief materials perceive that we are resilient. Relief materials were also provided to fulfill the need at the emergency time.

6.5.3 Social Capital and We Feeling

Communities with substantial social capital play a crucial role in resilience and recovery after the earthquake. In rural communities, social cohesions, support, and help are more common in Nepal than in urban societies. In this context, Aldrich (2012) states that there are three mechanisms through which networks and relationships can influence disaster recovery. The first one is the Exit and Voice concept, where Exit refers to the process of uprooting from one's initial community and starting life over again in a new one. Disaster victims may exercise exit early on - when they realize that their homes are damaged or destroyed - or later in the recovery process when they see that their community is not recovering effectively. When local people return and begin to work collectively, letting authorities in the area know their preferences and working to make themselves heard in the planning process, economists call this Voice:

> The second mechanism by which social capital can assist following a disaster is the overcoming of barriers to collective action. Around the world, people often have strong beliefs and deeply rooted ideals, but they may not actually work to see these put into practice. This may be because they lack the time, energy, or ability, but it can also be because they assume someone else will do the heavy lifting. The third and final mechanism by which social capital assists post-disaster is

> through the provision of mutual aid and informal insurance. Social capital provides information, fellowship, and support during times of crisis (pp. 162-163).

We feel that social capital prevailed in different communities in Nepal. The implication of social assets is in the social, economic, political, and economic dimensions. Community members receive support in need on the one hand, and on the other hand, they provide support and help to others depending upon the situation and time. This is the informal mechanism of receiving and providing assistance to each other. This cultural trait of Nepali society exists in different social groups.

At large spectrum, social resilience that includes institutions for collective action, robust governance systems, and a diversity of livelihood choices are important assets for buffering the effects of extreme natural hazards and promoting social reorganization (Adger et al., 2005). Networks and institutions that promote resilience to present-day hazards also buffer against future risks, such as climate change-associated ones.

This comparative study used both qualitative and quantitative methods to better understand the factors responsible for speedier and more efficient recoveries. Meanwhile, data from Gujarat and Kobe earthquakes in India and Japan further demonstrated the importance of bonding, bridging, and linking social capital in furthering recovery and rehabilitation efforts (Aldrich, 2012). In contrast, the two areas struck by earthquakes had very different cultures and levels of socioeconomic development:

> In the days following the earthquake, farmers' reliance on and cooperation with neighbors and community-based groups were critical to survival. Local institutions such as community forest groups efficiently and effectively distributed aid before the government and outside NGOs could help. These traditional recovery strategies have coevolved alongside ongoing transitions and environmental shocks such as earthquakes, landslides, and floods. (p. 165)

The time factor also plays a role in the recovery process. The earthquake jolted in 2015, and five years have already passed over. In the following two years of the

earthquake, the government started to provide cash support to construct private houses for Dalit people. Ninety-five percent of Dalit people living in Jibanpur have already constructed new houses with cash support. They have new houses, regained livelihood patterns, settled damaged structures in five years, and started new employment options, small businesses, and many more. Meanwhile, they also forget the pain, emotions, and hard times of hazard. With the passing of years, Dalit people also bounced back to the direction of normalization.

Parma (mutual labor exchange) system is strong in Dalit community, particularly in Tallo Mijar Tol, where the construction of houses was completed in time. Dalit people have their own labor arrangement system so that they do not need to hire additional workers to build houses. The construction work became slow in Mathillo Mijar Tol, where *Parma Pareli* was weak and needed extra labor on *Jyala Majaduri* on a wage basis. Furthermore, in communities other than Dalit, they needed to hire labor to construct the house.

Traditional labor exchange systems played a key role in resilience. The statement of respondents from Tallo Mijar Tol about the solidarity and cooperation of local people in Mathilo Mijar Tol revealed the individual perspective of each house and individual[10]. There was a lack of cooperation during house construction after the earthquake. In this case, the decision-making process in one family was affected by different versions of family members, and the family we are feeling did not work in the reconstruction of houses. Dalit families with good family relations among members play a significant role in getting out of the severity of the earthquake's impacts. The cooperation between spouse, offspring, and family members plays a good role in normalization. The division of labor among the family members was clearly visible. The division of labor was based on skills, know-how, capacity, and strength. Kishor Bishunkhe states individual and family-level determination in recovery: "We did hard work to come into a normal situation like before."

[10] People from Tallo Mijar Tol unanimously said as ‘One member in Mathillo Mijar Tol acts as one family’, indicating that there was no community based decision.

Confident feeling in a hard time is a psychological strength to boost up family members and community members in performing needed duties. Personal motivation also has a key role in the recovery process. Optimism and positive thinking also encouraged the local people to do good things after the earthquake.

6.5.4 Political Connection, Solidarity, and External Support Received

Besides the cash grant, Dalit people also received various supports of materials, software, training, and encouragement from community members and outside the community. The local government also provided services and support to Dalit communities as the front-line service provider. The solidarity from different walks of life and regions also boosted the Dalit communities. The solidarity and external support provided direct and indirect moral support to the earthquake victims and communities during a hard time.

Nepal herself received great support from international development agencies, aid partners and neighboring countries, and diplomatic countries across the globe (NDMRH, 2020). The support received was technical assistance, finance, sympathy, and solidarity. Direct and indirect assistance reached district and local levels through different state mechanisms, such as ministries, local governments, NGOs, and community organizations.

Studies show that Nepal received emergency relief and humanitarian assistance and contribution from 60 countries, the United Nations, and other international agencies. The contribution was provided to the affected population in the country (NDMRH, 2020). The technical assistance included finance, skills, and policy guidance at an emergency level to provide humanitarian response services.

Dalits with friendly relations with local government, local political leaders, and the elite play key roles in hardship periods. For example, Mangale Sunar of Neupane Danda has good links with the member of the local government and local leaders. His post-earthquake status is relatively good in terms of livelihood restoration, economic status, and political relations. Meanwhile, Bidur Mijar of Mathillo Mijar Tol has good socio-economic status even after the earthquake. He is now a local contractor building new houses.

6.5.5 Livelihood Support Skills and Training

Skills and training increase the income of local people with the availability of new opportunities in house construction, cash farming, and saving culture. They received training in house construction and cash farming. Dalit women had a monthly saving program. After the earthquake, Dalits received skills enhancement training. As a result, they earned a good amount of money. That money was utilized for the restoration of livelihood, family economy, and new house construction. The household head from Tallo Mijar Tol received training on earthquake-resilient house construction. As a result, they got opportunities to build new houses with high wage rates. A mason from Tallo Mijar Tol expressed about increase in income after the earthquake as:

> There was no skilled people to build earthquake resilience house in Sarki village (Jibanpur). We were very busy in house reconstruction once we received training about house construction. We had good income.

Nirmala Mijar of Gairee Gaun also agreesdthat after the earthquake, people in his village received training and unskilled local became skillful as**:**

> After the training, the tendency of local people moving to Kathmandu for seeking the job increased after the earthquake. Many people received training, and unskilled people learned skills. They became brainy after the training.

The majority of male family members in Tallo Mijar Tol are equipped with skills in house-making, shoe-making, and others. As a result, they have good earnings even in difficult times. The earthquake-damaged houses were renovated or reconstructed in Jibanpur in which skilled Dalits got an opportunity to work at a high wage rate. The demand and supply chain demand for skilled workers after the earthquake was high. As a result, the wage rate skyrocketed. The respondents from Tallo Mijar Tol argue that they earned good money during the earthquake period.

6.5.6 Family Income and Financial Support

Income and financial wealth always have important role a family resilience. Households with good income and wealth at present are satisfied with the resilience

status. Regular sources of income support fulfill the needs of a family and play a role in erasing the earthquake's impact. Family income plays a significant role in the relief and resilience of earthquake victims in the Dalit community. Although Dalit communities have no regular cash income, they are partially satisfied with the status regained in the last five years, which is expected in a few years. Such families have constructed spacious houses with the utilization of their own money. A few Dalit families in Neupane Danda and other settlements have *Bikashe Kheti* after the earthquake, which provided a source of income to the family.

A finding from Tamang et al. (2020) also reveals that the family's income source has a significant role in resilience and recovery. The perception of recovery of Dalits is closely tied to income, wealth, assets, and livelihood support sources.

In the modern market system, cash and finance dominate the local economy. Financial support as a cash grant from the government to earthquake-hit families has a crucial role in new house construction. However, the cash was insufficient to make spacious and culturally adapted houses in Jibanpur.

The construction of a new house is a key indicator showing the recovery status from the earthquake. In this case, they perceive that they are in good condition or better than during the earthquake. However, there are multiple aspects of recovery in general, but the construction of houses is in priority of Dalits rather than income, animal husbandry, and farming. Respondents opine that once they have a good house protecting from rain and sun, they could feed family members doing any work.

The local economy, income, and assets directly affect recovery. Dalit people had mixed type of livelihood patterns with farming, livestock, and paid labor. However, remittance is not the dominant source of income among Dalit people. The earthquake damaged cowsheds and livestock, and most Dalits cannot restore their previous status livelihood. Livestock rearing has multiple benefits in the life of Dalit people. They provide fertilizers to their farming land for crop cultivation. Dalit people have improved vegetable farming in the farming land that needs cow manure and fertilizers. Kiran Mijar from Tallo Mijar Tol mentions that it will take a few more years to come into normalization as follows:

> Yet, we do not come to the situation like before. It will take two to four years. We are in the process of restoring the previous situation. We could save money if we did not construct the house. We could start other work. The time of five years passed away, and we can erase these years from our life.

Meanwhile, Bishnu Mijar from Kotkhal shared the importance of livestock rearing as: "There were cows, buffalo, and goats before the earthquake. We do not have livestock now. The earthquake destroyed them. Later on, we could not buy and rear them. The cowshed was also destroyed."

6.6 Earthquake Preparedness

The study is not all about disaster preparedness and management. Yet, it is relevant to include how local people respond in a hard time to save family members, neighbors, and livestock. Respondents in Jibanpur were unaware of the hazard preparedness, such as earthquakes. Because of that, they have not experienced the big impact of an earthquake in their lifetime. Out of 164 respondents in the study area, only three Sarki respondents revealed that they had traditional hazard mitigation methods, although they could not elaborate extensively. It was found that Dalit people did not get any training and know-how from the local government and non-governmental organizations about earthquake disaster preparedness.

Table 6.6

Status of Traditional Methods of Hazard Preparedness

Caste/ Ethnicity	Traditional Methods of Hazard Preparedness				Total	Percent
	Yes	Percent	No	Percent		
Damai	0	0.0	10	6.0	10	6.0
Kami	0	0.0	22	13.2	22	13.2
Sarki	3	1.8	132	79.0	135	80.8
Total	3	1.8	164	98.2	167	100.0

Source: Field Survey, 2020

Local people did not reveal plenty about the traditional methods of hazard preparedness in the census. Yet they revealed more techniques for rescuing and managing dead cattle with their traditional knowledge system during informal talks and discussions.

6.7 Summary

The settlement with strong community bonding, networks, and family assets are quickly resilient. The construction of a new house is a prime indicator of a family's resilience to the impacts of earthquakes. There are both macro and micro level factors ranging from family income, assets, and networks, local and outside, affecting the resilience status of local people. Therefore, various micro and macro factors are responsible for a community to be resilient. They are social and cultural assets, practices, ethics, tradition, and traditional practices such as Parma labor arrangement, communal feeling, determination of family members, wealth, and religious practices play a key role. Therefore, resilience combines social, cultural, economic, and political processes in a broader conceptual frame. This chapter thus provides a detailed description of people's response to disaster, resilience, event, process, and outcomes of the earthquake disaster.

CHAPTER SEVEN

SOCIAL, CULTURAL AND LIVELIHOOD DIMENSIONS OF EARTHQUAKE

7.1 An Overview

This chapter briefly overviews earthquake-triggered social, cultural, and economic impacts in Dalit communities. It covers the disaster's impact on the family structure and relation, hygiene and sanitation behaviors, livelihood and agriculture, development of community infrastructures, social interactions, religious practices, and commensality norms and practices. Although people lost their assets and lives during the earthquake, some local initiatives started, which led to the betterment of the community after the earthquake in the study area. Changes were seen in health and sanitation, including infrastructure development, were significant development in the study area.

7.2 Social and Cultural Impacts of Earthquake

After the earthquake, the study shows tremendous impacts on local people's social and cultural domains. The effect was nationwide, with the loss of human lives, physical infrastructures, and private housing. Therefore, the earthquake has multidimensional facets: social, cultural, economic, and environmental sectors. In this context, Oliver-Smith and Hoffman (2002) argue that disaster becomes unavoidable due to a historically produced pattern of vulnerability in the location, infrastructure, sociopolitical organization, and production and distribution system. They further state that natural and technological disasters are frequent and severe as communities become more vulnerable. However, this study is less focused on vulnerability and displacement. Instead, the earthquake put pressure on the local economy and livelihood patterns and damaged the cowshed. The section below briefly outlines the --induced impacts, like diversification of women's roles, change in personal hygiene and sanitation, changes in social interactions, and initiation of development activities in the village.

7.2.1 Diversification in Women's Role

The earthquake tremendously diversified the role of Dalit women. They participate in social activities through training, saving groups, meetings, and in different formal and informal social forums. Dalit women are in the lower strata of society in terms of caste ideology. Their human development indicators such as income, health, formal education, and social and political connection, are lower than Thakuri and Brahmin people. They are housemakers, and their role is limited to the house level. In this context, Enarson and Morrow (1998) state that women's roles are rarely represented in leadership and decision-making positions at formal, public levels, as their domain is identified mainly within the home and family, even under normal circumstances. This largely concerns social attitudes, accepted norms, and prevailing patterns in the gender division of labor, which continue into disaster recovery.

Similarly, Ariyabandu and Wickramasinghe (2004) argue that gender issues that are manifested at the time of disaster are not the impacts of disaster; instead, they have relevance in the situation characterized by the specific cultural context of a society. Gender relations are broadly reflected in gendered identities that combine physical and behavioral characteristics of a society.

However, women's roles and responsibilities became highly diversified after the earthquake. Before the earthquakes, they were primarily involved in agricultural work and wage labor. However, after the earthquakes, the Dalit women participated in various community-level platforms organized by the local government, Ward offices, and non-governmental organizations at the village level. According to the informants, they received training on health, sanitation, and hygiene and the reconstruction of the houses. Meanwhile, Dalit women also participated in meetings, discussions, and gatherings organized by local governments and financial institutions.

Makuri Mijar of Kotkhal shared:

> "Saving groups were formed after the earthquake. The small farmer groups and Dalit women were the members of these groups. We took loan in the

difficult time (*saro garo pareko bela*). We borrowed and deposited money regularly**.**

However, all Dalit women could not get equal opportunities. In this regard, Chameli Mijar of Chhap Gaun stated her feelings as:

> I'm a member of various saving credit groups. I have deposited money according to the rules of saving credit- associations. However, I have not participated in the decision-making process of the saving credit groups. But my son had taken a loan in a time of emergency.

Yet, the participation of Dalit women was stereotypical in Jibanpur, without meaningful participation in the planning and decision-making level.

7.2.2 Personal Hygiene and Sanitation

There was a significant improvement in health and hygiene behaviors in the local community after the earthquake. Local government and non-government organizations worked in the health and sanitation sectors, creating awareness among local people on hygiene and sanitation issues. They also had toilets and managed water supply that supplied water regularly in the study area.

People also started to construct toilets along with the construction of new houses. The NRA's final grant was released only after the construction of toilets. It was a diplomatic way applied by the ward office for the sanitation of the Dalit community. After the earthquake, Dalit women also got training on health and sanitation, including personal hygiene. The damaged drinking supply system was also restored through a community initiative. Local health workers and mother groups also received training on health and sanitation. As reported in the fieldwork, NGOs had significant roles in training organizations in the community.

Frequent visits of outsiders, officials from local government, NRA officials, NGOs, and financial institutions also provided a message for constructing the *Pakki* (concrete) toilet. They built toilets during the house construction; however, they are narrow and very small in size. Kajiman Mijar of Chhap Gaun shared an interesting story about the use of the toilet; for them, the toilet is only for women, not men, for

urination, which led to the dwarf size of the toilets. According to him, “No male needs to go to toilet for urination. The toilet is used for defecating. Only women can use the toilet both for urination and defecating.” Once, the researcher was also asked to urinate outside the toilet due to the above reason. Still, the locals understand that defecating and urinating in the toilet is only for women, which might be a privilege shown to women. But, from a sanitary point of view, it is ignorance on the part of the community.

7.2.3 Infrastructure Development at the Community Level

The post-disaster period also invited development activities and planning in the local community. After the earthquake, there was diversification in economic activities, including the construction of earthquake resilient houses to replace older houses.

No motorable road reached thirteen settlements in the study area before the earthquake. For transportation of construction materials such as bricks, stone, mud, sand, cement, and steel, local people constructed motorable muddy roads reaching each household. Neighboring families and houses constructed roads using their resources from the main road to approach their houses. According to the informants, there was good cooperation and people**’s** participation in road construction. All households built the part of the road which went through their houses. In this regard, Dipak Mijar of Gauree Gaun stated his experiences on how they constructed local roads with community people as below:

> We (local people) constructed a local road after the earthquake. Every house has access to local roads now. The bus goes through the road. We ourselves constructed the road connecting to the individual house. The road was constructed by thirteen families. There was no access road to home, so it was difficult to bring construction materials without the road.

The locals felt the need for motorable roads to transport construction materials such as sand, boulders, cement, and iron rods in the village. These construction items became prerequisites for the reconstruction of the new houses, according to the norms of NRA. Carrying such items by human labor was costly and time-consuming.

Therefore, they used their own resources to construct the local road. In this context, Berke et al. (1993) state that the participation of local people in development and planning helps to achieve sustainable development, mitigation measures, and equality in the local context. The recovery process is a people-oriented and local context. The conceptual and practical significance of this model is then demonstrated by presenting case studies of local recovery experiences.

Meanwhile, a study conducted in Melamchi Valley[11] states that the process of social development under the infrastructure project is a complex phenomenon due to space created by the local political parties and other heterogeneous interests. It further involves heterogeneous issues that include people from different social, cultural, and economic backgrounds, their different ideas, and interests. However, during the reconstruction of private houses in the study area, local people were often united and managed to construct the road at the community level. However, different opinions about the reconstruction process, resilience, and recovery process of local people in different Dalit settlements were found.

7.2.4 Social Interaction

Social bonding became strong in the study area after the earthquake. Interaction between Dalit and non-Dalit communities became interactive and supportive to each other during the rescue, relief taking, and construction of new houses. Public forums generated through training, public discussion, and community-gathering, including women, provided an interactive environment in Jibanpur, forgetting past bitter stories among villagers.

Sarki people in Tallo Mijar Tol stayed for a few days with Kuwar (Chhetri caste) people in the same village after the earthquake. Earlier, there were community-level disputes between Sarki and Kuwar communities in Tallo Mijar Tol, but the earthquake provided an opportunity to share feelings and stories while living in tents and temporary Chhapro (shelters). While living in Chhapro (tents), there were interactions with various caste groups.

[11] Binod Pokharel, 2010, an unpublished PhD thesis submitted to Faculties of Humanities and Social Sciences of Tribhuvan University.

Unlike the normal situation, the people have some sort of solidarity and cohesion in the time of disaster irrespective of their class and caste background. Tamang et al. (2020) also state that the earthquake increased a deep sense of solidarity among community people. The solidarity was reflected in rescuing wounded people and cattle from ruined walls and clearing the rubble to uncover the disappeared. Local people also risked their own life to enter falling building to save elderly people and children and take out stored grains and food. They also highlight that women's role was very important on the front line in saving children, elders and cattle, and other accessories. Furthermore, mutual support was received from relatives and community members during the time of rescue, addressing injuries, funerals, and preparation of temporary shelters to live in immediately after the earthquake (Tamang et al., 2020).

Weakening of Caste Ideology

Disasters like earthquakes also create new social and cultural relations in the study area. Emotion, attachment, solidarity, and humanity are on the front line during and after the disaster. Therefore, cultural practices and traditions become less important after the disaster. As already mentioned in the above section, the community members were engaged in mutual support and help during the earthquake and aftershocks. Joint support and helps were exchanged in the community regardless of caste and ethnic origins.

Local people rarely focused on inter-caste relations, such as the tradition of untouchability. Meanwhile, there was still the practice of untouchability. However, it was confirmed that the earthquake had narrowed such practices for several reasons. First, all houses collapsed, and they had no shelter. Second, food, drinking water, shelter, and clothing were scarce. Therefore, they shared food, water, and clothing during difficult times, forgetting the caste hierarchy. Local people stayed in open places due to fear of aftershocks. They also exchanged available foods and clothes between Dalits and non-Dalit community members. Pil Bahadur Mijar said that cooperation among Dalit and non-Dalit communities after and during the earthquake was as below:

> Non-Dalits started to cooperate with Dalit people. Some Dalits stayed together with Kuwar people (upper caste group) in the nighttime under

> the same tents. Chhetri Brahmins thought that the government helped the Dalits and relief materials come to the Dalit community. Therefore, they started to speak closely with us, and we did cooperation.

As stated by the Pil Bahadur Mijar, the government and aid-providing agencies first distributed food, cooking oil, and other items to the Dalit community. At the same time, Kunwar people also came to their place to get relief materials. The people of both Dalit and other caste groups had serious problems with basic needs such as food and shelter.

Surviving at the time of the quake was the primary concern of local people rather than following practices and cultures of untouchability based on ethnicity and caste. People were dead, wounded, and buried due to damages and collapse of physical structures such as houses and cowsheds. Respondents reported that their priority was surviving at that most difficult and panicked time. Therefore, community coordination and exchange became strong among intra- and inter-caste groups after the earthquake for rescue, relief, and resilience processes in Dalits settlements.

7.2.5 Cultural Impacts

Culture is a holistic domain linking to the local environment, house structure, and space availability in their house. There is a dramatic change in the cultural practices of Dalit people in Jibanpur due to the lack of availability of plenty of space for gatherings and celebrations. Newly constructed houses have limited space, including *puja* (worshiping) space. Participation of community members in the marriage ceremony, occasions, and ritual practices declined due to the earthquake's impacts. On various occasions, a more significant number of relatives, neighbors, and community members used to gather and celebrate. With the new environmental development, particularly the engineering of housing, the traditional gathering of a large number of people could not accommodate because of space limitations in the new houses. The informant's statement below highlights the cultural changes in the marriage ceremony: "The marriage ceremony time is short these days, and no more invitees come to the ceremony due to not availability of sleeping space in the new house”

Suresh Mijar of Kotkhal also clearly explained the sociocultural changes after the earthquake as below:

> Here are no entertainment and dancing activities due to the economic burden. People have a pale faces. Young are confused about either doing business or doing a job. People used to come from different places. There was a tradition of Panchabali slaughter at Kot Kalika temple on various occasions, such as marriage and Bratabanda (thread-wearing ceremonies). This tradition slowly stopped after the earthquake.

Similarly, Shambu Mijar agrees with the version of Suresh Mijar about the change in the marriage ceremony in the village after the earthquake: He says:

> We worry about festivals. We could have entertained ourselves if we had money in our pockets. Marriage became short these days after the marriage engagement (*Tikatala*). More people were walking on the road during the marriage season, that we used to look from the Thanti with joy and entertainment.

Meanwhile, local people finally constructed a small house with their family and community efforts and cash support from the government. However, the newly built houses do not have sufficient space for gathering relatives, neighbors, and community people, and celebrations on different occasions such as marriage ceremonies and rituals.

Anthropologists have been interested in how people draw upon and alter their belief systems to come to terms with events of catastrophic change, violence, loss, resettlement, and even humanitarian relief (Lindstrom, 1993; Maida, 1996). These events can involve changes in social institutions like religious beliefs or customs (Stewart & Harding, 1999), social organization (Colson, 1973; Oliver-Smith, 1977), attitudes and values (Bode, 1977; Oliver-Smith, 1992), and even marriage institutions (Henrey, 2005). Respondents reported that the small inner house and narrow spaces indirectly impact their cultural and religious practices.

7.2.6 Family Separation into Nuclear Family

There was a policy impact on the family structure at the community level. The family separation into nuclear family from the joint family is a social practice in Nepal. The NRA provided the cash grant to the family with the land title certificate. Therefore, the policy of NRA also influenced the official imposition of family separation to get the title certificate and, finally, the grant. It was recorded that ten families were separated after the earthquake. There was a high implication of policy impacts at the local level after the earthquake disaster. Therefore, local people manipulated government policies to get grants. According to NRA policy, one should present their land ownership certificate to get the grants. The NRA counts eligible households for the grant for house construction to those families with the landholding certificate. By this policy provision, many families divided their land property among the brothers and parents so that they would have land title certificates. The division of joint families into the nuclear family with the hope of getting cash rewards from the government is an example of policy impact at the family level. Informants reported that members from joint families who lived outside their homeland for paid labor returned to the village. They received the land title certificate after family separation and applied for the cash reward.

The local community plays a key role in the frontline on immediate response and rescue by utilizing their traditional know-how and practices. The conclusion is to be linked to the future policy design keeping the socio-politically excluded groups in the mainstream development model that could promote sustainable and community-driven development approaches. In this context, Mosse (2005) argues that policy does not influence practices. Policies are instrumental. A successful policy makes use of ambiguity and achieves a certain level of convergence amongst different interest parts. There is a high chance of policy manipulation by the local community for their own interests and benefits.

7.3 Economic Changes

7.3.1 Agricultural Production

The agriculture sector suffered massive damages and losses. The earthquakes damaged croplands, physical infrastructure, poly houses, livestock shelters,

agriculture tools, equipment and machinery, mills, office buildings, service centers, laboratories, and the premises of government installations. Production losses occurred both in crop and livestock subsectors, including crops, animal fodder, fruit, potatoes, mushroom and vegetables, livestock, poultry, fish and fingerlings, animal feed, egg, honey and food grains, and seed stocks (NPC, 2015).

There was a significant downfall in agricultural land productivity in the first year of the earthquake. The earthquake damaged the physical infrastructures of local people, such as houses and cowsheds, and interrupted drinking and irrigation water sources. The land became fragile due to the earthquake. As observed during the field visit, landslides and soil erosion in the study village resulted in a landslide and soil erosion during the rainy season.

The farming and employment options in Dalit community diversified after the earthquake with various interventions of local government and non-governmental organizations. The financial support and services, including loans and training that local people received, resulted in the diversification of farming. People started focusing on cash crops such as poultry and vegetable farming to sell them to market in Dharke and Chitwan. After the earthquake, local people got training for improved farming methods that enhanced their skills for better farming. Meantime, people also received various skill enhancement training and knowledge on earthquake-resilient house construction, electricity repairing, seed conservation and management, saving management, tailoring, health, and sanitation. It was reported that the employment options also diversified due to skills in-house construction and improved farming skills in poultry and vegetable farming. Meantime, there was the availability of loan facilities to local families.

One study in the Dolakha district in Nepal shows that the earthquake initially affected many families in similar ways. The study applies the self-assessed recovery trajectories of farming systems that were highly differentiated, even among seemingly similar smallholder farmers, cultivation of cash crops, access to remittances, and receipt of aid (Epstein et al., 2018).

After the earthquake, local people were now connected to outside villages, cities, financial institutions, and markets. They had national and global connections

directly and indirectly. However, the local and globally connected phenomena were continuous even before the earthquake. The process was intense thereafter, with aid, rescue, and relief materials from different organizations and persons. Government and non-government authorities and individuals who wanted to provide support privately also visited the study area. Anthropologists elaborate on such phenomena as the local-global connection. This connection had social, cultural, and economic dimensions in the study area.

Local farmers started improved agricultural farming practices for market and income orientation. Furthermore, agricultural inputs increased slowly with the skills and technical know-how offered by different organizations and agencies. There was also restoration of irrigation facilities. At the same time, small farmer groups also provided financial support, including loan facilities to local people to support their livelihood and local economy. People again started selling their farm products to nearby places like Dharke, Mugling, and Kathmandu market centers. Markets were available for vegetables and agricultural outputs produced by the local people. At the same time, there was an all-weather road facility to Kathmandu via Sitapaila Chhatre Deurali road from the study area and from Dharke on the Kathmandu-Pokhara highway.

Studies show that superimposed on these transitions are environmental shocks and disasters such as landslides, flooding, and earthquakes; all of these can radically alter rural agricultural landscapes and catalyze rapid shifts in farming practices toward broader transformations (Epstein, 2018). Meanwhile, agricultural systems in Nepal throughout the mid-hills are transitioning from subsistence and self-reliance to greater market insertion; these changes are being driven by out-migration, economic development, agricultural modernization, and climate change (Ayyogari et al., 2014; Tulachan 2001). However, it was also found that increased access to cash and material goods for very poor farmers, compared to their pre-earthquake baseline. A few poorer families, for example, felt that their farming systems were about the same or even better a year after the earthquakes. The same case was not found in Jibanpur, as many respondents reported that the agricultural outputs declined significantly after the earthquake. First, cash needs for all rose sharply, but access to cash varied widely, including by caste. Wage-dependent families benefited from the increased labor

demand and from cash and food aid. In this context, Raj Kumar Sarki of Thanti reported his experience as below:

> There were some works about six months after the earthquake. Meantime, there was agricultural labor work before the earthquake. Later, people did not hire agricultural laborers on their farmland and gave priority to mobilizing their family laborers. This makes the people come out from their traditional labor work in the village.

Second, households with somewhat larger and more diversified farms felt their losses acutely. This was reflected in sharp dips in their self-assessments. Many were unable in a year to recover to what they saw as a normal material or social state. Third, farmers with the quickest improvement had access to broad social networks within their villages, Kathmandu, and in countries abroad to aid in recovery.

7.3.2 Decline in Animal Husbandry after Earthquake

There was a significant decline in animal husbandry after the earthquake in the study area. Therefore, the quake had a serious adverse impact on the animal husbandry of local people. The local economy in the study area was dependent on various sources. It included agricultural farming, animal husbandry, paid labor, tailoring, and traditional occupation. Therefore, a single dominant source of the economy was not found in the study area. The earthquake hazard had an impact on every source of livelihood and economy directly and indirectly. The earthquake took the lives of livestock through physical damage to the cowsheds. People had not had enough money to buy livestock and construct cowsheds. Before the earthquake, they had animal husbandry of goats, oxen, hens, and buffalo.

Dalits were economically poor with a lower economic index, for example, per capita income and land holding size. The average land holding size per household among Dalits is 2.46 *ropani* of *khet* (farming land) and 4.5 *ropani* of *Pakho Bari* (barren land without irrigation facility) (Dahal et al., 2002). However, Dalit people only have *Pakho Bari*, not *khet,* for farming. Furthermore, the production from *Pakho Bari* is less than that from *Khet*.

The landslide resulted from the earthquake in *Pakho Bari* (barren land having no facility for irrigation) and also damaged the grasses to be available for livestock. Therefore, the Dalit people were not able to restore the previous animal husbandry pattern. The government provided a cash grant for house construction but not for the construction of cowsheds. Poor people also were not able to buy cattle after the earthquake. It is because they had serious problems in feeding their family members, providing education to their offspring, clothing, and medicine. The local survival economy collapsed after the earthquake and is in the process of recovery.

7.3.3 Livelihood Pattern of Dalit Community

The changing livelihood pattern of the local people in disaster-hit communities is always a great concern of anthropologists. The reduction in agricultural production and animal husbandry affects livelihood and income. The earthquake had a serious impact on the continuous functioning livelihood system. A study by Tamang et al. (2020) shows that 13 percent of families, mostly Dalit, had experienced damage to off-farm equipment and trade damage. They also state that the earthquake and aftershocks also damaged stored crops and grains in farming land.

People struggled very much, at least for one and two consecutive years, to restore their normal economy. At first, they built a new house as their basic need. Then, they also searched for new avenues of income opportunities. Finally, they focused on restoring and improving their livelihood patterns. Meanwhile, caste-based traditional work such as black-smith, leatherwork, and tailoring is also an important economic activity for their survival.

After the hazard, the wage rate suddenly increased for skilled laborers to build houses in the village or outside. Mason and skilled laborers got working opportunities in house construction and had good earnings. There was high demand for workers during the house construction. The supply of skilled laborers was almost constant, so the wage rate increased. However, the rate dropped down after the completion of the construction of houses. Shrijana Mijar of Gairee Gaun expressed an economic change in her life as below:

> The road goes near the house. It is easier to bring materials from the market. The market became near due to the road. After the earthquake, we membered in the small farmer groups and then borrowed loans. I am a member of the Dalit women's group. I deposit one hundred rupees per month. We can borrow loans in need.

Regular water supply also played an important role in the livelihood recovery of Dalit people. The earthquake in Tallo Mijar Tol completely damaged the water supply system. As a result, there was a high water scarcity in their village. They also requested for Thakuri people to share water. However, they did not agree to share water with Dalit. Therefore, there was also no possibility of getting water from Thakuri Gaun. Like in other communities, water was an essential component in people's everyday life for drinking, household chores, animal husbandry, sanitation, and irrigation for vegetable farming in the front yard of their houses. They were able to restore their water supply through labor contributions from the villagers. Family members who were able to work participated voluntarily through the contribution of laborers. People from Tallo Mijar Tol had mason skills. At that time, skilled and unskilled mason laborers were available to construct water tanks and water pipe supplies. Now each household has a water supply with one water tap. They also had traditional saving groups from where they borrowed the money to buy construction materials such as pipe, cement, and rods.

There were multiple positive impacts on the regular water supply in Tallo Mijar Tol. The regular water availability also encouraged the people for vegetable farming nearby their houses and encouraged animal husbandry.

There is the bright side of the earthquake inviting opportunities in the changing context of Dalit Communities. Local people try to adapt to a new environment to support their everyday life. Dalit people started new work in their homeland and outside their village. In this context, Wisner (2004) argues that new forms of economic opportunities in which producers adapt their production regimes are in line with the after-disaster environment. For example, Ram Mijar returned to his village and started a furniture shop. After listening to the horrifying earthquake update of this homeland, he came immediately to Jibanpur for rescue and relief purposes. After rescuing his family members and villagers, a new feeling of

togetherness overwhelmed him that compelled him to stay in the village afterward. Before, he worked in a furniture shop in Chitwan. He returned to Chitwan, packed his materials, and moved to Jibanpur by quitting his job and deciding to live in the village after the earthquake. His parents were also ill with hypertension. Therefore, he planned to stay in his village along with his family members. He wanted to die in his homeland as if death was approaching due to disaster.

However, his house was not listed in the record of the NRA for a cash grant. Later on, he also administered for the beneficiary and finally became eligible. He already learned wood-making and furniture-manufacturing skills while working in Chitwan. The money paid to him was not sufficient to feed his family members: his wife and two sons. His wife also worked as a paid laborer.

Meanwhile, he also worked as a skilled laborer in his village for one year, even after the earthquake. At that time, construction works were started in the village, with the first installment released from NRA. There was also a high demand for furniture and skilled workers. However, there were a few skilled workers in the village. Forty years old Ram Mijar's house was near the pine forest of *Falate* tree. He decided to start his small furniture shop by utilizing his skills in wood carving (see figure 7.1). At first, he started the business in partnership. They supplied doors, windows, and others furniture items during the construction of houses. After some time, the furniture shop flourished, and he alone took over the business as his partner left due to household affairs. Now, the local business has provided a full-time job for two local people.

Figure: 7.1

Ram Mijar's Furniture Shop

Before the installation of the furniture business in the village, they were dependent on the market in Dharke. Now they have the option to buy furniture items in their own village. Meanwhile, local wood is also used in the business. The local people benefit from selling wood from their private land. The people are happy with the progress of the furniture shop. The furniture shop has an annual income of ten lakhs in Nepali currency. The earthquake provided a good opportunity for the furniture industry as he supplied local wood furniture to reconstruct houses. The industry has benefited not only the family of Ram Mijar but also other local people directly through jobs in the industry and buying of local woods from the people's private land. He thinks that disasters also provide some positive outcomes despite damage to life and property. His income soared high due to the flourishing furniture business. His life has been impacted positively by the quake disaster as he cashed on the opportunity at the right time.

The people introduced improved vegetable farming on their private land after the earthquake. They also supplied vegetables to the market in Kathmandu and Dhading districts. After the earthquake, there was an improved farming system that local people popularly called *Bikashe Kheti* (cash crops), through which small-sized local industries and diversification in livelihood patterns became the party of resilience and recovery.

However, 25.2 percent of Nepal's population was in the poverty line before the earthquake. As the report of Tamang et al. (2020) states, the earthquake further increased poor and the risk of falling into poverty. The poverty level is high in mountains and hilly regions in the country. The findings show that there was no further increment in poverty in Tallo Mijar Tole. However, they still had financial hardship and no regular source of income in Mathillo Mijar Tole. Dalit people were running everyday life despite this hardship. Many informants also tried to forget the tragic disaster and start a new life. The structural-functional theoretical approach provides theoretical frameworks on how society functions even in times of hardship. Local communities adopted alternative opportunities and worked to overcome the impacts posed by the earthquake. In this context, Vincent (2015) also mentions that social orders and needs function even in difficult times of disaster:

> The structural-functionalism emphasized the formal ordering of parts and their functional interrelations as contributing to the maintenance needs of a structured social system. This assumption attributed to social systems an internal integration of parts similar to that found in organisms. This approach holds that human societies tend to evolve toward increased differentiation, in which institutions become increasingly specialized in the functions they perform (p. 245).

It suggests that the social capital interrelations and cooperation among people at the community level play the community to get back into normalization. For example, there is strong social bonding, available skills of family members, and networks in Tallo Mijar Tol. Therefore, Tallo Mijar Tol is more resilient compared to the adjoining settlement.

7.4 Summary

The earthquakes invite multi-dimensional impacts on the life of local people. The impacts are both affirmative and adverse. Although adverse effects are on high degree influencing everyday life and many more. The impacts are accounted on holistic form, ranging from social, cultural, economic, and political domains in the life of Dalits. However, the livelihood and construction of houses always play a dominant role in people's social and cultural domain. The livelihood patterns, way of employment and survival mechanism, women's role, the productivity of agriculture, and animal husbandry completely changed in Jibanpur. Importantly, it also changes on social and cultural relations of Dalit people with non-Dalits with strong bonding and loosening of untouchability. The joint family separated officially to get a cash grant for the construction of houses due to the government's policy provision of providing the grant to those families having Lalpurja (land title certificate). Furthermore, cultural practices such as marriage and rituals changed with a limited number of invitees due to the unavailability of spaces in their new houses. To conclude, time of disaster is hard, but people also try to adapt to hardship. Resilience is possible through the community people, their social cohesion, and finally, various supports from outsiders, for example, governments and non-governmental organizations. The micro and macro linking factors through people's networks and institutional support of state and non-state agencies aid the local community in resilience. Notably, the village has been functioning smoothly despite various ups and down triggered by the earthquake.

CHAPTER EIGHT

SUMMARY AND CONCLUSIONS

This chapter has three parts. It states the summary and conclusion of the dissertation. First, the summary part briefly reflects objectives, methodology, theoretical and conceptual framework, and social, cultural, and economic aspects of earthquake-hit communities. Second, the conclusion consists of theorized statements based on the study's findings and three research questions. Then finally, it suggests some implications of the study.

8.1 Summary

Anthropology offers disaster studies through historical, political, economic, socio-cultural, ecological, and broad comparative conclusions and cross-cultural perspectives. The present study attempts to depict the holistic picture of the earthquake disaster in 2015 in a mountain district of Nepal. It covers stories on people's capacity to anticipate, cope with, resist, and recover from the impact of a disaster event. The disaster has various impacts on the lives of local people altering their social, cultural, and economic practices. This study is about the resilience and recovery status of 2015 earthquake disaster-hit families in central Nepal.

The study was designed with two research objectives. Firstly, the study aimed to explore the rescue, relief, and resilience process of the 2015 earthquake in a holistic approach. Secondly, it intended to analyze the social, cultural, and economic aspects of Dalit people after the earthquake.

Meanwhile, three research questions were designed based on the two objectives. First, the study tried to explore rescue, relief, and resilience processes adopted by local communities with the presence of government and non-governmental agencies. It also focuses on the local communities' current social, cultural, and livelihood status after the earthquake as part of recovery. The research also reveals the variations in the resilience status within Dalit communities on how they became resilient during the earthquake disaster.

The present study has systematically investigated how the earthquake disaster influenced the victims. It has also made an inquiry into their adaptability, vulnerability, local institutions' role in mitigating the disaster impacts, and the changes in the aftermaths of the earthquake in social, cultural, and economic life holistically. Meanwhile, another central point of analysis is how the quake disaster has been responsible for social, economic, and cultural aspects.

So far, disaster research carried out by different scholars in different times and spaces has concentrated on how it took place, to what degree it destroyed property, and how it affected human life, and not yet been able to see the behavioral and agricultural issues through victims' viewpoint. They have only focused on describing the severity conditions of earthquakes in terms of loss of life, property, and the points of magnitude registered on the Richter scale.

In this context, this study has tried to bridge the previous research gap by articulating how hazards and catastrophes can be the triggering forces for the change of cultural institutions and their capacity to anticipate on the one hand, and how disaster became such a powerful enabler for further desensitization to recovery and resilience process on the other.

The study has blended qualitative and quantitative research tools. The ethnographic study is the dominant tool supplemented by the household enumeration and key informant interview. The methodology also bridges the gap in the anthropological research trend that is heavily dominated by qualitative tools such as crude story recordings of local narrations.

The study area is located in the Dhading district. The intensive ethnographic study was one year in Dhading, with high time spent in Jibanpur and some time in Kathmandu. During the field stay, three FGDs and twenty KII were conducted. At the same time, the enumeration covered 167 Dalit houses for the data collection on socio-demography, rescue, relief, and resilience processes. The research tools also included a case study.

Anthropology is a holistic study. The study primarily applies the anthropology of disaster as a theoretical framework following the works of Oliver-Smith (2002;

1999) in particular. Conceptually, resilience is a multi-dimensional phenomenon in the study area. The study covers resilience factors such as the community's and people's actions through family, community members, social bonding and traditional practices, and local technology. Meantime, it focuses on the interventions of government agencies and policies along with support from non-governmental agencies. Therefore, the major factors enabling community resilience include various interventions for house resilience programs and non-state intervention and the self-actions of people and communities in which society structurally functions and becomes resilient despite the hard times.

Community in this study primarily means heterogeneous communities marked with the features of communities within the community. There is variation in the resilience status within Dalit communities. Regardless of average economic conditions, social bonding plays a significant role in rescue, relief, resilience, and recovery.

8.2 Conclusions

Based on the empirical findings, conclusions have been developed along the line of two major specific objectives as follows:

i) Conclusions Related to Rescue, Relief and Resilience Process

In disaster management, the community, comprising family members, attached neighbors, and local residents, emerges as a pivotal force in rescue and relief efforts. There is an interaction between biotic and abiotic factors in the processes of rescue, relief, and resilience (Steward, 1995). During the initial stages of disaster response, family members and immediate neighbors take precedence over local government, security forces, and non-state agencies. External individuals and networks from outside the affected area also contribute significantly to rescue and immediate relief operations (Oliver-Smith 1999). The local-national-global network primarily serves to unveil resilience phenomena. In this context, the importance of social bonding, networks, and cooperation becomes evident in the rescue and immediate relief efforts among close neighbors. Tallo Mijar Tole and Dahar exhibit robust

bonding and social capital, reflecting a commendable resilience status. The study area prioritizes rescue efforts into three phases: first, rescuing elderly individuals and children from their homes; second, rescuing livestock; and third, rescuing immediate neighbors and cattle.

In anthropology, a community consists of individuals, family members, neighbors, and community members with common ties in terms of culture, religion, language, communal feeling, and traits. Rural communities in Nepal are functioning even in a hard time through cooperation among family members and community people where formal state institutions are unavailable and not ready for rescue management immediately.

Resilience and recovery exhibit a range of multi-dimensional facets within the Dalit community. This resilience process is characterized by locally confined dimensions encompassing social, cultural, political, and livelihood aspects. Micro factors, such as family income, wealth, social capital, assistance, support, labor practices, indigenous institutions, and family wealth, collectively contribute significantly to the resilience of communities affected by disasters. Government interventions, including cash grants, and the income-generating activities facilitated by non-governmental organizations, play crucial roles in enhancing the resilience of communities impacted by earthquakes.

In assessing resilience at both macro and micro levels, various factors come into play, including family income, assets, and networks both locally and beyond, influencing the overall resilience status. A significant indicator of a family's resilience to earthquake impact is the construction of a new earthquake-resistant house. Settlements characterized by robust community bonds, extensive networks, and diverse family assets, income, and skills demonstrate rapid resilience at the community level. Meanwhile, at the macro level, factors such as participation in socio-political institutions, administrative units, municipality offices, local banking institutions, the availability of road networks, and policy-level interventions all contribute affirmatively to a community's ability to become resilient.

Recovery is the acceptability of local people after the earthquake hazard. The study by Tamang et al. (2020) states that the recovery factors include the reconstruction of the house, household-level poverty and livelihoods, household food sufficiency, community solidarity, and bouncing back. The recovery status varies with different social groups, and the bouncing back of Dalits is lower compared to other caste groups in the country.

Measuring parameters are not available to reveal the recovery process. However, various supporting sub-components help understand the Dalit community's resilience process in Jibanpur. Interestingly, no single version of the perception of normalization of the earthquake impacts and resilience factors exists. People with a high degree of resilience accept that they have better recovery conditions from earthquake hazards. There are mixed versions of the perception of normalization of the earthquake impacts. The factors are closely related even in rescue, relief, and resilience. Therefore, recovery is not a separate entity in this research. Instead, it is closely connected to the rescue, relief, and resilience concept. People with a high degree of resilience accept that they have better recovery conditions from earthquake hazards. For example, people in Tallo Mijar Tol**e** and Dahar agreed with the version that they bounced back to normalization, whereas respondents in Mathillo Mijar Tol**e** and Chhap Gaun did not agree with the version that they had the severe impact of the earthquake. Dalits with new house construction and relatively good conditions economy state that they are happy with the present situation, whereas families who lost family members and have not completed the house construction are not satisfied.

Resilience is an integrated concept in the case of Dalits in Jibanpur. People are more concerned with constructing new houses rather than other dimensions of the earthquake impacts. Therefore, the reconstruction of houses played a key role in the perception of local people on recovery and resilience. The reconstruction works of private housing completed in Jibanpur, including public structures.

To put it in a nutshell, for a community to be resilient, various micro and macro factors are responsible. They are social and cultural assets, practices, ethics, tradition, and traditional practices such as *Parma* labor arrangement, communal feeling, determination of family members, wealth, and religious practices play a key role. Therefore, the resilience process combines the social, cultural, economic, and political processes in the broader conceptual frame. Social and cultural capital as a strong correlation with local communities' resilience. The community initiative of the reconstruction is successful with the active involvement of local people. If the community has skill and cooperation among themselves, they are resilient because they do not depend on others to make household and supply the labor. In Nepal, artisan castes have skills in carpentry and masonry. They exchange labor for the construction of new houses.

Similarly, macro socio-political and economic frameworks, including national and regional contexts, interventions, and supports, are equally crucial for a community to be resilient. The macro-level factors further include political representation in service-providing institutions, external cash support for the construction of houses, political participation, representation in local administration, and the entire socio-political environment. Financial support is crucial as part of enabling factors in locally confined social, cultural, and economic settings.

Interestingly, the resilience and recovery process is not linear within the same ethnic group with more or less similar social and political contexts. Families with the quickest improvement have access to broad social networks within their villages, in Kathmandu, and in countries abroad to aid in recovery. Hence, generalizing a community's resilience status and recovery process is impossible. Families and individuals within the community are better considered for the study of the resilience process for generalization.

The policy is a blueprint for the practice. However, the policy is always manipulated while implementing it (Mosse, 2005). Manipulations are seen in different layers of the implementation process. In the course of

implementation, new institutions emerge to negotiate the situation. For example, while government grants are used up for other purposes, the middlemen's role starts. The middlemen generate more profits when common people are in trouble. Government grants are considered free money when they receive them. When the time comes to meet the government requirement, both common people and middlemen negotiate to complete the houses. In such situations, common people lose, and middlemen win due to the availability of financial capital. Gold, silver, land, and other assets are considered collateral for taking a loan. However, in earthquake-affected households' card become collateral because it carries the value of money. The middlemen hold such cards as collateral and get the installment at hand. Local people always manipulate the rules and regulations of the government in their favor and benefit. For example, the joint family separated officially to get a cash grant for the construction of houses due to the government's policy provision. Furthermore, the cultural and religious practices, such as marriage and ritual practices, changed with a limited number of invitees due to the unavailability of spaces in their new houses.

Furthermore, formal education and remittances are not dominant factors of resilience. Dalit people lack a higher level of formal education. The conclusion contrasts with the findings from Tamang et al. (2020), as remittance is not a major source of income for Dalits. The study emphasizes that high education and remittances play a key role in resilience, indicating a broad unit of a research area with diverse social groups in the different ecological zone.

ii) Conclusions Related to Social, Cultural, and Livelihood Status

Like other forms of disaster, earthquake invites multi-dimensional impacts on the life of local people. The impacts are both affirmative and adverse. However, adverse effects are of a high degree influencing everyday life. The impacts are severe in socially backward and financially poor communities like Dalit people in Nepal. The impacts are accounted on holistic forms ranging from social, cultural, economic, and political domains in the life

of Dalits. However, livelihood and construction of houses always play the dominant role in people's social and cultural domain. The livelihood patterns, way of employment and survival mechanism, women's role, the productivity of agriculture, and animal husbandry completely changed after the earthquake in favor of local people to be resilient. Importantly, it also changes on social and cultural relations of Dalit people with non-Dalits with strong bonding and loosening of untouchability.

Following the earthquake, notable shifts were observed in various aspects of community life. Practices like marriage and ritual performances underwent changes, marked by a trend towards smaller gatherings and fewer invitees due to limited spaces in new houses. These evolving patterns extended to livelihoods, local economies, employment methods, survival strategies, women's roles, agricultural productivity, and animal husbandry. Notably, these changes influenced the social and cultural relations among Dalit and non-Dalit communities, fostering stronger bonds and a gradual reduction of untouchability within the community. Additionally, the policy provision offering grants to families with land title certificates led to the splitting of joint families to maximize benefits from the government's cash grant for house construction**.**

From the empirical evidence of the study area, it can be concluded that when a disaster occurs, people have a self-help attitude to rescue their neighbors and relatives. In such situations, discrimination based on caste, ethnicity, and gender is low. However, they follow the same traditional behavior pattern when the situation comes to normalcy. This indicates that changes that occur as a byproduct of crisis would be temporal, not permanent.

Moreover, caste hierarchy and the practice of untouchability are important social relations in rural areas in Nepal. Natural disasters like earthquakes also play a key role in assimilating inter-caste groups. Assimilation is counted in terms of receiving support and providing support to each other in the community. This is a good example of the functioning of Dalit society in a smooth way during a hard time. According to Emile

Durkheim, society is bonded together by means of the division of labor, and there is little division of labor in primitive societies. Meanwhile, there is a highly specialized division of labor in modern organic solidarity, although they function to contribute for survival purposes (Carrier, 1982). Therefore, the overall function of social norms, values, and traditions in Tallo Mijar Tol and Dahar can be analyzed with the mechanical solidarity approach of Emile Durkheim (Pope, 1974).

The house not only provides shelter to Dalit people, but it is a broader theme indicating their religious traits, customs, culture, and many more. The house components in the Dalit community also comprise the surrounding environment, such as cow sheds and livestock rearing. Therefore, the house is not merely a physical structure such as rooms, walls, and supporting systems for Dalit people. They perceive houses in a holistic approach with the social, cultural, and economic life that they encounter every day. However, the degree of acceptance or perception depends on various social, cultural, economic, and political factors. When government grants are insufficient for constructing culturally suitable houses, people construct new houses for the government requirement and repair the old house for cultural utility. They also dichotomize the house into two categories, such as *bhukamp ko ghar* (earthquake house) and *ghar* (house) (Karki et al., 2022).

8.3 Implications

There are mainly three implications of this research. They are theoretical implications that contribute to anthropological theories, methodological implications, and policy implications. These implications can be helpful for researchers, policymakers, and implementing bodies if they consider them seriously.

Theoretical Implications

The present study contributes to the study of disaster and resilience through a holistic approach focusing on interventions from state and non-state agencies. However, the guiding theoretical theme is the anthropology of disaster. A community itself is a structured mechanism to handle the impacts of the earthquake. Anthropologists from the traditional school of thought, for example, Durkheim (1893), argue that society functions with structured institutional setups.

The channelized government intervention, for example, cash grants, has a key role in resilience, particularly in constructing earthquake-resilient new houses, despite demerits on the social and cultural viability of the newly constructed houses. The cash grant provided to Dalit families with poor economic status is not enough to build even a small house.

The techno-environmental adaptation approach of Steward (1972) states that the environment determines the cultural aspects of local people. Dalits hardly accept new houses that are compatible with their local environmental and cultural settings. The construction of the houses is highly guided by engineering viewpoints rather than consideration of social and cultural aspects.

Formal education and remittances have no preponderant influence on community disaster resilience. Furthermore, education (not formal schooling) in family decisions, informal resilience planning with family members, and community-level cooperation play a positive role in recovery from the hazards. However, studies from Tamang et al. (2020) show that high education and remittances play a key role in resilience, indicating a broad unit of a research area with diverse social groups in different ecological zone. The result is different in terms of research methodology and unit of analysis with an account of different social groups.

Methodological Implications

The study has blended participant observation under ethnography and household enumeration as a quantitative tool. The blending of the research tool is purposive for better triangulation and quality assurance in this study. This

methodological approach can add value to anthropological research, particularly in studies of resilience and recovery.

Policy Implications

The policy issues are broadly classified into two categories. First, the suggestion that can be applied in the policy formulation and implementation of policies after the disaster. Second, there is still research space for social scientists to explore local knowledge, skills, and practice concerning hazards and mitigation measures combined at the family and individual levels. As a result, policy formulation and implementation could provide better results.

The acceptance level of local people on new houses in cultural settings is open to review at a policy level. The reconstruction model of the government is always better for linking the local environmental setting by need assessment at the community and family levels. Families with no regular income and family wealth still have loans borrowed from the local financial institutions to construct new houses. The policy revision is necessary to allocate the cash grant, especially to economically low-income families. The need assessment of financially low-income families is better to understand for policy level inputs on reconstruction and recovery process.

ANNEXES

ANNEX 1

GLOSSARY

This study recorded the narrations and statements of Dalit people in their native Nepali language from the ethnographic study in central Nepal. Their own versions, therefore, are stated in the Romanized texts, wherever necessary, in the form of statements, narrations, and proverbs that represent spoken words or statements of the respondents in this dissertation. Therefore, the literal meaning is provided in English without distorting the essence of the findings and their meanings. The literal statements are not official translations of Romanized texts into English. Instead, it is an English version with purposes and study context compatible with the findings. The meaning is derived in the local context and based on the respondents' opinions. A few terms that are frequently used in this dissertation are summarized below:

Adhiya	Sharing of crops equally between the land owner and tenant
Bachat Samuha	Local / indigenous saving group
Chhapro	**T**emporary house shed
Pakki	Cemented house
Parma/Pareli	Mutual labor exchange
Pidi	An area in front of the house where people take rest and sit
Rahat	Relief materials during the earthquake and aftershocks
Sagun	Gifts or foods provided to invitees on the special occasion in marriage ceremony in Jibanpurb

ANNEX 2

SUMMARY OF NEPAL'S MAJOR EARTHQUAKES

Year in AD	Magnitude	Major Damages
1934	8.4 Richter Scale	10, 700 dead 126,355 houses damaged and 80893 buildings destroyed
1980	6.5 Richter Scale	125 dead 248 seriously injured 13,414 buildings were damaged, and 11,604 buildings destroyed
1988	6.8 Richter Scale	721 dead 6,553 injured 6553 buildings damaged and 1566 livestock dead
1993	Unknown	1 dead 11 injured 72 houses were destroyed, and 451 buildings damaged
1994	Unknown	12 injured 84 houses were destroyed, and 287 buildings damaged
1997	Unknown	1 injured 196 houses destroyed and 60 buildings damaged
2015	7.8 Richter Scale	8,997 dead 22,309 injured 288,793 buildings were damaged, and 254,114 buildings were partially damaged

Source: Nepal Disaster Management Reference Handbook, GoN, 2020

ANNEX 3

HOUSEHOLD ENUMERATION SURVEY QUESTIONNAIRE AND CHECKLISTS FOR INTERVIEW

Section A: Household Enumeration

House No: ……

A. General Information of Respondent

1.1 Name: …….

1.2 Gender:……..

1.3 Age:……

1.4 Rural Municipality/Municipality: …….

1.5 Ward no:…….

1.6 Village/Tol:…….

1.7 Religion/Caste:……

1.8 Mother Language:…….

1.9 Education:…….

B. Family Information

2.1 Family Members:…….

2.2 Male:…….. 2.3 Female:…….

2.4 Occupation of the family:……

2.5 Occupation of Respondent:……..

2.6 Name of landlord:……

2.7 Husband/Wife of Landlord:……..

2.8 Types of House:…….

2.8.1 Land holding Certificate:…….

2.8.2 Ailani/Without Certificagte:……..

C. Economic Information (Compare before and after the earthquake)

3.1 Please provide information about your land

SN	Land Type (own/other but use)	Land (in Ropani)			Before Earthquake	After
		Khet	Bari	Other		
1	Own/Cultivated					
2	Other but cultivated					
3	Own but cultivated by others					
	Total					

3.2 No of livestock:……

3.2.1 Cow 3.2.2 Buffalo 3.2.3 Goat

3.2.4 Pig 3.2.5 Others

(Mention before and after the earthquake, for example, damage on grazing land, damage to cowshed, etc.)

D. Income and Expenditures

3.3 Source of income of land years

SN	Particulars	Income (annual)	What was before the earthquake
1	Agriculture related		
2	Cash crops		
3	Jobs		
4	Labors		
5	Penson		
6	House rent		
7	Own business		
8	Foreign employment		
9	Others		
Total			

3.4 Please provide the expenditures of your family for last year

SN	Particulars	Annual Expenditure in Nepali currency
1	Food (all types)	
2	Fuel	
3	Electricity, Water, Communication	
4	Treatment	
5	Festival	
6	Education	
7	Clothes	
8	Transportation	
9	Agriculture	
10	Others	
Total		

E. Displacement and Rehabilitation

3.5 Do family members work on labor? 3.5.1 Yes, 3.5.2 No, (how much time)

If Yes, was there an increase in non-agricultural work, including wage rate, after the earthquake?

Yes…….. types, and reason with detailed information

No……

3.6 If yes, please mention the reasons

3.6.1 Reconstruction 3.6.2 Organizations 3.6.3 Increase market value 3.6.4 Receiving skilled training 3.6.5 Others

3.7 Is there a change in the structures of homes after the earthquake? Mention in detail.

3.8 Did you change your original place after the earthquake (referring to displacement)?

3.9 Who is the land owner of the current house?

3.10 Did you learn skills, methods, and ways to save lives and impacts from the earthquake? Mention in detail.

3.11 Did the earthquake damage your house? Completely damaged, damaged, and not at all

3.12 What types of homes do you want to make after the earthquake? Traditional types, Modern Pakki, and Like before the earthquake

3.13 Was there the death of any family members by the earthquake? (Please ask the questions with respect to the emotion and feelings of respondents)

3.14 Is there worshiping place in your house?

3.15 Do you plan to make worshiping place in your new house?

3.16 Do you have *kul deuta* ?

3.18 Do you worship kul deuta inside the house or outside?

3.19 Do your family conditions like before the earthquake?

If better, please mention it in detail.

If worse, please mention it in detail.

F. Please mentions social, cultural, economic, environmental, and everyday changes in life due to the earthquake.

4.1 Do you know about rehabilitation?

4.2 Do you bounce back to earlier conditions?

4.3 Do you know about displacement? Mention in detail if displaced?

4.4 Is there any changes in religion, traditions, and cultural life after the earthquake?

Section Two: Checklists for Focus Group Discussion

Date and Time:

Place:

Participants

SN	Name	Age	Sex	Occupation

1. Various opinions about the earthquake

2. Impacts of an earthquake; social, cultural, political, economic, psychological, regional, physical

3. Damages in detail (from official data and from the community level)

SN	Particulars	Damages
1	Private houses	
2	Public structures	
3	Cultural sites; waiting for shed, temple, and many more	
4	Agricultural land	

4. Local narrations of the earthquake and local versions
5. Local versions of displacement and rehabilitation
6. Reconstructions work and role of local bodies and NRA
7. Overall impacts due to the earthquake from cultural viewpoints

Section Three: Checklist for Key Informant Interview

Date and Time:

Place:

Participant

1. Please mention about social, cultural, and economic impacts of the earthquake
2. Please mention about damages of the earthquake
3. Local initiations at both individual, family, and community levels to overcome the impacts of the earthquake
4. Outer organizations and their role in earthquake
5. Major problems and changes of the earthquake in summary
6. Your opinion about the solutions to these problem

ANNEX 4

LISTS OF HOUSEHOLDS SETTLEMENT-WISE IN THE STUDY AREA

Cluster/Settlement 1: Tallo Mijar Tol	
SN	**Households Head/Respondents**
1.	Kiran Mijar
2.	Juthay Mijar
3.	Chhamay Mijar
4.	Nawaraj Mijar
5.	Ram Bahadur Mijar
6.	Chandra Bahadur Mijar
7.	Ganesh Mijar
8.	Saeli Mijarn
9.	Dil Bahadur Mijar
10	Hari Mijar
11.	Umesh Mijar
12.	Chanamati Mijar
13.	Maiya Mijar
14.	Balaram Mijar
15.	Maeli Mijar
16.	Saela Bahadur Mijar
17.	Kedar Bisunkhe
18.	Shyam Kumar Mijar
19.	Kali Mijar

Cluster/Settlement 2 : Mathillo Mijar Tol	
SN	**Households Head/Respondents**
1.	Ramchandra Mijar
2.	Saeli Mijar
3.	Sano kanch Mijar
4.	Arjun Mijar
5.	Sukudev Mijar
6.	Aetay Sarki
7.	Ramsaran Mijar
8.	Shyamchand Mijar
9.	Ram Kumar Mijar
10	Hari Bahadur Sarki
11.	Ramkrishna Mijar
12.	Tulasi Mijar
13.	Rajan Mijar
14.	Suntali Mijar
15.	Gobindra Bahadur Mijar
16.	Nawaraj Mijar
17.	Sanokancha Mijar
18.	Santa Bahadur Mijar
19.	Bishnu Mijar

Cluster/Settlement 3 : Mathillo Kotkhal	
SN	**Households Head/Respondents**
1.	Kaji Man Damai
2.	Bir Bahadur Sunar
3.	Chandra Bahadur Sunar
4.	Dev Bahadur Kami
5.	Purna Bahadur Kami
6.	Sano Kancho Sunar
7.	Ramsaran Sunar
8.	Purna Bahadur Mijar
9.	Radhika Katuwal
10	Krishna Bahadur Kami
11.	Sukra Bahadur Kami
12.	Binod Damai pari
13.	Madan Damai
14.	Ramesh Pariyar
15.	Ganesh Pariyar
16.	Dipak Pariyar da
17.	Juthe Damai
18.	Goma Dimini
19.	Thulo Kancha Damai

Cluster/Settlement 4: Kaflepaani	
SN	**Households Head/Respondents**
1.	Sanu Damae
2.	Rajkumar Mijar
3.	Bhim Bahadur Mijar
4.	Balaram Mijar
5.	Ratnay Sarki
6.	Bachay Sarki
7.	Gaenay Sarki
8.	Gopi Magarati

Cluster/Settlement 5: Tallo kotkhal	
SN	**Households Head/Respondents**
1.	Saroj Mijar
2.	Biikram Sarki
3.	Kanchi Mijar
4.	Arjun Sarki
5.	Prakash Mijar
6.	Kancha Sarki
7.	Shanta Kumari Sarkini
8.	Lal Bahadur Sarki
9.	Musay Mijar
10	Batule Mijar
11.	Anjgrage Sarki
12.	Khujuray Sarki
13.	Bishnu Mijar
14.	Kajiman Mijar
15.	Luray Mijar
16.	Ram Kumar Sarki
17.	Tel Bahadur Sarki
18.	Santay Mijar
19.	Murali Mijar
20.	Udhav Mijar
21.	Dipesh Mijar
22.	Sanikanchi Sarki
23.	Bijaya Mijar
24.	Gopal Mijar
25.	Krishna Bahadur Mijar
26.	Nepta Mijar
27.	Kamal Bahadur Mijar
28.	Nasay Mijar
29.	Sanuvai Mijar
30.	Mangal Bahadur Mijar

Cluster/Settlement 6: Neupane Danda	
SN	**Households Head/Respondents**
1.	Gothay Sarki
2.	Vuntay Mijar
3.	Pradeep Mijar
4.	Sukay Mijar
5.	Budhey Damai
6.	Rajan Mangrati
7.	Krishana Bahadur Sarki
8.	Mangaley Sarki

Cluster/Settlement 7: Thanti	
SN	**Households Head/Respondents**
1.	Sanuvai Sunwar
2.	Maniraj Sunwar
3.	Shyam Kumar Sunwar
4.	Batule Kamini
5.	Shamvu Kami Sunwar
6.	Ramchandra Sunwar
7.	Ashok Sunwar
8.	Ramkumar Sarki
9.	Raj Kumar Sarki
10	Ram Budeman Kami
11.	Bahadur Sunwar
12.	Gopi Kami
13.	Juthe Kami
14.	Ram Kumar Kami

Cluster/Settlement 8: Gairee Gaun	
SN	**Households Head/Respondents**
1.	Raju Mijar
2.	Bhuntey Mijar
3.	Ram Bahadur Mijar
4.	Krishna Bahadur Mijar
5.	Mangale Mijar
6.	Sambhu Mijar
7.	Budhey Mijar
8.	Bidur Mijar
9.	Gopi Mijar
10	Durga Bahadur Mijar
11.	Kanchi Mijar
12.	Dipak Mijar
13.	Shayam Kumar Dulal

Cluster/Settlement 9: Dahar	
SN	**Households Head/ Respondents**
1.	Gyan Bahadur Sarki
2.	Ramesh Sarki
3.	Ram Bahadur Sarki
4.	Kabindra Sarki
5.	Seti Mejarani
6.	Pradeep Mijar
7.	Purnay Mijar

Cluster/Settlement 10: Jimmawal Gaun	
SN	**Households Head/ Respondents**
1.	Kali Bahadur Sunar
2.	Juthay Sunar
3.	Thulo Kancha Mijar
4.	Dala Bahadur Mijar
5.	Raj Kumar Mijar

Cluster/Settlement 11: Chhapgaun

SN	Households Head/ Respondents
1.	Sanu Muiya Sharki
2.	Bishnu Mijar
3.	Goray Mijar
4.	Rajkumar Bayalkote
5.	Ramesa Bayalkoti
6.	Kajiman Mijar
7.	Votay Mijar
8.	Ramu Mijar
9.	Murali Mijar
10.	Ramaysor Mijar
11.	Gopal Mijar
12.	Gopi Mijar
13.	Gopal Sharki
14.	Suryaman Sarki
15.	Sitaram Mijar
16.	Resam Mijar
17.	Gopal Sarki
18.	Rajkumar Sarki
19.	Balaram Mijar
20.	Sanukancha Mijar
21.	Rajendra Mijar
22.	Krishna Bahadur Mijar
23.	Shayam Bahadur Mijar

Cluster/Settlement 12: KolaChaur

1. Bishnu Maya pariyar

Cluster/Settlement 13: Khanigaun

1. Krishna Bahadur Mijar

ANNEX 5

PHOTOGRAPHS FROM THE STUDY AREA

Plate no. 1: (Reinstallation of Water supply system damaged by the earthquake)

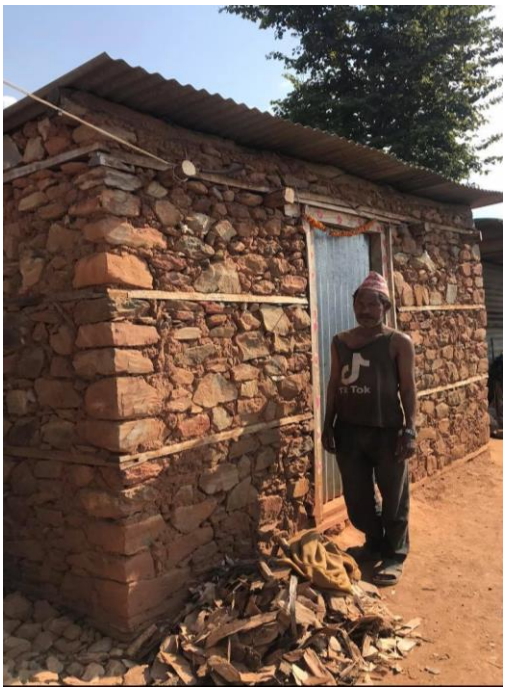


Plate No. 2: (Newly Constructed Muddy House approved by NRA Technical Official)

Plate No. 3: Traditional Utensil used by Dalits

Plate No. 4: Focus group description on newly built cemented *Chautaro* at Kami Thanti, Jibanpur

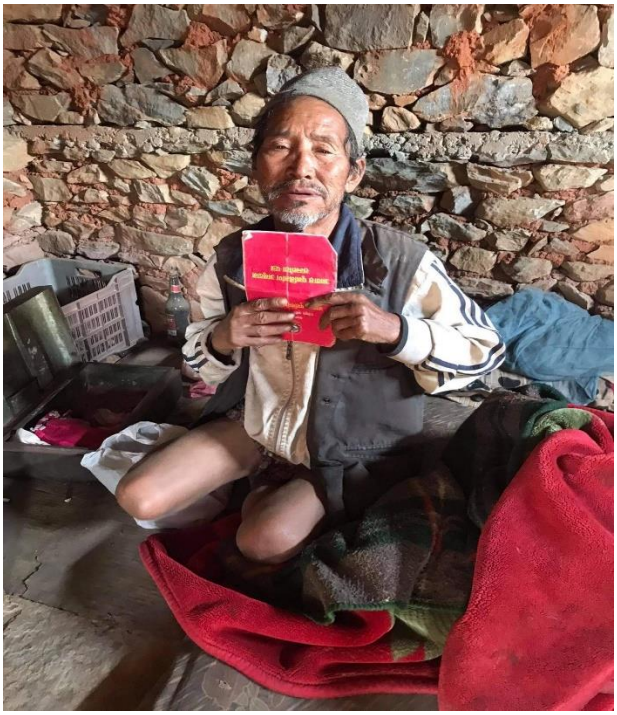


Plate No. 5: An informant holding red card provided by NRA

Plate No.6: Additional Structure built by Local people to adjust place availability

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