

Working Paper

# Reconstructing Nepal

Post-Earthquake Experiences from  
Bhaktapur, Dhading and Sindhupalchowk



Bina Limbu | Nabin Rawal | Manoj Suji  
Prakash Chandra Subedi | Jeevan Baniya

*Working Paper Series*

**Reconstructing Nepal: Scholarly Approaches**

Sara Shneiderman and Deepak Thapa (editors)

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SSHRC CRSH

Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada



THE UNIVERSITY OF BRITISH COLUMBIA



This publication is part of the research project 'Expertise, Labour and Mobility in Nepal's Post-Conflict, Post-Disaster Reconstruction: Construction, Law and Finance as Domains of Social Transformation', funded by the Social Sciences and Humanities Research Council of Canada (SSHRC), Partnership Development Grant Number 890-2016-0011.

For further information about the partnership, please see the project website at: <https://elmnr.arts.ubc.ca/>

Cover: A newly constructed one-room house in Borang built with the government's housing reconstruction grant. Photo: Prakash Chandra Subedi.

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ISBN: 978 9937 8915 9 2

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Printed in Nepal

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New construction in Kartike Bazaar, Sindhupalchowk. An RC frame house stands next to a load-bearing house that has used stones on the ground floor and bricks on the first. Photo: Manoj Suji.

# ACKNOWLEDGEMENTS

This study has benefitted from the support of several institutions and individuals without whom this research would not have been possible. At the outset, the team would like to acknowledge the financial support of the Social Sciences and Humanities Research Council (SSHRC) of Canada, Partnership Development Grant Number 890-2016-0011, and additional support provided by the Peter Wall Institute for Advanced Studies, the Faculty of Arts, the School of Public Policy & Global Affairs, and the Department of Anthropology at the University of British Columbia (UBC). Likewise, the team is also grateful to Social Science Baha in Kathmandu, where the research team is based, and to its collaborating partner, the Central Department of Anthropology at Tribhuvan University.

We also extend our sincerest gratitude to all our research participants and key informants from our field sites in Bhaktapur, Dhading and Sindhupalchowk districts for their time and willingness to share their stories with us. We also thank our former colleague, Bidhyaman Mahatara, without whose support the team would not have been able to meet some key interlocutors in Bhaktapur.

We also thank the Principal Investigator of this research, Sara Shneiderman (University of British Columbia), and Co-Investigators, Katharine N. Rankin (University of Toronto) and Philippe Le Billon (University of British Columbia), for their continuous guidance in designing this research program and refining this report. We are also grateful to other members of the SSHRC research project, Bishnu Pandey (British Columbia Institute of Technology), Cameron David Warner (Aarhus University), Dan Hirslund (University of Copenhagen), Deepak Thapa (Social Science Baha), Dinesh Paudel (Appalachian State University), Katherine Hacker (University of British Columbia), Kristian Cedervall Lautala (University of Copenhagen), Omer Aijazi (University of British Columbia), and Ramjee Parajulee (Capilano University), for providing feedback on this preliminary report during the summer workshop held in Kathmandu on 23-24 July 2018. We also thank Emily Amburgey and James Binks (University of British Columbia), and Courtney Balaz-Munn (University of Toronto) for supporting us with the initial draft of this report.

# ABBREVIATIONS AND ACRONYMS

CBS	Central Bureau of Statistics
CGI	corrugated galvanised iron
CPN-M	Communist Party of Nepal–Maoist
CPN-UML	Communist Party of Nepal–Unified Marxist Leninist
DoA	Department of Archaeology
GESI	gender equality and social inclusion
GoN	Government of Nepal
I/NGO	international/non-government organisation
KII	key informant interview
NRA	National Reconstruction Authority
NMKP	Nepal Majdoor Kisan Party
NSET	National Society for Earthquake Technology–Nepal
MoFAGA	Ministry of Federal Affairs and General Administration
PA	Participation Agreement
PDRF	Post-Disaster Recovery Framework
RC	reinforced concrete
SSHRC	Social Sciences and Humanities Research Council of Canada
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
VDC	village development committee

# EXECUTIVE SUMMARY

Post-disaster reconstruction is a complex process of social transformation, whereby multiple forms of expertise, knowledge and political-economic relations come into play, reconfiguring relationships between state and citizen as well as local, national and international communities. Following the devastation of Nepal's 2015 earthquake, the Government of Nepal promulgated the Reconstruction Act 2015 and established the National Reconstruction Authority (NRA). The NRA subsequently introduced various reconstruction policies and provisions with the objective of facilitating 'owner-driven' reconstruction under the 'Build Back Better' approach. For this purpose, 3,000 engineers were deployed by the government to assist earthquake-affected households to build 'earthquake-resistant houses'—a process incentivised by the provision of the Private Housing Reconstruction Grant of NPR 300,000 (c. USD 2750). In doing so, homeowners at the ground level—who were previously accustomed to designing and building their own houses with little to no regulatory oversight—came to interact with new forms of regulations (building codes, permits, approved designs) for the first time. In this context, this study aimed to explore how these different forms of expertise and practices of governance interplay in the reconstruction process by inquiring into the three domains of construction, law and finance.

The overall research has been carried out in two phases in the selected sites of three earthquake-affected districts: Bhaktapur, Dhading and Sindhupalchowk. This report is based on the findings from the first round of fieldwork where the research team conducted ethnographic

observations and in-depth interviews with 153 participants, mostly at the household level.

## Findings

- Post-earthquake reconstruction made the process of house-building more complicated than experienced by Nepali citizens prior to the earthquake. The government adopted an 'owner-driven' approach to reconstruction, but the NRA's policies and guidelines faced challenges in implementation due to their lack of consideration of different socio-cultural, political and economic contexts at the ground level, which slowed down the overall reconstruction process.
- Especially, the eight-month delay in the establishment of the NRA, followed by delays in the introduction of guidelines, were detrimental to reconstruction. As a result, the housing reconstruction programme took one and a half to two years to reach the rural study sites of Dhading and Sindhupalchowk. By this time, many people had already rebuilt and repaired their damaged houses. Hence, the home owners were initially reluctant to build the new earthquake-resistant houses prescribed by the NRA. Later, however, many people decided to comply, triggered by the incentive of accessing the reconstruction grant under set deadlines and the rumoured threats of having their legal documents (like citizenship and land ownership titles) confiscated if they refused. Thereafter, most people were building one or two-room stone masonry houses in the rural sites. Meanwhile, reinforced concrete (RC) houses

became more prevalent in the market centre of Sindhupalchowk (Kartike Bazaar) and the urban site of Bhaktapur, as people believed that RC houses were more earthquake resistant and hence, safer.

- Community members across the sites perceived the reconstruction grant not as assistance, but rather as compensation provided to cover the reconstruction cost of their damaged houses. As a result, many participants felt frustrated since they reported that the grant amount of NPR 300,000 was insufficient to build earthquake-resistant houses as prescribed by the NRA. Moreover, in the rural sites of Sindhupalchowk and Dhading, inconsistencies in house design and their implementation by NRA engineers, created confusion among homeowners and generated doubt about the overall reconstruction process.
- In terms of grant access, the research team found that participants from all the sites were able to access the different tranches despite complaints of experiencing various ‘hassles’ in the legal documentation process. Among all the documents required, producing proof of landownership was considered the most pressing concern, as most families had not transferred their land titles for two to three generations. The study found the most complications in Bhaktapur, where family disputes had arisen between members over the joint entitlement of their land, which stunted their reconstruction process. The study also found various instances where political affiliations helped householders to benefit from reconstruction provisions—especially regarding access to reconstruction grants.
- Moreover, in Bhaktapur, houses in the core heritage areas also had to comply with additional construction criteria mandated by the Bhaktapur Municipality in order to maintain the traditional appearance of the

Newari-style architecture, which further increased the burden of reconstruction costs. Although participants regarded the traditional architectural style as a salient feature of maintaining their cultural identity, they were dissatisfied with some of the elements of mandated by the Municipality, which they found ‘impractical’ and conflicted with their housing needs.

- In the context of cultural heritage, the study found that reconstruction of local temples and monasteries in Sindhupalchowk and Dhading were overshadowed due to the prioritisation of housing reconstruction. Meanwhile, the reconstruction of renowned monuments in Bhaktapur’s world heritage site was progressing under close supervision of the Bhaktapur Municipality and the Department of Archaeology (DoA). However, the research team found discord between the two institutions, mostly owing to the differences in their working modalities. The Municipality preferred the use of ‘user groups’ which was perceived to be cost-efficient and transparent by local residents. Meanwhile, the DoA used the contract-bids method which was perceived to be ridden with corrupt practices.
- Research participants in all the sites were struggling with reconstruction finances as prices of construction materials and labour wages continued to soar. In Bhaktapur, there was a prevalent trend of selling agricultural land to fund housing reconstruction. Bhaktapur residents also accessed loans, preferably from local cooperatives due to the more lax eligibility criteria and faster loan processing, while the prospect of taking loans from banks generated fear about losing property in case they were unable to pay back the loan on time. On the contrary, in the rural sites of Dhading and Sindhupalchowk, there were hardly any formal financial institutions, so homeowners frequently borrowed money

from informal sources such as relatives or friends, or took loans from *sahus* (village moneylenders) at high interest rates of 24 to 36 per cent per annum.

- The government's subsidised loan provision for earthquake-affected households did not really benefit homeowners across the sites.

In Dhading and Sindhupalchowk, people were unclear about the process and eligibility criteria for the loan. People were more interested in accessing the subsidised loans in Bhaktapur, but found that the banks were reluctant and imposed conditions that were too complicated for them to fulfil.

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# 1. INTRODUCTION

On 25 April 2015, a massive earthquake of 7.8 magnitude struck Nepal epicentred in Gorkha district, followed by a series of aftershocks, with the most powerful one of 7.3 magnitude occurring on 12 May 2015, with the epicentre in Dolakha district. Such a massive scale of disaster brought incommensurable damages to people's lives and property as well as the physical infrastructure of the country—the rehabilitation and reconstruction of which has since been an ongoing process. This working paper explores the process of post-quake reconstruction as a subject of academic inquiry and attempts to understand its multifarious aspects.

In Nepal, as elsewhere, post-disaster seismic and political transformations have been entangled with trajectories of mobility shaped by local and transnational labour markets. In the wake of the 2015 earthquakes, families who once would have built their own homes are now required to draw upon the professionalised expertise of engineers if they wish to qualify for government reconstruction subsidies. They often lack a reliable supply of domestic labour due to high levels of rural out-migration for wage labour—a pattern that had accelerated during the conflict period (i.e., the Maoist insurgency, 1996-2006) and was well established by the time of the earthquakes. At the same time, cadres of technicians/engineers from government as well as non-government organisations, and labourers from other parts of the country are now migrating into areas long characterised by precarious infrastructure, challenging topography, and hierarchical patterns of social exclusion.

This working paper serves as an initial introduction to the work of our research partnership, 'Expertise, Labour and Mobility in Nepal's

Post-Conflict, Post-Disaster Reconstruction: Construction, Law and Finance as Domains of Social Transformation', funded by the Social Sciences and Humanities Research Council of Canada (SSHRC). Our three-year project (2017-2020) intends to develop a comprehensive analytical framework to understand these multidirectional flows of people—and the forms of expertise that come and go with them—and generate new insights about the relationships between and among expertise, labour and mobility as vectors of social transformation in places where post-conflict and post-disaster processes of restructuring and reconstruction intersect. Within the flux of these encounters, this study foregrounds the roles and potential of domestic expertise and local governance in disaster response, linking that knowledge to scholarly literature on international expertise and geopolitics in shaping humanitarian and governmental responses.

The research team has sought to understand how the vectors of expertise, labour and mobility are shaping the twin projects of state restructuring and post-earthquake reconstruction in Nepal by inquiring into the three domains of construction, law and finance. In the field of construction, we looked into how reconstruction needs to be understood as a process that is both sociocultural and technical in nature. We also sought to understand how knowledge produced by construction professionals intersects with community-based knowledge and building practices. Meanwhile, exploration in the law domain focused on how people at the ground level interact with the laws and policies of reconstruction, particularly in relation to the documentation required to navigate

the reconstruction process. As for finance, we delved into understanding the multiple sources of funding available for reconstruction and the rationalities and institutions that influenced financial flows and access to them.

This working paper documents findings from only the first pilot phase of the study, which was carried out from 12 March to 15 May 2018. In the first phase, the research team interviewed household members and some key informants from selected field sites in three earthquake-affected districts, Bhaktapur, Dhading and Sindhupalchowk. The paper provides a brief descriptive account of each of the research sites and the severity of damage and impacts caused by the 2015 earthquakes. In addition, the paper maps out preliminary findings from all of the sites in terms of the three domains that are the focus of this partnership research—construction, law and finance. The report also highlights some of the emerging themes that could serve as further topics of inquiry for future field research. This is intended as the first in a series of Working Papers and thematic research articles. Subsequent Working Papers will focus on site-specific issues in each location in more depth. It should also be mentioned here that since the intent of this paper is only to discuss the empirical findings of the study, it does not provide the contextual

background to the many issues it deals with, such as the politics around the formation of the National Reconstruction Authority (NRA),<sup>1</sup> the adoption of the 2015 Constitution of Nepal and introduction of federalism, government-donor dynamics on reconstruction, the deployment of an army of field engineers and problems associated with that, among others.

Interested readers are encouraged to consult additional resources, including:

- An online resource guide, ‘Reconstructing Nepal: The 2015 earthquakes and their aftermath,’ produced by our project in conjunction with UBC Library: <https://guides.library.ubc.ca/reconstructingnepal>
- A bibliography produced by Social Science Baha as part of the SOAS-based ‘After the Earth’s Violent Sway’ project: [https://sway.sosc.baha.org/wp-content/uploads/2019/04/Nepal-Earthquake-2015-and-Its-Aftermath\\_05042019.pdf](https://sway.sosc.baha.org/wp-content/uploads/2019/04/Nepal-Earthquake-2015-and-Its-Aftermath_05042019.pdf)

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<sup>1</sup> The National Reconstruction Authority (NRA) is the apex government body authorised to facilitate recovery and reconstruction of private and public infrastructure damaged by the 2015 earthquakes.

## 2. RESEARCH METHODS

Fieldwork was conducted in selected sites in the three districts of Bhaktapur, Dhading and Sindhupalchowk, which together demonstrated important variations, including in terms of demography, geography, rural-urban dynamics, and proximity to state presence, which influenced the reconstruction process in each site differently.

Bhaktapur Municipality offers a view into the challenges of urban housing reconstruction as well as the reconstruction of major heritage sites. The village of Borang located in the northern part of Dhading district was chosen, first, to serve as a rural counterpart to Bhaktapur in terms of housing reconstruction, and, second, because it is a site of the technical assistance programme, Baliyo Ghar,<sup>2</sup> implemented by the National Society for Earthquake Technology–Nepal (NSET–Nepal),<sup>3</sup> the premier Nepali non-governmental agency working on issues of seismic preparedness and, since the 2015 earthquakes, reconstruction. In Sindhupalchowk, the research site was Kartike Bazaar and the adjoining villages of Manje and Golche. This part of Sindhupalchowk is predominantly rural in nature but with road access, and was chosen in order to understand the dynamics in a setting where the Baliyo Ghar programme is not being implemented. Members of the study team also had had prior contacts and baseline information from both Borang and Kartike.<sup>4</sup>

The research was conducted in two phases. In the first phase carried out from 12 March to 15 May 2018, the team primarily conducted interviews with individuals at the household level. In the second phase, conducted from 25 September 2018 to 13 January 2019, the focus was on key institutions/individuals as well as government agencies and other relevant organisations. This paper, however, draws only on findings from the first phase, using information collected through interviews conducted with householders in all three sites, including interviews with some key informants such as community leaders, elected representatives, and NRA engineers.

Interview checklists were prepared for the three domains of inquiry—construction, finance and law—and later consolidated into one master checklist. The final checklist was tested in Kathmandu with male and female participants from another earthquake-affected district which was not part of our study. In order to understand how professionalised expertise intersects with local life worlds and practices at the current juncture, the study delves into topics such as damage and needs assessment, access to housing grants, the process of documentation, perceptions about reconstruction policies and building codes, access to construction materials and technical expertise, accumulated cultural knowledge, and new government structures. The research team conducted formal and informal<sup>5</sup>

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2 Baliyo Ghar (i.e, Strong Home) is a five-year (October 2015–September 2020) programme being implemented in the four districts of Kathmandu, Dolakha, Dhading and Nuwakot with the support of USAID. More details can be found at <http://www.nset.org.np/nset2012/index.php/programs/programdetail/programid-93>

3 More information on NSET–Nepal can be found at [www.nset.org.np](http://www.nset.org.np).

4 On Kartike, see Bandita Sijapati et al, *Migration and Resilience: Experiences from Nepal's 2015 Earthquake*

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(Kathmandu: Centre for the Study of Labour and Mobility, Social Science Baha, 2015). <https://ceslam.org/index.php?pageName=publication&pid=36>

5 'Formal interview' refers to interviews that were pre-scheduled and 'informal interview' refers to conversations that occurred spontaneously without pre-planning.

**TABLE 1**  
**Number of Interview Participants**

SN	Field sites	Male	Female	Total
1.	Bhaktapur	33	15	48
2.	Sindhupalchowk	35	18	53
3.	Dhading	32	20	52
	Total	100	53	153

interviews with 153 individuals in the three study districts in this phase of the research. In addition, the team also observed interactions in and around the district headquarters, mainly in banks, around public infrastructure (police stations, road construction projects, local schools, hydropower projects, etc), and cultural heritage sites under reconstruction. More than 85 per cent of the interviews were recorded with the consent of the participants, transcribed and translated into field notes. Interviews that were not recorded were noted down either during the conversation or immediately thereafter and written up in detail later. The same process was also followed for ethnographic observations. Interviews were conducted in Nepali, and translated into English for circulation among the international team members. Table 1 provides the breakdown of the number of research participants in each research site during the first phase of the study.

Ethics approval for the study was provided by the University of British Columbia's Behavioural Research Ethics Board. Before receiving ethics approval, the core team members (including all the Nepal-based members) successfully completed the TCPS2 CORE (Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics) tutorial. During the fieldwork, informed consent sheets were handed out to the research participants to gain their verbal consent. The consent sheet was read out when necessary, and the participants were also informed of their prerogative to withdraw from the interview at any time.

## Research Experiences

The research team faced various kinds of challenges in all the sites. One of these was the language barrier, as the Nepali-speaking researchers could not communicate with some of the Newari-speaking participants in Bhaktapur and with Tamang-speaking participants in Dhading. Such cases were, however, few and involved only the elderly. In such cases, the researchers had to seek the help of someone else for interpretation, and where there was no one to provide such assistance, the interview could not take place. In Sindhupalchowk, all participants could speak Nepali, so this problem did not arise.

People in the research sites also had various misconceptions about who the researchers were. Usually, the research participants tended to assume that the researchers were part of an organisation that had come to provide some kind of support to the earthquake-affected. This often made it difficult for the researchers to explain their objectives. In fact, the research participants did not fully understand the idea that earthquake experiences and subsequent reconstruction activities could be a field of academic study. In many cases, the researchers were mistaken to be journalists, development workers, field engineers from the NRA, or government officials.

The form of interactions also varied among the three places. As residents from an urban site inside the Kathmandu Valley, research participants from Bhaktapur had the common refrain that the government was not paying enough attention to their needs compared to what they believed was happening in the rural parts of the earthquake-affected districts in Nepal. In the case of Sindhupalchowk, although the research site was rural in nature, it was connected by motorable roads. Hence, various organisations had already conducted numerous rounds of interviews/surveys there. As a result, the researchers sensed consultation-fatigue

among the participants. That, however, was not the case in Dhading, as Borang was quite far from the district headquarters and could only be reached after walking for about four or five hours from the nearest roadhead. We offer these

details in order to illustrate that the reconstruction contexts in the three research sites were not the same; local conditions significantly affected the nature of our research experience and the resulting findings.

**MAP 1**  
Bhaktapur District



Source: MoFALD 2017

**MAP 3**  
Sindhupalchowk District



Source: MoFALD 2017

**MAP 2**  
Dhading District



Source: MoFALD 2017

### 3. THE FIELD SITES

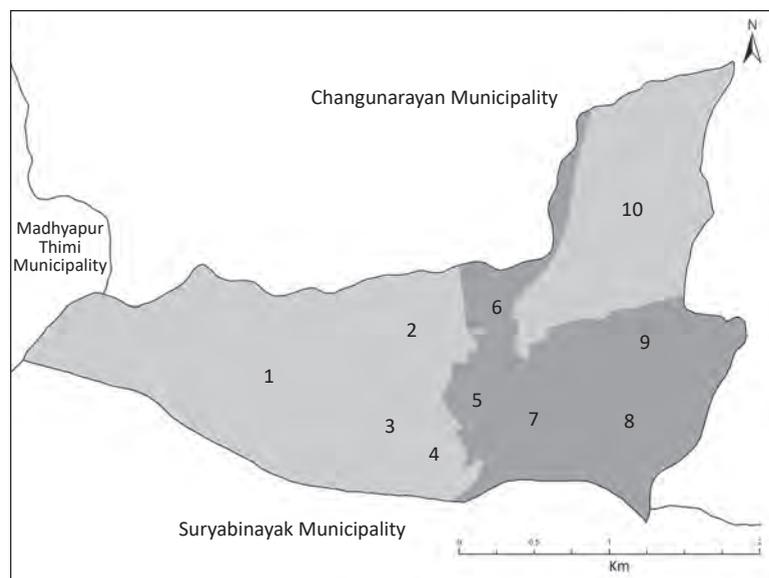
#### Bhaktapur

The 2015 earthquakes had partially or fully damaged a total of 30,174 houses in Bhaktapur district.<sup>6</sup> Of these, 28,302 were identified as eligible for the government’s Private Housing Reconstruction Grant (consisting of a sum of NPR 300,000 [c. USD 2750<sup>7</sup>]).<sup>8</sup> Our study site in Bhaktapur district was Bhaktapur Municipality (hereafter, ‘Bhaktapur’ stands for the municipality while the district will always be qualified

as such), where we conducted fieldwork from 12 to 21 March 2018. Bhaktapur saw large-scale devastation during the earthquakes, a fact compounded by its compact settlement pattern that retained in large measure its mediaeval origins. According to government figures, 3888 households have been listed as grant beneficiaries in the municipality.<sup>9</sup> We visited some of the highly affected parts of the city such as Jela, Inacho, Golmadhi, Suryamadhi, Taumadhi, Bhaktapur Durbar Square and Dattatreya Durbar Square, most of which were located in the ‘world heritage’ or ‘old settlement’ area of Bhaktapur.<sup>10</sup> (Here onwards, world heritage and old settlement area will be jointly referred to as the ‘core heritage areas’). All these areas are centred around Bhaktapur Durbar Square, a world heritage site enlisted by UNESCO. Despite its close proximity to the capital, Kathmandu, and being well endowed in terms of physical infrastructure, Bhaktapur appeared further behind the other two study sites in terms of housing reconstruction.

Besides being home to the Bhaktapur Durbar Square, Bhaktapur also boasts of the equally famous Dattatreya Square and Taumadhi Square, along with numerous old temples and free-standing statues located in every corner and alleyway of this ancient city. Alongside these temples, big and small, are crowded lanes

MAP 4  
Bhaktapur Municipality



Source: MoFALD 2017

6 Data accessed from the Housing Recovery and Reconstruction Platform’s (HRRP) district profile infograph of Bhaktapur based on NRA/CBS data, dated 10 February 2018.  
7 The exchange rate at the time of publication was USD 1=NPR 110.  
8 Data accessed from the NRA web portal on 23 March 2019. See sub-section 4.1.1 on ‘Documentation’ for more details on the grant.

9 Data on beneficiaries recommended for the Private Housing Reconstruction by Central Level Project Implementing Unit (CLPIU), MoFALD.  
10 Bhaktapur Municipality has a strict set of guidelines called the Physical Infrastructure and Construction Criteria Related Bylaws 2004, covering construction of public and private structures in seven different categories of areas, including the world heritage area and the old settlement area.

of multi-storeyed private houses, sometimes ringing common courtyards, and built on tiny lots of one or two *aana*,<sup>11</sup> sometimes even less. Most of these are traditional Newari-styled buildings made of red brick and wood and using mud mortar. In the core heritage areas, land was very expensive, ranging in price from NPR 2,000,000 to NPR 3,000,000 [c. USD 18,000 to USD 27,000] per *aana* or more.

Bhaktapur district has a population mix of many social groups, with Newar (46%), Chhetri (20%), Bahun (14%) and Tamang (9%) comprising the largest.<sup>12</sup> In the core heritage areas where we conducted our study, however, the concentration of the Newar population was very high. The commonly spoken language is Newari although most people were also fluent in Nepali. There were some elderly participants who did not understand Nepali at all, while others understood it partially but did not feel confident enough to speak it.

The majority of our research participants were also Newars whose families have lived in Bhaktapur for generations. Some of these informants said that people from other districts—whom they referred to as ‘outsiders’—were increasingly buying land to live in Bhaktapur but this trend was concentrated mostly in the outskirts of the city, as land in the core area is very expensive.

The high-density settlement pattern also meant that there were a lot of land-related conflicts within the community, which had the unfortunate effect of hindering reconstruction efforts. After the 2015 earthquakes destroyed their homes, a number of people who spoke with us said they had moved away from the core area. But, a deep sense of attachment also meant they preferred not to go too far from Bhaktapur and chose to build their new houses in nearby areas

such as Jagati, Chyamasingh, Changunarayan and Kamal Binayak. This sense of belonging was echoed by a man who had built a house near Changunarayan but preferred to spend his time around Inacho where he used to live. When asked why, he said: ‘I have played and lived here since childhood. All my friends and brothers are here. In the new place, I don’t get along with the neighbours. That’s why I like it here much better.’<sup>13</sup>

### **Impact/Damage in Bhaktapur**

In the course of our fieldwork, we went deeper into the alleys of Jela and other core parts of Bhaktapur which were most affected by the earthquakes. We constantly came across sites of land being dug, foundations being laid, walls being constructed, and piles of bricks, sand and cement lining the roads, all giving the impression of ongoing reconstruction. Alongside, there were many structures whose reconstruction appeared to have been neglected and were on the brink of collapse, while others had completely collapsed and vegetation had sprouted on the debris of buildings that had once made up the traditional charms of Bhaktapur.

When we talked to people, everybody had their own story to tell about the day the earthquake struck. Many of them said that they were lucky since they were working in the fields at the time. Some of the Newar participants said that their *dewali bhoj*<sup>14</sup> had just finished the previous day (24 April 2015), and if the earthquake had hit a day earlier, they would have been caught at home during celebrations. Despite this relative stroke of luck, the 2015 earthquakes caused severe damage to their homes, killed members of their families, and caused disruptions in their lives.<sup>15</sup>

11 *Aana* is a Nepali measurement unit for land. One *aana* is equivalent to 342.25 sq. ft.

12 ‘Demographics’, Bhaktapur, NepalMap. <https://nepalmap.org/profiles/district-25-bhaktapur>.

13 Interview no. 24, 16 March 2018, Bhaktapur.

14 *Dewali bhoj* is the feast held by Newars after worshipping the *kul deuta* (patrilineal family god).

15 Some of these dynamics are described in Yogesh Raj and Bhaskar Gautam, *Courage in Chaos: Early Rescue*



Neglected debris of a house in Bhaktapur damaged by the 2015 earthquakes. Photo: Bina Limbu

In Jela alone, some 22 people were reported to have died. After the earthquake, people had to live in temporary shelters for varying periods of time, ranging from a few weeks to one or two years and more. During the relief phase, people talked about receiving materials like rice, lentils, instant noodles, biscuits, blankets, etc. Most interlocutors could not precisely identify the NGOs, INGOs and government agencies that distributed those relief materials. People variously mentioned 'Chinese people', 'Astha Nepal' (Manabiya Astha Nepal), 'Tata' (Tata Trusts), 'Save the Children', 'Oxfam' and so on. They also talked about receiving cash in relief (NPR

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*and Relief after the April Earthquake* (Kathmandu: Martin Chautari, 2015).

15,000 for temporary shelter and NPR 10,000 as winterisation relief in the winter of 2015-16). People also often confused the first tranche of the housing reconstruction grant (NPR 50,000) with relief. However, unlike in Dhading and Sindhupalchowk, where some I/NGOs were assisting in housing reconstruction, no one in Bhaktapur talked about receiving any such support. In fact, some people expressed anger towards the government since they believed they had been neglected in favour of the rural areas. Consequently, 'those with money'<sup>16</sup> have been able to rebuild, while others sold their land or incurred heavy debts during the rebuilding process, or were still living in temporary shelters.

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<sup>16</sup> Interview no. 11, 14 March 2018, Bhaktapur.

## Dhading

Dhading district was our second field site where we conducted fieldwork from 4 to 12 April 2018. Adjacent to Kathmandu district to the west, Dhading was another severely-affected district, with 89,122 houses partially or fully damaged<sup>17</sup> and 77,861 identified as eligible for the private housing reconstruction grant.<sup>18</sup> The research team visited the small village of Borang, which is currently part of Ward No 4 of Ruby Valley Rural Municipality, located high in the mountains of northern Dhading. Prior to the administrative restructuring of Nepal following the introduction of federalism in 2017, Borang used to be part of Sertung VDC, where 678 households had been identified as grant beneficiaries.<sup>19</sup> Borang is also the least accessible among the three research sites. From the district headquarters, Dhading Besi, it takes four or five hours on a rough road to reach the roadhead of Dundure, whence it is another four or five hours' walk to Borang.

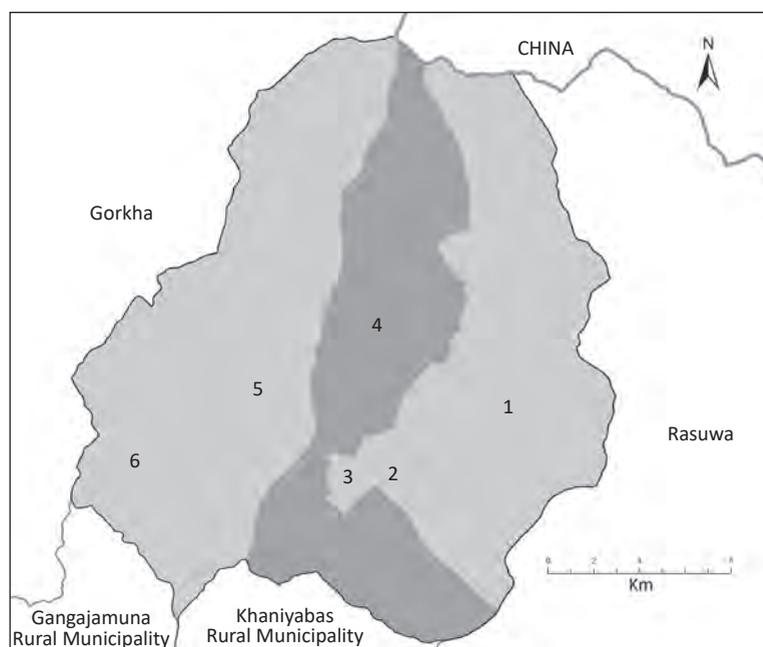
Stone-paved trails from Borang lead to Awai, Sertung, Tipling and other villages. Tourists frequently pass through this area, as the village lies on the trekking route to Ganesh Himal. The village is surrounded by terraced fields in which people cultivate potatoes, millet and wheat. To the north-eastern side of Borang, there are hills with dense forests, from where people gather fruits, herbs, fodder, firewood as well as timber to (re)build their houses. Inside the village, there were only two hotels that provided lodging facilities to passing travellers. Most of the households reported having at least one member away on labour migration, commonly to the Gulf

17 Data accessed from the Housing Recovery and Reconstruction Platform's (HRRP) district profile data of Dhading dated 10 February 2018.

18 Data accessed on 23 March 2019 from <http://www.nra.gov.np/en/mapdistrict/datavisualization>

19 Data on private housing grant distribution progress from the District Coordination Committee Office, Dhading, dated 22 March 2017.

## MAP 5 Ruby Valley Rural Municipality



Source: MoFALD 2017

countries. Internal migration from Borang to nearby urban areas, particularly Dhading Besi and Kathmandu, was also quite common.

Dhading district comprises of multi-ethnic/caste groups with the majority being Tamang (22%) followed by Bahun (15%), Chhetri (15%), Newar (9%) and Magar (9%).<sup>20</sup> Meanwhile, Borang village is predominantly populated by Tamangs with a small group of Dalits. Most of the older generation have no formal education and usually speak the Tamang language. Younger residents are more educated and can speak Nepali fluently while those with an urban education can speak English as well. Most Tamangs in Borang are Buddhist but also celebrate major Hindu festivals like Dasain and Tihar. Most Dalits are Hindus but a small minority have converted to Christianity as well.

Borang's electricity comes from the 40-kilo-watt Chhopta Khola Micro-Hydro Project. Access to electricity had lit up the village and

20 'Demographics', Dhading, NepalMap. <https://nepalmap.org/profiles/district-30-dhading/>



Porters carrying CGI sheets for house reconstruction on the way to Borang, Dhading. Photo: Manoj Suji

enabled the use of various electrical appliances like television, mobile phone, rice cooker, etc. Nepal Telecom had erected a mobile phone tower on top of a hill in neighbouring Lapa VDC in 2016. Since then, people have been able use mobile phones and also get some internet access which they commonly used to connect to social media platforms such as Facebook.

### **Impact/Damage in Borang**

Research participants in Borang told us that the 2015 earthquakes had destroyed almost all the houses in the village. Along with their houses, furniture, clothes, utensils, food grains, and other belongings were also buried under the debris. A mule train owner said that he lost 300 *pathi*<sup>21</sup> of maize he had stored to feed his mules. A number of people from Borang had gone to work on a road construction site near Lisne River, and seven of them died there due to landslides triggered by

21 *Pathi* is a Nepali measurement unit for volume. One *pathi* of maize is equivalent to about three kilograms.

the earthquake of 25 April. However, no fatalities were reported in the village as most people were outside working in the fields. Here, too, people strongly felt that luck had favoured them. As one of them said, ‘The earthquake happened in the daytime. That is why most of the people were saved. If it had occurred at night, then who could have remained alive?’<sup>22</sup>

Regarding immediate assistance, the flow of relief material to Dhading site was far less compared to other sites in Sindhupalchowk and Bhaktapur. Due to its inaccessibility, relief was supplied by helicopter. People said that they had received rice, lentils, instant noodles, biscuits, beaten rice, tarpaulins, blankets and CGI (corrugated galvanised iron) sheets. People had also received cash for temporary shelters (NPR 15,000) and for winterisation (NPR 10,000) while some also mentioned having received NPR 7000 as relief support although they did not seem to know where that money came from. Borang residents,

22 Interview no. 45, 7 April 2018, Dhading.

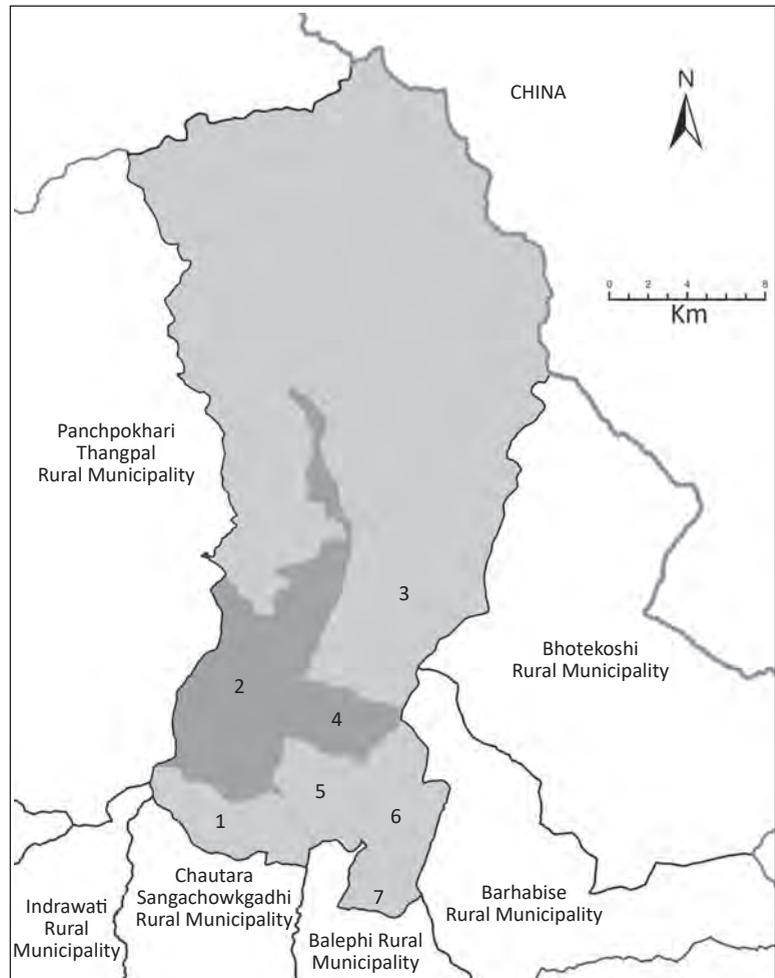
too, were unable to clearly identify the organisations that had provided the relief assistance but we noted that some names recurred more than others, namely, the World Food Programme, Focus Nepal and Himalayan Health Care.

People provided different time frames as to when the government officials had come to assess the damage to their houses. Some participants said that they had been living elsewhere in a temporary shelter or had fled to Kathmandu or Dhading Besi, and so could not say who had come and when. Others said that the engineers had come two months after the earthquake, while yet others could not remember the exact dates. One participant stated: 'I think they came one year after the earthquake. It took time for them to arrive...The engineers had given us a white card. And they did something with their mobile [phones]. We don't know anything about what they did. They said it would go to Singha Durbar or something. We don't know.'<sup>23</sup>

### Sindhupalchowk

We conducted fieldwork from 2 to 15 May 2018 in our third site, Sindhupalchowk, a district to the immediate northeast of Kathmandu and Bhaktapur. As one of the very severely affected districts, Sindhupalchowk saw partial or full damage to 88,741 private houses.<sup>24</sup> Out of all the 31 affected districts, Sindhupalchowk has the highest number of grant beneficiaries: 87,828.<sup>25</sup> We visited Kartike Bazaar, Manje and a small part of Golche village located adjacent to Kartike. The former two had previously been part of Pangtang VDC and the last, part of Golche VDC, but now they lie in Wards 4 and 2 of Jugal

## MAP 6 Jugal Rural Municipality



Source: MoFALD 2017

Rural Municipality, respectively. Pangtang has a total of 487 households, with the majority of the population being Newars, followed by Tamangs.<sup>26</sup> In Pangtang VDC, 777 households were identified as eligible for the private housing reconstruction grant, and in Golche VDC, 985.<sup>27</sup>

Kartike Bazaar lies about four or five hours by bus from Kathmandu. The road to Kartike follows the Araniko Highway till Balephi Bazaar

<sup>23</sup> Interview no. 55, 8 April 2018, Dhading.

<sup>24</sup> Data accessed from the Housing Recovery and Reconstruction Platform's (HRRP) district profile infographic of Sindhupalchowk dated 10 February 2018.

<sup>25</sup> Data accessed on 23 March 2019 from <http://www.nra.gov.np/en/mapdistrict/datavisualization>.

<sup>26</sup> Central Bureau of Statistics, *National Population and Housing Census 2011 (Village Development Committee/ Municipality)* (Kathmandu: Central Bureau of Statistics, 2012).

<sup>27</sup> Data on beneficiary enrolment for private housing reconstruction grant distribution in Sindhupalchowk by NRA, dated 24 April to 8 July 2016.

and from there diverts westward to take the rough road to Kartike Bazaar. As the market centre for the surrounding villages of Golche, Manje, Gumba, and Pangtang, the sources of livelihoods in Kartike Bazaar consist of running businesses such as grocery, liquor and tea shops, tailoring and hardware. Research participants from Golche and Manje, on the other hand, were generally engaged in agriculture while also relying on remittances from labour migration. Some residents supplemented their income by going up to the mountains during the harvesting season of *yarsagumba*,<sup>28</sup> which lasts from mid-May to mid-July.

At present, Kartike Bazaar is located on a ledge above Balephi River. In the past, Kartike Bazaar used to be located closer to the riverbed of the Balephi River but the flash flood of 1982 had swept away the settlement, taking a toll of 47 human lives and sweeping away 22 houses. A couple of years after the flood, the market was relocated to the current location, which flourished further after the road arrived in Kartike Bazaar. The bazaar is made up of approximately 100 households.<sup>29</sup> Many households from Kartike Bazaar reported owning land or houses in other urban centres, including Kathmandu and Bhaktapur.

Numerous hydropower projects were in different stages of construction along the Balephi River. Among these, the Upper Balephi 'A' Hydropower Project was credited with having played a key role in the construction of the road to Golche, Gumba and other nearby rural areas. However, residents complained that the project had not provided employment opportunities as per prior agreement. It had hired some locals in positions such as supervisors and store-keepers, but most of the labourers were brought in from western Nepal and Tarai districts as well as India.

28 *Yarsagumba* (*Ophiocordyceps sinensis*) is an expensive herb also known as caterpillar fungus, found at an altitude of about 3-4,000 metres in the Himalayan region.

29 KII no. 25, 3 May 2018, Sindhupalchowk.

### **Impact/Damages in and around Kartike Bazaar**

As in Dhading district, all the houses in our Sindhupalchowk site had been damaged by the earthquakes, with the exception of a few reinforced concrete (RC)<sup>30</sup> structures in the bazaar area. We learnt that 12 people, including two school children, had been killed in Kartike,<sup>31</sup> while 16 were killed in Golche<sup>32</sup> and three children from a family in Manje.<sup>33</sup> Numerous people were injured and had to be airlifted to Kathmandu by helicopter for emergency treatment. Along with private houses, public buildings such as health posts, community schools, the police station and VDC offices were also heavily damaged. Of immediate import, however, was the damage to the water supply, the effect of which is captured in the words below.

There was no water to drink. My elder son got thirsty and asked for water. Everyone went to the upper side. There, they had to lick water from the crevices. Such was our plight at that time.... Even if I talked about it for 9-10 days, it won't be over...<sup>34</sup>

At the time of our fieldwork, most of the damaged public structures were undergoing reconstruction but some local temples in Kartike and Manje seemed neglected. After a week following the earthquake, some NGOs and INGOs had arrived to distribute relief materials such as tarpaulin, rice, lentils and CGI sheets. As in the other study sites, most people did not have a clear idea about the agencies responsible for the assistance but mentioned organisations such as Save the Children, Janahit, Oxfam and

30 RC (reinforced concrete), also known as 'RCC' (reinforced concrete cement), refers to concrete embedded with iron rods to increase its strength.

31 KII no. 25, 3 May 2018, Sindhupalchowk.

32 Interview no. 95, 10 May 2018, Sindhupalchowk.

33 Interview no. 104, 11 May 2018, Sindhupalchowk.

34 Interview no. 86, 5 May 2018, Sindhupalchowk.

Red Cross. Among these, people seemed more familiar with one called Tuki Sangh,<sup>35</sup> which had provided financial and technical assistance to some people to rebuild their houses. Meanwhile,

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<sup>35</sup> Tuki Sangh Sunkoshi is a member-based, non-profit NGO formed by *tukis* (leader-farmers trained by Swiss-funded Integrated Hill Development Programme). Since 1992, Tuki Sangh Sunkoshi has been working in the fields of agriculture, education and social development.

Oxfam was said to have helped repair the water pipelines and launch some livelihoods programmes such as raising cattle and vegetable farming for earthquake-affected households. Some dissatisfaction was reported in Kartike regarding relief distribution, with people there complaining that they did not get as much relief as people from more remote areas like Golche, Gumba and other surrounding villages did.

## 4. THE FINDINGS

In Nepal, since the 2015 earthquakes the process of building a house has required owners to follow a more complicated procedure than would have been the case earlier. Most homeowners were previously unfamiliar with the concept of a building code or building permit; rather they built their houses according to their own preference, knowledge and construction expertise. After a disaster, when the expectation is for some sort of government assistance to rebuild houses destroyed during the earthquakes, the process becomes more cumbersome, especially with issues related to law, construction and finance, the three domains of social transformation identified by this research project. These three domains are inextricably linked to each other but are dealt with separately in this section to allow for a more in-depth examination of each.

### Law

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Within our research framework, 'law' encompasses all the issues related to government policies and provisions, access to housing grants, legal documentation as well as politics. We found abundant evidence from all three sites that provided valuable insights into the challenges our research participants were experiencing.

### Documentation

The Government of Nepal has allocated NPR 300,000 under the Private Housing Reconstruction Grant to households whose houses were destroyed in the 2015 earthquakes. Initially, the grant amount was NPR 200,000 (c. USD 1800), but in September 2016, the NRA Steering Committee approved the addition

of NPR 100,000, bringing the total to NPR 300,000.<sup>36</sup> In order to receive this grant, people had to sign a Participation Agreement (PA), and be issued with the Housing Reconstruction Grant Agreement Card, which is also referred to as the PA card. At the time the householders signed PA, the federal restructuring of Nepal had not yet taken place.<sup>37</sup> Hence, most of our interviewees in all the sites had signed their PAs at the VDC or municipal ward offices.<sup>38</sup> Across the field sites, we found that people also referred to the PA card as the 'Red Card', the 'Beneficiary Card', and even 'Earthquake Victim Card'. The PA card is issued in the name of the head of the household who is required to submit his or her citizenship and land ownership certificates. Other legal documents such as marriage certificate and certificate of relationship were also required if the household head wished to nominate another family member as the beneficiary in his or her stead. Most of our interviewees said that they did possess citizenship papers and other required

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36 My Republica, 'NRA meeting approves additional housing grant of Rs 100,000', *My Republica*, 27 September 2016. <https://myrepublica.nagariknetwork.com/news/6394/>

37 Prior to the division of the country into federal units in 2017 under the Constitution of Nepal 2015, the sub-national bodies consisted of 75 district development committees (DDC), 217 municipalities and 3117 village development committees (VDCs). The new Constitution divided the newly formed Federal Democratic Republic of Nepal into three tiers of government: federal, provincial and municipal. The previous VDCs and municipalities were entirely restructured into 753 local units, consisting of six metropolises, 11 sub-metropolises, 276 municipalities and 460 rural municipalities.

38 Ward has been the smallest administrative unit at the local government in Nepal for a long time. Every municipality is divided into a number of wards.

documents prior to the earthquake; what many did not have was a land ownership certificate.

### Land ownership

Land ownership documentation was a major hurdle in all three sites, although in varying degrees. The grant distribution guidelines mandate that each beneficiary submit the land title of the plot where they intend to reconstruct their house.<sup>39</sup> However, it was often the case that the land title would not have been formally transferred over two or three generations. So, there was a need for the land to be transferred to the new generations in order to qualify for the grant. To do this, the land had to be divided among the brothers in the family and from them, to their grown-up children. However, this was not an easy feat if the family could not reach an agreement on how that was to be done.

We found the problems to do with landownership to be most acute in Bhaktapur since the house lots there were very small, often less than one *aana*.<sup>40</sup> These were jointly owned by brothers and/or other male members of the family such as paternal uncles, although the title to the land was in the name of their parents and grandparents. We often found instances of multiple families living in the same house but functioning as different households, a distinction made in Nepal by families having separate kitchens. However, the NRA's beneficiaries selection guidelines<sup>41</sup>



A traditionally-styled RC house rebuilt after the earthquake in Bhaktapur Municipality. Photo: Prakash Chandra Subedi

only recognises land ownership as an eligible category to receive the NPR 300,000, and does not consider the situation of multiple households living in the same building. In the case of joint ownership, all the families had to agree on someone among themselves to receive the grant. When the brothers could not come to an agreement on the matter and other reconstruction issues—which was often the case in Bhaktapur—it tended to result in family disputes.

Even when multiple owners could reach a common understanding about who should receive the grant, they sometimes could not decide whether to rebuild their house or not. The main reason was that house lots in Bhaktapur's core heritage areas are often too small to build

39 Grant Disbursement Procedures for Private Houses Destroyed by the Earthquakes 2015.

40 According to Bhaktapur Municipality's 'Physical Infrastructure and Construction Guidelines Related Bylaws 2060 [BS]', for the construction of a new house, the minimum ground coverage for land areas of up to 2 *aana* 2 *paisa* (855.62 sq. ft.) is 90 per cent and for bigger areas, it is 80 per cent. Plots smaller than 855.62 sq. ft. cannot get building permits to build a new house. However, in the case of earthquake-damaged houses in the core heritage areas, they can be reconstructed on the same plot as before with 100 per cent coverage, regardless of land size.

41 Beneficiaries Selection Criteria for Cash Grant Distribution for the Reconstruction or Retrofitting of Private Houses Damaged by the Earthquakes 2016.

anything big enough to accommodate their growing families. Hence, some among the multiple owners no longer wanted to live together, crammed in with the others in the same house as they had before the earthquake. There were many who chose to shift to another location, with those with the resources building new houses for themselves. But, even after they moved, they were not willing to let go of their share of the small yet valuable ancestral property. Meanwhile, those who stayed back were left in a dilemma as to whether or not to rebuild a house on land that is owned jointly with others, since should they decide to rebuild, there was the danger that the other co-landowners may have a right over their house as well. As one of the interviewees said: 'Now, every brother owns a right over the house. The house is also very small. How do we divide it? Such problems exist among 60 to 70 per cent of the households here. That's why it is difficult to come to any agreement.'<sup>42</sup>

One solution to this problem was if one of the co-owners were to buy others' share of the land. But, but the price of land in the core heritage area was very high, i.e., NPR 1,500,000 to NPR 3,000,000 (c. USD 13,600 to USD 27,500) per *aana*, and hence, quite prohibitive. Due to this, one informant from Bhaktapur said he was not able to buy land from his four brothers. Another informant had ventured to buy his brother's share of the land, but to his consternation, his brother had refused and insisted on dividing the property instead.

In 300 square feet land, if I give half a portion to him, then can you imagine what my situation would be?...On 300 sq. ft. land, how many houses can you make after all? How much can you do in it? How many pillars can be accommodated in it? That's why I haven't done anything in that place right now.<sup>43</sup>

42 Interview no. 24, 16 March 2018, Bhaktapur.

43 Interview no. 18, 15 March 2018, Bhaktapur.

Due to such complications in landownership, several interviewees claimed that there had been a rise in the number of family disputes, often referring to these with the common Nepali phrase, *dajubhai ko kichalo* (messy conflict between brothers). These family disputes not only delayed the reconstruction process, but hindered it from beginning in many cases. The very small house lots also meant that disputes arose between neighbours over issues of land encroachment by even mere inches.

People from Bhaktapur faced another set of problems while constructing houses. They had to hire registered architects or engineers to come up with a design, reported at a cost of NPR 10,000-30,000 (c. USD 90-275). They then had to get the designs approved by the municipality, and following the completion of each storey, they had to secure verification from the municipal authorities that there was no deviation from the approved design. But, inside the core heritage areas, the house designs had to follow not only the general government guidelines on earthquake resilience, but also maintain the traditional appearance of the house.<sup>44</sup> (Hereafter, we shall refer to the municipal guidelines pertaining to house construction in core heritage areas as 'heritage codes'.)

Land ownership in Dhading and Sindhupalchowk was not as complicated, but nonetheless, homeowners did grapple with issues in this domain. As in Bhaktapur, Borang residents had occupied their homesteads for many generations but without formally transferring the property from previous ones. In Kartike Bazaar and adjoining areas (including Golche and Manje), some people did have land titles but not everyone. After the earthquakes, there was a need to transfer people's land titles to the new generation in order to access the housing grants.

44 Bhaktapur Municipality's 'Physical Infrastructure and Construction Criteria Related Bylaws 2004 (2060)' mandates construction of traditionally-styled houses inside core heritage areas.

Hence, people from Borang had to go to the land revenue office at the district headquarters of Dhading Besi, which took a whole day of travel, while people from the Kartike Bazaar area had to go to Chautara, about four-five hours away by bus. People from all the sites talked about delays in services in the land revenue offices due to the rush of people and lack of capacity in the offices to process the sudden increase in the number of service-seekers. But, they did not complain much about the delays as they said that they were rather accustomed to the hassles of dealing with government agencies.

NRA's grant disbursement guidelines<sup>45</sup> also permit beneficiaries to rebuild their house on land that is in the name of another family member, as long as the landowner provides written consent to the beneficiary. In case beneficiaries who owned the land were unable to make the journey to sign the PA in person, they were allowed to nominate someone else, who may or may not be a family member. This flexibility seems to have come in handy for many households in all the sites and was especially true for Borang, where, compared to other sites, people owned land in some abundance and did not mind giving close family members and relatives a small plot to build their houses. Many of our research participants had accessed grants and built new houses on land that was in the name of their parents, grandparents and even siblings.

### **Housing reconstruction grants**

After the landownership documents were prepared and PA cards received, people were eligible to get the housing reconstruction grant of NPR 300,000 in three tranches of NPR 50,000, 150,000 and 100,000 through banks designated by the Nepal Rastra Bank, the central bank of the country. Sanima Bank in Dhading Besi was responsible for Borang, Dev Biskas Bank in

Jalbire for the Kartike area, and Nepal Bank and Rastriya Banijya Bank for the wards we visited in Bhaktapur.

In order to receive the grant, people had to build 'earthquake-resistant houses' according to the designs prescribed by the NRA.<sup>46</sup> In all the sites, most people we talked to had been able to access the first tranche. But, to get the second tranche, people had to have laid their house foundations, completed construction till the plinth level, and received approval from an NRA field engineer. At the time of our fieldwork in April of 2018, people from the Sindhupalchowk site had made the most progress compared to the other research sites, as most of the households had already received the second tranche,<sup>47</sup> while only three people from Borang had received the second tranche in Dhading.<sup>48</sup>

People had to travel from Borang to the authorised banks in Dhading Besi and those from Kartike had to go to Jalbire. But, travel in both these places is difficult, especially in the monsoon when the roads tend to get blocked due to landslides. Moreover, people in both districts complained about the delayed process of grant distribution by the banks. A ward chairperson in Kartike said that the bank tends to delay the distribution of tranches for more than 14-15 days after the funds are transferred by the District Coordination Committee. Many people suspected that the bank deliberately withheld the money, and the ward chairperson referred to above also suspected that the bank delay

45 Grant Disbursement Procedures for Private Houses Destroyed by the Earthquakes, 2015.

46 In October 2015, the Department of Urban Development and Building Construction (DUDBC) first published *Design Catalogue, Volume 1*, which included only 17 house designs based on National Building Code. However, a need of more variance in house designs led to publication of *Design Catalogue, Volume 2* about one and half years later in March 2017. Volume 2 consisted of 17 more designs with use of alternate materials and technologies that were not covered by the National Building Code.

47 KII no. 29, 14 May 2018, Sindhupalchowk.

48 KII no. 12, 7 April 2018, Dhading.

was to earn some kind of interest on the grant money: ‘*Bank le ghotala garcha!*’ (The bank is involved in some hanky-panky). Comparatively, in Bhaktapur, the banks were easily accessible, yet only a few people had received the second tranche. This was due to the several reasons mentioned above which had delayed the reconstruction process like disputes over land encroachment, the municipality’s heritage code, and, most importantly, multiple land ownership rights over small plots of land leading to intractable family disputes.

### **Perceptions about reconstruction grants**

In all the sites, people were of the view that the reconstruction grant was quite insufficient to meet the actual cost of rebuilding their houses. The shortfall was the most severe in Bhaktapur since all our informants were building RC houses. As illustrated in the quote below, numerous interviewees complained about the grant being too small.

I had saved about 12 lakhs [1.2 million] in advance and had to take about 10 lakhs [1 million] as a loan at 12 per cent interest from Siddhilaxmi Cooperative. So, this 3 lakhs [300,000] was simply nothing in terms of reconstruction contribution since it is just enough to pass the house blueprint [design].<sup>49</sup>

In Sindhupalchowk, many people were also found to be unhappy with the stipulation that a toilet had to be constructed in order to receive the third tranche. That was because many households already had access to a usable toilet (usually, an outhouse) of their own or of their neighbours’.

In each site, there was also a small number of people whose names had been left out from the beneficiary list. People from Bhaktapur seemed less concerned about these omissions since the

grant money did not make much of a difference to their reconstruction plans. The grant was much more significant for people in Dhading and Sindhupalchowk as it comprised a substantial part of their reconstruction cost. Hence, people who did not figure in the beneficiary list constantly pestered their local representatives about amending the list to include them, but often remained unsuccessful.

### **Role of NRA**

Engineers from the NRA have been accorded a great deal of importance in the reconstruction process due to the power they had in terms of certifying houses for the second and third tranches. But, the majority of the interviewees said that they had never even heard of the NRA, the apex government body facilitating reconstruction. Some said that they had heard about the NRA on the radio and television, but even in a city like Bhaktapur, people seemed unaware about what the NRA actually did. As one of them said matter-of-factly: ‘Yes, I’ve just heard about it [the NRA], but I don’t know anything about it.’<sup>50</sup>

Most research participants said they had had frequent interactions with *sarkar ko engineer* (government engineers) during the reconstruction process. Upon probing further, it became clear that the people were not sure whether these ‘government engineers’ were actually from the NRA, I/NGOs or some other organisation.

In the Dhading site, people of Borang seemed to have had the least amount of interactions with the NRA engineers, with many confusing NSET staff working in the area with the NRA engineers. An NSET official said that due to Borang’s remote location, the government engineers came only occasionally and only for a short period of time.<sup>51</sup> Engineers had the difficult task of convincing people—most of whom had already rebuilt/repared their houses to live in—to build

<sup>49</sup> Interview no. 24, 16 March 2018, Bhaktapur.

<sup>50</sup> Interview no. 40, 21 March 2018, Bhaktapur.

<sup>51</sup> KII no. 12, 7 April 2018, Dhading.

according to the government's requirements, and then conducting inspections to see whether the new houses qualified for subsequent tranches or not. Disqualification could easily offend the people and lead to hostility towards the engineers, who would have felt vulnerable being far away from the reach of the state. As an NSET official said: 'Government agencies don't come here often. They feel scared to come here. A few people would come for some time, finish their work and go away immediately.'<sup>52</sup>

Hence, when the NRA engineers did come, people rushed to meet them, fearing they would leave before endorsing the forms that would enable them to receive their next tranche of the grant. Since NSET's Baliyo Ghar programme was being implemented in the area, the NRA field engineers also relied on the recommendations of NSET officials while certifying houses. In the words of the NSET official quote above:

They are the ones who need to give recommendations. We cannot do that; we can only give technical assistance from our side. So, they are the ones with the power to fail or pass the houses. But, in this matter, if we tell them that this house is eligible then they pass the house without question.<sup>53</sup>

In Sindhupalchowk, the research team met two NRA field engineers in Kartike who said they were familiar with all the households in the area, as they had been working there for around two years. They even claimed to know in detail how each house was being built and which ones were likely to qualify for further tranches. However, we also found that the NRA engineers depended heavily on local social and political leaders to gain the community's cooperation. As one of the engineers from Sindhupalchowk said: 'In every place, there's a "hero" person [sic]. We need to

gain the support of that hero to be able to work in that area. In this place, the ward chairperson is that hero.'<sup>54</sup>

### Politics

People in all the sites had a fairly good understanding about changes in the local and federal structure of the country that had begun in 2017 with elections to federal, provincial and local governments. The transition to federalism, which happened concurrently with the institution of elected governments at the local level after a gap of 15 years, changed how local governments functioned. While people's access to information through elected officials increased, the more important factor vis-à-vis the reconstruction process was political affiliation. People often sought out local leaders to seek information, advice and share their problems with regard to reconstruction—interactions that could be facilitated by party membership or connections.

The Rastriya Prajatantra Party (RPP) had won local elections in Borang. During our stay there, we witnessed one of the prominent leaders of the village negotiating with NSET officials on behalf of the villagers. Most of these leaders lived in Kathmandu or Dhading Besi, but came to the village from time to time to monitor the reconstruction process.

In Kartike, the Communist Party of Nepal- Unified Marxist Leninist (CPN-UML) and the Communist Party of Nepal-Maoist (CPN-M) had been the predominant parties in the area. The latter had had more influence before the earthquake, and both did well in the local elections.<sup>55</sup> In terms of reconstruction, political influence was evident in Kartike, especially in the relief phase and the distribution of the PA cards. The reconstruction policy stipulates the distribution of one PA card to each beneficiary

54 KII no. 28, 13 May 2018, Sindhupalchowk.

55 The CPN-UML and the CPN-M formally unified to become the Nepal Communist Party (NCP) on 17 May 2018, and is currently the ruling party in the centre.

52 KII no. 12, 7 April 2018, Dhading.

53 KII no. 12, 7 April 2018, Dhading.

household. However, the ward chairperson said that Maoist leaders had distributed cards to multiple members of the same households, favouring those affiliated with their party and those in their personal networks. The field engineers also verified this statement but added that each card holder would have to build a house if they wished to access subsequent tranches.

Meanwhile, in Bhaktapur, the left-leaning Nepal Majdoor Kisan Party (NMKP) (Nepal Workers' and Peasants' Party), had had a strong grip on the city for a long time. The NMKP was established in January 1975, but even before its inception, NMKP leaders were involved in the land reform movement triggered by the Land Reform Act of 1964.<sup>56</sup> The NMKP has been leading Bhaktapur Municipality ever since the reinstatement of democracy in 1990. Hence, the municipality and the NMKP have become synonymous with each other.

Currently, the reconstruction of Bhaktapur's cultural heritage is managed by the municipality and the Department of Archaeology (DoA),<sup>57</sup> but many participants noted a lack of coordination between them. Between the two, people expressed more faith in the municipality. Municipality-led reconstruction was mainly carried out through users' groups consisting of local residents. Due to this, people said the municipality was transparent in terms of budget expenditure in every project. Meanwhile, the DoA-led reconstruction was undertaken through contracts<sup>58</sup> and this is where people

believed corruption comes into play. One interviewee who used to work at Dattatreya Museum in the past and had closely witnessed the work of DoA, said: 'If they [the central government] sent one lakh [NPR 100,000], then at the ground level, not even 30,000 is utilised for work... funds are leaked from the director to office head, from office head to engineers and from engineers to contractors. By that time, how much of it can be left?'<sup>59</sup>

He further alleged politicisation and corruption in the DoA: 'Nowadays, due to involvement of these various parties in the DoA, there is a lot of leakage in funds... Wherever there is corruption, the work is never good. It is not good nor strong either whether they make bridges or temples or anything else.'<sup>60</sup> He also said that political parties fought with one another to get hold of the reconstruction funds and described it as '*haddi ko nimti kukur ko jhagada*' (dogs fighting over a bone). In the same vein, another interviewee claimed that other political parties tend to hinder projects under the municipality by freezing the budget from the central level in order to dent NMKP's popularity.<sup>61</sup>

### Grievance redressal

The NRA's Post-Disaster Recovery Framework 2016-2020 (PDRF), stipulates the establishment of grievance redressal mechanisms to 'address the grievances, suggestions and complaints of the communities in the reconstruction process.' Accordingly, the grievance management guidelines<sup>62</sup> state the provisions on grievance management for earthquake-affected households and also specifies the government agencies where grievances can be registered.<sup>63</sup>

through tender.

59 Interview no. 18, 15 March 2018, Bhaktapur.

60 Interview no. 18, 15 March 2018, Bhaktapur.

61 Interview no. 23, 16 March 2018, Bhaktapur.

62 Grievances Management Related to Reconstruction and Rehabilitation Guidelines 2016 (2073).

63 In 2017, the grievance management procedures were

56 Suresh Dhakal and Sanjeev Pokharel, 'Local Movements, Political Processes and Transformation: A Case Study of Bhaktapur Municipality', *Occasional Papers in Sociology and Anthropology* 11 (2009): 178-201.

57 The DoA is part of the central government under the Ministry of Culture, Tourism and Civil Aviation and is primarily responsible for archaeological research and cultural heritage protection. More information on DoA can be found at <http://www.doa.gov.np/>

58 The DoA would be bound by the Public Procurement Act of 2007, which requires that any public construction work in excess of NPR 6 million has to be awarded

At the ground level, although people had a number of complaints about the reconstruction policies, they did not know much about how and where to air their grievances. People largely thought that the only form of grievance redressal was for victims left out of the grant beneficiary list to apply for a re-survey. But they had grievances of various sorts. The main ones revolved around the delay in reconstruction due to issues having to do with lack of land ownership papers, conflict over property, houses not matching the designs prescribed by the NRA, and delays in grant distribution by the banks. Another source of grievance was the intense time pressure to finish reconstruction and access the subsequent tranches within government deadlines.<sup>64</sup>

However, people did not feel that such complaints would be heard—let alone addressed—even if they voiced them to the concerned authorities, unless they did it as part of a group. In the words of a respondent from Bhaktapur: ‘Well, there cannot be just one or two people to do that. You need to gather with your family and friends and go collectively. Only then your grievances will be heard, I think.’<sup>65</sup>

### **Gender equality and social inclusion (GESI)**

The Strategic Recovery Objective 2 of the PDRF states that ‘coordinated and coherent approach will be implemented for effective

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revised, specifying the role of the rural municipality and (urban) municipalities in grievance redressal whereas earlier it was the VDC/municipality office, municipal ward office, District Administration Office/District Development Committee and the Sub-Regional office of the NRA.

64 The NRA’s deadlines for beneficiaries to receive all tranches of the reconstruction grant was mid-July 2018. The first tranche was to be disbursed by 13 January 2018, the second by 13 April 2018, and the third by 15 July 2018. Since all of these deadlines were missed by a large number of beneficiaries, the NRA extended the deadlines time and again but during our first fieldwork, people were under pressure to meet the deadlines mentioned above.

65 Interview no. 18, 15 March 2018, Bhaktapur.

mainstreaming of Gender Equity and Social Inclusion throughout recovery and reconstruction activities.’ Under this, the NRA pledged to take various initiatives, including cash transfer programmes, to assist vulnerable groups that includes children, women, and other vulnerable and marginalised groups. However, very little of these GESI initiatives were seen in practice on the ground. Many single women, the elderly and Dalit individuals had ID cards to receive social security grants. But, most of them seemed unaware that the government had any kind of GESI provisions pertaining to reconstruction. For instance, in Bhaktapur, echoing the general views about the GESI policies, a participant said:

I do not know about it and no government official has come to me informing about any programmes and incentives for single women. I have only received [NPR] 15,000, 10,000 and 50,000 from the government so far but I have not benefitted from any other programmes.<sup>66</sup>

However, we found that some I/NGOs implemented piecemeal GESI provisions in the study sites. In Dhading site, NSET was building houses for one single woman-headed household and one Dalit family in every ward, as part of their on-the-job training criteria. NSET also had the criterion of including 40 per cent women in their mason training programmes but were able to achieve the participation of only 20 per cent women. In Sindhupalchowk, some informants said that an NGO called Yadav Samuha had promised to build ‘Namaste Ghar’<sup>67</sup> for single women in Manje but never got around to doing that. Most people we talked to, however, were not aware about how GESI provisions were

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66 Interview no. 12, 14 March 2018, Bhaktapur.

67 A triangular-shaped bamboo house called so after ‘namaste’, the Nepali gesture of greeting made by pressing the two hands together with fingers pointing upward and palms touching.



A earthquake-damaged house in Borang, Dhading, previously made of stones, then repaired by building the first floor and the attic with wood and roofing it with CGI sheets. Photo: Bina Limbu

being executed by the NRA or the government in general during the reconstruction process.

### **Construction**

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This section on construction deals with house designs, construction materials, labour and the technical expertise required for the rebuilding of a house. We also consider the dynamics surrounding the reconstruction of public premises and heritage sites.

#### **House designs: Before and after**

In Dhading, most of the new houses were constructed under assistance of NSET's Baliyo Ghar

programme in Borang. The majority of these were one-room structures made of dry stone walls<sup>68</sup> with wooden bands and posts, and CGI roofs, while some people used RC bands<sup>69</sup> in the walls instead of wood. However, the story behind these houses had little to do with people's needs. The government-approved designs for reconstruction were made available only a year after the earthquake. By that time, people in Borang had already repaired their old houses.

<sup>68</sup> Dry stone walls is a form of stone construction without using any mortar.

<sup>69</sup> RC bands, made of concrete and iron rods, are constructed to strengthen the walls of the house and generally considered to be stronger and more durable than wooden bands.

Later, rumours spread in the village that if the beneficiaries did not build a new house as prescribed by the NRA and implemented by NSET, they would have to return the first tranche, and their documents could be confiscated or their children would not receive birth certificates and citizenship cards. One of our interviewees explained his confusion in these words:

Somebody told me that this [repaired] house would be approved. However, later, it was said that this house would not be approved. I was not planning to build a new house again but people started saying that we had to build a new earthquake-resistant house or our children would not receive the required certification from the local government and they would also have to return the 50,000 [rupees].<sup>70</sup>

In Sindhupalchowk, post-earthquake reconstruction had introduced many variations in house design. There were stone- and brick-masonry houses, houses made of concrete hollow blocks or only of CGI sheets, and also RC frame structures.<sup>71</sup> RC houses could be found mostly inside Kartike Bazaar, while stone-masonry houses were more prevalent in Golche, Manje and other peripheral areas of Kartike. As in Borang, one-room stone houses could also be seen in Sindhupalchowk, but alongside there were different kinds of bigger stone houses as well.<sup>72</sup> In Sindhupalchowk, we also found 'hybrid houses',<sup>73</sup> which had an inconsistent combination of the ground floor made of stones and upper storeys made of bricks or hollow concrete blocks. Some new RC houses also had stone walls in the back and brick walls on the other sides. During our first field visit, NRA engineers told us that such hybrid houses would not qualify for subsequent



A newly-built RC house in the middle of Kartike Bazaar, Sindhupalchowk, with a hardware shop running in the ground floor. Photo: Manoj Suji

tranches but were hopeful that some correction measures could be applied for these houses to be passed in the future.<sup>74</sup>

Prior to the earthquake, most houses in Bhaktapur were brick-masonry structures three to five storeys high, traditionally made from red bricks, mud mortar, wood, and clay roofing tiles called *jhingati*. People said that such houses dated from the time of their grandfathers or even earlier. Meanwhile, the new houses that had come up after the earthquake were usually RC framed structures, also generally referred to as 'RC buildings', 'pillar system house' and, increasingly, *pakki ghar* (strong house) in Bhaktapur

70 Interview no. 66, 9 April 2018, Dhading.

71 In our study, as in many parts of Nepal, we found that people as well as the NRA manuals used 'RC structures' synonymously for buildings with frame structure made of RC columns and beams. However, stone and brick masonry structures may also use RC bands but they are still referred to as masonry-structures.

72 These bigger-sized stone houses were usually of one storey, with some attic space of about three-four feet above.

73 Hybrid houses refer to those structures that are made of inconsistent materials, e.g., one wall is made of stones while others are made of bricks.

74 KII no. 28, 13 May 2018, Sindhupalchowk.

as well as in other sites. Prior to the earthquake, the houses in Dhading and Sindhupalchowk were usually stone-masonry structures of two or three storeys, using mud mortar, wood, and roofing slates. Research participants also reported that a few RC houses had been built in Kartike Bazaar prior to the earthquake. In all the sites, people said that the earthquake had severely damaged brick- and stone-masonry houses, while the RC buildings were left standing. Hence, it was natural for people to be under the impression that RC houses were stronger and safer than masonry structures.

After the earthquake, people in Bhaktapur were building RC frame houses. They had to adhere to the traditional Newari-style architectural designs mandated by the municipality's heritage code for buildings in the core heritage areas, and also abide by NRA's reconstruction guidelines in order to receive the reconstruction grants. Having to follow two sets of guidelines was proving burdensome to them. Compared to the NRA guidelines, our informants felt that the municipal codes were much more restrictive, as the municipality kept a close eye to ensure the codes were not being violated and instantly asked for any errors to be fixed. In this regard, one Bhaktapur resident said: 'Due to constant bickering from the municipality, my father-in-law dismantled the *pidhi* [small porch] with his own hands... After building all of the house, who likes to break it down.'<sup>75</sup>

### Perceptions towards new houses

Research participants were also asked about their views on the newly built houses. In Bhaktapur, rather than the NRA's reconstruction guidelines, people were more irked by the municipality's heritage codes that mandated the houses to maintain the traditional appearance in the core heritage areas. They had to use wood for their doors and windows and layer the

front part of the house with veneer bricks, or *dachi appa*. People complained about having to make a traditional sloping roof with *jhingati* tiles and use wood instead of cheaper materials like aluminium or steel. Hence, many interviewees felt that the municipality's heritage codes were impractical and only caused additional difficulties both economically and practically. As one of them said: 'If we make a sloping roof, we will not have a place to put the water tank... Now, our daily life is not possible if we don't have the water tank on the roof to supply water to toilets, bathrooms, and the kitchen.'<sup>76</sup>

In the Dhading site, the foremost cause of dissatisfaction was the size of the one-room house, which was simply too small to be liveable. As one respondent said: 'If you place two beds inside, where will you make the kitchen? Where to sleep? Where to keep other things?'<sup>77</sup>

Similarly, people in the Sindhupalchowk site, too, were concerned about not having enough space, although most of their houses were bigger than those found in Dhading. As a result, some of them had begun using their new toilets, built to be eligible for the third tranche, as storage space for their grain, firewood, agriculture tools, and other household equipment.

On the positive side, people in all the sites believed that the new houses built according to the government's prescription were stronger than what existed previously. Yet, people had the highest faith in the 'pillar houses', which they deemed to be 'earthquake-resistant'. At the same time, they were also concerned about the quality of the construction material, especially bricks. In the case of stone houses being built in Borang and the periphery of Kartike Bazaar, people were unsure about the durability of the green wood being used.<sup>78</sup>

<sup>76</sup> Interview no. 31, 19 March 2018, Bhaktapur.

<sup>77</sup> Interview no. 128, 5 December 2018, Dhading.

<sup>78</sup> Wood from *gobre salla*, or Himalayan white pine, a moderately-hard coniferous tree, was most commonly used.

<sup>75</sup> Interview no. 37, 21 March 2018, Bhaktapur.



A light truck with loaded construction materials to be transported from Kartike Bazaar to rural villages. Photo: Manoj Suji

## Construction Materials

### *Market Price*

As discussed earlier, the kinds of houses being built varied across the sites. The type of construction material as well as access and affordability, also varied accordingly. The one commonality in all the sites was the unanimity of the view that the price of construction materials had increased after the earthquake.

In Dhading, people from Borang made use of the wood freely available in the forests although they had to pay the labour costs for cutting and carrying the wood to the village. Due to this, the price of one piece of wood could range from NPR 1200 to 1500.<sup>79</sup> The nearest market centre where they could purchase cement, steel rods and CGI sheets was the roadhead of Dundure. People said that the cost of cement had increased after the

earthquake, from NPR 1000 to 1300 or more per 50-kg bag. From Dundure, all the construction material had to be transported on mules, which added further to the price and also made the use of heavy materials like cement unaffordable. All households used CGI sheets to roof their houses. The cost varied according to size, thickness and colour. The CGI sheets were not transported on mule back but carried by porters who charged NPR 3000-3500 per bundle from Dundure to Borang.

In contrast, in the Sindhupalchowk site, the construction material was bought from different locations as per their need and financial capacity: Kartike Bazaar,<sup>80</sup> Jalbire, Banepa and Bhaktapur. Prices were lower further away from Kartike Bazaar. For instance, cement was around NPR 900 per bag in Banepa, while the cheapest in Kartike was NPR 1050. However, once transportation cost was added to cement brought

<sup>79</sup> Wood pieces could vary in sizes but were usually about 3 by 4 inches wide and 10 to 12 feet long.

<sup>80</sup> There are two hardware shops in Kartike Bazaar.

from Banepa, the price became quite similar to that in Kartike. Bricks were not available in the Kartike area, and these usually came from Bhaktapur where the price was NPR 12-15 per piece. However, by the time it reached Kartike, the cost would have shot up to NPR 18-20. Likewise, the price of CGI sheets also increased. The price varied depending on the size and number of pieces per bundle. For instance, one interviewee who bought a bundle (six 12-foot pieces) of CGI sheets at Jalbire paid NPR 10,500,<sup>81</sup> while another had paid NPR 13,500 for a bundle of seven 10-foot pieces.<sup>82</sup> Hiring a 'mini-truck'<sup>83</sup> to carry material from Jalbire to Kartike cost around NPR 4000. The cost of sand varied from NPR 8000 to 12,000 per tipper and the transportation cost was about NPR 2500.

Bhaktapur had easier access to construction materials compared to the other sites. There were numerous brick kilns around Bhaktapur as well. Nevertheless, here, too, the perception was that the price of all construction materials had increased due to post-earthquake reconstruction. The price of cement had gone up from NPR 900 to 1500 per bag, and iron rods from NPR 66 to 92 per kg, and prices were continuing to increase even during our fieldwork.

Bhaktapur Municipality also had the provision of providing 25 per cent subsidy on wood used to make traditional decorative windows and doors for houses within the core heritage sites. However, people said that these subsidies were very difficult to access because the house had to follow strict guidelines. But, it was also reported that people who had close relations with officials at the municipality and elected representatives received the subsidies even though they did not follow the code completely.

## Labour

In the context of reconstruction, we found various kinds of workers—masons, carpenters, stone crushers, *surei* (craftsmen who chisel stones into required shapes) and manual labourers—with varying degrees of skills, experience and training. Before the earthquakes, local workers were skilled in traditional construction techniques but knew little about building earthquake-resistant houses since the designs for these became widely available only after the earthquake. Here, we shall categorise workers with training and/or experience in building earthquake-resistant houses as 'skilled' and those with little or no experience as 'unskilled'.

In all the sites, we found the use of both skilled and unskilled workers. Needless to say, there was a preference for masons who had received training to build earthquake-resistant houses,<sup>84</sup> but due to the mass scale of reconstruction in the area, there was a severe shortage of skilled as well as unskilled labour. Hence, many of the research participants said that they could not choose who they wanted to hire. The ongoing labour migration externally as well as internally added to the problem of labour shortage, especially in the Dhading and Sindhupalchowk sites. Moreover, during the *yarsagumba* harvesting season, people from Sindhupalchowk went to the higher alpine regions, which further exacerbated the shortage of labour. Consequently, the absence of the required number of workers had slowed the pace of reconstruction in all the sites. In Dhading, we even found a case where a homeowner once took away the tools of the masons so that they would be compelled to come to work for him until the foundation was completed. We also observed that masons would work one or two days on one building and then move to another because everyone was in a rush to meet

81 Interview no. 107, 11 May 2018, Sindhupalchowk.

82 Interview no. 89, 6 May 2018, Sindhupalchowk.

83 Light commercial vehicles are popularly called 'mini-truck' in Nepal.

84 Referring to mason-trainings and on-the-job trainings provided by the NRA, NSET and various other organisations.

the deadline of mid-April 2018 to receive the second tranche.

Taking advantage of the labour shortage in the earthquake-affected areas, we found an influx of migrant labourers in all the three sites, taking on building contracts or working for daily wages. In the Dhading site, local labourers were involved in house reconstruction in Borang, but some labourers from Kanchanpur and Salyan districts were also found to be working there. While in the Sindhupalchowk site, labourers from Dang and Salyan were common in Kartike and adjoining areas. Some Kartike interlocutors even claimed that migrant labourers comprised a higher proportion of the labour force. They also said that the migrant labourers were more skilled in building houses with cement and concrete than the local labourers. Similarly, in the Bhaktapur site, we found some labourers from Rukum and Rolpa.

Wages had also increased in all the sites and varied according to demand and availability of workers. The daily wage of a labourer in Borang was around NPR 1000 (for working nine hours a day); in Sindhupalchowk, NPR 1200 to 1300 (working eight hours a day); and in Bhaktapur, NPR 1000 to 1500 (working eight hours a day). The workers also demanded three or four hearty meals a day (consisting of rice, meat, cold drinks, alcohol, etc) in the Dhading and Sindhupalchowk sites. Some interviewees complained that the food expenses exceeded the labour wages but they had no choice but to comply with such demands.

In all the research sites, and especially in Bhaktapur, there was an increasing trend of giving house reconstruction on *thekka* (contract). The contract system was more expensive than hiring workers on daily wages, but it freed house owners from the trouble of finding labourers. However, we found that contractors took multiple house contracts at the same time, leading to delays in the reconstruction of all the houses. People were also suspicious of the

quality of construction as contractors hastened to complete the work.

#### *Parma*

In Dhading and Sindhupalchowk, some people were also found to be engaged in the *parma* system, the social practice of reciprocal labour exchange for both agriculture and non-agricultural work found all over Nepal. In Dhading, the preference was for labour exchange to take place with households with skilled male members present, while in Sindhupalchowk, *parma* was not favoured that much since local masons and labourers preferred working for wages. Likewise, in the urban site of Bhaktapur, people said that *parma* had existed in earlier times but was no longer in practice as they had no time or interest in exchanging labour.

#### **Mason training**

To make up for the shortage of skilled masons in the reconstruction process, various organisations were found conducting mason training in all the sites. At the time of our fieldwork in Dhading, an NSET official said that under the Baliyo Ghar programme, seven-day mason training had been provided to 155 people with prior experience in masonry and 50-day on-the-job training to 48 people without any such experience in Sertung VDC. An NSET-trained mason estimated that some 15 to 20 people had received such training in Borang alone.

In Sindhupalchowk, when the government building codes were introduced, multiple mason training sessions were held. At the time of our fieldwork, an interviewee said he had personally witnessed four such sessions in Pangtang VDC alone. Most people were unsure about which organisations had conducted the training sessions but some residents mentioned Tuki Sangh. A community leader from Kartike Bazaar believed the mason training did not include people from Kartike, only those from villages in its outer periphery. Another complained that

an INGO had shortened the seven-day mason training to just three days, due to which people could not learn all the skills.<sup>85</sup> He believed that this was because the organisation wanted to save on the daily allowances that had to be provided to the trainees.

Bhaktapur's case was different from the Dhading and Sindhupalchowk sites. A local said that there had been a buzz about the Kathmandu Valley being an earthquake-prone area even before the 2015 earthquakes. Hence, Bhaktapur Municipality had provided mason training to 200-300 people at the local Khwopa Engineering College. After the earthquake, a team of engineers from the same college had organised similar training sessions but only a few people were reported to have participated in it.<sup>86</sup>

### **Women masons**

Following the mason training, there was some increase in women's involvement in masonry work in Dhading and Sindhupalchowk but not in Bhaktapur. Women's participation in this kind of work was a recent trend, especially in the Dhading site, as previously people of Borang did not believe that women could perform heavy masonry work. At the time of our fieldwork, there were five women masons who had been trained by NSET in Borang, three of whose husbands were working as migrant labourers away from Nepal. These three women masons said that their families had supported their decision to take the training and they were also happy to work as masons.<sup>87</sup>

In the Sindhupalchowk site, there seems to have been an overwhelmingly high participation of women in the training sessions, but few continued with masonry work afterwards, mainly due to lack of interest, the burden of household chores, and lack of trust in the

communities towards woman masons. A trained woman mason said that out of the 30 trainees in her batch, around 25 were women but only one woman was still working as a mason.<sup>88</sup>

### **Public premises**

Akin to private houses, the public buildings in Sindhupalchowk and Dhading were also predominantly stone-masonry structures and were severely damaged by the earthquakes. In the Dhading site, a school teacher said that the only school in Borang, Mukradevi Secondary School, was fully damaged, with the loss of about 10 computers being especially severe for the village school.<sup>89</sup> School reconstruction was being supported by the government, and by the time of our field visit, the main school building had been partially reconstructed and temporary shelters had also been built and classes were running.

In the Sindhupalchowk site, our interviewees said that their children went to two nearby primary schools, Brahmayini Adharbhoot Vidyalaya in Pangtang and Jugal Vidyalaya in Golche, and to the secondary school, Ratna Rajya Madhyamik Vidyalaya in Chanaute, all of which had been destroyed in the earthquakes. A local teacher said that the schools in Pangtang were being rebuilt by the government, and the school in Chanaute with the assistance of the Chinese Embassy.<sup>90</sup>

### **Heritage sites**

Of the three sites, Bhaktapur has by far the highest number of officially recognised cultural heritage sites. Reconstruction of Bhaktapur's world-renowned monuments has been given high priority by both the municipality and the central government. However, their reconstruction was slow due to lack of resources and skilled craftsmen. In an interview, a wood craftsman

85 Interview no. 92, 10 May 2018, Sindhupalchowk.

86 Interview no. 5, 12 March 2018, Bhaktapur.

87 Interview no. 75, 10 April 2018, Dhading.

88 Interview no. 96, 10 May 2018, Sindhupalchowk.

89 KII no. 15, 11 April 2018, Dhading.

90 KII no. 26, 4 May 2018, Sindhupalchowk.

said that people were leaving their hereditary profession as it was hard labour, consumed a lot of time, and lacked social recognition. A major constraint was lack of proper wood. A traditional carpenter working at the Tawa Sattal reconstruction site said that *agrakh* wood<sup>91</sup> of a specific size and quality was required for the wood carvings but were not easily accessible.

In the Dhading site, the village monastery in Borang had been destroyed by the earthquake but reconstruction had not begun at the time of our fieldwork.<sup>92</sup> One of our interviewees said that there were many statues in the monastery, but since no alternative roofing arrangement had been made, they were getting damaged by the rain.<sup>93</sup> He added that people were currently too busy with the reconstruction of their own houses for anyone to give much attention to the rebuilding of the monastery. In Sindhupalchowk, too, the few temples and resting places (*paati*) located in Kartike Bazaar and adjoining areas had been damaged, but their reconstruction appeared to be neglected by both the community and the local authorities. Since community members were rushing to meet the deadlines for private housing reconstruction, they did not have time to invest in the reconstruction of cultural heritage sites at the same time

## Finance

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Reconstruction is generally a capital-intensive process with finance constituting a major concern for earthquake-affected households.

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91 *Agrakh*, also called *saal* (*Shorea robusta*), is a deciduous tree that provides a very durable kind of hardwood timber.

92 The NRA passed the Procedures Related to the Renovation, Reconstruction and Protection of Gumbas/Bihars affected by the Earthquake 2018 about three years after the earthquakes and revised it again with the inclusion of 'stupas' in 2019. This caused the delay of reconstruction of monasteries and stupas all over the country.

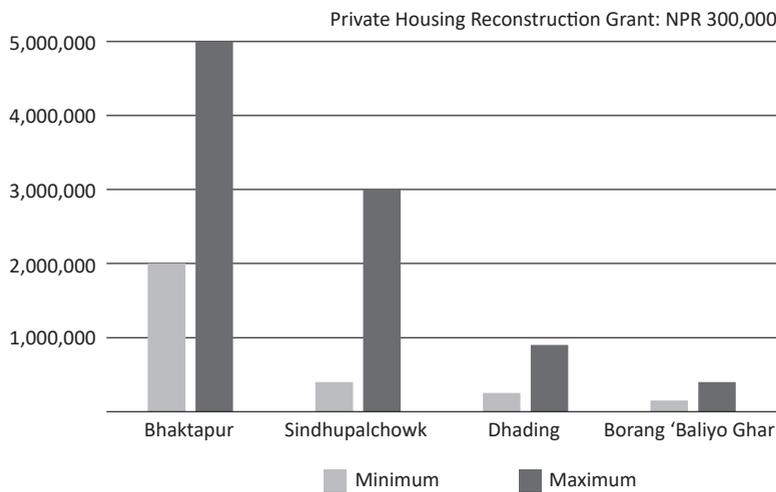
93 Interview no. 44, 7 April 2018, Dhading.

Variations in socio-economic and geographical contexts along with differences in house design have a direct bearing on the amount of money needed. The government reconstruction grant of NPR 300,000 was deemed insufficient in all the three field sites, albeit to varying degrees. People made up for this shortfall through their own savings, by borrowing from banks, micro-finance companies and cooperatives, or by taking loans from neighbours, friends, *sahu* (local money-lender/business person), and informal women's savings groups. Remittances from members of the family working elsewhere also contributed to the supplementary finance while people also sold assets like land, jewellery and livestock. As a result of these transactions, and particularly interactions with the banking sector, there is now a heightened sense of 'financial expertise' among those involved.

## Cost

The one-room house design found in Dhading was the cheapest, at NPR 150,000-400,000 (c. USD 1350-3600), the cost varying according to availability of labour and materials used. People from Dhading said they had repaired/rebuilt their damaged stone houses at costs ranging from NPR 250,000 to 900,000. In contrast, in Sindhupalchowk, with the highest variations in house design, the costs also varied the most, from NPR 400,000 to 3,000,000. In Bhaktapur, as discussed earlier, the heritage codes that required for houses inside the core heritage area, to follow the traditional style as mandated by the municipality increased the reconstruction cost. Besides following the municipality's heritage code, the design of houses inside the world heritage area had to be approved by the DoA as well. Most of our research participants from Bhaktapur were building three- to five-storeyed RC houses that cost anywhere between NPR 2,000,000 to 5,000,000 (c. USD 18,000 to 45,000).

**FIGURE 1**  
The cost of housing reconstruction



## Loans

### *Informal sources*

Among all of these sources of financing, informal sources played a crucial role in rural housing reconstruction. This was especially the case in Borang, being located in a rural part of northern Dhading, there were no banks, micro-finance companies or cooperatives. In Dhading and Sindhupalchowk, people borrowed from their neighbours, relatives, friends and *sahu* at different interest rates ranging from 24 per cent to 36 per cent per annum. However, loans from kith and kin had minimal interest rates or were even interest-free. For instance, an interviewee from Borang said that borrowing money from neighbours and relatives for three to four months was usually interest-free and if they exceeded this time limit, they would have to pay interest at a rate decided mutually.<sup>94</sup> Talking about his loans, one of our interviewees from Kartike said: 'Of course, I took a loan. I have to pay 36 per cent interest [per annum]. I do not have to pay interest to my father-in-law and sister-in-law, but I pay three thousand per month for 1 lakh

<sup>94</sup> Interview no. 78, 11 April 2018, Dhading.

[NPR 100,000] to my neighbour's sister.<sup>95</sup>

People often took loans from multiple individuals at different interest rates since getting one big loan from a single source was generally difficult. An illustration of this process can be found in the experience of one of our respondents from Dhading:

I took a loan of [NPR] 10,000 from one person, another 20,000 from another person, 40,000 from another person. We cannot get such huge amounts of money from a single person alone. I paid 36 per cent interest for one loan and 24 per cent for another loan.<sup>96</sup>

Informal women's saving groups were not active in Dhading site, while in Sindhupalchowk site several such groups were involved in small-scale financial activities. However, they were not providing loans to their members for reconstruction due to their limited funds. One informant said that the local women's savings group has only around NPR 20,000 in savings.<sup>97</sup> The research team found only one instance, in Kartike, of a woman taking a loan from a women's savings group—of NPR 35,000 at 24 per cent interest.<sup>84</sup> Unlike in Sindhupalchowk and Dhading, only a few people from Bhaktapur said they had taken loans from their relatives and neighbours.

### *Formal sources*

People had access to formal financial institutions only in Bhaktapur and Sindhupalchowk. In Bhaktapur, our informants appeared to prefer taking loans from cooperatives rather than banks. Seeking loans from cooperatives was common and the interest rates (from 8 to 18 per cent per annum) varied among cooperatives depending on the locality they were based in, personal relations of the borrower with officials

<sup>95</sup> Interview no. 96, 10 May 2018, Sindhupalchowk.

<sup>96</sup> Interview no. 66, 9 April 2018, Dhading.

<sup>97</sup> Interview no. 112, 12 May 2018, Sindhupalchowk.

in the cooperatives, and the nature of their membership in the cooperatives. For instance, a woman who had taken a loan from three cooperatives said that the cooperative she had been a member of for a long time provided a loan at a low interest and did not require land as collateral either.<sup>98</sup>

Taking loans from cooperatives was quite common in Bhaktapur since even the sale of land (see following section) was not sufficient to build a new house. People took loans ranging from NPR 300,000 to 2,000,000 from cooperatives like Siddhi Ganesh, which provided loans at 10 per cent interest to earthquake-affected households.<sup>99</sup> But some informants also said that taking loans from cooperatives was a complicated process. For instance, one woman informant said that a cooperative was reluctant to provide a housing loan to her since her house lot was small and she had to put forward both the land and the newly built house as collateral in order to get the NPR 1,000,000 loan.<sup>100</sup>

Some people in Sindhupalchowk said that they had taken loans from the Lalima Samudayik Ban Sahakari (Lalima Community Forest Cooperative) located in Kartike Bazaar. This included three men from Manje and a woman from Kartike Bazaar, who had taken loans of NPR 100,000<sup>101</sup> and NPR 50,000<sup>102</sup> from the cooperative at around 16 per cent interest.

#### *Government loans*

According to the NRA's subsidised loan guidelines,<sup>103</sup> earthquake-affected households in and outside of the Kathmandu Valley would respectively be provided up to NPR 2,500,000 and

up to NPR 1,500,000 as loans at the subsidised interest rate of 2 per cent from authorised banks. The guidelines also contain the provision of up to NPR 300,000 interest-free loan in *samuhik jamani* (collective collateral).<sup>104</sup> However, most of our informants in all the sites said they had yet to benefit from this provision.

In the rural Dhading site, people were not even aware of the government loan provision. Only a few people from Borang living in Kathmandu and Dhading Besi had heard about it, but were unaware about the process of accessing it. Some of them also said they were not interested in taking the subsidised loans, as in the words of a woman who had returned from Kathmandu to build her house: 'The government is not providing that money for free; one day, we have to repay it. How can we repay that much money? If we have the capacity to pay back that much loan, why take the loan?'<sup>105</sup>

People in Sindhupalchowk and Bhaktapur, on the other hand, were more informed about the subsidised loans through community leaders, villagers, news over the radio and TV, social media, and NRA engineers, and were also interested in getting the loan. Some people in Sindhupalchowk said they had consulted with elected ward chairpersons and community leaders as well as officials in the banks in Jalbire, about the subsidised loans. The chairperson of Ward no. 4 of Jugal Rural Municipality also affirmed that he had been asked by earthquake-affected individuals for a recommendation letter for the subsidised loan. But the chairperson said it was a mistaken perception among people that

98 Interview no. 83, 3 May 2018, Sindhupalchowk.

99 Interview no. 21, 15 March 2018, Bhaktapur.

100 Interview no. 15, 14 March 2018, Bhaktapur.

101 Interview no. 108, 12 May 2018, Sindhupalchowk.

102 Interview no. 116, 12 May 2018, Sindhupalchowk;

Interview no. 111, 12 May 2018, Sindhupalchowk;

Interview no. 83, 3 May 2018, Sindhupalchowk.

103 Procedure for Private Housing Reconstruction Subsidised Loan for Earthquake Affected Households 2015.

104 In the collective collateral loan process, a group of people who are usually relatives, neighbours or friends stand guarantee that the loan beneficiary would repay the loan. If the borrower is not able to pay the loan, the collective agrees to pay the loan on his/her behalf. For post-earthquake reconstruction, the Government of Nepal aimed to make loans thus accessible to those people who do not have any property to put as collateral.

105 Interview no. 72, 10 April 2018, Dhading.

they would be eligible for the loan if they got a recommendation from the chairperson.

In Bhaktapur, people said that they had not benefitted from the provision for subsidised loans, mainly because of the municipality's heritage codes. Most of the respondents said they were reluctant to follow the heritage codes since they did not align with their needs. Many participants had already built houses that violated the codes. This not only prevented them from getting subsidised loans but also from getting additional housing grants. In addition to the heritage codes, banks' requirements have also made it difficult to access loans. As one of the interviewees said: 'I went to the banks to know about the process of getting a loan. Bank officials said that we have to show our income sources. In my case, I don't have a stable source of income. If I had a job, I would have shown my regular income source.'<sup>106</sup>

### **Banks**

Only a few of our informants from Sindhupalchowk and even fewer from Bhaktapur had taken loans from banks. This was because many people assumed that bank interest rates were high and feared their property would be auctioned off if they could not pay back the loan on time. The reasoning of a woman in Bhaktapur was emblematic of such sentiments: she did not seek loans from banks because of the high interest rates and was afraid the very house built through a bank loan could end up being sold to repay the loan.<sup>107</sup> People also preferred to access loans from the local cooperatives, since the loan processing was easier and quicker than with the banks.

At the time of our first round of fieldwork in Sindhupalchowk, there were no banks in the Kartike area and the nearest were an hour's drive away at Jalbire, where two banks, Dev Bikas Bank

and Sindhu Bikas Bank, were providing services. As stated, people in Kartike Bazaar took loans from the banks at Jalbire as the banks accepted their Kartike house and land as collateral.<sup>108</sup>

### **Sale of Property**

In all the research sites, people had also sold their property (land, jewellery and livestock) either to rebuild their houses or to erect temporary shelters. Such instances were higher in the case of Dhading and Sindhupalchowk. For instance, five interviewees in Sindhupalchowk had sold their cattle and gold jewellery to build temporary shelters. In Dhading as well, some people had sold their cattle to build their houses or to pay back the loans they had taken for house reconstruction.

### *Selling land*

Unlike in Dhading and Sindhupalchowk, we found that selling agricultural land was common in Bhaktapur. But, not everyone had that option, as one of our interviewees said: 'We were told that if we did not start building a house, the government would not provide subsequent tranches [of the grant]. But, the first tranche was insufficient and those who had additional land sold it off to start laying the foundation to become eligible for the second tranche. Those who don't have land to sell, what can they do after laying the foundation?'<sup>109</sup>

Most of our informants from Bhaktapur said that they had sold or were planning to sell their agricultural land to build their houses even though that was not something they would have preferred since they were still farming the land. During an informal conversation, an old man aptly summed up their dilemma with a saying in Newari: *Bhu chalan, chhen dhalan* (To build a house, we need to lose our land).

Most people reported selling their land at a cheap price of NPR 300,000 to 400,000 per *aana*,

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106 Interview no. 31, 19 March 2018, Bhaktapur.

107 Interview no. 39, 21 March 2018, Bhaktapur.

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108 KII no. 25, 3 May 2018, Sindhupalchowk.

109 Interview no. 31, 19 March 2018, Bhaktapur.

either to a *dalaal* (broker) or to their neighbours and friends. Brokers pooled the individual land parcels together and converted them into residential plots, which would then be sold at a much higher price, ranging around NPR 1,000,000 and 1,500,000 per *aana*.

Consequently, in Bhaktapur, land transactions were found to have increased. Given how lucrative it had become, one of the brokers said that even masons and other locals had begun working as *bichauliya* (middlemen), coordinating with other brokers and sellers or acting as brokers themselves. Taking advantage of the people's desperation, these *bichauliya* encourage them to sell their land at cheap rates.<sup>110</sup>

### Remittance

In Dhading and Sindhupalchowk, remittances played a key role in the post-earthquake situation.<sup>111</sup> Many men and women from our research

sites in these two districts had gone to work in Malaysia, the Gulf, Japan and South Korea prior to the earthquake. Hence, most of the informants in Borang and in and around Kartike Bazaar said that remittances were also a source of finance for reconstruction. In Borang, people had received and used remittances to rebuild or repair their houses prior to the introduction of the government building codes. On how the remittances had been used, a woman in Borang said: 'People have been taking loans to make their houses. Their family members are in Saudi [Arabia], Malaysia; they send money. Suppose you have a son abroad, he sends you one lakh [NPR 100,000], then you can give [NPR] 20,000 in loan to another person.'<sup>112</sup>

There was no significant role of remittances in post-earthquake reconstruction in Bhaktapur, where it was more common to find respondents whose family members had gone abroad for further studies rather than employment.

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110 Interview no. 31, 19 March 2018, Bhaktapur.

111 Bandita Sijapati et al, *Migration and Resilience: Experiences from Nepal's 2015 Earthquake* (Kathmandu: Centre for the Study of Labour and Mobility, Social

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Science Baha, 2015). <https://ceslam.org/index.php?pageName=publication&pid=36>.

112 KII no. 14, 9 April 2018, Dhading.

# EMERGING ISSUES

In the course of our first fieldwork, we uncovered various issues that added to the complexities of the reconstruction process in each site. These, however, were not the focus of our inquiry in the initial round and hence would require further examination in subsequent rounds of fieldwork. A brief foray into these aspects are presented below.

## Flouting Building Codes

Considering how reconstruction policies have been inadequate to meet people's needs, it was naïve to believe that people would obediently comply with the guidelines, especially in the long run. In all the sites, we found people coming up with ways to manoeuvre around government regulations which they often referred to as 'rigid' and 'impractical' in relation to their actual needs.

In the Dhading site, people said that once they receive all the grant money they plan to modify their one-room houses by extending the porch or adding a floor. In the Sindhupalchowk site, many beneficiaries had access to functional outhouses that were not much damaged in the earthquakes. But inconsiderate of this fact, the grant disbursement guidelines had mandated construction of new toilets alongside each new house in order to be eligible for the third tranche.<sup>113</sup> Some of

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113 The Grant Disbursement Procedures for Private Houses Destroyed by Earthquakes 2016 mandates the construction of a toilet or the installation of solar power, biogas or any other source of alternative energy, in order to qualify for the third tranche. Of the NPR 100,000 provided in the third tranche, NPR 75,000 is allocated for the completion of house reconstruction, and NPR 25,000 for the construction of a toilet or the installation of an alternative energy source, with the entire amount contingent on fulfilling the latter

our informants were found using the new toilets as storage space; one woman even said that she planned to turn it into a kitchen.

Meanwhile, people in Bhaktapur were burdened by the municipality's heritage codes which they viewed as adding to the cost and not fully meeting their needs either. Hence, many people have been constructing houses in violation of the heritage codes. There were numerous such houses and these were commonly referred to as *aniyamit* (invalid) structures.<sup>114</sup> These houses would be barred from being mortgaged or sold in the future. Yet, that had not deterred people from building such houses.

## Cost of Double Construction

Unlike in Bhaktapur, where people were constructing RC houses, many people in Dhading and Sindhupalchowk did not have any immediate need to build another house, as they had already repaired or rebuilt their damaged houses within a year or so of the earthquake. However, when the NRA's reconstruction guidelines arrived in these areas, people felt compelled to build a new structure following the guidelines due to rumours about having to return the first tranche and their legal documents being confiscated in case they refused. Since the new houses were not actually required as primary living spaces, many respondents in Borang admitted that they had built these only in the hope of making some savings from the grant money.

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criterion. Our Sindhupalchowk site already had electricity supply, so toilet construction was higher there.  
114 Here, 'invalid status' means houses that had not abided by the municipality's heritage code.

In Kartike Bazaar, people hoped to build an RC house in the future when they could afford it but they were also using the grant to build one- or two-room houses. In Borang, people were also thinking of building cemented houses once the motorable road was extended to their village. It will be interesting to see how these future plans are operationalised in the future.

## **State Presence**

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The reconstruction process was affected by the presence of the state which existed in varying degrees in the three sites. State presence was the least in the case of Borang due to its remote location in Dhading. Hence, people did not have much expectation of government assistance, which was why they had started rebuilding and repairing their houses by themselves less than a year after the earthquake. Later, when NSET introduced earthquake-resistant house designs, people were reluctant to adopt them. However, about one and a half years after the earthquake, people started reconstructing new houses as per the prescribed designs, driven by the incentive to get the reconstruction grant and rumours about seizure of legal documents. But in doing so, many people did not adhere to the guidelines and instead used green wood, dug shallow foundations, and took other shortcuts. However, such examples of non-compliance were not inspected in detail by the engineers nor prosecuted by the state. Moreover, there were also illegal practices of using chainsaws to cut trees in the forest for reconstruction, which remained unmonitored by the state.

On the contrary, in the case of the Bhaktapur site, the municipality was attentive to even minor details of the reconstruction of private houses and heritage sites. If any aspect of the house design did not meet the municipality's heritage codes, house owners would immediately be asked to redress it.

In Kartike Bazaar and nearby areas of Sindhupalchowk, people felt that the state was neither too constricting as in Bhaktapur nor too distant as in Borang. People usually had linkages with local political leaders, which helped some households skirt government regulations such as securing multiple grants by the same family, overlooking errors in their houses structure, and qualifying for the third tranche without building new toilets.

## **Tensions between Department of Archaeology and Bhaktapur Municipality**

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In Bhaktapur, the relationship between the Department of Archaeology (DoA) and the Bhaktapur Municipality was strained due to differences over cultural heritage reconstruction. The DoA and the municipality were in charge of the reconstruction of different heritage sites, and people seemed to have more faith in the municipality's work than the DoA's. However, there were also some people who felt that the municipality was not working as sincerely as in the past and appeared to be favouring their own party members and friends and families of municipal officials in the reconstruction process.

## **Issue of Home vs House in Borang: The Baliyo Ghar Conundrum**

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In Dhading, most people were building one-room houses in Borang, following the government designs for stone-masonry buildings as prescribed by NSET under the Baliyo Ghar programme. They restricted the size of the building to only one room due to cost implications. Thus, the houses had only one door and window and could hardly accommodate a family of more than three members. Similar was the case of one-room houses in Sindhupalchowk. Dissatisfaction was so common among the people that it seemed to

diminish their sense of ownership towards these newly built houses as they commonly referred to them as *sarkar ko ghar* (government house) or *anudan ko ghar* (grant house) rather than their own house. Many people were not planning to move into these new houses and planned to extend the house or use them as storage, kitchen, cattle shed, or for other ancillary purposes.

### **Delays in Grant Distribution by the Banks**

People we talked to had a common complaint about the slow banking process and they saw the delay in the distribution of the housing grant as deliberate. They felt that this was also impeding the reconstruction process, particularly, in Dhading and Sindhupalchowk. An NSET official in Borang also made similar comments that reconstruction was being slowed down because the banks did not disburse the grant on time. When the tranches were finally ready, the banks pasted notices outside their walls, listing the names of beneficiaries who could receive their money. But the NSET official felt that such notices failed to reach the larger community since people from remote locations like Borang could not come every now and then to check if their names had been included in the list. Moreover, as the NSET official said, these notices as well as the bank transactions were conducted in Nepali, so Tamang-speaking people had to be accompanied by a Nepali-speaking relative/friend every time they went to the banks.

### **Internal Mobility**

From our observations and interviews with people in all three sites, we realised that internal mobility is also an important factor for post-earthquake reconstruction. We found migrant labourers mostly from the western hills and the

Tarai districts increasingly joining the labour stream involved in reconstruction in these areas. Given the limitations of our research, we make no claims that labourers from only the mentioned districts were working in the sites but only that labour mobility was high. Hence, it would be interesting to further explore the network and the supply of labourers as well.

### **Cascading Hazards: Strong Houses on Fragile Grounds**

In all the sites, there were ongoing physical risks related to the earthquakes. In Bhaktapur, undemolished houses in crowded settlements posed a threat to pedestrians. Meanwhile, in Dhading, there were threats of landslides in areas near Borang, especially in Jharlang, where the road was being dug. Of all the sites, Kartike Bazaar was found to be the most vulnerable to geological hazard. A geologist from the Upper Balephi 'A' Hydropower Project, who had also worked for the NRA as a geologist, said that Kartike Bazaar could subside if an earthquake of a similar magnitude hit again, and there were also risks of landslides due to heavy rock deposits above Kartike Bazaar as well as the risk of erosion of the riverbank by the Balephi River during the monsoon. This raises the question as to why these geological risks have not been taken into account fully by the government in the context of the private housing reconstruction programme.<sup>115</sup> Even I/NGOs and donors involved in assisting house reconstruction in Sindhupalchowk were found to have ignored these risks. People also seemed reluctant to

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<sup>115</sup> While the NRA has assessed geohazards at the community level and made recommendations for the wholesale relocation of those designated Risk Category 3, geohazard assessments have not been part of the reconstruction programme at the individual household level. For more information go to <http://www.durable-solutionsnepal.org/>



Women masons in Borang undergoing training to build earthquake-resistant houses. Photo: Manoj Suji

relocate their businesses and seemed to have a fatalistic attitude since they were more concerned about their immediate livelihood needs than about any uncertain risks in the future.

### **Technical Assistance**

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The NRA's Post-Disaster Recovery Framework, 2016-2020, emphasises the implementation of 'owner-driven' approaches to 'build back better' in the country. To serve this purpose, the NRA has assigned field engineers to provide technical assistance during post-earthquake reconstruction, but their assistance seems to be limited to enforcing the building codes through the mechanism of inspecting houses to certify them (or not) for the second and third tranches of the grant. This leaves unaddressed the important

question of whether they can take account of various building activities that fall outside the purview of the building codes.

In all the sites, NRA engineers have not paid adequate attention to the resilience of pre-earthquake houses repaired by people outside the formal NRA private housing reconstruction programme. Even the resilience of new houses is said to be affected by the use of defective materials such as green wood or low quality cement. Also, many people planned to modify their houses in the future. The question thus is whether the NRA and its engineers have the ability to accommodate people's housing demands by being flexible with the building codes but without compromising on the resilience of the structures. Only if this can be achieved would the government-led reconstruction become 'owner driven' in the truest sense.

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This working paper is an output of the research project, 'Expertise, Labour and Mobility in Nepal's Post-Conflict, Post-Disaster Reconstruction: Construction, Law and Finance as Domains of Social Transformation'. It is based on the findings from the research conducted in three of the most affected districts by the 2015 earthquakes, Bhaktapur, Dhading and Sindhupalchowk. Following the theme of the project, the paper looks at the interplay of different vectors as they affect issues related to construction, law and finance during the post-earthquake reconstruction in Nepal.



A small house lot left vacant by the owner in Bhaktapur. Photo: Bina Limbu.

