Working Paper

Reconstructing Nepal

Sindhupalchowk – Hybrid Construction and Financial Flows

Bina Limbu | Manoj Suji | Jeevan Baniya
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Front cover: Newly reconstructed houses at Golche village. Photo by Bina Limbu

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Construction materials piled on the road at Kartike Bazaar. Photo by Manoj Suji

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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
DDC	District Development Committee
DDRC	District Disaster Relief Committee
DCC	District Coordination Committee
DUDBC	Department of Urban Development and Building Construction
DLPIU	District Level Project Implementation Unit
GoN	Government of Nepal
I/NGO	International/Non-government Organisation
JICA	Japan International Cooperation Agency
KII	Key Informant Interview
NCP	Nepal Communist Party
NRA	National Reconstruction Authority
OJT	On–The-Job Training
PA	Participation Agreement
PDNA	Post-Disaster Needs Assessment
PO	Partner Organisation
RC	Reinforced Concrete
RCC	Reinforced Concrete Cement
SSHRC	Social Sciences and Humanities Research Council of Canada
TCPS2 CORE	Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics
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-related laws, policies and provisions with the objective of facilitating 'owner-driven' reconstruction of private houses, public infrastructure and cultural heritage, under the 'Build Back Better' approach. For this purpose, the NRA deployed more than 3,000 engineers, sub-engineers and overseers 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 [ca. USD 2,500], divided into three tranches. The government also offered concessional loans of up to NPR 2.5 million [ca. USD 20,900] for housing reconstruction within the Kathmandu Valley and NPR 1.5 million [ca. USD 12,500] for other districts, at 2 per cent interest, and from 2018 onwards, provisioned interest-free loans of up to NPR 300,000 under a system of 'collective collateral'. 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 was carried out in three earthquake-affected districts: Bhaktapur, Dhading, and Sindhupalchowk. This report is based on the case study of Sindhupalchowk district, where the research team conducted ethnographic research in the selected sites of Jugal Rural Municipality for several weeks in three phases from 2018 to 2019. Research included observations and in-depth interviews with a total of 74 participants at the household level as well as key informant interviews with officials and individuals at the local ward, municipal office, the Lalima Community Forest Co-operative, the Upper Balephi 'A' Hydropower, the Deva Bikas Bank, the Sindhu Bikas Bank, the Tuki Sangh Sunkoshi, District-Level Project Implementation Unit (DLPIU–Building), the District-Level Project Implementation Unit–Education (DLPIU–Education), the Central-Level Project Implementing Unit–Building (CLPIU–Building), the National Society for Earthquake Technology–Nepal (NSET–Nepal), and the central office of the NRA in Kathmandu.

Findings

- **Beneficiary selection and family fragmentation:** Three damage assessments were conducted to identify earthquake-affected households in the severely hit districts. The last official assessment, conducted by the Central Bureau of Statistics (CBS) in early 2016, was met with mass grievances which took several years to resolve. Since the main criterion to qualify for the housing reconstruction grant was landownership, people from

Sindhupalchowk transferred and updated their land titles from the previous generations, and partitioned their property among family members. Several households, especially those with political connections, benefitted from this, as their family members were able to qualify for multiple grants, whether or not they lived as separate households. Consequently, the number of households increased in the area, but whether these households have been treated as separate household units in the 2021 census or for the purpose of housing taxation remains unclear.

- **Confusion in house designs:** The earthquake-resistant house designs introduced by the Department of Urban Development and Building Construction's (DUDBC) Design Catalogue Volume I in 2015, followed by the Design Catalogue Volume II in 2017, could not meet the evolving nature of housing patterns, preferences, and needs on the ground. Moreover, they were implemented under stringent norms with little room for error, resulting in a high number of non-compliant houses in the initial phases. The NRA subsequently published numerous additional manuals to correct or repair these 'non-compliant houses', so that they could meet the minimum requirement required for the reconstruction grant to be approved. The new manuals brought more flexibility to the housing reconstruction process but also confused people as previously ineligible houses were now able to qualify for reconstruction grants, after some corrections, in the latter phases of reconstruction. Amidst this, the NRA engineers had a difficult time convincing people about the new changes and updates in the housing reconstruction requirements, creating distrust among community members toward the whole process which, at times, translated into hostility. Communication with community members and execution of house designs was felt to be more successful in areas where social mobilisers were deployed alongside the engineers.

- **Construction materials, labour and mason trainings:** The on-going reconstruction led to an increase in the price of construction materials. Despite the higher costs, materials were at least available, unlike labourers, who were found to be in severe shortage. As a result, labour wages almost doubled from NPR 500-800 per day to NPR 1,000-1,500. The high demand for labourers and masons created employment opportunities for local people as well as migrant labourers who had come to work from the mid-western and Tarai districts of Nepal. Generally, migrant workers were perceived to be more skilled at building reinforced concrete (RC) houses as well as other types compared to the local ones. Various mason training sessions were also conducted in and around the Sindhupalchowk research sites, with a high participation of women but most women did not pursue masonry work after the training owing to household chores and family responsibilities. To those few women interested to work as masons, the community showed little confidence in them and preferred not to hire woman masons to rebuild their houses.

- **I/NGO involvement and duplications:** Sindhupalchowk received an influx of many partner organisations, including I/NGOs and donors, that assisted in or carried out various housing and infrastructure reconstruction programmes within the district but were often driven by institutional agendas and tight project deadlines. Generally, the procedures for house reconstruction and grant tranche approval were said to be quicker and more efficient in areas assisted by I/NGOs. However, these I/NGO-led reconstruction programmes were centred around easier and more accessible locations

of Sindhupalchowk, which resulted in mass duplication of similar projects in the same areas. There were also instances of malpractice where the reconstruction cost of a school was over-billed, the required duration of mason trainings shortened, and certain commitments made by I/NGOs remained unfulfilled.

- **Impending geological risks and double reconstruction:** The Sindhupalchowk site continued to remain at high risk of future disasters such as landslides, floods and earthquakes. These risks were exacerbated by the haphazard road construction carried out by local hydropower projects in the area, which were not properly monitored by the rural municipality. Despite this, people were reluctant to move away since both their livelihoods and agricultural lands were located there. The government also failed to execute timely actions to relocate the households. Since people already rebuilt their houses in these risky locations, convincing them to move to a safer location would be challenging, as they would have to go through 'double reconstruction' to rebuild another house in a new area. Many people, fatigued by the years of ongoing reconstruction, preferred rather to stay in place.

- **Reconstruction under debt:** People generally prefer RC houses but most could not afford to build them and resorted to building stone houses or other cheaper alternatives. Depending on size of the house, structure, and availability of construction materials and labour, people spent NPR 100,000 to 800,000 (ca. USD 830 to 7,000) to build stone-masonry houses, and NPR 2,000,000 to 3,000,000 (ca. USD 16,700 to 25,000) for RC houses. Most households borrowed money from diversified sources to fund these reconstruction costs. People had heard about the low-interest concessional loans provisioned by the government, but no one had received them. Local banks were also reluctant to provide these concessional loans for fear of being faced with defaults. Banks were more willing to provide their own housing loan products but only to those who were building RC houses, which could be used as collateral. As a result, rich people, who could afford to build RC houses, were able to access housing loans from the banks at an interest rate of 13 to 15 percent per annum. The majority of households, who were poor and could only afford to build stone-masonry houses, were deemed ineligible for bank loans, and had to borrow from informal sources such as relatives, friends and sahus (money-lenders), at a much higher interest rate of 24 to 36 percent per annum. In this way, most people incurred heavy debts in the course of reconstruction but poorer households were more at risk due to unavailability of low-interest loans.

- **Disaster economy:** Post-earthquake reconstruction brought many interesting changes to the economic dynamics of Sindhupalchowk. Reconstruction activities and the influx of I/NGOs resulted in growth of local businesses, like teashops/taverns, hotels, grocery stores, hardware shops, and truck/tipper transportation. Increase in labour wages created employment opportunities for local people and migrant labourers. Banks reported increase in money transfer transactions and loan-taking practices for transportation or other businesses in the area. However, as I/NGO projects and reconstruction activities were coming to an end, these economic trends were also said to be declining. Nonetheless, the modern looking RC houses and new kinds of stone- and brick-masonry houses built after the earthquake gave a positive impression of development to the people.

INTRODUCTION

The 25 April 2015 earthquake in Nepal and its biggest aftershock a couple of weeks later, on 12 May, caused massive loss of human lives, property, and infrastructure, resulting in a major hit to the country's economy. A total of 31 of the country's then 75 districts were affected by the earthquake, with 14 severely so. Over 9,000 people lost their lives, and over 900,000 private houses[1] and nearly 9,000 public buildings were completely or partially damaged, leading to losses worth USD 7 billion (a sum equal to a third of the country's GDP).[2] The earthquake also damaged approximately 2,900[3] historical, cultural and religious monuments and heritage properties, including the seven World Heritage Sites within the Kathmandu Valley.

The International Conference on Nepal's Reconstruction held on 25 June 2015 saw pledges for reconstruction worth USD 4.4 billion by donor countries and development partners as grant and loans.[4] To facilitate the process the parliament passed the Act Relating to Reconstruction of the Earthquake Affected Structures 2015, also called the Reconstruction Act 2015. Accordingly, the National Reconstruction Authority (NRA) was established on 25 December 2015 as the apex government body authorised to facilitate the reconstruction of private and public infrastructure, including disbursing of housing grants to earthquake-affected families. In order to expedite reconstruction activities, the NRA established six Sub-Regional Offices (SROs) in the districts of Gorkha, Dolakha, Kavrepalanchowk, Nuwakot, Kathmandu and Lalitpur to coordinate between central authorities and local bodies in the 14 severely affected districts.[5] The NRA's Post-Disaster Recovery Framework 2016-2020 proposed to establish District Coordination Committees (DCCs) in the 31 earthquake-affected districts to coordinate, monitor and appraise reconstruction activities within those districts along with 160 resource centres in every three to six then village development committees (VDCs)[6] to support communities in their own reconstruction.[7] The NRA also enacted various other laws, policies, and guidelines regarding private housing reconstruction with an emphasis on engineering expertise, a consideration of

1 This figure increased over time as the National Reconstruction Authority conducted damage assessments in different phases.

2 National Reconstruction Authority, *Punanirman Pragati* (in Nepali, Reconstruction Progress). http://www.nra.gov.np/np/mapdistrict/datavisualization. Accessed on 1 July 2022. The data does not include the total number of 49,681 classrooms of schools in need of reconstruction.

3 The actual number determined by the NRA as of the end of 2021 is 2244, NRA, Reconstruction (Punanirman in Nepali), December 2021, http://www.nra.gov.np/uploads/docs/SUJmlFxfl1220103044757.pdf.

4 Data accessed on 5 April 2021 from http://www.nra.gov.np/np/internationalconference/index#:~:text=On%20June%2025%202015%2C%20the,the%20recovery%20and%20reconstruction%20efforts.

5 'NRA sub-regional offices authorised for rebuilding,' *The Kathmandu Post*, 28 June 2016. https://kathmandupost.com/miscellaneous/2016/06/28/nra-sub-regional-offices-authorised-for-rebuilding

6 National Planning Commission, 'Post-Disaster Recovery Framework'; National Planning Commission, *Post-Disaster Needs Assessment Report* (Kathmandu: National Planning Commission 2015).

7 National Planning Commission, *Post-Disaster Recovery Framework 2016-2020* (Kathmandu: National Planning Commission 2016). The research team found no evidence of the resource centres having been established.

available local materials, knowledge and skills as well as people's needs to reduce the impact of future disasters.[8]

In this context, the research project, 'Expertise, Labour, and Mobility in Nepal's Post-Conflict, Post-Earthquake Reconstruction: Construction, Finance, and Law as Domains of Social Transformation', was funded by the Social Sciences and Humanities Research Council (SSHRC) of Canada to undertake research on the themes contained therein. The three-year project (2017-2020) intended to develop a comprehensive analytical framework to understand the 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 situations where post-conflict and post-disaster processes of state restructuring and reconstruction intersect. Within the flux of these encounters, this study foregrounded the roles and potential of domestic expertise as well as local governance in disaster response, linking the knowledge to scholarly literature on international expertise and geopolitics in shaping humanitarian and governmental responses.

By inquiring into the three domains of construction, law and finance, the research team sought to understand how the vectors of expertise, labour and mobility had shaped the twin projects of state restructuring and post-earthquake reconstruction in Nepal. In the field of construction, it looked into how reconstruction needs to be understood as a process that is both socio-cultural and technical in nature. The research 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 laws and policies of reconstruction, particularly in relation to documentation required to navigate the reconstruction process. As for finance, the study delved into understanding the multiple sources of funding available for reconstruction and the rationalities and institutions that influenced financial flows and access to them.

Though the full research project was multi-sited[9] and entailed comparative analysis,[10] this report only presents the findings from Sindhupalchowk district.[11] It provides a descriptive account of the damage and impact of the 2015 earthquakes in one part of Sindhupalchowk, and more specifically post-earthquake reconstruction, with an emphasis on private houses. Fieldwork was conducted in Jugal Rural Municipality of Sindhupalchowk district with a focus on Kartike Bazaar and the peripheral villages of Golche, Manje, Pangtang, Jalbire, Dhade and Ghonga.

Post-earthquake reconstruction in Kartike Bazaar and its environs had its own unique set of complexities. The frequent changes in design specifications, particularly to avail of the second and the third tranches of the government grants, were often unclear to people in the area. Since the NRA engineers had to approve the various phases of reconstruction to enable people to get the different tranches, there was often conflict between villagers and the engineers. Research participants also complained of how the process

8 National Planning Commission, *Post-Disaster Recovery Framework 2016-2020* (Kathmandu: National Planning Commission 2016).

9 Fieldwork was carried out in Bhaktapur, Dhading and Sindhupalchowk districts.

10 Bina Limbu, Nabin Rawal, Manoj Suji, Prakash Chandra Subedi and Jeevan Baniya, *Reconstructing Nepal: Post-Earthquake Experiences from Bhaktapur, Dhading and Sindhupalchowk* (Kathmandu: Social Science Baha, 2019). https://i2.wp.com/soscbaha.org/new/wp-content/uploads/2019/07/reconstructing-nepal.jpg?fit=1799%2C2700&ssl=1

11 Working papers under this project about Bhaktapur (Suji et al 2020) and Dhading (Rawal et al 2021) provide detailed findings from the respective sites.

of being identified as beneficiaries or signing participant agreements was easier for those with political connections. Households were learnt to have been partitioned so that different family members could access reconstruction grants separately, particularly if they had the political connections to get such divisions recognised.

Given the easy access to Sindhupalchowk district from Kathmandu, there was often duplication in assistance provided by several international and national NGOs. Construction materials and labour costs went up during the reconstruction process. Since the government grant was not enough to rebuild damaged houses, most affected households ended up taking loans at high interest rates and thus fell into debt. Although villagers had heard of government-subsided loans being available, accessing these was not easy since banks were reluctant to lend, fearing default on loans.

This report is organised in four sections. This general introduction and overview of the post-earthquake situation is followed by a section describing the methodology employed as well as a sketch of the field site and the damages/impacts caused by the earthquakes. The third section presents the overall findings within the specific domains of law, finance, and construction. Finally, the last section summarises and concludes the report.

RESEARCH METHODS

The research team conducted fieldwork in Wards 2 and 4 of Jugal Rural Municipality in Sindhupalchowk,[12] consisting of Kartike Bazaar and the peripheral villages of Golche, Manje, Pangtang and Ghonga. The first round of fieldwork lasted from 2 to 15 May 2018, when the research team carried out household-level interviews in the selected sites. The second phase was conducted from 4 to 13 January 2019, with the team conducting interviews with key institutions and individuals at the local and district levels, namely, the municipal office, NRA's district units, hydropower projects, banks, cooperatives, and social and political community leaders. In between the first and second rounds, the team also visited the field area with members of the international partnership team of this research project, 31 July to 2 August 2018. The third and final round of fieldwork was conducted from 27 June to 3 July 2019 in Kathmandu, when the team conducted interviews at central-level institutions like the NRA, the Department of Urban Development and Building Construction (DUDBC), and various NGOs. This report is informed by the data derived from both formal and informal interviews in these three rounds of fieldwork as well as ethnographic observations.[13]

Ethical clearance was provided by the University of British Columbia's Behavioral Research Ethics Board. Before receiving ethics approval, the members of the core research team, including all Nepal-based members, successfully completed the TCPS2 CORE (Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics) tutorial.

Altogether 74 participants were interviewed during the course of the study. Interviews with 51 participants were recorded with their consent while those with the 23 others were not. All interviewees offered informed consent before the interview began, and consent was also sought from them for audio recording, where applicable. For any interview that could not be recorded, the main points were jotted down during the interview, and detailed notes were developed immediately afterward. Additional information was gathered through observations and photographs of the ongoing reconstruction activities in the communities.

Table 1: Number of Interview Participants from Sindhupalchowk

S.N.	Fieldwork	Male	Female	Total
1.	First round of fieldwork	35	18	53
2.	Second and third rounds of fieldwork	17	4	21
Total		52	22	74

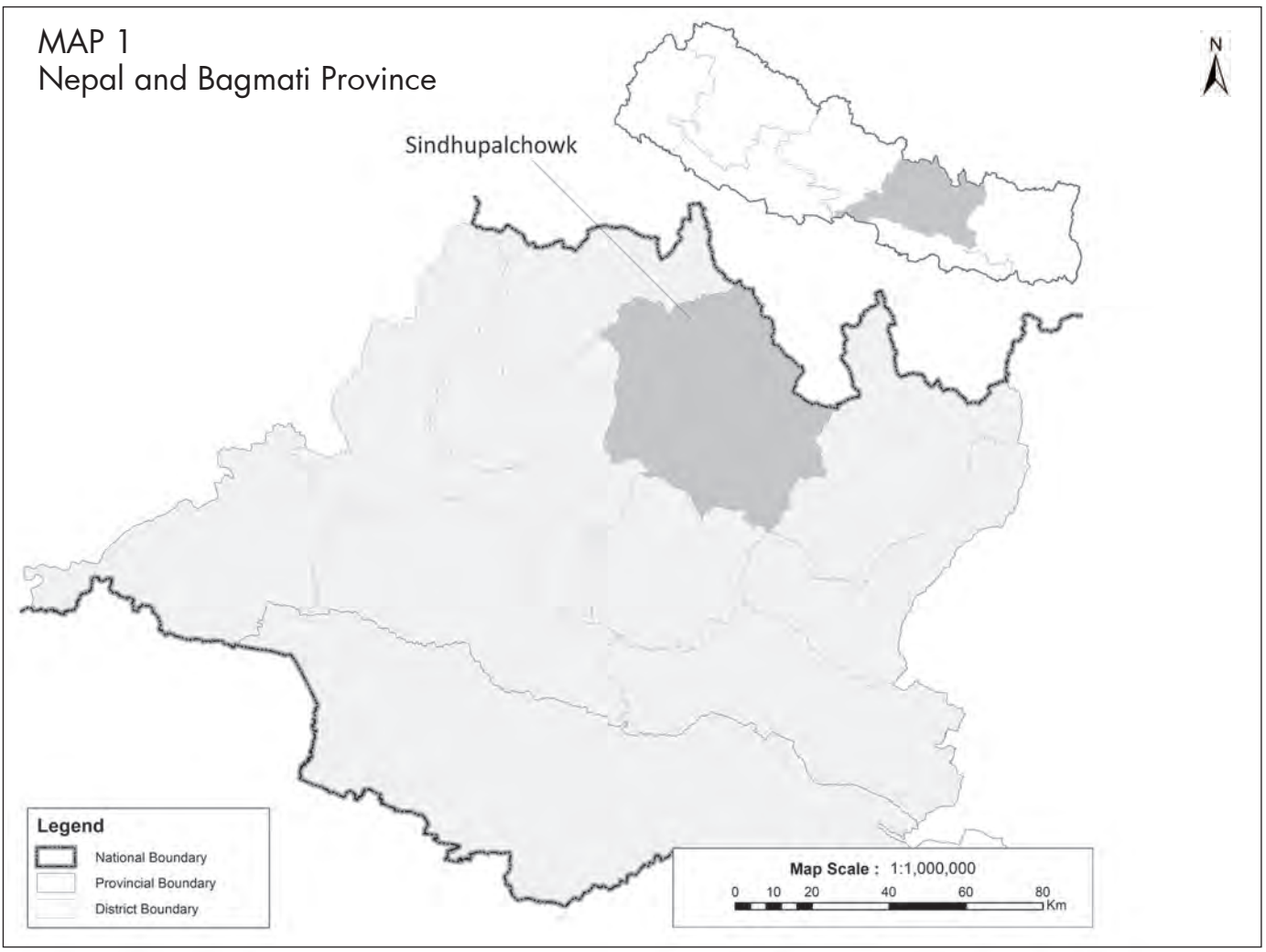
Kartike: The Local Context

Sindhupalchowk lies in the central hills of Nepal, and is the biggest district in Bagmati Province. Located northeast of the Kathmandu Valley, it lies a few hours' drive from the capital. The administrative centre is Chautara and the district has

12 The ward is the smallest administrative unit of local government in Nepal. Every municipality is divided into several wards.

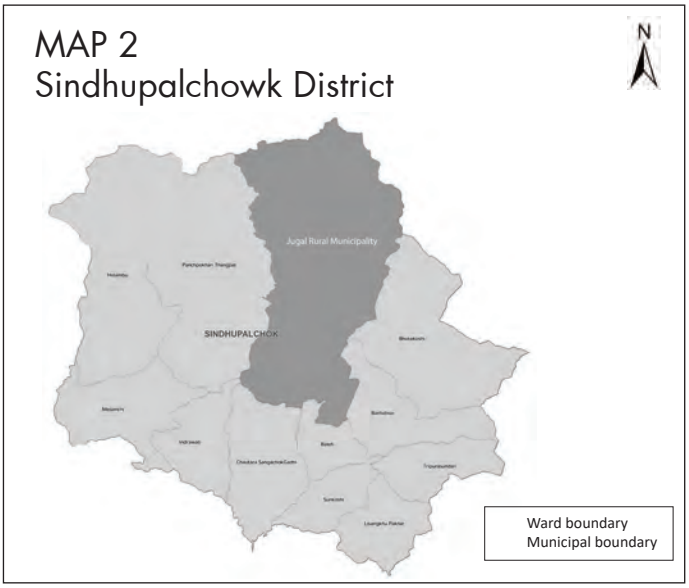
13 Formal interviews refer to interviews that were pre-scheduled with participants, while informal interviews refer to conversations that occurred spontaneously on-site without pre-planning.

MAP 1
Nepal and Bagmati Province



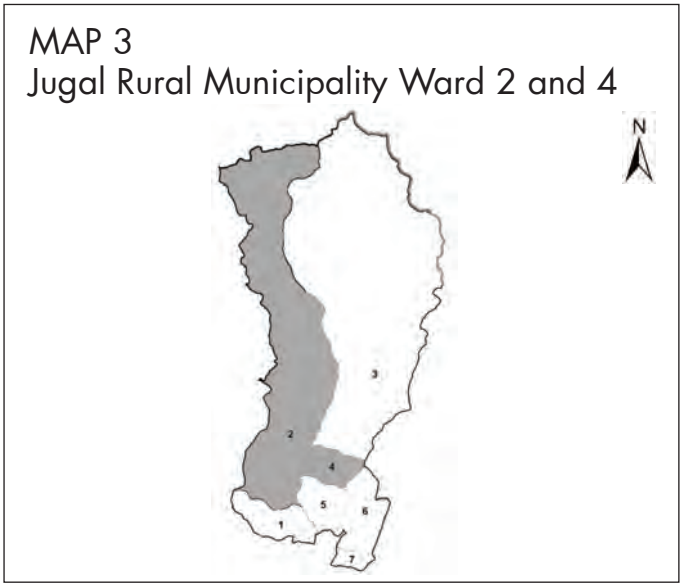
Source: Cartography by Naxa for Social Science Baha.

MAP 2
Sindhupalchowk District



Source: 'Map & Infographics', Housing Recovery & Reconstruction Platform, https://www.hrrpnepal.org/maps/administrative-maps.

MAP 3
Jugal Rural Municipality Ward 2 and 4



https://www.sthaniya.gov.np/gis

Various shops running at the main road of Kartike Bazaar. Photo by Bina Limbu

an ethnically diverse population with Tamangs (34 per cent), Chhetris (18 per cent) and Newars (11 per cent) making the largest population groups.[14] It is also home to small populations of indigenous groups like the Hyolmo (2 per cent), Thami (2 per cent) and Majhi (2 per cent).

Sindhupalchowk lies in close proximity to Dolakha district, the epicentre of the major aftershock of 12 May 2015. The district suffered greatly in terms of human lives, accounting for 40 per cent of all deaths from the 2015 earthquakes nationwide.[15] It saw a total of 90,573 houses partially or fully damaged[16] and the per capita loss due to the disaster was estimated at NPR 233,370 [ca. USD 2,000].[17] Sindhupalchowk thus was one of the most severely-hit districts and had the highest number of grant beneficiaries among the affected districts.[18]

The study team focused its research in Jugal Rural Municipality, with visits to Kartike Bazaar and the adjoining areas of Manje and Golche villages. Prior to the restructuring of the state in 2017, Kartike and Manje were part of Pangtang VDC while Golche village was part of Golche VDC, but they now lie in Wards 4 and 2 of the Jugal Rural Municipality, respectively.[19]

14 'Demographics', Sindhupalchowk, Nepal Map. https://nepalmap.org/profiles/district-66-sindhupalchowk/

15 Mukta S. Tamang, *Community Resilience Capacity: A Study on Nepal's 2015 Earthquakes and Aftermath* (Kirtipur: Central Department of Anthropology, Tribhuvan University, 2020).

16 Data accessed from the Housing Recovery and Reconstruction Platform's (HRRP) district profile infograph of Sindhupalchowk dated 10 February 2018.

17 National Planning Commission, *Post Disaster Needs Assessment (Vol. A: Key Findings)* (Kathmandu: National Planning Commission 2015).

18 That is, 90,573. Data on reconstruction progress by NRA accessed on 01 July 2022 from http://www.nra.gov.np/en/mapdistrict/datavisualization

19 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 districts development committees (DDC), 217 municipalities and 3117 village development committees (VDCs). The 2015 Constitution divided the newly formed Federal

According to the 2011 census, Pangtang VDC had 487 households and a population of 2,481, of which the plurality were Newars (35 per cent) followed by Tamangs (33 per cent). Golche VDC had a total of 731 households and population of 3,611, of which the huge majority are Tamangs (78 per cent) with a small population of Chhetris (8 per cent).[20] After the earthquake, about 777 households were identified as grant beneficiaries in Pangtang VDC and 985 in Golche VDC.[21] This seeming mismatch between number of households and number of beneficiary households resulted from widespread fragmentation of households that occurred during the process of accessing grants, a phenomenon which will be discussed in detail later.

Jugal Rural Municipality is predominantly rural in nature. Kartike Bazaar is the market centre for surrounding villages such as Golche, Manje, Pangtang, Gumba and Chanaute. This region is connected to Kathmandu by road and takes four to five hours' drive to reach it. Kartike is connected to the Arniko Highway by a fair-weather road that tends to be blocked by landslides or floods during the monsoon. One of the key features of this area is the Balephi River that flows alongside the Kartike Bazaar. In the past, Kartike Bazaar used to be located next to the Balephi river but a flash flood swept away the bazaar in 1982, causing heavy losses of human lives and sweeping away 22 houses. The market was shifted to its current location, on the ledge a little above Balephi River.

After the road to Kartike Bazaar was opened small-scale businesses boomed in the area. When the research team last visited the area in January of 2019, there were numerous drinking places and tea-shops, three hotels with lodging facilities, two hardware shops, a motorcycle showroom, two pharmacies, and three tailoring shops, among other businesses. In good weather, buses plied between Kartike Bazaar and Kathmandu as well as Kartike and Chautara three to four times a day. With so many facilities in place, a research participant remarked that Kartike Bazaar resembled a peri-urban part of Kathmandu rather than a rural village.[22]

People from Pangtang, Golche, Gumba and other nearby villages were attracted by these developments to migrate to Kartike. According to numerous participants, this trend increased after the earthquake. As a result, the value of land in the bazaar and the surrounding areas went up, ranging from NPR 200,000 to 400,000 [ca. USD 1,770 to 3,400] for less than one *aana* land,[23] depending on its proximity to the main road. A man who had bought six *aana* land for NPR 1,500,000 [ca. USD 12,500] in early May 2018 to build his house in Kartike went so far as to claim that land in the outskirts of Kathmandu was cheaper than in Kartike.[24]

Due to Kartike's geographical features, there is not enough space to accommodate these newcomers in the bazaar area itself. As a woman from Kartike said:

> Land is expensive since this place is very cramped. The places above here are good. The price is also okay in the highlands. But

Democratic Republic of Nepal into three tiers of government: federal, provincial and municipal. The previous VDCs and municipalities were restructured into 753 local units, consisting of six metropolises, 11 sub-metropolises, 276 municipalities, and 460 rural municipalities.

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

21 Data on beneficiary enrolment for private housing reconstruction grant in Sindhupalchowk by NRA, dated 24 April to 8 July 2016.

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

23 In the case of Kartike Bazaar, people estimated the size of the land by its length (in metres) instead of the usual Nepali unit for area, *aana* (one *aana* is equivalent to around 340 sq ft or 32 sq metres). The reason for this was that Kartike Bazaar is situated at the ledge of a hill alongside Balephi River, so the width of the land at the ridgeline was limited.

24 Interview no. 120, 13 May 2018, Sindhupalchowk.

Damaged houses still in use at Kartike Bazaar. Photo by Bina Limbu

> down here, it is expensive. There is no land below the market, only steep slopes and cliffs with some trees. Below that, there's just the river.[25]

New migrants have bought land in the area above the road in Kartike or further away in Manje and other places. At the same time, while people from remote villages have migrated to Kartike, some from Kartike have in turn migrated to urban centres like Kathmandu, Bhaktapur and Banepa. This trend of out-migration increased after the earthquakes as people fled to urban areas for safety. Many families from the bazaar area also owned land or houses in urban areas and cities, including Kathmandu and Bhaktapur.

Research participants from Manje and Golche were actively involved in agriculture. People from Kartike ran various kinds of businesses. People were also engaged in migration to Malaysia and the Gulf countries for employment and depended on remittances as an alternative source of income.

There were also some hydropower projects on the Balephi River. Among them, a private hydropower station called the Upper Balephi 'A' Hydropower Project had played a key role in constructing the road to Kartike, Golche and nearby areas. However, these new roads also increased the risks of landslides during the monsoon.

Damage and Impact in Sindhupalchowk

According to the 2011 census, 90 per cent of houses in Sindhupalchowk were made of stone using mud mortar,[26] a combination that makes

25 Interview no. 80, 3 May 2018, Sindhupalchowk.

26 Data accessed from Housing Recovery and Reconstruction Platform's (HRRP) district profile infograph of Sindhupalchowk dated 10 February 2018.

them extremely vulnerable to earthquakes. The Shelter Cluster's Shelter Recovery Assessment survey estimated that 96 per cent of such houses were partially to completely damaged in the district.[27] Likewise, before the earthquake, there were mostly stone houses in our research sites in Kartike Bazaar and peripheral areas. The 2015 earthquakes damaged all the stone houses, with the exception of a few RC houses[28] in the bazaar area. Reportedly, 12 people, including two school children, died in Kartike Bazaar, while 16 people died in Golche. Besides houses, people also lost livestock, money, jewellery, and other assets. Researchers heard many stories of thefts and robberies that occurred during the chaos of the earthquake, as a woman from Kartike illustrated:

> I had some money stored in my cupboard, about 50,000 rupees [c. USD 418]. I was determined to dig out my money but when I opened it, all my money was gone. Someone had already stolen it; even our clothes were stolen. Many people's stuff was stolen like ours. People's money, mobiles, packets of biscuits, cartons full of instant noodles, cigarette packets, and so on were stolen from the shops. When all my money was gone, I cursed my fate and worried about how to feed my children.[29]

A shiva temple damaged by the 2015 earthquakes at Manje. Photo by Bina Limbu

Public buildings such as health posts, community schools, police stations, and VDC offices were also heavily damaged. In addition, damage to water pipelines meant people experienced water shortages. At the time of our fieldwork, most of these damaged public structures as well as private houses were under reconstruction. However, the local temples and heritage sites in Kartike, Golche and Manje were in a state of neglect. As the Chairperson of Ward no. 4 said, it was more important to have a house than a temple at that moment.[30] Such a lax attitude towards local heritage was also affected by the government's delay in finalising the reconstruction guidelines for monasteries and stupas, which were released only in January 2019.[31]

Immediately after the earthquakes, numerous

27 Data accessed from Shelter Cluster's Factsheet of Sindhupalchowk District dated 21-25 May 2015, https://www.sheltercluster.org/sites/default/files/docs/reach_npl_factsheet_sindhupalchokdistrict_shelterassessment_may2015.pdf

28 RC (reinforced concrete), also known as RCC (reinforced concrete cement), refers to a mixture of concrete, cement and aggregate that is used in various kinds of house designs including stone- and brick-masonry houses. In this study, as in many parts of Nepal, we found that people as well as the NRA manuals used 'RC houses' synonymously for buildings with a frame structure made of RC columns and beams. Stone- and brick-masonry houses may also use RC bands in their walls but they are still referred to as masonry-structures.

29 Interview no. 90, 10 May 2018, Sindhupalchowk.

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

31 Sanjaya Lama, 'NRA passes guidelines for rebuilding gumbas,' *The Kathmandu Post*, 5 January 2019. https://kathmandupost.com/national/2019/01/05/nra-passes-guidelines-for-rebuilding-gumbas

I/NGOs had arrived in the area to distribute relief materials such as tarpaulins, rice, lentils, biscuits, instant noodles, and tents. Some I/NGOs had also donated small solar panels which the households used to charge their phones or other electric devices. However, discrepancies in relief distribution were reported with numerous Kartike participants complaining about not having received as much relief assistance as the people in more remote areas like Golche and Gumba. Most people had not previously heard of many of the organisations that arrived in the area after the earthquake. Despite this, some of the recurring names were Save the Children, Janahit, Oxfam, JICA (Japan International Cooperation Agency), and Red Cross. People also were familiar with an NGO called Tuki Sangh Sunkoshi[32] as it had been engaged in the area prior to the earthquake as well.

These site-specific details are offered since they constitute the socio-cultural and economic environment which had an impact on the reconstruction process. In other words, this is the context for the findings to be presented in the next section.

Research Experiences

The research team experienced various kinds of misunderstanding while engaging with community members in the field sites. During the household-level study in the first phase, members of the community often mistook the researchers for I/NGO workers, NRA field engineers, or other government officials, and often expected some kind of aid or support. Such misconceptions among people were largely the result of the influx of numerous government and non-government institutions into the area for various purposes, as the ward chairperson explained:

> After the earthquake hit, there were innumerable organisations that came here. Some came to work, some couldn't work, some came to see, some came to give *bhasan* [speech] only. Some came with a few pairs of shoes, while some came with tippers full of them, some came with a few sacks of rice. So, many organisations arrived. Many came for research purposes only, some may have also come for a novel experience.[33]

Being linked with a motorable road and being near Kathmandu, Kartike was at an accessible location for I/NGOs to conduct relief and reconstruction projects. Hence, local residents were accustomed to seeing I/NGO officials bringing aid to earthquake-affected families, raising expectations from everyone that fit the bill. There was also a prevalent sense of 'consultation fatigue' as numerous officials from government as well as non-government institutions came to talk to them, survey the area, assess damages, or identify beneficiaries. In this regard, a man from Manje said, 'They recorded our names so many times, probably 10-15 times already'[34] but he—like most other people—did not know the exact purpose of these inquiries but hoped it would lead to some sort of support or aid in future.

This often made it difficult for the researchers to explain their research objectives. In fact, research participants did not fully understand that earthquake experiences and subsequent reconstruction activities could be an interest for academic research. Similar misunderstandings continued in the second phase of the fieldwork as well, when the participants would inquire if the research would lead to any other project to benefit the community or mistook the researchers as

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

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

34 Interview no. 134, 5 January 2019, Sindhupalchowk.

Masters- or PhD-level students who had come for their thesis research.

These misunderstandings affected people's perception of the researchers, which in turn had an impact on how they responded. For instance, some people would show no interest in talking with the researchers while others would approach the team to inquire about the purpose of their visit and whether it would benefit the residents. In some cases, the expectation of getting something in return caused people to exaggerate their losses.[35] Some people, who mistook the researchers to be NRA engineers, would ask them to survey their houses or inquire about when their grants would arrive.[36] Likewise, some also believed the researchers to be NGO officials and inquired about when the team would be fulfilling certain commitments made by NGOs that had visited the area earlier.[37] These details are provided in this report in order to clarify that local conditions and perceptions towards the researchers affected people's willingness to be interviewed and, in some cases, their responses as well, which affected how the research unfolded along with the resulting findings.

35 Interview no. 80, 3 May 2018, Sindhupalchowk.

36 Interview no. 138, 8 January 2019, Sindhupalchowk.

37 Interview no. 116, 12 May 2018, Sindhupalchowk.

RESEARCH FINDINGS

Post-earthquake reconstruction is a complex conjunction of legal, political, financial, and technical expertise with governmentality. This section presents an analysis of the research project's findings regarding ongoing reconstruction processes in the selected sites of Sindhupalchowk from the perspectives of the law, finance, and construction domains, and explores their interplay within the overall process of reconstruction.

Law

Nepal's post-earthquake reconstruction was governed by the NRA in collaboration with various ministries, and partner organisations, including donors and I/NGOs, banks and other institutions, as well as a series of laws, policies and guidelines that were promulgated and enacted by administrative authorities to facilitate the reconstruction process. In addition, political upheavals and a period of unstable governments (before the Constitution was promulgated in 2015, establishing the federal structure of governance implemented in 2017) delayed the establishment of the NRA by eight months.[38] The NRA was beset by frequent changes in its Chief Executive Officer (CEO). An executive member of the NRA admitted that the delayed establishment caused a big gap in their reconstruction efforts, and frequent changes of CEOs made it more difficult to function at an administrative level.[39] These political dynamics affected how policy guidelines for reconstruction were formulated and implemented, which in turn affected people's everyday lives. This section explores how various laws and policy guidelines affected the reconstruction activities in our selected sites of Sindhupalchowk and how people navigated the reconstruction process.

Documentation Issues

According to the NRA's Grant Disbursement Guidelines,[40] an earthquake-affected household in the fully-damaged category was eligible for a Private Housing Reconstruction Grant of NPR 300,000 [c. USD 2,500] provided in three instalments of NPR 50,000 [c. USD 418], NPR 150,000 [c. USD 1,253], and NPR 100,000 [c. USD 835].[41] Initially, only NPR 200,000 [c. USD 1,670] was allocated for the reconstruction grant, but an additional NPR 100,000 was added in 2016. However, the identification of beneficiary households was a matter of much contestation due to unclear understanding about what constitutes a 'household' among the earthquake-affected families.

38 The NRA was initially formed on 13 August 2015 but was immediately dissolved, then it was officially established on 25 December 2015, eight months after the first major earthquake of 25 April 2015.

39 KII no. 40, 1 July 2019, Kathmandu.

40 National Reconstruction Authority, 'Bhukampabata Prabhavit Niji Aawas Punanirman Anudan Vitaran Karyavidhi 2073' (Grant Disbursement Procedures for Private Houses Affected by the Earthquake 2016)' (in Nepali), http://nra.gov.np/np/resources/details/ebU-VxZtX4uarwnIddiIrr4Ia7SwaObKpVmXg2wpApCs.

41 In the CBS assessment survey of 2016, beneficiaries were classified into five damage categories. Households in categories 3, 4 and 5 were classified as fully-damaged, categories 2 and 3 as partially damaged and category 1 as normal. Beneficiaries in the fully-damaged category were eligible for a reconstruction grant of NPR 300,000, and beneficiaries in the 'partially-damaged, 'category were eligible for a retrofit grant of NPR 100,000. As our Sindhupalchowk field sites were severely affected in the 2015 earthquakes, most of the participants were found to be in the 'fully-damaged' category.

In the national census survey, the Central Bureau of Statistics (CBS) adopts the United Nations guidelines that define a 'household' as 'arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living'.[42] However, this definition did not apply to the NRA's beneficiary selection criteria that recognised a beneficiary household on the basis of legalised status of house ownership instead of separation of cooking space.[43] This was based on an overarching assumption during beneficiary selection that one house was owned by one household, lacking consideration for multiple households living in a single housing unit, as well as a single household living in multiple housing units.

The grant beneficiaries were selected after identification of the earthquake-affected households through an assessment of their damaged houses. Till the end of the fieldwork, three assessments had been conducted in the affected districts. First, an informal assessment was done by VDC/municipal authorities within a few weeks of the earthquake to estimate and manage the distribution of relief materials. A formal damage assessment was next conducted by engineers deployed through the District Disaster Relief Committee (DDRC) within the next month or so, whereby earthquake-affected households were categorised into fully-damaged, partially-damaged and normal/undamaged houses, represented by red, yellow and green cards. This was met with widespread complaints about inconsistencies in the survey.[44] Then, right after the NRA was formally established on 25 December 2015, a detailed damage assessment was conducted afresh through the CBS from January 2016.[45] This NRA-CBS assessment was mired in further controversies due to discrepancies in the number of household beneficiaries, resulting in more than 634,000 grievances registered by early 2021.[46] As grievances continued to resurface, the total number of beneficiaries was repeatedly revised.

In December 2016, the NRA addressed these ambiguities regarding beneficiary selection in the Grant Disbursement Guidelines 2016, which clearly state that households 'living separately (with separate kitchen)' can also be eligible for a separate grant, provided that they can prove their separated status though a public inquiry deed. However, by this time most of the Sindhupalchowk research participants had already signed their participation agreement (PA) for the housing reconstruction program and some had begun reconstructing their houses.

Legal Documentation Process

Even after being listed as a beneficiary, an earthquake-affected household had to go through various documentation hurdles to prove their eligibility for the grant. Among them, the most important were citizenship and land ownership certificates, which must be in the name of the household head or someone with land ownership could nominate someone else to have

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

43 National Reconstruction Authority, 'Bhukampabata Prabhavit Niji Aawas Punanirman Anudan Vitaran Karyavidhi 2073' (Grant Disbursement Procedures for Private Houses Affected by the Earthquake 2016)' (in Nepali), http://nra.gov.np/np/resources/details/ebU-VxZtX4uarwnIddiIrr4Ia7SwaObKpVmXg2wpApCs.

44 The Asia Foundation, *Nepal Government Distribution of Earthquake Reconstruction Cash Grants for Private Houses* (Kathmandu: The Asia Foundation, 2016). https://asiafoundation.org/wp-content/uploads/2016/12/Nepal-Govt-Distribution-ofEarthquake-Reconstruction-Cash-Grants-for-PrivateHouses.pdf.

45 'CBS collecting details of loss in 14 quake-hit districts afresh,' *The Himalayan Times*, 17 January 2016. https://thehimalayantimes.com/nepal/nepal-earthquake-cbs-collecting-details-of-loss-in-14-quake-hit-districts-afresh.

46 Data accessed on 11 April 2021 from http://www.nra.gov.np/np/mapdistrict/datavisualization.

the PA card. If a nominated representative of the household head applied for the grant, that representative also had to submit evidence of relationship with the household head, such as a marriage certificate or kinship certificate. Thereafter the beneficiaries had to sign a participation agreement (PA) at the VDC/ward office, after which they received the Housing Reconstruction Grant Agreement Card, also referred to as the PA card. People perceived this PA card to be the key to access grants and referred to it by various names such as 'beneficiary card', 'victim card', 'red card' or even *paisa dine card* (money-giving card).[47] Once the beneficiaries got the PA card, they could access the first tranche of NPR 50,000 from the authorised bank after opening a bank account there. To qualify for the second tranche, the beneficiaries had to lay the foundation of their house and have it approved by NRA engineers. For the third tranche, the house had to be roofed and approved by NRA engineers.

Most of the research participants were already in possession of essential legal documents, such as citizenship, marriage, and kinship certificates prior to the earthquake, but many people faced complications with land ownership certificates. Most households had not partitioned their property and updated their land entitlements for two or three generations. To sort out the land entitlements, people had to make multiple rounds of visits to the District Land Revenue Office (DLRO) at Chautara. As citizens from all over the district flooded the DLRO office it was reported to be overcrowded for months after the earthquake.

Property partition was a sensitive matter among household members, but most of them went through with it to qualify for the grant. In this regard, Jugal Rural Municipality's Deputy Chairperson also remarked:

Housing Reconstruction Grant Agreement Card. Photo by Bina Limbu

> In the past, to divide the property between the sons while the father was alive was a matter of conflict in the family. But now, everyone readily does property partition. They think by doing it they will get the money (grant)."[48]

In many cases, the research team found that households did not partition their entire property but only divided a few pieces of their land where they could build their houses. Nonetheless, this increasing trend of property partition resulted in family fragmentation at a massive scale, which further increased the number of households in the area. An official from DLPIU-Building also confirmed that this trend of family fragmentation was prevalent throughout the district.[49]

47 Interview no. 134, 5 January 2019, Sindhupalchowk.

48 KII no. 36, 10 January 2019, Sindhupalchowk.

49 KII no. 37, 11 January 2019, Sindhupalchowk.

This two-roomed stone house was initially made up of two separate houses built by two separate grant beneficiaries belonging to the same family, and later, joined in the middle. Photo by Bina Limbu

Beneficiary Selection Process

The Grant Disbursement Guidelines 2016 specified that families that lived together or had not separated prior to the earthquakes were not eligible for separate grants. However, the research team found numerous contradictory cases where multiple members of a household had accessed multiple grants, whether they lived in the same household or not. This trend had much to do with loopholes in the beneficiary selection criteria as it was difficult to confirm whether a household had separated before or after the earthquake.[50] In most cases, the team found that once the land was legally partitioned among the sons, each could claim to have a separate household and become eligible for a separate grant, regardless of whether or not they lived separately from their father's family. The general idea was that as long as the family members had different land ownership titles and built separate houses, they could qualify as different grant beneficiaries.

Applying for multiple grants was also a matter of necessity for people, as the grant amount (NPR 300,000) hardly sufficed to reconstruct a house big enough to accommodate a joint family, especially since the price of construction materials and labour wages soared after the earthquakes (more details in the Labour Section below). Therefore, many households opted to apply for multiple grants to build multiple houses in order to accommodate their families. Such houses were usually built in close proximity or adjoining one another in order to be used as a single housing unit, despite the fact that joining the houses was not permitted under the NRA guidelines.[51] The

50 The Grant Disbursement Guidelines 2016 stipulate that households that were separated before the earthquake had to prove their separated status through a public inquiry deed; adjudicated by the chief of the rural municipality or municipality.

51 The NRA's Technical Inspection Guidelines for

photograph above is an example of a house, which was built by joining two such houses by family members who wanted to live together. They had already received all the three tranches for one house and two tranches for the second house.[52]

As a result, multiple members of the same household had accessed multiple grants in the area. In fact, such cases were said to be so common that some of the families who could not access multiple grants in a similar manner felt a sense of indignation. A man from Manje expressed his frustration when his son could not access the grant:

> The wife also has one [PA card], the mother also has one, the son also has one, the daughter-in-law also has one…Everyone else has got it. There are 10 sons in one house, too; they got grants for up to 10 houses, but why is it that mine [grant] not arrived?[53]

When researchers inquired about this issue with an official from DLPIU-Building based at Chautara, he blamed it on the faulty survey assessments[54] conducted in the past but also added that they had no authority to remedy the situation at present:

> After they signed the agreement [PA], we have no right to say that a certain house is not qualified for the grant. Our responsibility is only to identify if a house belongs to the beneficiary or not. With regards to husband and wife building two houses or similar cases, we cannot say that the husband and wife can only get one grant.[55]

Grant Access

As explained earlier, beneficiaries holding PA cards were eligible to receive the first tranche (NPR 50,000) provided to start reconstruction. They had to complete the foundation-level work to access the second tranche, and roof the house and build a toilet to access the third tranche. For each subsequent tranche, the beneficiaries must first have their house inspected and approved by the NRA engineers, after which the NRA engineers would send a recommendation to the relevant authorities for further inspection. After this, the District Treasury Controller Office sent the grant money to the District Coordination Committee (DCC), and the DCC deposited it in the authorised banks for distribution to the beneficiaries.

In the initial relief phases, most people did not have a clear idea regarding the intended purpose of the grant money, often confusing the first tranche as relief cash[56] or Dashain festival expenses. Others thought the money was provided to clear the earthquake debris, to level the ground or to repair their damaged houses. Most people had already spent the first tranche within the first year after the earthquake, without

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Housing Reconstruction 2016 does not permit stone-masonry houses to be built adjoined to one another but allows RC frame houses to be joined at the sides. If the stone-masonry houses were built jointly, they did not qualify for the third tranche, so people usually built the houses side by side and later joined them in the middle after receiving all three tranches. National Reconstruction Authority, *Technical Inspection Guidelines for Housing Reconstruction* (Kathmandu: National Reconstruction Authority, 2016). https://www.hrrpnepal.org/uploads/media/fNaSQ59dJHD-3wUKO4uBh_2018_08_13.pdf

52 Interview no. 133, 5 January 2019, Sindhupalchowk.

53 Interview no. 134, 5 January 2019, Sindhupalchowk.

54 Reportedly, an INGO called HERD-International was involved in conducting assessment surveys in the Sindhupalchowk site in coordination with the NRA about a year after the earthquake.

55 KII no. 37, 11 January 2019, Sindhupalchowk.

56 The government provided NPR 10,000 for winterization relief to all the affected households, then, NPR 15,000 was provided for construction of temporary shelters to the households in 'fully-damaged' category and NPR 3,000 to the households in 'partially damaged' category. A cash relief of NPR 100,000 was provided to the households who had lost a family member in the earthquake, followed by NPR 30,000 for funeral rites.

understanding its actual purpose. It took one and half to two years for people to actually start reconstructing their houses. During the first fieldwork in May 2018, most of the stone-masonry houses were already completed in the area, while many RC houses were still under construction. Most of the research participants had already received the first and second tranches, and many were in the process of accessing the third tranche. When the researchers returned for second round of fieldwork in January 2019, the remaining RC houses were also completed and most people had already received the third tranche between mid-August to mid-October 2018.

Hurdles in the grant distribution process

To receive the reconstruction tranches, people had to go to banks authorised by the Nepal Rastra Bank for grant distribution. In the case of Kartike Bazaar and its peripheral areas, Deva Bikas Bank at Jalbire, located one to two hours away by bus from Kartike, was assigned for grant distribution. However, most people said that receiving housing grants from the bank was not easy. Researchers were told that the bank provided grants to only 20-25 people a day, and the rest had to wait for two or three days or more to get the tranche or go to another branch in Sukute, which was about three to four hours away from Kartike. People speculated that the banks deliberately delayed the grant distribution. An NGO official involved in housing reconstruction said that banks withheld the money, as they could earn huge profits every day by lending the money to other banks on interest.[57] The Chairperson of Ward 4 also mentioned a past incident where the bank delayed the tranche distribution for several days after the money was transferred by the District Coordination Committee (DCC). In this regard, he criticised the banks:

> They tend to hold the money. We had given them the money from Chautara two weeks earlier, but they didn't agree to give the money even after two weeks.[58]

In its defence, the ward chairperson also thought that the local bank lacked the resources to address the needs of the people. He speculated that a local bank might only have NPR 3,000,000 to 4,000,000 [c. USD 25,050 to 33,400] in cash, which is only sufficient for grant distribution for two or three days. Also, the small bank could not provide services to such a large number of beneficiaries as easily and promptly as the banks in Kathmandu.

In order to seek answers, the researchers visited Deva Bikas Bank during the second round of fieldwork, but the branch manager denied any allegation of withholding the grant money. Instead, he explained that the bank was tasked with setting up bank accounts for each beneficiary, which was a time-consuming process that delayed the distribution of the tranches. He felt that members of the community tended to misunderstand such official procedures. Nevertheless, he still admitted that the bank had the capacity to distribute tranches to only a small number of beneficiaries in a day, so people had to wait for their turns to access the grant.

Third tranche criteria

Despite the delays caused by the bank, most of the participants had been able to access all the grant money by 2018. However, to qualify for the third tranche, the NRA's Grant Disbursement Guidelines 2016 stipulates the criterion of constructing a toilet or installing an alternative energy source in the house.[59] This requirement

57 KII no. 41, 2 July 2019, Kathmandu.

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

59 Of the NPR 100,000 provided in the third tranche, NPR 75,000 was allocated for completion of house reconstruction, and NPR 25,000 for toilet construction or installation of alternative energy source (solar power, biogas or any other source), with the entire amount contingent on fulfilling the latter criterion.

was irritating for those people who already had a functional toilet. Most old toilets were built outside the house, and were still functional having survived the earthquakes without much damage. In the case of families with severely damaged toilets, they often had permission to use the toilets of their neighbours or relatives. Disregarding the ground reality, the grant tranche guidelines compelled people to spend their grant money to build new toilets—often by pulling down the previous ones that were perfectly functional. A woman from Pangtang said:

> We pulled down the old toilet and made a new one in its stead. Otherwise, they said that it [third tranche] would not arrive. [Interviewer: You could not show the old toilet?] No, they said that it [old toilet] wouldn't do. So, we built this new one.[60]

Many participants thought it was an unnecessary stipulation but were still planning to build a toilet to access the third tranche. Some people even said that they would be using this toilet for storage or other purposes in the future, rather than for its intended usage. Researchers also saw various things like wood, equipment and crops being stored in these toilets and even chickens living in them. One woman from Kartike even admitted that she was building a slightly bigger toilet so that she could turn it into a kitchen in the future.[61]

When the research team inquired how people dealt with this toilet criterion, surprisingly, some participants said that they were able to access the third tranche showing their old toilets, while others were compelled to build new ones. This contradiction could be due to differences in people's political connections, which is discussed further in Political Affiliation and Influence section below. When researchers inquired with the DLPIU official about the toilet criteria, he said that it was mandatory to construct new toilets or retrofit existing ones in a resilient manner, but he was also unsure as to how their engineers had been dealing with the issue in the field.

A newly built toilet used for storing cattle fodder. Photo by Bina Limbu

> We cannot be sure of how our friends have been implementing them [the criteria] in the field. We have more than 280 engineers across the district; we also cannot look into how each is working.[62]

Hence, there seems to be a gap in the implementation of the grant guidelines, between how the engineers implemented the set criteria and how people understood it. The next section further explores these issues considering the interactive dynamics between NRA engineers and community members.

Interaction between NRA Engineers and Community Members

The NRA, in coordination with Ministry of Urban Development and DUDBC, deployed field engineers at the ground level to inspect people's houses and approve those compliant with its guidelines. If approved, engineers would

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Our Sindhupalchowk sites already had electricity supply, so toilet construction was more common there.

60 Interview no. 136, 6 January 2019, Sindhupalchowk.

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

62 KII no. 37, 11 January 2019, Sindhupalchowk.

recommend the respective homeowners for the subsequent tranche. Otherwise, they would ask for certain modifications to be made to the house in order to qualify for the tranche. The NRA's field engineers were crucial in the reconstruction process, as they were the first line of contact with the community for transfer of knowledge and implementation of earthquake-resistant house designs. However, the dynamics between the NRA engineers and the community were fraught with deep-seated tensions.

On the one hand, the community had to go through various documentation hassles and invest their money and resources to rebuild houses in accordance with government-prescribed designs, and if they made any errors, engineers could disqualify their houses. On the other hand, the NRA engineers said that they had to suffer the discontent and vexation of the community members if their houses got disqualified. In this regard, an NRA field engineer said, 'Such insults and frustrations, we get a daily dose of it.'[63]

The NRA engineers reported that it was more difficult to deal with the community in the initial phases as people did not understand why they had to build their house according to what the engineers said. Sometimes, these interactions turned threatening and violent. In this context, a woman from Ghonga said that villagers tended to get hostile if the engineers did not oblige their demands:

> They [NRA field engineers] have to measure at the places where they [villagers] tell them. Otherwise, they'd throw stones at them and beat them up. I also heard they were beaten up, so they measured all the houses and took [recommendation files] with them.[64]

Despite this, a field engineer working in Pangtang for more than two years who had grown familiar with the community stated, 'They recognise us now. Even little kids ask us, "Did our house pass?" Having a constant source of technical assistance was rather fortunate and unusual in Pangtang's case. In most cases, the staff turnover was very high among the field engineers throughout the district, as the DLPIU official explained:

> Those people [NRA field engineers] that were appointed yesterday, they are no longer working at present. They quit after working two to three months. Every day, one to two people are leaving. They say that they can find better opportunities elsewhere and don't want to do this kind of work.[65]

Although Pangtang did not get caught in the frequent turnover of field engineers, its reconstruction was fraught with inconsistencies in house design implementation that confused the community as well as the engineers.

Confusion over House Designs

The DUDBC published the Design Catalogue Volume I in October 2015 with 17 earthquake-resistant house designs.[66] These designs were simplified versions of rural and urban houses based on the outdated National Building Codes, which did not reflect the existing housing patterns and preferences of the people. The need for more variance in house designs led to the publication of the Design Catalogue Volume II in March 2017,[67] consisting of 17 more designs and

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

64 Interview no. 136, 6 January 2019, Sindhupalchowk.

65 KII no. 37, 11 January 2019, Sindhupalchowk.

66 Department of Urban Development and Building Construction, *Design Catalogue for Reconstruction of Earthquake Resistant Houses Volume I* (Kathmandu: Department of Urban Development and Building Construction, 2015). http://www.dudbc.gov.np/uploads/default/files/0ef9f3598df115407ae9ed4e7bfab24a.pdf.

67 Department of Urban Development and Building Construction, *Design Catalogue for Reconstruction of*

using alternate materials and technologies not covered by the National Building Codes. Even these additional designs could not cover the various housing types that evolved in the aftermath of the earthquakes, as people experimented with different materials and housing techniques to build or repair houses that could provide them with a reasonable level of protection from future disasters, meet their housing needs, and be affordable within their means and resources.

As a result, there emerged an increasing variety of non-compliant houses that could not be approved for reconstruction tranches. To address this, the NRA published various manuals and procedures to correct or repair these non-compliant houses, so that they would meet the minimum requirements to be qualified for the reconstruction tranches. These include Corrections/Exception Manual for Masonry Structures[68] published in May 2017, the Repair and Retrofitting Manual for Masonry Structure,[69] the Repair and Retrofitting Manuals for RCC Structure[70] published in June 2017, the Hybrid Structure Manual[71] published in September 2017, Light Timber/Steel Frame Structure Manual[72] published in March 2018, and the Hollow Concrete Blocks Manuals for Load Bearing Structures[73] published in February 2019. With each new manual, the house designs became more flexible, but this also caused discrepancies in their implementation that frustrated community members, as well as the NRA engineers. In this regard, a man from Manje said:

> We got behind in building the house due to confusions in house design. One [field engineer] comes to inspect the house and says one thing, then another comes and says another thing. So, we got confused… which one [house] would be passed, which would be failed?[74]

Overall, the community's reaction to these technical complications in house design implementation can be summed up in one participant's phrase as, '*bujhnai gahro*' (difficult to understand).[75] The NRA engineers also felt frustrated as they had to explain these discrepancies to the community members, who became increasingly distrustful of them. Expressing their frustrations, an engineer said:

> First, we had to strictly tell people to build 12-by-12 feet houses with 144 sq ft area, otherwise it wouldn't be passed. For houses that were bigger, we asked them to make a

Earthquake Resistant Houses Volume II (Kathmandu: Department of Urban Development and Building Construction, 2017). https://www.dudbc.gov.np/uploads/default/files/a1efdb9058f9151775d9a-2bae473ac0b.pdf.

68 National Reconstruction Authority, *Correction/ Exception Manual for Masonry Structure* (Kathmandu: National Reconstruction Authority, 2017). https://www.nepalhousingreconstruction.org/sites/nuh/files/2017-06/correctionManual_.pdf.

69 National Reconstruction Authority, *Repair and Retrofitting Manual for Masonry Structure* (Kathmandu: National Reconstruction Authority, 2017). http://www.nra.gov.np/uploads/docs/hK3E3YCz1b170925085057.pdf.

70 National Reconstruction Authority, *Repair and Retrofitting Manual for RCC Structure* (Kathmandu: National Reconstruction Authority, 2017). https://www.hrrpnepal.org/uploads/media/G1DCfnmYiys-6JXEQwNoW_2018_11_23.pdf.

71 National Reconstruction Authority, *Hybrid Structure Manual* (Kathmandu: National Reconstruction Authority, 2017). https://www.hrrpnepal.org/uploads/media/58pvItQPh4YWomLnKgGS_2018_08_21.pdf.

72 National Reconstruction Authority, *Light Timber/ Steel Frame Structure Manual* (Kathmandu: National Reconstruction Authority, 2018). https://www.hrrpnepal.org/uploads/media/LightTimberSteel-FrameStructure-compressed_20190429195009.pdf.

73 National Reconstruction Authority, *Hollow Concrete Blocks Manual for Load Bearing Structures* (Kathmandu: National Reconstruction Authority, 2019). https://www.hrrpnepal.org/uploads/media/Hollow-ConcreteBlockManual-compressed_20190429195217.pdf.

74 Interview no. 109, 12 May 2018, Sindhupalchowk.

75 Interview no. 82, 3 May 2018, Sindhupalchowk.

> wall in the middle. Then, later the correction manual arrived, and it said houses up to 18 by 14 feet can now be passed. Now, what to do?!... We just stayed quiet about it. But people scolded us that we told them to build small houses at first, but now people were building bigger houses. We could only reply, 'We're sorry, forgive us.' Such are our guidelines…We have no other way but to apologise in this matter.[76]

Likewise, a DLPIU official blamed the central authorities for their lack of preparedness in publishing the design catalogues:

> Even if things were delayed by two to four more months, they [higher authorities] should have consulted well. The Nepal Government gave this responsibility to the urban department [DUDBC], and they sent the designs they had already made in the past. Now, we don't know how suitable they would be. If they had consulted the locals and made the designs, then maybe the design could have been better.[77]

An official from an NGO involved in post-earthquake housing reconstruction in Nepal as well as India, Pakistan and various other countries also complained about the inadequacy of the house designs and claimed that they had anticipated this from the beginning. However, their voice was not heeded by the central authorities and partner organisations back then.[78] Another official from the same NGO speculated on the ill-preparedness of the house designs:

> Suddenly, the earthquake struck, so they only looked into what the Pakistan model did, what the Gujarat model did. On top of it, there are two or three PhD holders who've worked there and written 'papers' on it. So, they saw it as an opportunity to show their papers to the government. In doing all this, they got lost for one year in preparing the documents. But, here, the public needed houses to live.

Political Affiliation and Influence

In the case of Sindhupalchowk, the research team found various political elements at play. The Communist Party of Nepal–Unified Marxist Leninist (CPN–UML) and the Communist Party of Nepal–Maoist (CPN–M) were the prominent political parties in Kartike and nearby areas. Most people in Kartike area supported one party or the other but the CPN–M was more dominant in the past. The two parties merged in May 2018, to become the Nepal Communist Party (NCP), and was the ruling party at the centre at the time of the fieldwork.[79] Despite this, the researchers found political tensions between the UML and Maoist supporters in the area, owing to their long history of violent conflict. In this regard, one UML cadre said:

> The parties got united from above. But at the local level, we have not unified yet. Who'd come to unite us, now? People say that they've done this just to defeat the Congress, and it will separate again in future. But here, we've been injured multiple times in the past. I've taken numerous bullets from Maoists on my body.[80]

Regardless of which party one belonged to, having political connections seemed a major determinant for who got what kind of reconstruction

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

77 KII no. 37, 11 January 2019, Sindhupalchowk.

78 KII no. 39, 27 June 2019, Kathmandu.

79 'Alliance between three parties is a new chapter in Nepal's politics: Oli,' *The Kathmandu Post*, 4 October 2017. https://kathmandupost.com/national/2017/10/03/alliance-between-three-parties-is-a-new-chapter-in-politics-oli.

80 Interview no. 134, 5 January 2019, Sindhupalchowk.

benefits. Several people talked about disparities in relief distribution and even pointed fingers at political leaders who embezzled relief materials in the initial phases. Likewise, political influence came into play with regard to accessing grants for housing reconstruction. Some NGO officials and NRA engineers expressed suspicions about how the information regarding grants was communicated by political leaders, especially at the time of local elections of 2017, where promises of grant distribution could earn them votes.[81] In the case of Sindhupalchowk, households able to access multiple grants in the same family by making multiple PA cards, usually had some kind of political connection. In this regard, a UML member from Kartike said that people's representatives also supported such activities to gain popularity.

> You see, I didn't make more than one card… I could have made more but they said that it wouldn't be given to people with more than one damaged house. But the *samsad* [member of parliament] himself came and gave directions accordingly. Due to this, one household got four to five cards [PA cards].[82]

Similarly, researchers found that local political leaders had good linkages with NRA field engineers, so much so that the engineers even stayed with Maoist and UML leaders during their fieldwork.[83] The engineers also admitted that they had to depend on the ward chairperson—who was a UML leader—to deal with community members and seek protection against threats when working in the area. They also said that often the ward chairperson himself went with the engineers for house inspections and consulted with individual householders. Although elected representatives helped the NRA engineers to rebuff any pressure or threats from the community members, they also pestered the engineers to approve the houses of people within their personal and professional networks. In this regard, a DLPIU official said:

> As they are public representatives that people voted for, they feel the representatives will overlook minor changes like adding a porch, digging the foundation and such things. We also feel doubtful that it [approval of houses not strictly following the guidelines] may have happened.[84]

Hence, it was possible to get the implementation of housing guidelines relaxed if one had the right political connections. The researchers found that a household in Kartike with links with Maoist as well as UML leaders of the area was able to access the third tranche by showing their old toilet,[85] while another household that was not as politically connected was told to build a toilet in order to qualify for the third tranche.[86] In the same vein, several participants complained that people with political networks would recommend their own relatives and associates for masonry training as well as any other kind of assistance programmes provided by I/NGOs in the area.

I/NGO-led Reconstruction

Many I/NGOs and donors partnered with the NRA to aid the post-earthquake reconstruction in Nepal but despite the NRA's efforts to spread-out their engagement, the majority of them were only concentrated in or around Kathmandu and nearby districts, with one such I/NGO hub being Sindhupalchowk.[87] Even within these districts, remote locations had

81 KII no. 24, 12 December 2018, Dhading; KII no. 37, 11 January 2019, Sindhupalchowk.

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

83 KII no. 25, 3 May 2018, Sindhupalchowk; KII no. 29, 14 May 2018, Sindhupalchowk.

84 KII no. 37, 11 January 2019, Sindhupalchowk.

85 Interview no. 133, 5 January 2019, Sindhupalchowk.

86 Interview no. 136, 6 January 2019, Sindhupalchowk.

87 KII no. 40, 1 July 2019, Kathmandu.

less I/NGO engagement, while multiple I/NGO projects were in motion in areas easy to access or connected by roads, such as Kartike.

Numerous I/NGOs were active in the area during the relief phase, so much so that the hotel business was reported to have significantly increased due the inflow of I/NGO officials in the district headquarters. Even four years after the earthquake, a few big I/NGOs were still active in Kartike and adjoining areas, including Tuki Sangh Sunkoshi, Nepal Red Cross Society, Caritas Nepal, Helvetas, JICA, Oxfam, Janahit Gramin Sewa Samiti and so on. These I/NGOs were involved in the reconstruction of schools, private houses, livelihood programmes, mason trainings, and other programmes. To moderate the influx of I/NGOs, field areas were divided among them to avoid duplication, so that the same households would not be able to benefit from multiple relief/reconstruction programmes from different NGOs. Despite this, duplication of I/NGO programmes was still prevalent in the area. As explained by an NGO official:

> No matter how many INGOs came, the same kind of project went to the same village; this happened a lot. There was too much duplication. Oxfam was doing the same thing there, so was World Vision, Save the Children, they all had the same programme in the same area. None of them wanted to go a bit further away from there.[88]

An executive member of the NRA also admitted to this problem and felt confounded by the nature of I/NGOs that targeted most of their programmes in easy and accessible locations.[89]
In the case of private housing reconstruction, I/NGOs needed to sign an agreement with the NRA as a partner organisation (PO) and abide by the NGO Mobilization Procedures 2015.[90] This procedure stipulated that POs could not provide funds exceeding the reconstruction grant (NPR 300,000) per household. I/NGO funds for housing reconstruction could either be deposited in the NRA's Reconstruction Fund or the DCC's Housing Grant Account or be directly transferred to the beneficiaries' bank accounts in three tranches, akin to the procedure set by the NRA's Grant Disbursement Guidelines.[91] In Golche, researchers found that Tuki Sangh was actively involved in the reconstruction of 100 houses. Besides providing reconstruction funds, Tuki also conducted mason trainings and provided technical assistance to build houses. Households with reconstruction funded by I/NGOs were not separately eligible for reconstruction grants from the government. But here, too, the multiplicity of PA cards in a household made it easier to get funds from multiple sources. For example, a family in Golche that lived together owned two houses, one house built with funds provided by an NGO in the name of the father, and another house was built with the government grant in the name of the son.[92] It was also easier for the same household members to get into trainings, projects and programmes conducted by multiple NGOs centred in the same locations. Meanwhile, NGOs, being under pressure to meet the target household numbers, turned a blind eye towards such instances of duplication.[93]

88 KII no. 41, 2 July 2019, Kathmandu.
89 KII no. 40, 1 July 2019, Kathmandu.
90 National Reconstruction Authority, 'Punanirman ra Punasthapanako lagi Gairsarkari Sanstha Parichalan sambandhi Karyavidhi 2015' (Procedures for Mobilization of Non-Governmental Organizations for Reconstruction and Rehabilitation 2015) (in Nepali). http://nra.gov.np/np/resources/details/0DVddJQwXV8p0HalI6NazWTjWaO2sKD3pJMUZ0DA25w.
91 National Reconstruction Authority, 'Bhukampabata Prabhavit Niji Aawas Punanirman Anudan Vitaran Karyavidhi 2073' (Grant Disbursement Procedures for Private Houses Affected by the Earthquake 2016) (in Nepali). http://nra.gov.np/np/resources/details/ebUVxZtX4uarwnIddiIrr4Ia7SwaObKpVmXg2wpApCs.
92 Interview no. 88, 5 May 2018, Sindhupalchowk.
93 KII no. 41, 2 July 2019, Kathmandu.

Some participants even claimed that the grant access process in the I/NGOs-led reconstruction was easier than in the government-led reconstruction. The DLPIU official agreed that housing reconstruction was smoother when assisted by I/NGOs. The reason was that I/NGOs hired sufficient staff members, including engineers, technicians and, especially, social mobilisers stationed at targeted field sites to assist with housing reconstruction. I/NGO officials also coordinated with NRA officials to speed up the process for house inspection and tranche recommendation. Some I/NGOs went so far as to hire people to deliver the tranche recommendation files to the DLPIU office instead of relying on the field engineers. Meanwhile, in areas where I/NGOs were not active, households had to depend only on NRA engineers, who—being understaffed—were always on the go from one place to another in order to cover all the sites allocated to them.[94] A central-level official of the NRA agreed that I/NGOs that hired social mobilisers[95] alongside technical engineers performed better at gaining trust and cooperation from the community members on the ground compared to those who only deployed engineers.[96]

Even though I/NGOs contributed to the reconstruction process in the field sites as well as the whole district, the research team also heard of instances where they seemed to be engaged in various malpractices. A teacher from a school in Pangtang claimed that certain officials from Oxfam and Phase Nepal billed much higher costs for construction of temporary learning centres (TLCs) than the actual amount spent. However, the school authorities, grateful for any help provided in such desperate times, simply felt obliged to the NGOs. As the school teacher said, 'Even though they spent that much only, we feel like they've done a lot for us.'[97]

Similarly, a group called Yadav Samuha (group) had promised to build 'Namaste Ghar'[98] for single women in Manje, but the group never returned to fulfil their commitment. Various NGOs pledged reconstruction of school buildings without arranging for the required funds, and later backed out from their pledges, which then had to be fulfilled by the NRA.[99] Instead of directly being involved in school reconstruction, I/NGOs and donor agencies could also opt to fund school rebuilding through the NRA or an implementing organisation. However, the flow of funds was not always consistent from all the POs. In Kartike, the researchers learnt that the Chinese Embassy was rebuilding a school called Ratna Rajya Madhyamik Vidyalaya in nearby Chanaute, with more than 100 rooms and modern facilities that were said to rival schools in Kathmandu.[100] Community members were wowed at the possibility of their children studying in this school, where they were told that their children would be taught Chinese language and kept in hostels under strict disciplinary rules.[101]

Some people were sceptical about the implications of the inflow of I/NGO money in the post-earthquake context. A DLPIU official even felt that NGOs were partly responsible for increasing expectations among local people, which affected their labour wage rates.

94 KII no. 37, 11 January 2019, Sindhupalchowk.

95 A social mobiliser (SM) is hired by an organisation to make people aware of the project's aim and objectives. Usually, SMs are members of the same community where the organisation's project is targeted. Some organisations like JICA and Tuki employed SMs in the Sindhupalchowk site, who were able to offset retaliation and increase acceptance among the community members for their reconstruction and mason training projects.

96 KII no. 40, 1 July 2019, Kathmandu.

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

98 Literally, 'namaste house', after the triangular-shaped bamboo house design named after 'namaste', the Nepali gesture of greeting made by pressing the two hands together with fingers pointing upward and palms touching.

99 KII no. 38, 11 January 2019, Sindhupalchowk.

100 Interview no. 138, 8 January 2019, Sindhupalchowk.

101 Interview no. 138, 8 January 2019, Sindhupalchowk.

A Namaste Ghar built with the support of Yadav Samuha at Dhade. Photo by Bina Limbu

> Since the time of relief distribution, NGOs created a situation that made people work by giving money. It was not even a lot of work but just things like clearing roads and all. Now people are seeking the same kind of benefits, but all the organisations have left already.[102]

There were thus various activities, including some dubious ones, prevalent with regard to I/NGOs' involvement in Sindhupalchowk's reconstruction. An NGO official reflected on his three-year engagement in Sindhupalchowk and felt that donors and funding agencies were equally responsible for such anomalies as they sought to implement projects based on their institutional objectives and agenda and demanded project outputs within a tight schedule. By the conclusion of the project, the impact in the community could be unsatisfactory but the project itself would be called a success as long as they 'looked good on paper.'[103] However, the long-term implications of these activities remain a matter of contestation.

Construction

The government ultimately prescribed 34 earthquake-resistant house designs, and various manuals to aid the reconstruction process with the intention to 'build back better'. As discussed in the section 'Confusion over House Designs' above, these designs were inconsistent and confusing as people continued to grapple with their implementation at the ground level. This section explors in detail the technicalities of the reconstruction process and how people adapted to them in the socio-cultural context of Sindhupalchowk.

102 KII no. 37, 11 January 2019, Sindhupalchowk.

103 KII no. 41, 2 July 2019, Kathmandu.

In doing so, the goal is to understand the different kinds of houses being built, the use of construction materials, labourers and mason training as well as the reconstruction of public property and physical infrastructure at the local level.

House Designs

Prior to the 2015 earthquakes, typical houses in Kartike, Manje and Golche were made of stones with mud mortar, wooden frame, and a slate roof. These stone houses used to be two to three storeys high with an additional attic space, the *chota*. After the earthquake destroyed these houses, people were compelled to live in makeshift shelters and tents. After about a year, people started repairing their houses to fulfil their immediate need of shelter. In doing so, they mostly retained the ground floor of the damaged house and simply roofed it with sheets made of corrugated galvanised iron (CGI) or built a temporary (transitional) shelter[104] usually made of CGI sheets, stones or hollow concrete blocks,[105] and wood or iron truss. Alongside these old houses, people began reconstructing new houses following the government-prescribed designs. The Sindhupalchowk sites had a lot of variety in house designs. Most commonly, there were stone-masonry houses of varying sizes, with wooden or RC bands,[106] especially in Manje, Golche and other peripheral villages. In Kartike Bazaar, there were more brick-masonry houses with cement mortar and iron-truss frames and some RC-framed houses.[107] 'Hybrid houses',[108] which used stones in one section of the house and other materials like bricks or concrete blocks in another part of the house were also found. Such hybrid structures were initially prohibited, but managed to get qualified for subsequent tranches by the time of the second fieldwork in January 2019. However, what kind of house one chose to build largely depended on one's socio-economic circumstances.

Despite the variety in house designs, newly-built houses were generally smaller than previous houses, except in the case of RC houses. As people were accustomed to living in a much bigger space, many people were dissatisfied. This discontent was especially high in relation to the one- or two-room stone masonry houses prevalent in the initial phases of reconstruction, within one to two years after the earthquake. In this regard, a woman from Golche said:

> In the village context, of course, it [new house made with government-prescribed designs] is small! We have built only two rooms. The space is cramped, it is enough only to sleep, but for a big family, it may not accommodate them.[109]

Later, the newer manuals published by the NRA allowed the size of stone-masonry houses to be increased by extending an additional space for an attic (about 3-4 feet high), provided they used

104 Temporary shelters were built for short term use, usually for one to two years, but transitional shelters were built for longer term use, lasting for about 10 to 15 years.

105 Hollow concrete blocks are bricks made of concrete that are rectangular in shape and usually have two holes inside. Since 2015, concrete blocks became increasingly common in reconstruction, prompting the NRA to introduce the Hollow Concrete Blocks Manual for Load Bearing Structures in 2019. Prior to that, houses that used concrete blocks could not qualify for the reconstruction grant. National Reconstruction Authority, *Hollow Concrete Blocks Manual for Load Bearing Structures* (Kathmandu: National Reconstruction Authority, 2019), https://www.hrrpnepal.org/uploads/media/HollowConcrete-BlockManual-compressed_20190429195217.pdf.

106 RC bands, made of concrete and iron rods, are constructed to strengthen the walls of a house and are generally perceived to be stronger and more durable than wooden bands.

107 RC frame houses, also referred to as RC houses, have an RC framework of columns and beams.

108 NRA's Hybrid Structure Manual 2017 defines hybrid structure (or mix structure) as a combination of two or more types of structural system a that is generally constructed with different technology and materials in accordance with level of the floor.

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

RC bands instead of wooden bands in the walls. These latter designs were said to be 'liveable' for a small family, but people were still concerned about accommodating their guests and relatives who arrive on a visit. As one man said:

> Someone, be it a son, daughter, son-in-law, father or some other relative, may arrive as a guest, just like how you've come today. If everyone stayed in the same room, then where to eat and where to sleep?[110]

Furthermore, those engaged in agriculture were concerned about not having a space to store crops after harvest. A woman from Golche complained that there was no space in the attic to store crops like in the past; everything had to be accommodated in one room, so she felt *alapatra* (chaotic) in the new house.[111]

The NRA guidelines also did not allow stone-masonry houses to have shutter fronts to run businesses as these affected the resilience of the structure. A shutter was allowed to be built only in RC frame houses. Since many people's livelihoods depended on having a shop or business in the area, not having a shutter could be crippling to their income source. In order to build a shutter, people either had to build an RC house or compromise the resilience of their stone houses. Researchers witnessed people doing both. RC houses were also perceived to be stronger than stone houses in general. Due to these factors, we found an undeniable preference for RC houses among research participants, although not everyone could afford to build them.

Preference for RC houses

In the field sites, people mostly referred to an RC house as a *pakki ghar* (strong house), *dhalan ghar* (concrete house) or pillar house, and also related them with the RC houses of Kathmandu (*Kathmandu ko jasto ghar,* Kathmandu house). Prior to the earthquake, people said there were only two or three RC houses in Kartike Bazaar. After the earthquake, all the stone houses were severely damaged, while the RC buildings withstood the disaster with only a few cracks. People therefore got the impression that RC houses were the safest and strongest alternative to stone-masonry houses. Meanwhile, brick-masonry houses were perceived to be a better option to stone-masonry houses but still not as strong and desirable as the RC houses.

RC houses are also much more expensive compared to other kinds of houses, and only those with money and resources were able to build them (reconstruction finance is discussed further in Finance section below). Despite this, most of the key informants agreed that the prevalence of RC houses was increasing in the district as well as throughout the country. A DLPIU official estimated that about 90 per cent of houses used to be stone-mud houses in the past but at present only 50 per cent of them are thus; the rest are either RC houses or brick-masonry houses.[112] Along with structural safety, people also associated RC houses with wealth, prestige and modernity, which they aspired to build, even at the cost of incurring huge debts. As a woman from Kartike explained:

> You see that pink house there [pointing to an RC house painted in pink colour] That house was made in the monsoon. They made it with *rindhan* [loan]… When you look around, you see people building these houses. But all these houses are made with the loaned money. Now, people have to earn and pay the loan, earn and pay, earn and pay…[113]

110 Interview no. 102, 11 May 2018, Sindhupalchowk.
111 Interview no. 89, 6 May 2018, Sindhupalchowk.
112 KII no. 37, 11 January 2019, Sindhupalchowk.
113 Interview no. 80, 3 May 2018, Sindhupalchowk.

A non-compliant stone house at Manje built with two shutters at the front. Photo by Bina Limbu

A non-compliant stone house with correction measure of wooden grids applied to support the gable wall. Photo by Manoj Suji

This newly built RC house in Kartike Bazaar is subject to much admiration and envy. Photo by Bina Limbu

A brick-masonry house being constructed above Kartike Bazaar. Photo by Prakash Chandra Subedi

Construction Materials

Different kinds of houses require different materials and skills to build. The research team found that households in Kartike Bazaar were predominantly building RC frame houses, alongside brick-masonry houses using bricks, cement, sand, pebbles, iron rods, CGI sheets and iron trusses. In Manje and Golche areas, people usually built stone-masonry houses with stones, mud, wood, and CGI sheets. Stone-masonry houses either had RC or wooden bands in and around the walls. The price of all construction materials increased after the earthquake, but it was the cost of labour that skyrocketed most. Stone and wood were locally available in private lands or forests, but it was difficult to find labourers to extract the stones and cut the wood. Labourers charged from NPR 1,000 to 1,500 to work nine hours a day and had to be provided with three to four meals a day.

Some households that used sand and pebbles said that the materials came from the Balephi River near the village. The researchers were told that some local people also collected and refined sand at the riverbank to sell it. The price of a tipper load of sand was NPR 8,000 to

Two men sifting sand to build a house at Kartike; one man (on the right) is the house-owner and another man (on the left) is a waged labourer. Photo by Manoj Suji

12,000 while the transportation cost was about NPR 2,500. Some households also said that they bought pebbles from two crushers that belonged to the Upper Balephi 'A' Hydropower Project. When researchers spoke with the manager of the hydropower plant, he denied any sale of materials to community members and said that these crushers only supplied materials for hydropower construction. Despite this, participants claimed that about 15-20 people were using crushers to extract sand and pebbles, and selling them to people at the rate of NPR 100 per bag.[114]

Households that had built concrete houses said that they had brought cement, iron rods, CGI sheets, and bricks from different locations, according to their need and financial capacity. Kartike Bazaar, Jalbire, Bhaktapur and Banepa were the principal market hubs for the households to buy these construction materials. Most of the construction material, except bricks, were available at the hardware stores of Kartike Bazaar. However, many also went to Banepa and Bhaktapur to buy bricks and other materials because the rates were cheaper there. In Banepa, cement was NPR 900 per sack, whereas it cost NPR 1,050 in Kartike Bazaar. Likewise, the price of bricks was NPR 12 to 15 per piece in Bhaktapur, while it cost NPR 18 to 20 by the time it arrived at Kartike Bazaar. If the transport cost to Kartike was included, the cost of materials from Bhaktapur and Banepa became almost the same as in Kartike. Nonetheless, many people bought materials from Bhaktapur and Banepa and transported them to Kartike in the hope of saving a little money. People also transported materials from nearby urban centres like Dhade, Jalbire, and Balephi. The transportation cost from Jalbire to Kartike was about NPR 4,000 for a small-sized truck. Seeing opportunity in this, a bank official said that many people had taken vehicle loans to buy tippers, jeeps and trucks to transport construction material after the earthquakes.[115]

In this way, the increasing cost of materials and transportation added to the economic burden of households. Despite the higher costs, materials

114 Interview no. 97, 10 May 2018, Sindhupalchowk.

115 KII no. 34, 9 January 2019, Sindhupalchowk.

were at least accessible to the people, but accessibility of labour was an entirely different matter.

Labour

During the first phase of fieldwork, there was a severe labour shortage in Kartike Bazaar and surrounding areas, as housing reconstruction was going on everywhere. Many participants shared their struggles in finding skilled labourers to build their houses. Moreover, there were prevalent trends of labour migration for employment abroad, and people also went to harvest *yarsagumba*[116] in the nearby mountains in the peak harvest season (from mid-May to mid-July). These factors contributed to the labour shortage in the village, especially of male labourers. Due to the shortage in labour supply at the peak of the reconstruction phase, wages soared after the earthquake. The daily wage of a mason almost doubled from NPR 500-800 to NPR 1,000-1,500. Seeing opportunities for high wages, many local people began working as labourers and masons.

Although agricultural practices in the area had been in decline before the earthquake, the post-earthquake environment exacerbated this trend. People of Golche reported that their terraced fields were destroyed by huge rock falls triggered by the earthquakes, which discouraged them from farming. Additionally, many complained that they did not have enough space in the government-prescribed houses to store their crops. The post-earthquake demand for wage labour further gave farmers reason to abandon agriculture in favour of reconstruction work. The increase in labour demand due to the housing reconstruction boom, also soared the prices for agriculture labour. Similarly, many migrant labourers had also arrived to work and earn money in the area. People said that labourers from Dang, Salyan, Rukum and Tarai districts were working to build houses. These migrants were said to have come through networks of government officials and engineers who had been working in other parts of Sindhupalchowk. Migrant masons were generally considered to be more skilful and experienced than local masons in building both RC houses and other types of houses. In this regard, a participant stated:

> In my opinion, local people [who work as wage labourers] are not skilled…These kinds of materials were not used here before and people were also not skilled to do the job. Hence, they searched for skilled people from somewhere else.[117]

The researchers were also told that local masons charged more money while the migrants worked for lower wages.[118] A hydropower official also admitted his preference for migrant workers as he felt that local people did not work as well as the migrants.

> We have been hiring labourers from Dang and Salyan to build gabion walls. Local people don't work as labourers. Even if they ask for jobs, they don't do the work, so we cannot employ them.[119]

Labour Exchange

In the face of such labour shortage, most research participants laboured to build their own houses, especially males. Researchers also inquired whether people engaged in the *parma* system of traditional labour exchange to reconstruct their houses. While the team learnt that the *parma* system used to exist for agricultural activities in the past, most of the participants were not

116 *Yarsagumba (Ophiocordyceps sinensis)* is an expensive herb also known as caterpillar fungus, found at an altitude of about 3000 to 4000 metres in the Himalayan region.

117 Interview no. 114, 12 May 2018, Sindhupalchowk.

118 Interview no. 97, 10 May 2018, Sindhupalchowk.

119 KII no. 33, 8 January 2019, Sindhupalchowk.

involved in *parma* at present. Only a few were interested in exchanging labour, as they did not have the money to pay labourers. However, local masons and labourers were said to prefer wages over *parma*.

As a woman in Kartike Bazaar explained, she and a local mason had mutually agreed to build each other's house via *parma*, but the mason later went back on his word. According to the terms of their agreement, she, along with her husband, would take turns with the mason to complete the foundation of each other's house. However, the mason reneged on these terms and instead went to build a neighbour's house for NPR 1,200 per day. When she asked him why he was not willing to work for her as per their agreement, he told her that he preferred the wages instead of working for her. As a result, the woman had to seek help from her brothers to build her house.

Mason Training

The government had also made provisions for mason trainings in the affected districts. Reportedly, mason trainings were held four times in Pangtang VDC, including in Kartike Bazaar. Researchers heard the names of several NGOs such as Tuki Sangh, Oxfam, Janahit, and Save the Children, which conducted seven-day mason trainings for experienced masons and 50-day on-the-job (OTJ) trainings for people with no prior experience in masonry. Participation in mason trainings was said to be low in the initial phases but increased in the latter phases. One reason for this was the incentive of a trainee allowance (NPR 500 per day), which attracted participants.

The researchers found that even people without prior masonry experience participated in the seven-day trainings meant only for experienced masons. Some participants felt that the trainee selection was not fair, as powerful and resourceful people did not disseminate the news properly to the whole community in order to take advantage of the trainings for themselves and those close to them. Those who received the trainings felt that such a short span of time was not sufficient to learn masonry work. Moreover, researchers heard of incidences where the training days were shortened by NGO officials. As a result, the number of mason trainees had increased in the area, but the efficacy of these trainings was questionable, especially for inexperienced participants. As one local mason said:

> The four- to five-day training was not sufficient. They [mason trainees] were only told that the wall should be built like this and like that, but they did not have the opportunity to work practically. So, the men who participated in the training were not able to work. Who would hire them, since they were not masons prior to the training and the four-five days training did nothing?[120]

Women Masons

There were also issues related to the participation of women in mason trainings. There was a general perception that women were not interested in masonry work. Most of the research participants had no confidence in women masons and preferred not to hire them. In their opinion, women were not fit to do heavy masonry works. Despite this, surprisingly, more women than men were reported to have participated in the mason trainings. However, the ward chairperson was sceptical that this was because women were more interested than men, but because, 'men have work to do, they need to go to build houses for others. But women have more free time'.[121]

The research team also found that most women did not choose to continue work as masons after the training. One woman who had participated in a seven-day training mentioned that in her training batch, there were 25 or 26 women out of the total 30 trainees, but only one woman was working as a mason while the rest chose not to

120 Interview no. 115, 12 May 2018, Sindhupalchowk.
121 KII no. 29, 14 May 2018, Sindhupalchowk.

Labourers building a toilet septic tank for a house at Manje. Photo by Bina Limbu

pursue it professionally. According to her, their household responsibilities and taking care of family and children became a hindrance for women to work as masons. One of the purposes of the mason trainings was to enable people to rebuild their own houses, but her suggestions about even her own family's house reconstruction were not trusted by her husband and other masons. When she insisted, the masons taunted her, saying things like, 'If you are such an expert, then what's the need for us to work?'[122]

Due to such discouragement and lack of practice, many women seemed to lack the confidence to work as masons and even forgot any masonry skills they had obtained. As one woman said, 'I had gone to take the training, but I've already forgotten everything I learned there.'[123]

122 Interview no. 96, 10 May 2018, Sindhupalchowk.
123 Interview no. 80, 3 May 2018, Sindhupalchowk.

Physical Infrastructure: Upper Balephi 'A' Hydropower Project

The most prominent infrastructure project in the area was Upper Balephi 'A' Hydropower Project situated on the bank of the Balephi River. With a planned production capacity of 36 MW, it was being built at an investment of about NPR 7 billion.[124] The hydropower in-take is situated at Gumba, and the hydropower station at Golche. After the earthquake, the hydropower project played a key role in the construction of roads in the Golche, Gumba and Manje areas. The project was also building gabion walls along the Balephi River below Kartike and Golche in order to protect the hydropower station and prevent the bazaar from being eroded by monsoon floods.

124 'Work on Upper Balephi 'A' hydel project begins,' *The Kathmandu Post*, 18 February 2014. https://kathmandupost.ekantipur.com/printedition/news/2014-02-16/work-on-upper-balephi-a-hydel-project-begins.html.

Local people had many expectations from the hydropower project which the officials of the latter found unrealistic and difficult to fulfil. About 50 local people were employed by the hydropower project, with priority for employment given to families affected by project activities in Golche and Gumba. Project officials said that they had compensated people whose lands had been acquired by the hydropower station and also provided employment to them, but they did not compensate for land lost when constructing road linkages to the hydropower. According to a young man in Golche, there were some six or seven households in Golche whose land had been encroached upon by the project, including his own. All were employed at the hydropower plant up to the level of supervisors.[125] At the time of our research, there were two overseers from Gumba, one from Golche, and one from Pangtang.[126] A few people from Kartike Bazaar were also employed as storekeepers at the hydropower plant.

However, for most skill-based jobs, the hydropower officials hired migrant workers from the mid-western and Tarai districts of Nepal, which many local residents felt indignant about. In this regard, the ward chairperson affirmed that the hydropower company had made an agreement with the local community promising to provide jobs and also distribute a portion of the shares of the hydropower company.[127] However, he felt that the hydropower company did not care about fulfilling these promises as it had the backing of top politicians.

When the researchers inquired about this with a hydropower official, he replied that they were willing to hire local villagers for unskilled labour work, but locals were not willing to work manually for low wages.[128] Instead, they vied for higher paying skilled jobs, but lacked the know how to perform them. As for shares in the company, the official replied that they intended to distribute 10 per cent of the shares to the local people, after 90 per cent of the construction was complete.[129] Despite this, there was a common feeling that the hydropower project had not done much for the community, with only the rich and powerful able to reap benefits from it. Said a research participant:

> Those who have trucks and have bought the shares, they are earning [from hydropower plant jobs]. But people like us have nothing to expect from the hydropower. Poor people have no place. Everywhere, it's the poor who lose out.[130]

Meanwhile, hydropower officials felt that community members had too many expectations and demands that could not be fulfilled. Said a geologist with the company:

> Some people ask for money. Some ask to clean the earthquake rubble. Some ask for construction materials to make their houses. Some ask to extend the road up to their houses. Now, it's not our job to do everything, is it?[131]

Geological Risks and Relocation Issues

Alongside the struggles of housing reconstruction in Sindhupalchowk, there is also a looming risk of future disasters that may render reconstruction efforts useless. During the first round of fieldwork in May 2018, the researchers met a geologist from Upper Balephi 'A', who had also worked for the NRA in the past to survey the geological risks of various districts, including Sindhupalchowk. He believed that the new

125 Interview no. 88, 5 May 2018, Sindhupalchowk.
126 KII no. 33, 8 January 2019, Sindhupalchowk
127 KII no. 29, 14 May 2018, Sindhupalchowk.
128 Wages of NPR 700 and NPR 1,000 are provided to unskilled and skilled labourers, respectively, for working eight hours a day.
129 KII no. 33, 8 January 2019, Sindhupalchowk.
130 Interview no. 96, 10 May 2018, Sindhupalchowk.
131 KII no. 30, 15 May 2018, Sindhupalchowk.

New roads constructed by Balephi Hydropower at the hillsides of Golche. Photo by Bina Limbu

houses were strong enough to withstand earthquakes, but Kartike and surrounding areas were still far from being safe from future disasters. He said that the earth's surface in Kartike was entirely made of landslide deposits from the past, so it was very susceptible to landslides. Moreover, there were huge rock deposits in the upper regions of Kartike that could fall on the village when triggered by heavy rainfall during the monsoon or by earthquake tremors that frequently shook the area.[132] The haphazard road construction carried out by local hydropower projects in the area further exacerbated the risks of landslides, but the rural municipality lacked the capacity or the knowhow to monitor the activities of these projects and assess their environmental impact.[133]

When the researchers inquired if the government authorities had taken any substantial steps to address these geological issues, people reported that an informal notice had been sent to the community telling people to relocate to the woods above the bazaar area, which was supposedly safer. However, people were reluctant to leave their livelihoods, whether business or agriculture in Kartike and its environs. Hence, nobody took the notice to heart. Talk of relocation soon dissipated with the concerned authorities not following up on it either, as one research participant said, 'We also did not give priority to it because there was no initiation from the government.'[134]

By the time of second phase fieldwork in January 2019, most people had already reconstructed their houses in these risky locations, making it more challenging to move to a safer

132 Researchers also felt a few minor tremors during their stay.

133 KII no. 36, 10 January 2019, Sindhupalchowk.

134 KII no. 32, 7 January 2019, Sindhupalchowk.

location. The Deputy Chairperson of Jugal Rural Municipality admitted that this problem existed in many areas of the municipality and criticised the central authorities for delaying implementation of relocation polices.[135] She said that if people chose to relocate, they would not only have to leave their homes and livelihoods but also bear the hassles of 'double-reconstruction' to rebuild another house in a new area.[136] Hence, it seemed unlikely that the people of Kartike Bazaar would go through with relocation. As a man from Manje put it somewhat fatalistically,

> What can we do about it [future disaster]? If we are alive, we'll go somewhere to live. If we are dead, then that will be the end of it.[137]

These fears were turned into reality in the monsoon of 2020, when monsoon floods and landslides killed 75 people and 40 people went missing in Sindhupalchowk. Jugal Rural Municipality suffered a massive landslide in Lidi village, located very near to the research field site, sweeping away 30 houses, killing 37, and with 2 missing. In light of such recent disasters, the District Administration Office estimated that more than 3,000 families require relocation in Sindhupalchowk, among which 408 families need to be relocated from Jugal Rural Municipality alone.[138]

Finance

Alongside construction-related struggles, people's reconstruction journey has been fraught with economic woes. Rebuilding a house is a very cash-intensive process, and many people struggled to finance their reconstruction. The Government of Nepal's reconstruction grant (NPR 300,000) was meant only as partial financial assistance to earthquake-affected families. Since the grant by itself was not enough to completely rebuild what had been lost, people also came to interact with various formal and informal financial institutions and money-lenders. On the other hand, the reconstruction momentum created opportunities for people who became involved in various construction-related businesses, employment and money-lending, which introduced new forms of financialisation. This section explores the cost of reconstruction, how people have been arranging the money, trends in loan-taking, and changes in people's financial habits post-earthquake.

Financing Post-earthquake Reconstruction

The cost of reconstructing a house varied among households, depending on the kind of house they chose to build. Regardless, the price of construction materials and labour substantially increased after the earthquake, which in turn increased the overall reconstruction cost.

As discussed above in Section 3.2, people were building various kinds of stone- and brick-masonry houses, as well as RC frame houses in the area. The cost of reconstructing these houses depended on their size, number of rooms as well as price and availability of materials and labour. People who built one-room stone houses spent about NPR 100,000 to 300,000 [ca. USD 835 to 2,500]. Those who built stone houses with an

135 The Procedures for Relocation and Rehabilitation of Hazard-prone Settlements 2017 were introduced more than two years after the 2015 earthquakes, in August 2017. By this time, most of our participants had begun to the rebuild or repair their houses.
National Reconstruction Authority, 'Jokhimyukta Basti Sthanantaran tatha Punasthapana sambandhi Karyavidhi 2073' (Procedures related to Relocation and Rehabilitation of Hazard-prone Settlements 2017) (in Nepali), http://www.nra.gov.np/np/resources/details/mXEAgMGiUY0LziG8kzvA6bglxEmUv29TC-CuWHymtBH0.

136 KII no. 36, 10 January 2019, Sindhupalchowk.

137 Interview no. 109, 12 May 2018, Sindhupalchowk.

138 '75 killed, 40 missing in Sindhupalchowk floods, landslides,' *The Himalayan Times*, 16 September 2020. https://thehimalayantimes.com/nepal/75-killed-40-missing-in-sindhupalchowk-floods-landslides.

A new branch of Nepal Credit and Commerce Bank, recently opened at Dhade. Photo by Bina Limbu

extended attic space spent about NPR 400,000 to 800,000 [ca. USD 3,340 to 6,680]. Likewise, those who built RC frame houses spent from NPR 2,000,000 to 3,000,000 [ca. USD 16,700 to 25,050] or more, depending on the size of the house. In addition, households had to pay for feeding the labourers (three to four meals a day), demolishing the old house, levelling the ground, and other ancillary reconstruction costs, which they did not properly record. If all such costs were added, the reconstruction cost would significantly increase from the stated amounts.

To cope with the cost of reconstruction, most people took some kind of loan and soon found themselves under heavy debt. In this regard, the ward chairperson said:

> The government gave 3 lakhs [300,000], but people had already spent the first 50,000, so only 2.5 lakhs remained. But 2.5 lakhs is not enough to build a house. Even a simple stone house costs 6 to 7 lakhs to build. I've also built that kind of a house, so I know. Hence, people are under 4-5 lakhs in debt. Maybe not everyone, but the maximum number of people are under such debts.[139]

Building styles also reflected class differences within the community. In general, everyone preferred RC houses but only the rich *sahus* (money-lenders) at Kartike Bazaar could afford to build them. The poor resorted to building stone-masonry houses. As a woman from Golche said, 'The rich make their house with bricks, and the poor make it with stones.'[140]

139 KII no. 29, 14 May 2018, Sindhupalchowk.
140 Interview no. 86, 5 May 2018, Sindhupalchowk.

Informal Sources

People in peripheral areas of Kartike who were building stone houses were more inclined to take loans from informal sources, including neighbours, friends, relatives, or *sahus*. Often, local *sahus* were rich landlords or business persons who also owned properties in Kathmandu.

The research team interviewed one of the prominent *sahus* at Kartike, who was also the head of a cooperative. He said that he gave more loans to the people informally as a *sahu*, than he did through the cooperative.[141] Informal loans from *sahus*, as well as friends and relatives, were given at a high interest rate ranging from 24 to 36 per cent per annum. Often, arranging a big sum from one person was not easy, so people consolidated loans from multiple sources, as a man from Manje illustrated:

> I have a loan from Dharmendra Sahu [pseudonym], another 70,000 [ca. USD 585] from Mohan Sahu [pseudonym] of Lalima Cooperative, another from Mundre Sahu [pseudonym], I had taken 50,000 [c. USD 418] now it may have become sixty to seventy thousand. In addition, one lakh from my daughter—I don't need to pay interest to my daughter. I have to pay back one lakh, two lakh, 70,000, 50,000, 25,000 to four people.[142]

People also used foreign remittances sent by their household members to build houses. A few other households also talked about using their savings or selling jewellery or livestock. If possible, people would have chosen not to incur any debt at all, but they were forced to do so, as they rushed to reconstruct their houses within the tight deadlines set by the NRA.[143]

Formal Sources

Most people wished to access loans from formal sources that provided much lower interest rates compared to informal sources. Formal sources include formal financial institutions like banks, micro-finance institutions, cooperatives, or women's credit groups. However, there were no such formal institutions in Kartike Bazaar except for Lalima Samudayik Ban Sahakari. This cooperative had been inactive prior to the earthquake but began to function again after being aided by Oxfam. At the time of our second fieldwork in January 2019, the cooperative reportedly had 212 members. However, it provided a maximum loan amount of only NPR 100,000. To get bigger loans, people from Kartike Bazaar had to go to the banks in Jalbire and Dhade. There were three banks in Jalbire and one in Dhade. One was the Rastriya Banijya Bank (Jalbire), owned by the Government of Nepal, and others were commercial banks, namely, Sindhu Bikas Bank (Jalbire), Deva Bikas Bank (Jalbire), and Nepal Credit and Commerce Bank (Dhade). The Nepal Credit and Commerce Bank branch had been opened after the government urged private banks to establish their branches in each local unit under the federal system.[144]

Most people from Kartike had taken housing loans for reconstruction from the Deva Bikas Bank, which was also the tranche-distributing

141 KII no. 31, 7 January 2019, Sindhupalchowk.

142 Interview no. 116, 12 May 2018, Sindhupalchowk.

143 NRA's initial deadline for households to sign the PA agreement was by 16 November 2017, to receive the first tranche by 13 January 2018, the second tranche by 13 April 2018, and the third by 15 July 2018. As a large number of beneficiaries could not meet these deadlines, the NRA as extended them time and again. Near the end of 2020, the NRA set the last deadlines to sign the PA agreement by mid-December 2020, to receive the first tranche by 30 December 2020, the second tranche by 12 February 2021, and the third tranche by mid-May 2021. 'Last deadline set to receive government grant,' *National Reconstruction Authority*, 6 November 2020. http://www.nra.gov.np/en/news/details/Y4PNVdXxGVNWHULxKNc4iL-rN5ofvfEPV1l_mW8UxoEQ#.

144 'Banks urged to set up branches in local units,' *The Kathmandu Post,* 12 June 2017. https://kathmandupost.com/money/2017/06/12/banks-urged-to-set-up-branches-in-local-units.

bank of the area. The manager of Deva Bikas Bank said that the banks had a very restrictive criterion for loan eligibility, the foremost being that housing loans could only be provided for RC house reconstruction. The same was the case with Sindhu Bikas Bank. Due to this, most people in peripheral areas who were building stone houses were rendered ineligible, and only some people building RC houses at Kartike Bazaar were eligible for housing loans. Banks kept the RC house and land as a collateral and provided 75 per cent of the estimated cost of house reconstruction, at an interest rate of 13 to 15 per cent per annum, which is about half the interest rate provided on informal loans in the area. In one case, land in Kathmandu was also kept as collateral for a bank loan to build a house at Kartike.[145]

Despite the restrictive loan criteria, the bank manager said that borrowing had increased after the earthquake. Overall, around 120 people had taken housing loans from Deva Bikas Bank, of which 18 to 20 were from Kartike Bazaar.[146] Sindhu Bikas Bank also reported that three to four individuals from Kartike Bazaar had taken housing loans from their branch.[147] There were suspicions that people had reconstructed their houses using loans taken for other purposes such as to run businesses or buy vehicles.

Some women mentioned that the women's groups provided small loans to build their houses. Overall, people tended to diversify their loan sources. For instance, a Dalit woman who had just finished her house had taken a loan of NPR 200,000 at 24 per cent interest from a local *sahu*, a NPR 50,000 loan at 18 per cent interest from the local cooperative and a NPR 35,000 loan at 24 per cent interest from the women's group.

Fear of 'Debt Trap'

Whether through formal or informal loans, it was evident that people incurred massive debts in the course of reconstruction. A woman from Manje expressed her anxiety over how to repay her debt, saying,

> 'I have not been able to eat and drink properly; this has been burning me from inside. How should I pay back the loan?'[148]

Many households increasingly depended on remittance from labour migration to repay loans, as illustrated below:

> People have to build a house, and they have to take a loan. In order to repay the loan, they have to go [for labour migration]. Those who had already gone, returned home for a short period of time in order to build a house and then went back to the foreign country.[149]

Aside from labour migration, most people were also engaged in small businesses and agriculture, which did not generate enough income to pay back the debts. Similar concerns were iterated by the manager of Deva Bikas Bank, who feared the possibility of a 'debt trap' in the area. He said that his bank had invested heavily in the reconstruction of RC houses in Kartike Bazaar. If people did not pay back the loans, the banks could auction their houses to recover the money. However, he worried that the money would be difficult to recover if people defaulted on their loans on a large scale.[150] To avoid this problem in the future, he believed that livelihood and income generating programmes should increase in the area, so that people could earn money and in turn repay their loans.

145 KII no. 25, 3 May 2018, Sindhupalchowk.
146 KII no. 34, 9 January 2019, Sindhupalchowk.
147 KII no. 35, 9 January 2019, Sindhupalchowk.
148 Interview no. 118, 12 May 2018, Sindhupalchowk.
149 Interview no. 93, 10 May 2018, Sindhupalchowk.
150 KII no. 34, 9 January 2019, Sindhupalchowk.

Government-subsidised Loan: A Pipedream

The government had also made provisions for subsidised loans for reconstruction at nominal interest rates to earthquake-affected people. According to the Grant Disbursement Guidelines 2016,[151] beneficiaries inside and outside the Kathmandu Valley would be provided concessional loans of up to NPR 2,500,000 [c. USD 20,875] and NPR 1,500,000 [c. USD 12,525], respectively, at 2 per cent interest. In addition, the Integrated Working Procedure for Subsidised Loan 2018[152] also provisioned interest-free concessional loans of up to NPR 300,000 [c. USD 2,505] through *samuhik jamani* (social collateral)[153] to members of microfinance institutions.[154] When the subsidised loans phased out in August 2018, the government issued another concessional loan of up to NPR 300,000,[155] with the government providing 5 per cent interest to the banks, and loanees paying the rest of the interest with the banks allowed to scale up profits only by up to 2 per cent on the base rate. However, most people did not benefit from this provision due to complications in the loan access procedures. This was despite attempts by the NRA and banks to make loans accessible to everyone through awareness programmes about the subsidy.[156]

People of Kartike Bazaar and surrounding areas were informed about these subsidised loan provisions. Most of the research participants mentioned that they had heard about the government subsidised loans from community leaders, representatives of political parties, NRA field engineers, news on the radio and television, as well as social networking sites such as Facebook. They had heard that in addition to the housing grant, the government would provide a loan of NPR 300,000 to build their houses. The research team found that most people were interested in taking loans, and constantly inquired about the process with their local representatives, ward chairperson, or other community leaders. Some said that they had also visited the banks in Jalbire to understand the procedure and eligibility criteria for the loans. But they hardly ever received any clear and satisfactory answers from anywhere. Hence, some people believed that the subsidised loan was nothing more than a rumour and gave up on it. For instance, a young man from Golche said:

> We were interested in taking the subsidised loan, and I went to Jalbire bank to get more information about it. I also asked the ward chairperson. But they said that they do not know about the loan process. Now, people are saying it is just a waste of time to

151 National Reconstruction Authority, 'Bhukampabata Prabhavit Niji Aawas Punanirman Anudan Vitaran Karyavidhi 2073' (Grant Disbursement Procedures for Private Houses Affected by the Earthquake 2016) (in Nepali), http://nra.gov.np/np/resources/details/ebU-VxZtX4uarwnIddiIrr4Ia7SwaObKpVmXg2wpApCs.

152 National Reconstruction Authority, 'Sahuliyatpurna Karjaka lagi Byaj Anudan Sambandhi Ekikrit Karyavidhi 2075' (Integrated Working Procedures for Subsidised Credit 2018) (in Nepali) , http://nra.gov.np/np/resources/details/zufzZqkcwOgper_YSVhL9FZrw-ZAZUPR6p8IVDRonYCw.

153 In the social collateral loan process, a group of people who are usually relatives, neighbours or friends guarantee that the loan beneficiary will repay the loan. If the borrower is not able to pay the loan, the guarantors agree to pay the loan on his/her behalf.

154 National Reconstruction Authority, 'Bhukampa Prabhavit Gharpariwarlai Aawasiya Ghar Punanirmanka lagi pradan Garine Punarkarja Karyavidhi2072' (Procedure for Private Housing Reconstruction Subsidised Loan for Earthquake Affected Households 2015)' (in Nepali), http://nra.gov.np/resources/details/lDeFXwDc2J1HIsAWlIYsyUMVkjWdH9Z0UXk7ZSKmP_c.

155 National Reconstruction Authority, 'Sahuliyatpurna Karjaka lagi Byaj Anudan sambandhi EkikritKaryavidhi 2075' (Integrated Working Procedures for Subsidised Credit 2018) (in Nepali), http://nra.gov.np/np/resources/details/zufzZqkcwOgper_YSVhL9FZrw-ZAZUPR6p8IVDRonYCw.

156 ''Understanding Reached to Make Subsidised Loan More Convenient,' *Nepal Reconstruction Authority*, 11 August 2019. http://www.nra.gov.np/en/news/details/oBx_f_jHZ5zaDgUMM-zCdnAKVoZC1YK-fVUoodODBuHU.

> expect the loan. Hence, we have no hope of receiving the subsidised loans.[157]

For his part, the ward chairperson said that he had been asked multiple times by the villagers about the subsidised loans. Some people had also asked him to write a recommendation letter so that they could try to access the loan. But the chairperson did not have a clear idea about how the government would provide the loan and through what procedure. In spite of this, people were very keen on taking the loan as it would rid them of high-interest loans from the *sahus*. However, the chairperson was sceptical and believed that only people in Kathmandu could benefit from subsidised loans while for people living in places like Kartike it was just a pipedream.

When researchers asked the manager of Deva Bikas Bank about the subsidised loan provision, he admitted that many people visited him to inquire about it, but the bank refused to give the loans because the bank feared that people could easily default. He stated, 'Many people think that the government would dismiss the loans, so they think that they can choose to pay or not pay, as they wish.'[158] Hence, the bank did not wish to take any risks.

Disaster Economy of Sindhupalchowk

The research team also found an interesting transformation in the economic dynamics of Sindhupalchowk after the 2015 earthquakes. People commonly reported the most striking change was the visible transformation from stone houses to cement and RC houses, especially in the Kartike area.

In the process of reconstructing all these houses, the prices of construction materials and labour wages had increased drastically. There was a high demand for skilled and unskilled labour, which created new employment opportunities for locals as well as for migrant labourers who arrived at the field site from the Tarai and the mid-western hills of Nepal. Some people found wage labour at home to be an alternative to labour migration.[159]

Along with employment, the research team also observed the growth of business activities, especially with Kartike Bazaar being the market centre for the peripheral villages. Many participants felt that the number of businesses like teashops/taverns, hotels, grocery stores, hardware shops, clothing shops. Many participants felt that the number of businesses like teashops/taverns, hotels, grocery stores, hardware shops, clothing shops, and other businesses. There were several vegetable and meat shops, and a new motorbike showroom in the bazaar that did not exist prior to the earthquake. Two new hardware shops had opened supplying construction materials such as cement, iron rods, and CGI sheets to the villagers.[160]

Researchers also witnessed an increase in the business of stone slate that served as roof tiles in the past. As CGI sheets had replaced these tiles, the old slate was sold in Kathmandu to be turned into stone tiles. The transportation business also boomed as people constantly transported construction materials from Bhaktapur, Banepa and Jalbire, as well as from the hardware shops at Kartike Bazaar itself. Some participants bought tippers and jeeps to earn a living from the transport boom.

The researchers also noted an increased inflow of people which benefitted the businesses of local hotels, grocery and tea shops, and so on. This was the result of I/NGO workers coming for various relief and/or reconstruction-related projects,[161] people returning to the village from urban areas or abroad to rebuild their houses,[162]

157 Interview no. 88, 5 May 2018, Sindhupalchowk.

158 KII no. 34, 9 January 2019, Sindhupalchowk.

159 KII no. 36, 10 January 2019, Sindhupalchowk; Interview no. 89, 6 May 2018, Sindhupalchowk.

160 KII no. 32, 7 January 2019, Sindhupalchowk.

161 KII no. 34, 9 January 2019, Sindhupalchowk.

162 KII no. 31, 7 January 2019, Sindhupalchowk;

and labour migrants carrying out reconstruction works for daily wages in the area.[163]

When researchers spoke with the manager of Deva Bikas Bank about the flourishing business activities in Kartike Bazaar, he replied that this trend was evident throughout the district. He noted that demand for vehicle loans to buy trucks and tippers was particularly high after the earthquakes. Similarly, there was a demand for business loans to open hardware shops, but slightly less compared to the vehicle loans. Reportedly, Deva Bikas Bank had granted business loans to five to seven hardware shops at Jalbire and Sukute. However, he felt that the momentum of reconstruction was gradually slowing down as the hardware businesses were on a downward slide. A similar trend in money transfer activities was also seen. In his words:

> Earlier there would be a queue of labourers in the bank to transfer/remit money to their families. But now since reconstruction activities are almost completed, the money transfers have also declined.[164]

This can also be seen as an indicator of the decreasing flow of labour migrants in the area. DLPIU officials had also observed an increase in the hotel businesses in Chautara after the earthquake, but that too was in decline since the I/NGOs were leaving after the completion of their projects.

Overall, these economic trends seem to have peaked at the height of the reconstruction activities that took momentum two to three years after the earthquake and slowly declined after that. Nevertheless, many people perceived these changes in a positive light, as a symbol of development. As the Deputy Chairperson of Jugal Municipality said:

> 'There have been so many economic changes, I feel. Now, I've come to realise that Nepalis can also turn their fortunes.'[165]

163 KII no. 32, 7 January 2019, Sindhupalchowk.

164 KII no. 34, 9 January 2019, Sindhupalchowk.

165 KII no. 36, 10 January 2019, Sindhupalchowk.

CONCLUSION

This study attempted to answer the broader question of how the entanglement of three domains of law, construction and finance shaped the overall post-earthquake reconstruction. As one of the most-affected districts of the 2015 earthquakes, Sindhupalchowk suffered heavy damage in terms of life, property and infrastructure. At the time of fieldwork, Sindhupalchowk was undergoing reconstruction at a massive scale that had transformed the area, which in turn had created rifts within communities as new forms of knowledge and expertise overrode old traditions and housing practices.

After the earthquake, people in rural areas who could build their houses as they wished in the past were legally bound by the participation agreement (PA) signed with the government to build prescribed forms of earthquake-resistant houses in order to be able access reconstruction grants. The selection criteria for grant beneficiaries was constrained by the requirement to have legalised land ownership. This resulted in property partition and family fragmentation on a mass scale in Sindhupalchowk as multiple members in a family sought to claim reconstruction grants as beneficiaries separate from their parents, regardless of whether or not they lived as a separate household. Consequently, the number of households increased in the area, but whether these households would be treated as separate units in the future for taxation and other purposes is a matter of further inquiry.

A variety of earthquake houses were being reconstructed in Sindhupalchowk, ranging from stone- and brick-masonry houses to RC frame buildings. People constantly complained about the confusion created by house designs as the houses that were earlier said to be 'ineligible' later began to qualify for subsequent tranches after some correction measures were applied. This lack of inconsistency was a source of dissatisfaction to many households, especially those who had reconstructed their houses in the earlier phases when the implementation of house designs was not as flexible.

Political connections helped people gain PA cards and have their houses approved for subsequent tranches, despite cases of ineligibility. What kind of house one built was largely determined by one's economic standing. Rich people built the expensive RC houses by taking housing loans from banks in Jalbire at lower interest. Poorer households—which were the majority—built stone-masonry houses borrowing money from their families, relatives, friends and local *sahus* at more than double the interest rates provided by the banks. Due to this, most participants had incurred some kind of debt, which resulted in fear of 'debt trap' in future.

Most research participants had already completed reconstruction and received the third tranche by the time the fieldwork was completed. Over the years, the government introduced various legal instruments and deadlines to expedite housing reconstruction in compliance with national building codes. In doing so, there appeared to be divergence in the conception of what constituted an 'earthquake-resistant' house.' Houses built or repaired according to people's own knowledge and understanding were assumed to be vulnerable, and hence, unsafe, while the government-prescribed houses were considered to be stronger, and hence, safer. This simplistic notion led to the disqualification of numerous houses built/repaired before the NRA engineers were deployed on the ground. This

compelled people to build a tiny 'earthquake house', usually made of one or two rooms, which did not accommodate their actual needs. In July 2019, the NRA revised this policy flaw and created a legal procedure to include houses built before the deployment of NRA engineers.[166]

The NRA added several other guidelines and manuals for correction and retrofitting of different kinds of house designs, repeatedly amended the Grant Disbursement Guidelines and other procedures, and imposed deadlines to accelerate the pace of reconstruction. However, implementation was fraught with inconsistencies and subject to much contestation. Policies were reformed along the way, from a top-down approach in the initial house designs to the correction manuals that were based on bottom-up information collected from the field.

Despite the reforms seen in the latter years of reconstruction, the end of the NRA's mandate created a tight schedule to complete the reconstruction process by the end of 2021.[167] Likewise, I/NGOs also needed to complete their reconstruction projects within a set time period.[168] These pressures had the effect of undermining the reconstruction process itself. The focus should not have been just on building a given number of houses within a specified time limit but a continuous effort to persuade people to adopt better building practices, which would have required vast resources, expertise, and most of all, time.

166 'NRA approves guideline to provide grant to houses reconstructed before deployment of technicians,' *National Reconstruction Authority*, 2 July 2019. http://nra.gov.np/np/resources/details/W6qQqhtVqXqPjg-ja5Z8AyCo_S7DQ9MvfFfKAjShf-Dg.

167 The NRA's tenure was set from 2015 to 2020, which was extended for one year until 25 December 2021. 'Government extends NRA term for one year,' *Reliefweb*, 6 December 2020. https://reliefweb.int/report/nepal/government-extends-nra-term-one-year.

168 KII no. 41, 2 July 2019, Kathmandu.

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 newly built school at Golche. Photo: Manoj Suji

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