

APPENDIX

Appendix. 1 LEGAL AND POLICY FRAMEWORK

(1) the Act Relating to Reconstruction of the Earthquake Affected Structures, 2015 (2072)

The government enacted the act to establish National Reconstruction Authority (NRA) as the leading agency of the reconstruction from the earthquake in December 20, 2015. The act prescribes that NRA will remain 5 years and will be updated depending on the progress of the reconstruction. The act also prescribes the establishment of National Reconstruction Advisory Council and Steering Committee both of which are chaired by the Prime Minister and other committees with its member and qualification of the members. NRA is responsible for approval of the budget in coordination with MOFA and MOF and use of fund is decided by Executive Committee.

Major roles and responsibilities NRA

- Verify the damage and determine the earthquake affected areas
- Develop, approve and manage prioritized reconstruction programs and action plans
- Develop necessary agencies and supervise for reconstruction projects
- Obtain and allocate land for settlement development, land pooling and resettlement
- Conduct technical survey for damaged physical structure and order and instruct the removal of physical structure and reimburse the incurred cost as a loan to government except for poor economic conditions individuals
- Responsible for operational and financial arrangement for housing development and settlement issues
- Coordinate with stakeholders related to reconstruction among GON, donor agencies(NGO, INGO), and CSO to implement the programs
- Capacity building for the stakeholders of reconstruction activities
- Fiscal arrangement of the programs and activities for reconstruction.
- Direct civil servants to conduct necessary activities for executing the function of NRA

As for District level, District Coordination Committee in every district to coordinates the reconstruction works carried out by the Authority in the Earthquake affected zone. The District Coordination Committee has the lawmakers representing the district in the Legislature-Parliament, the Chief District Officer and the Local Development Officer. The lawmakers representing district in the Legislature-Parliament are the coordinators of the District Coordination Committee.

Function, Duties and Powers of District Coordination Committee

- To coordinate the activities carried out by NRA
- To monitor the activities carried out by NRA
- To appraise the activities of carried out by NRA
- To make recommendation for action if any district based official or employee related with the functions of NRA does any act contrary to this Act
- To perform such other functions as prescribed

(2) National Reconstruction and Rehabilitation Policy, 2072

Upon the establishment of NRA, NRA envisaged the Reconstruction and Rehabilitation Policy which prescribes the policy objectives, priorities by sector and strategies to achieve the objectives. It also prescribes the institutional arrangements from central government level to VDC level.

Objectives of National Reconstruction and Rehabilitation Policy

- To reconstruct, retrofit and restore the partial and completely damaged residential, community and government buildings and heritage sites to make them disaster resistant using local technology according to the need.
- To revive (reestablishment) the damaged cities and ancient settlements by maintaining the original shape with improved structure.
- To protect and promote the vulnerable individual and community of the quake affected areas.
- To develop new alternatives by reestablishing productive sector for economic opportunity and livelihood.
- To study and research on earthquake, its damages and effects, reconstruction, resettlement, rehabilitation and disaster risk reduction.
- To develop integrated and planned settlements.

The Reconstruction and Rehabilitation Policy prescribes the requirements of district level. Following articles require the district level arrangement for the reconstruction.

Reconstruction and Rehabilitation Policy Requirements at District Level (extracted)

7.5 a)

At least one emergency community building would be constructed in all the municipalities of Kathmandu Valley and quake-affected districts headquarters, which could be used as shelters during the disaster and for other various community purpose during normal times.

8.5.2

Every district headquarters should construct one model earthquake resistance house. One Building Technology Resource Centre also has to be established in public school, community schools, technical centers or government training center. These centers should exhibit one traditional house and one earthquake resistance model house so that the people can compare themselves.

13.1.2.

In memory of the district residents, those who deceased and got injured during the earthquake, **an earthquake park shall be constructed in a district headquarter or any appropriated place**, in each of the most earthquake affected district.

13.5.2.

To monitor from political level; in central level parliamentary monitoring and direction committee and **in district level, coordination committee composed of members representing the parliament from the concerned district, Chief District Officer and Local Development Officer, shall be formed.**

(3) Post Disaster Recovery Framework (PDRF)

The Government of Nepal and international organizations formulated the Post Disaster Recovery Framework in May 21st, 2016. The PDRF consists of two volumes; the first volume provides an overview of reconstruction policy, institutional arrangement and priority sectors, and the second volume provides sector plans and financial projections. The PDRF defines the specific roles and responsibility of NRA at the central government level and district level for the implementation of reconstruction works, and the coordination with line agencies and development partners. Meanwhile, based on the result of PDNA, the PDRF envisions the five-year reconstruction plan which includes budget planning of each sector and long list of the reconstruction projects. In addition, PDRF indicates following approaches for policy implementation; owner-driven reconstruction, relocation of villages, integrated habitat approach, urban reconstruction to improve cultural or historical settlements, application of building codes and disaster risk reduction measures, cash transfers, livelihood support, community outreach, social inclusion, capacity building, environmental and social safe guards.



SOCIAL SECTORS	
<ul style="list-style-type: none"> • Cultural Heritage • Education • Government Buildings • Health 	<ul style="list-style-type: none"> • Nutrition • Housing and Settlements (Rural) • Housing & Settlements (Urban)
PRODUCTIVE SECTORS	
<ul style="list-style-type: none"> • Agriculture & Irrigation 	<ul style="list-style-type: none"> • Tourism
INFRASTRUCTURE SECTORS	
<ul style="list-style-type: none"> • Electricity & Renewable Energy • Transport, Access and Communication 	<ul style="list-style-type: none"> • Water & Sanitation
CROSS-CUTTING ISSUES	
<ul style="list-style-type: none"> • Disaster Risk Reduction • Employment & Livelihoods • Environment & Forestry 	<ul style="list-style-type: none"> • Gender & Social Inclusion • Governance • Social Protection

Figure 1.1 Strategic Objectives, Framework for Reconstruction and Sector Classification in PDRF

Source: PDRF

Appendix. 2 RESULTS OF WORKSHOPS

1.1 Issues from Cluster Workshops

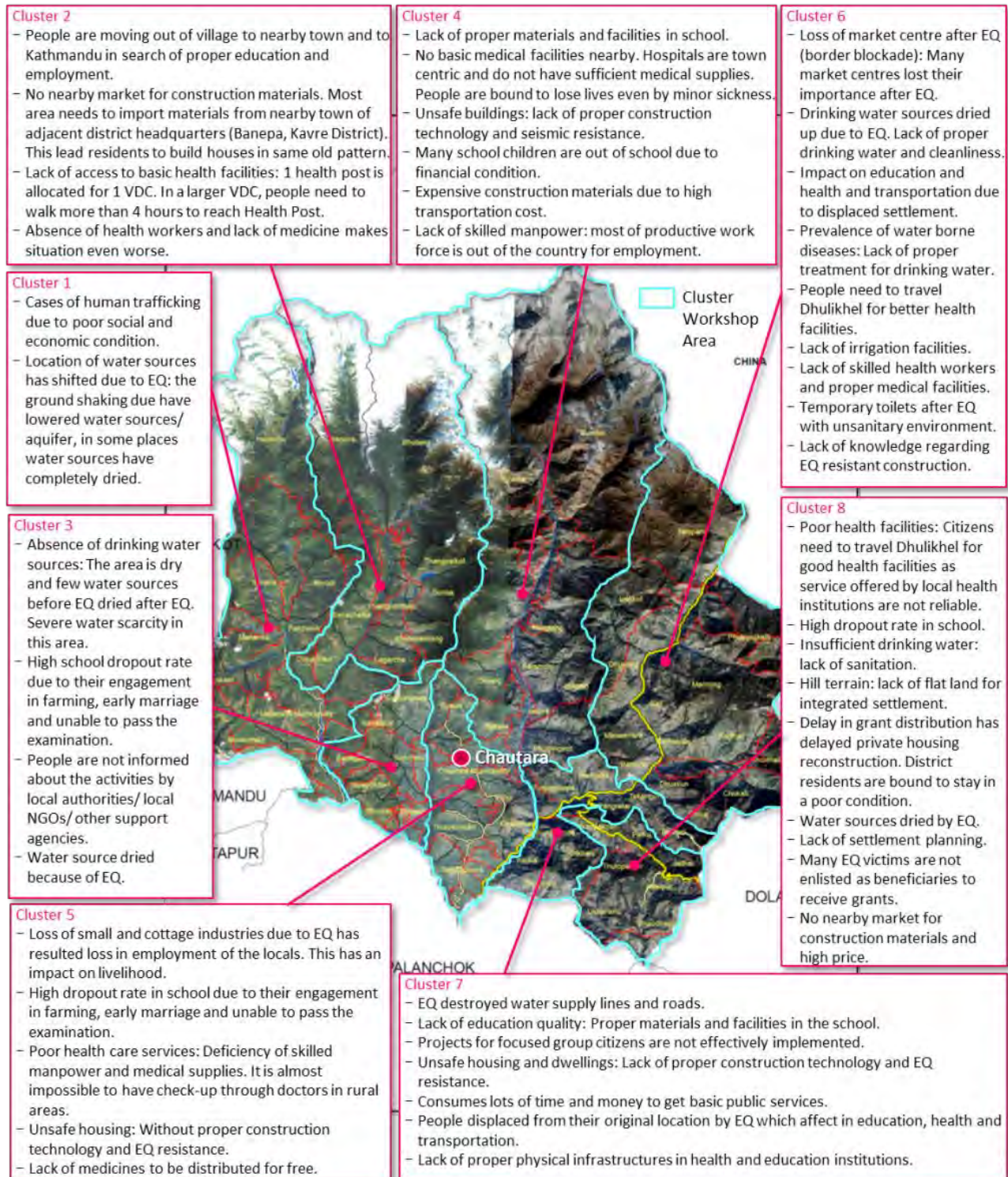


Figure. 2.1 Issues for “Recovery of Daily Life” from Cluster Workshops

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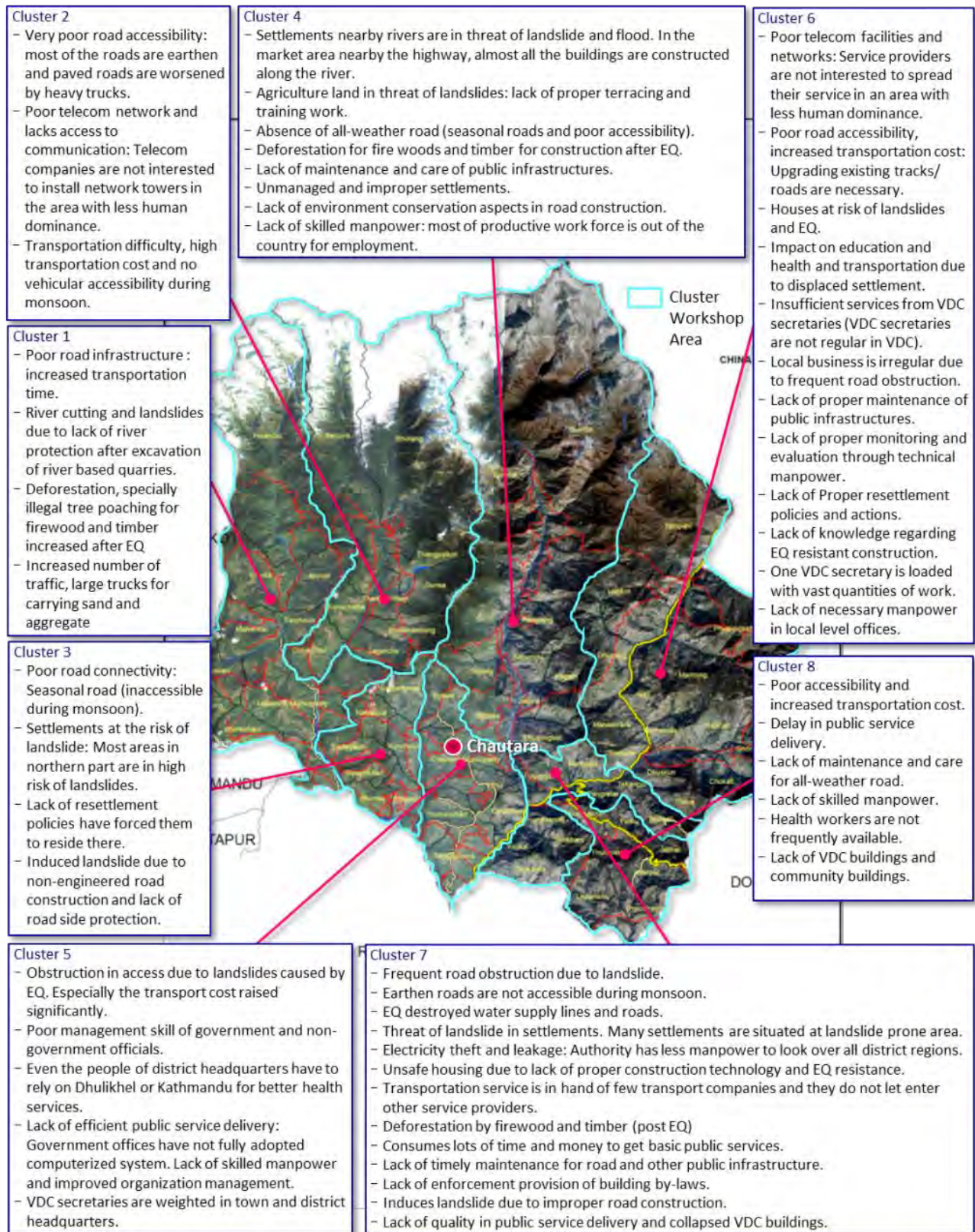


Figure. 2.2 Issues for “Building Resilient District Structure” from Cluster Workshops

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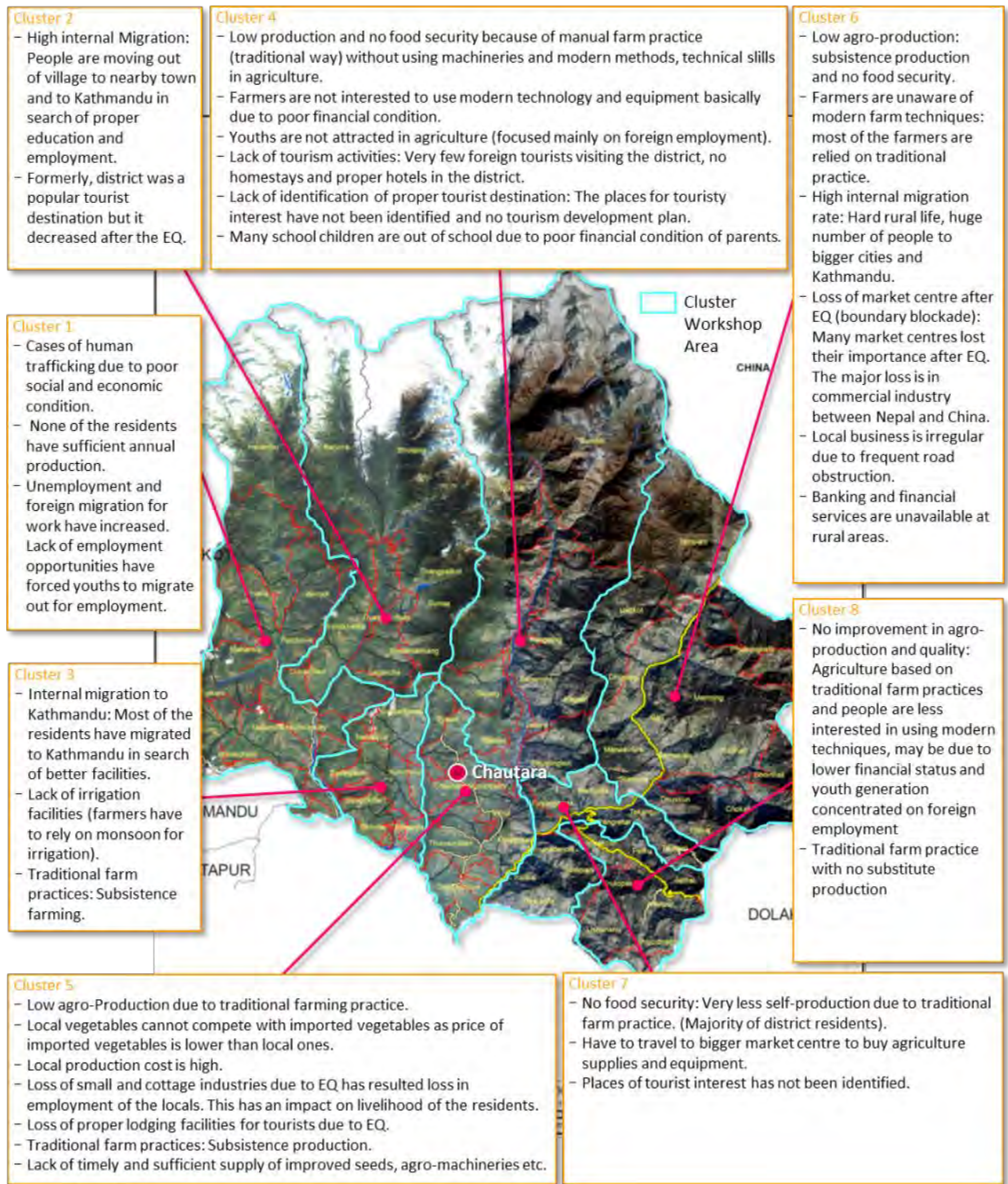


Figure. 2.3 Issues for “Recovery and Development of Regional Economy” from Cluster Workshops

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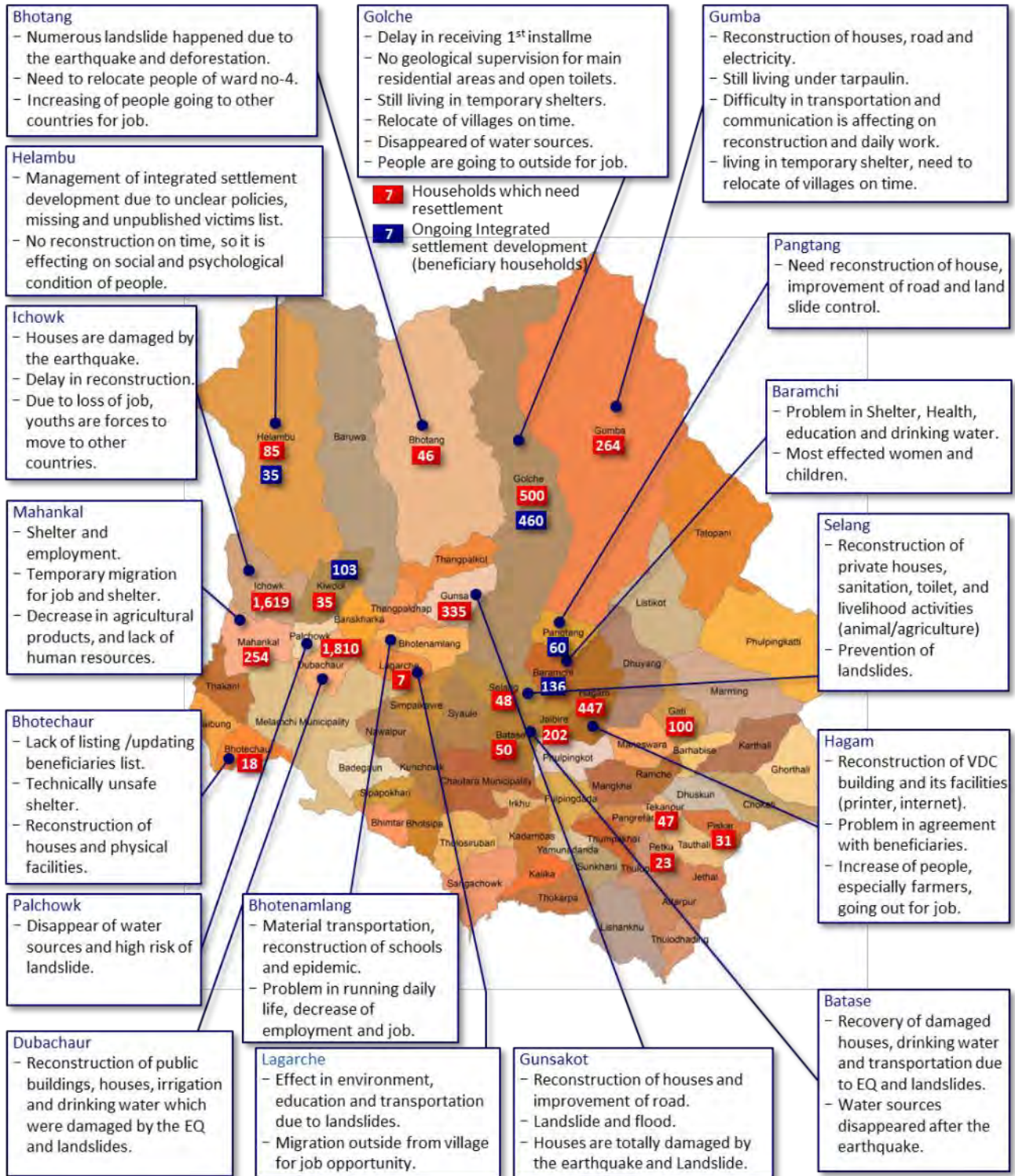


Figure. 2.5 Urgent Issues in VDCs (2/2)
Source: Questionnaire Survey for VDCs, 2016

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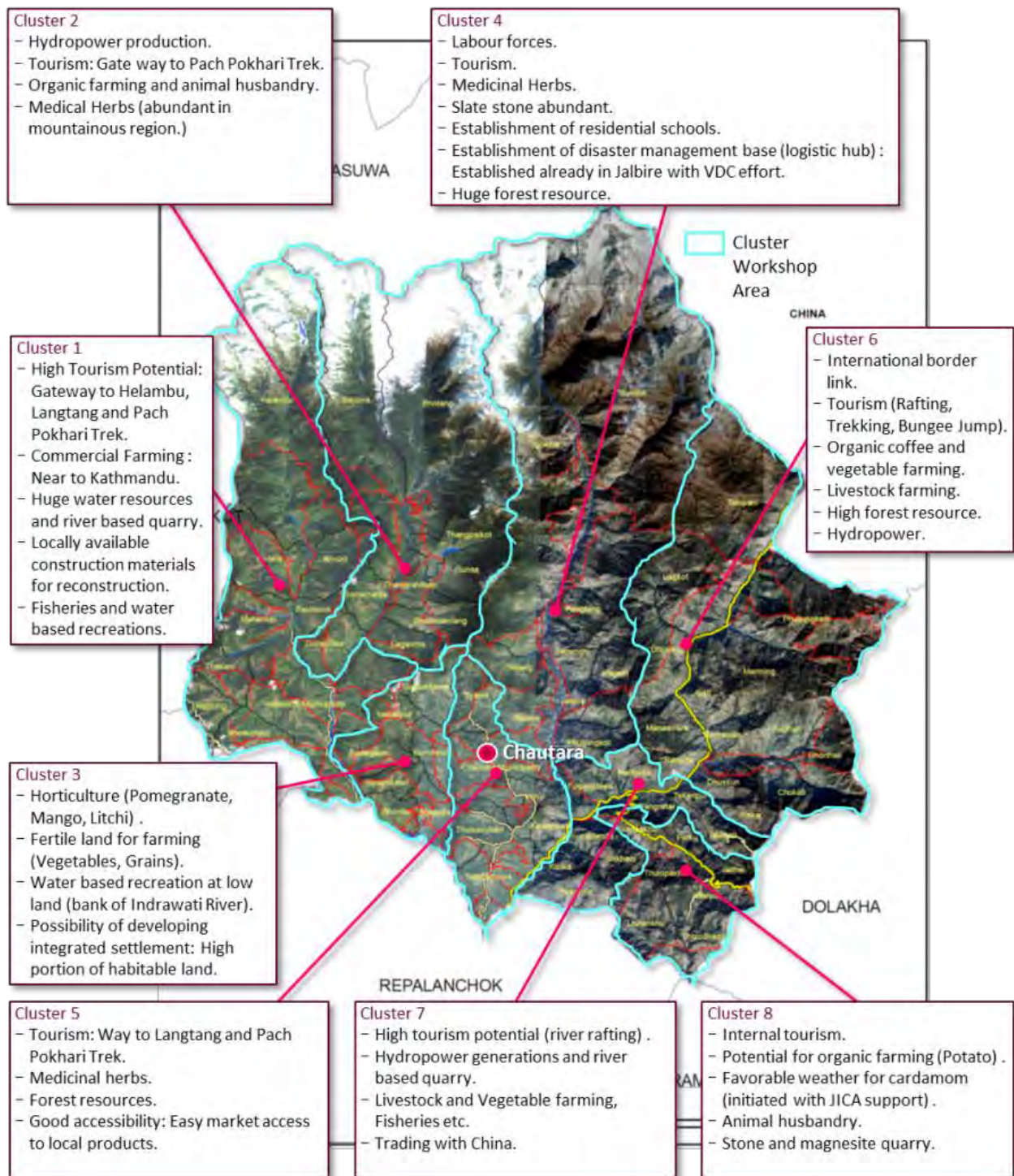


Figure. 2.6 Areal Potentials from Cluster Workshops

Appendix. 3 DISTRICT PROFILE AND EARTHQUAKE DAMAGE

3.1 Summary of District Profile

3.1.1 Administrative Structure

Nepal has been using three government levels; national government, district government and local government (Municipality and Village Development Committees; VDCs). When the old constitution was enforced, the country was administratively divided into 5 Development Regions, 14 Zones, 75 Districts, as well as 58 Municipalities and 3,913 VDCs. However, the new constitution, which was adopted in October 2015, mentions that there are 7 states in Nepal. The rest of the administrative divisions, which were previously addressed, are not listed in the new constitution.

Sindhupalchowk District is one of the district of Bagmati zone under Central Development Region. There are three Electoral Constitution Number, 13 Illaka, 2 municipalities and 68 VDCs in Sindhupalchowk District. Chautara is the district headquarters of the district, and all of the district level government offices are located there; whereas, VDC offices and municipality offices are in respective VDC and municipality.

3.1.2 Natural Condition

(1) Geography and Land Use

The Himalayas are among the highest mountain ranges on earth. It is considered one of the most active yet fragile mountain range because it still rises through moving Indian Plate and Tibetan block and its rocks are geologically weak. The frequent seismic movement and monsoon rainfall make it even more prone to landslides. Thus, Nepal, including the mountain region is extremely vulnerable to the disasters.

Sindhupalchowk District is the biggest district in regards to area with 2,542 km² in the Central Development Region among 19 districts and it has covered 1.73% area of Nepal. This district is situated 86 kilometer far from Kathmandu in east/north direction. The district has been distributed from 746 meter (2,450 feet: Sunkoshi river bank of Sangachowk VDC) above from sea level to 7,083 (23,238 feet: Langpoghyan peak) altitude and the altitude of the district headquarter- Chautara is 1,418 meter. The average east-west wide of the district is 49.38 km; whereas, the north-south length is 53.06 meter. The district is bounded by Dolakha District and Tibet in east; Nuwakot and Rasuwa Districts in west; Rasuwa District and Tibet in north and Kavrepalanchowk, Kathmandu and Ramechhap Districts in south.

On the basis of geographical structure of this district, it can be classified in 4 groups; 1) Himalayan region (16,000 to 23,238 feet) 2) Mountain region (7,000 to 16,000 feet), 3) Hilly region (5,000 to 7,000feet) and 4) low land plain region (2,450 to 5,000 feet). As Himalayan and high mountains are located in northern part of the district, those areas are less possibility of agriculture. In regards to land slope situation of this district, maximum area has been covered by 20-30 degree slope (37.5%), and in accordance with, 24.6% by 30-40 degree slope, 22.5% by 10-20 degree slope.

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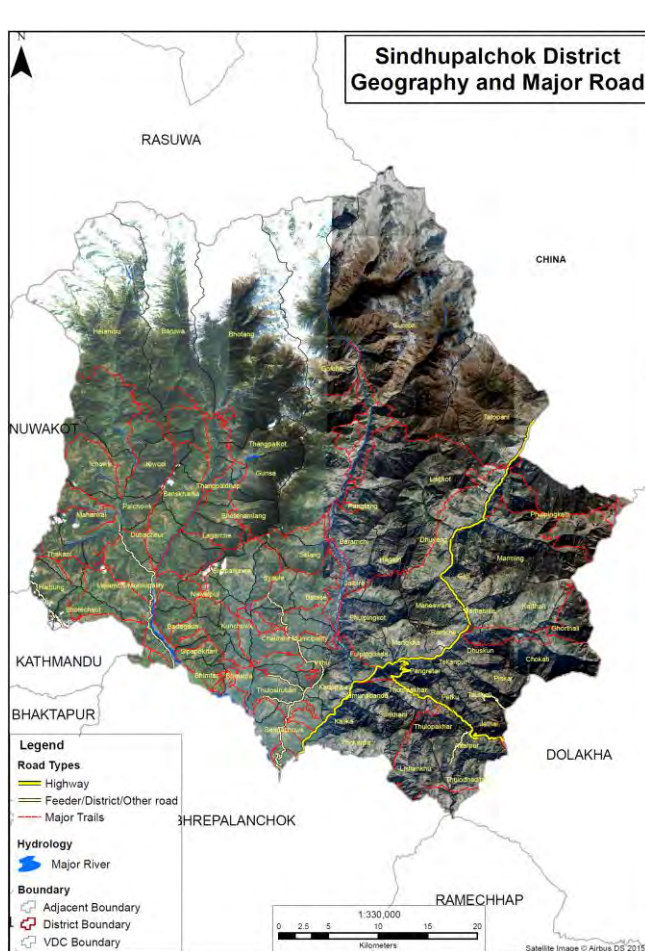


Figure. 3.1 Geography and Major Road
Source: JICA Project Team / Satellite image in 2014

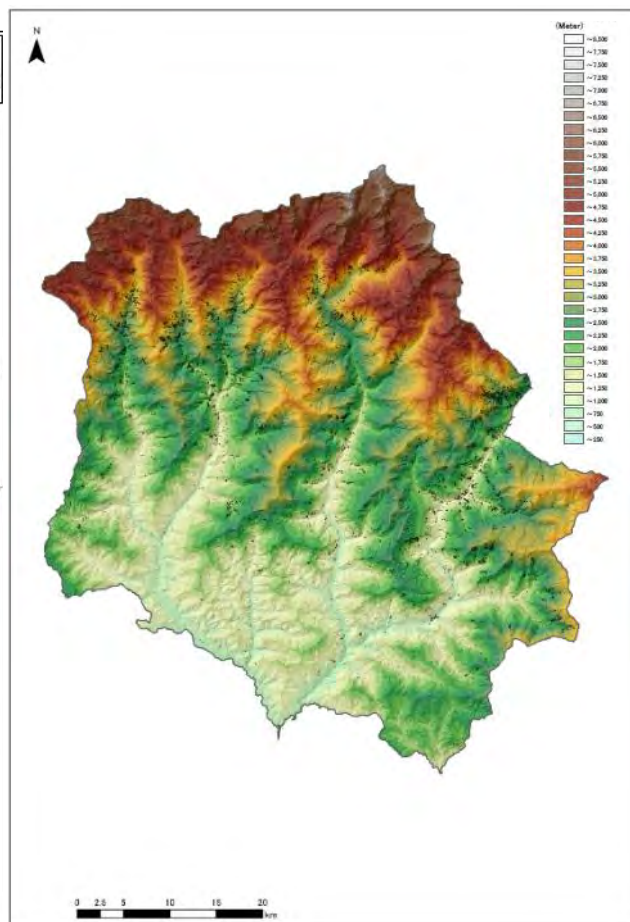


Figure. 3.2 Elevation Map
Source: JICA Project Team

Following table shows the distribution of land-use in Sindhupalchowk District.

Table. 3.1 Distribution of Land Use in Sindhupalchowk District

Land Use	Total Area (ha)	Percentage
Forest area	77,567	30.51%
Agricultural land	73,710	29.00%
Pasture land	11,823	4.65%
Himalayan zone (Snow covered area)	4,700	1.85%
Bush land	32,253	12.69%
Landslide covered area	262	0.10%
Sandy area	2,645	1.04%
Barren government land	45,615	17.94%
Water covered area	234	0.10%
Others	5,391	2.12%
Total Area	254,200	100.00%

Source: DDC Profile, 2012

According to DDC profile, 2012, traditional agricultural system, no scientific land distribution and utilization, one village one product etc. are the major issues of the district for its development;

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whereas, tourism development, hydropower development, commercial farming, herbal farming, promotion and its marketing, inter-country trade etc. are the area of opportunity.

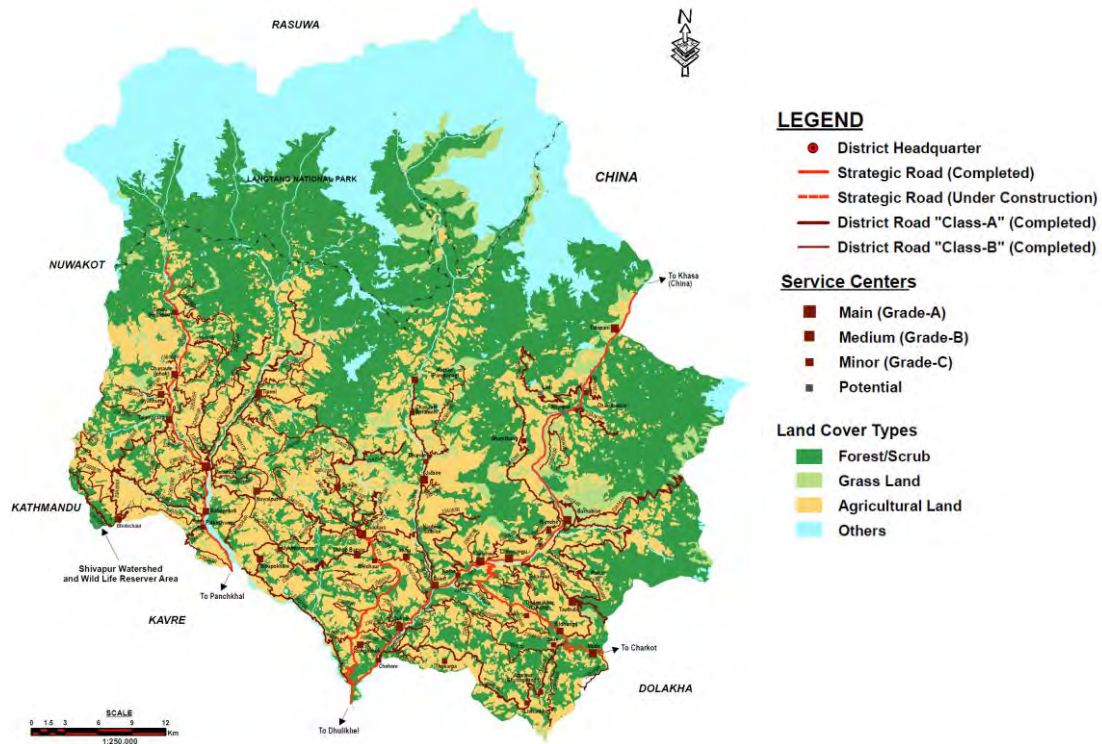


Figure. 3.3 Land Use Map
Source: District Transport Master Plan (DTMP), 2013



Picture 3.1 Chautara (District Headquarters)



Picture 3.2 Village on the Mountainside

(2) Weather and Climate

On the basis of altitude, the district is classified in 4 types of climate as follows; a) Semi-tropical climate (2,450 to 7,000 feet), b) Sub-tropical climate (7,000 to 13,000 feet), c) Alpine climate (13,000 to 16,000 feet) and d) Nival/Himalayan (Himali) climate (above 16,000 feet). The rainy season is generally from June to August, and the average annual rain fall in Sindhupalchowk

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District is 1,615 milliliter; whereas, maximum average temperature is 32.5 degree Celsius and minimum average temperature is 5 degree Celsius.

3.1.3 Social Economic Conditions

The Census 2011 estimated that there are 26.6 million populations in the country with annual growth rate of 1.4%. The population has been widely increased over the last few years. Nepalese are known for its multi-ethnic, multi-cultural, multi-linguistic, and multi-religious cultures and societies. In the Census 2011, 125 caste/ethnic groups with 123 languages have been reported. Although more than 80% of the population is Hindus, Buddhists and Muslims reside in the community.

The Census 2011 estimated that the population of Sindhupalchowk District is about 288,000 while the population of male and female is about 138,000 and 149,000. The household number is 66,635 and the number of people per household is 4.32. According to the Census 2011, the forecasted population of Sindhupalchowk District in 2021 is about 295,000. In 2031, the populations of Sindhupalchowk District is forecasted to increase to 307,000. The transition of population and the population by age group are as shown in following figures.

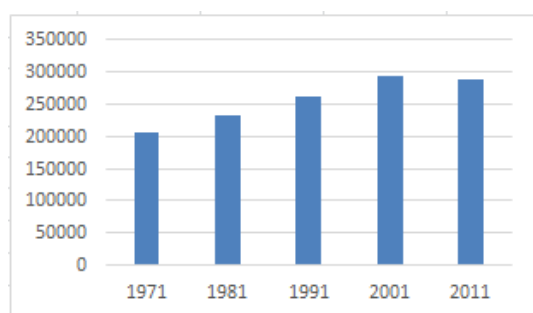


Figure. 3.4 Transition of Population

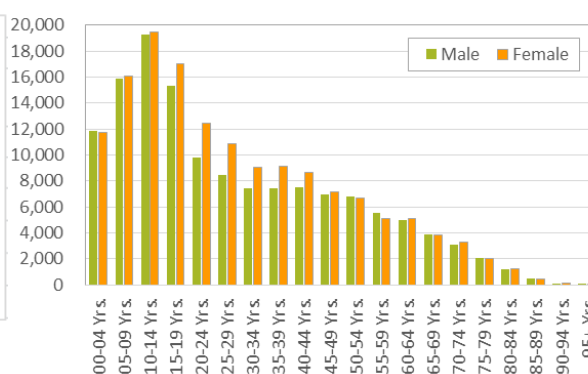


Figure. 3.5 Population by Age Group

Source: National Population and Housing Census 2011, CBS

In regard to the transition of population, the population, especially the population of male had been decreasing from 2001 to 2011. Some reasons are considered on this decrease, which are: 1) internal migration by political reasons etc., 2) employment opportunity; some people left the district for employment opportunities, 3) for the better education.

On the other hand, in productive age groups, about from 15 years old to 49 years old groups, the population of male are prominently lower than that of female. The reason of this trend seems that a lot of male people in productive age has been working outside of the district due to the lack of employment opportunities and low income in the district. The distribution of population and population density in 2011 is as shown in following figure.

The number of workers over 10 years old by the literacy in Sindhupalchowk District is as shown in following figure. Almost half of all workers are illiterate and in regard to women, more than half of workers are illiterate. In consideration of communication or information system for rehabilitation and disaster management, this literacy must be considered.

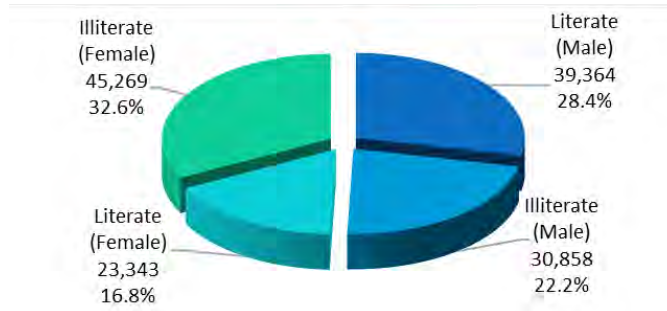


Figure. 3.6 Number of Workers over 10 years old by Literacy in Sindhupalchowk District

Source: National Population and Housing Census 2011, CBS

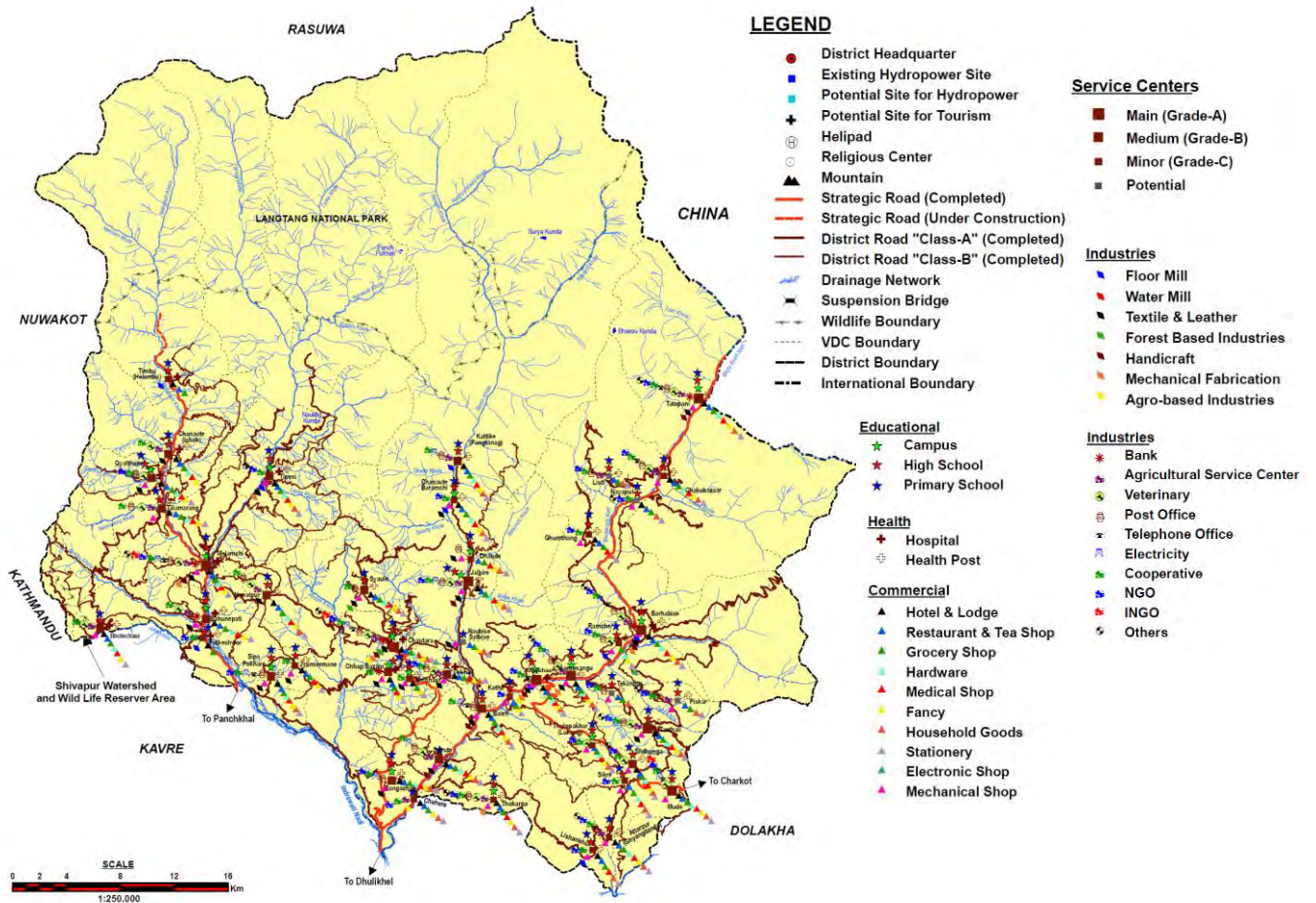


Figure. 3.7 Market Centers and Services Map

Source: DTMP, 2013



Figure. 3.8 Distribution of Population and Population Density in Sindhupalchowk District

Source: JICA Project Team / Census 2011, CBS

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In regard to housing structure, more than 90% households used mud bonded bricks/stone in outer walls in Sindhupalchowk District as shown in following figure based on the Census 2011, while about 7% households used cement bonded bricks/stones. Most of houses made of mud mortar with bricks/stones were heavily damaged by the earthquake.

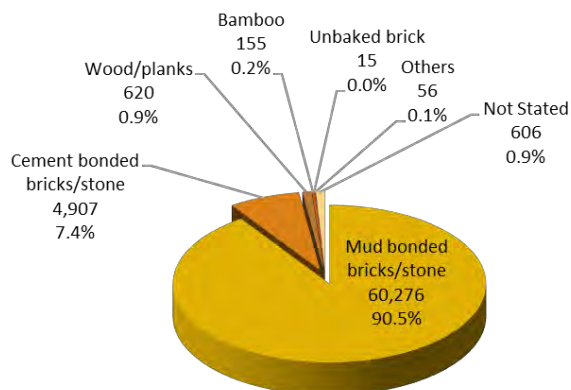


Figure. 3.9 Types of Outer Wall of Housings in Sindhupalchowk District(2011)

Source: National Population and Housing Census 2011, CBS

According to The Nepal Human Development Report 2014, the Human Development Index (HDI) of Sindhupalchowk District, which is calculated by three indexes regarding to the life expectancy, education and economy, was 0.455 which was lower than the average of Nepal. The Life Expectancy was about 70 years old; average years of schooling was about 3.02 years, and the per capita income was USD 1,110. All of indexes except the life expectancy were lower than average numbers of Nepal. The HDI and other indexes are as shown in Table 2.2.

Table. 3.2 Human Development Index

Country/District	HDI	Life Expectancy (Yrs.)	Adult Literacy (%)	Average Years of Schooling (Yrs.)	Per Capita Income (US\$)
Nepal	0.490	68.8	59.57	3.90	1,160
Kathmandu	0.632	68.6	84.04	7.05	2,764
Sindhupalchowk	0.455	69.6	49.51	3.02	1,110

Source: Nepal Human Development Report 2014, UNDP



Figure. 3.10 Daily Life in Sindhupalchowk District

3.2.2 Summary of Damage Status

The earthquakes on 25th April, 2015 and 12th May, 2015 hit the country and damaged 31 of the 75 districts in the entire country. Sindhupalchowk District was one of the most affected district and the total human, physical and socio-economical damage was enormous.

As per the data of DDC as of April, 2016, the total number of casualties was 3,570, around 40% of total national human loss, the number of injuries was 1,435; there were 95,767 totally collapsed houses and animal sheds and 998 partially collapsed houses and animal sheds. The Sindhupalchowk DDC estimated that the earthquake also fully damaged around 174 public buildings, 3,607 classrooms and major damaged 1,166 classrooms in schools as of December, 2015.

Additionally, according to the Post Disaster Needs Assessment (PDNA), the per capita disaster effect of Sindhupalchowk District is around NPR233, 000.

3.2.3 Human Damage

The human damage from the earthquake in Sindhupalchowk District is as shown in the following figure. The total number of death was 3,570, the number of injuries was 1,435. The number of missing was 8. As many housings or buildings were fully damaged by the earthquake, the collapse of walls and roofs were the main cause of the human damage. Although most of schools were also seriously damaged from the earthquake, it seems a lot of student's lives were saved from the fact that the day of the earthquake, 25th April, was a holiday. As described in more detail in the next chapter, large number of landslides were caused by the earthquake. Especially, settlement zones in the northern part of the district such as Tatopani VDC was affected by serious landslides.

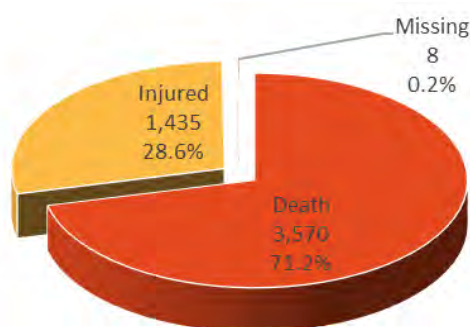


Figure. 3.12 Human Damage by the Earthquake in Sindhupalchowk District

Source: Sindhupalchowk DDC, April 2016

The number of human damage, victims, injured and missing in each VDC is as shown in following figure and table.

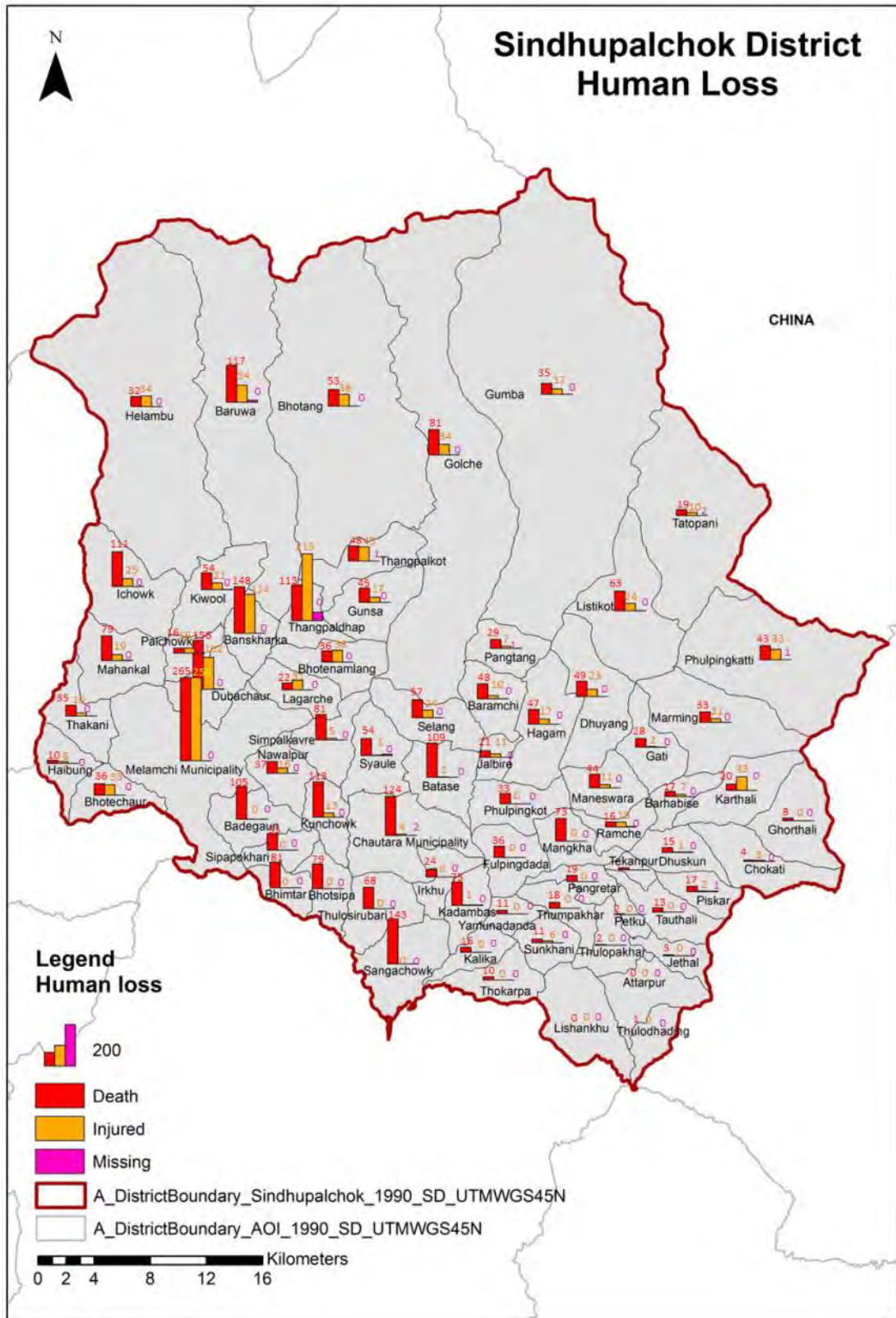


Figure. 3.13 Number of Human Damage
Source: Sindhupalchowk DDC, April 2016

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Table. 3.3 Number of Human Damage

No.	VDC Municipality	Death					Injured			Missing	
		Male	Female	Boy	Girl	Total	Male	Female	Total	Male	Female
1	Atarapur	0	0	0	0	0	0	0	0	0	0
2	Badegau	34	38	15	18	105	0	0	0	0	0
3	Banskharka	45	59	16	28	148	47	77	124	0	0
4	Baramchi	11	17	6	14	48	2	8	10	0	0
5	Barhabise	6	6	3	2	17	1	6	7	0	0
6	Baruwa	37	47	16	17	117	27	27	54	0	0
7	Batase	28	38	24	19	109	1	0	1	0	0
8	Bhimtar	18	39	13	11	81	0	0	0	0	0
9	Bhotang	15	22	8	8	53	20	18	38	0	0
10	Bhotechaur	7	13	7	9	36	18	15	33	0	0
11	BhoteNamlang	8	7	11	10	36	24	14	38	0	0
12	Bhotsipa	27	25	15	12	79	0	0	0	0	0
13	Chokati	0	0	2	2	4	2	1	3	0	0
14	Dhuskun	3	9	1	2	15	0	1	1	0	0
15	Duwachaur	46	59	23	28	156	39	63	102	0	0
16	Gati	9	14	1	4	28	1	1	2	0	0
17	Ghorthali	3	5	0	0	8	0	0	0	0	0
18	Ghumthang	18	31	15	24	88	3	10	13	0	0
19	Golche	24	28	14	15	81	21	13	34	0	0
20	Gumba	7	10	12	6	35	9	8	17	0	0
21	Gunsakot	10	9	13	13	45	9	8	17	0	0
22	Hagaam	11	18	12	6	47	6	11	17	0	0
23	Haibung	3	4	1	2	10	2	4	6	0	0
24	Helambu	12	10	3	7	32	18	16	34	0	0
25	Ichok	38	34	22	17	111	7	18	25	0	0
26	Irkhu	3	11	6	4	24	0	0	0	0	0
27	Jalbire	4	7	4	6	21	4	7	11	0	0
28	Jethal	1	2	0	0	3	0	0	0	0	0
29	Kadambas	16	30	8	21	75	1	0	1	0	0
30	Kalika	1	9	2	4	16	0	0	0	0	0
31	Karthali	6	8	2	4	20	0	0	0	0	0
32	Kiwool	12	25	6	11	54	11	10	21	0	0
33	Kunchok	24	47	17	25	113	3	10	13	0	0
34	Lagerche	6	6	3	7	22	20	11	31	0	0
35	Lisankhu	0	0	0	0	0	0	0	0	0	0
36	Listikot	18	24	11	10	63	13	11	24	0	0
37	Mahankal	18	31	14	16	79	6	13	19	0	0
38	Maneswora	13	13	11	7	44	8	3	11	0	0
39	Mankha	21	34	11	7	73	0	0	0	0	0
40	Marming	13	10	7	3	33	2	10	12	0	0
41	Nawalpur	9	21	3	4	37	6	10	16	0	0
42	Palchok	6	6	3	1	16	9	7	16	0	0
43	Pangretaar	4	13	0	2	19	0	0	0	0	0
44	Pangtang	3	13	6	7	29	2	5	7	1	0
45	Pedku	2	0	0	0	2	0	0	0	0	0
46	Phulpingdada	8	14	7	7	36	0	0	0	0	0
47	Phulpingkatti	12	18	7	8	45	11	22	33	1	0
48	Phulpingkot	11	11	2	9	33	0	0	0	0	0
49	Piskar	7	3	4	3	17	0	2	2	1	0
50	Ramche	4	8	2	2	16	8	7	15	0	0
51	Sangachok	28	56	29	30	143	0	0	0	0	0
52	Selang	18	25	8	6	57	10	14	24	0	0
53	Simpalkavre	23	30	15	13	81	1	4	5	0	0
54	SipaPokhare	10	28	6	9	53	0	0	0	0	0
55	Sunkhani	2	5	2	2	11	0	0	0	0	0
56	SyauleBazar	11	25	8	10	54	0	1	1	0	0
57	Tatopani	10	7	2	0	19	6	4	10	1	1
58	Tauthali	3	6	3	1	13	0	0	0	0	0
59	Tekanpur	3	2	0	1	6	0	0	0	0	0
60	Thakani	9	15	3	8	35	4	6	10	0	0
61	Thangpaldhap	28	47	14	24	113	77	136	213	0	0
62	Thanpalkot	16	17	4	11	48	17	28	45	1	0
63	Thokarpa	1	6	2	1	10	0	0	0	0	0
64	ThuloDhading	0	1	0	0	1	0	0	0	0	0
65	ThuloPakhar	1	0	0	1	2	0	0	0	0	0
66	ThuloSirubari	13	36	11	8	68	0	0	0	0	0
67	ThumPakhar	5	9	2	2	18	0	0	0	0	0
68	Yamunadanda	3	3	3	2	11	0	0	0	0	0
69	Chautara Muni.	30	58	18	18	124	2	2	4	0	2
70	Melamchi Muni.	58	103	52	52	265	124	132	256	0	0
	Other district	16	24	5	13	58	21	38	59	0	0
	Other Country	0	1	0	0	1	0	0	0	0	0
	Total	930	1,410	576	654	3,570	623	812	1,435	5	3

Source: Sindhupalchowk DDC, April 2016

3.2.4 Physical Damage

(1) Damage to Houses

The number of damaged houses by the earthquake in Sindhupalchowk District is as shown in following figure. The number of heavily damaged houses was 95,767; partially damaged houses were 1,848, and slightly damaged houses were 998 including animal sheds (The number is including damaged animal sheds). In total number of damaged houses, around 97% housings were heavily damaged by the earthquake.

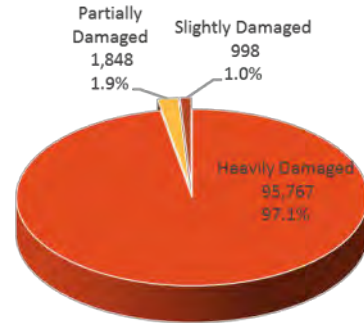


Figure. 3.14 Damaged Houses by the Earthquake in Sindhupalchowk District
Source: Sindhupalchowk DDC, January 2016

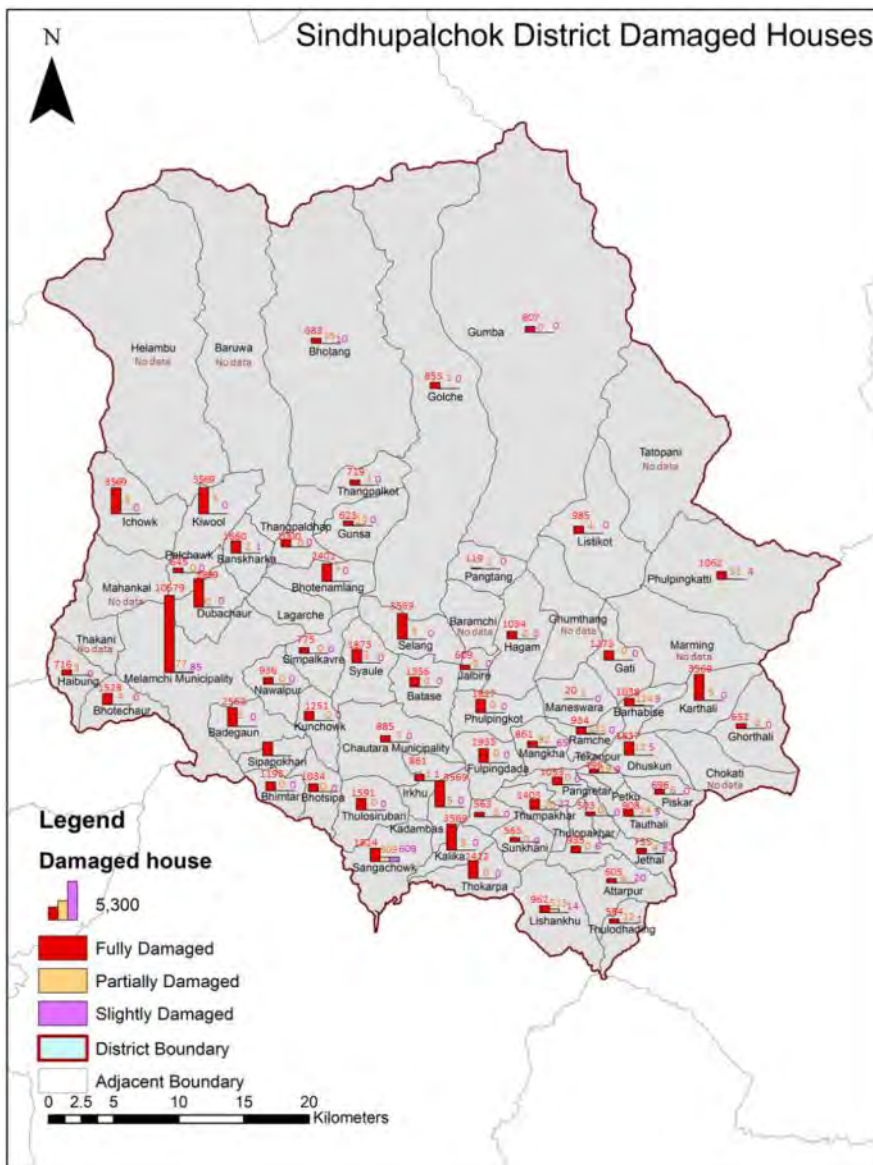


Figure. 3.15 Damaged Houses
Source: Sindhupalchowk DDC, January 2016



Picture 3.3 Landslide by the Earthquake (Marming)



Picture 3.4 Collapsed House (Chautara)



Picture 3.5 Collapsed Private House



Picture 3.6 Landslide Affected Housings (Tatopani)

(2) Damage to Schools

According to the data of the District Education Office, there are 547 schools and 5,347 classrooms. The number of students was 76,475. The earthquake affected also schools and damaged more than 95% classrooms. The total number of fully damaged classrooms was 3,607, the number of major damaged classrooms was 1,166; the number of minor damaged classrooms was 377 and the number of no damaged classrooms was only 197. In the earthquake, 27 teachers and 612 students lost their lives. The education sector overall suffered from the loss of nearly 2.2 Billion NPR.

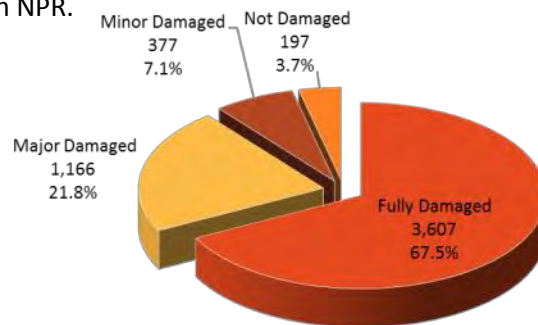


Figure. 3.16 Damaged Classrooms in Sindhupalchowk District

Source: Sindhupalchowk District Education Office, 2015

Sindhupalchowk District BBB Rehabilitation and Recovery Plan 2073/74 – 2082/2083



Figure. 3.17 Damaged Classrooms

Source: District Education Office 2015, prepared by JICA Project Team



Picture 3.7 Collapsed Classroom in Sindhupalchowk District

(3) Damage to Public Building

About 174 public buildings were fully damaged from the earthquake in April, 2015. At the Chautara Municipality, the headquarters of the district, most of district level government offices were heavily damaged. In addition, 85 health post offices and 45 VDC offices which are located in each VDC were also fully damaged.

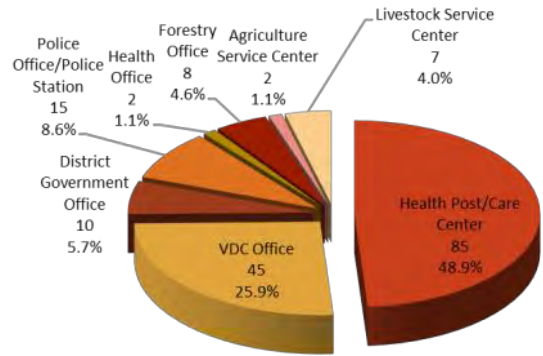


Figure. 3.18 Fully Damaged Public Buildings in Sindhupalchowk District

Source: Sindhupalchowk DDC, 2015



Figure. 3.19 Damaged Public Buildings

Source: Sindhupalchowk DDC 2015, prepared by JICA Project Team



Picture 3.8 Earthquake Damage to DDC Office (Left: Before the Earthquake, Right: After the Earthquake)

(4) Damage to Road

Some landslides hit roads and infrastructures directly in Sindhupalchowk District and caused over 195 Km of road blockade. After the earthquake, the damage of landslides on roads was a serious problem for early recovery activities, since they made it difficult to access the affected areas. According to DDRC, by early rehabilitation on roads by removing soils and stones on the road, the basic accessibility of 172 Km roads has been restored, but 23 Km roads are yet to be restored as of May, 2016. Additionally, some new landslides have hit roads in the rainy season; they were also serious problems for early recovery activities.



Figure. 3.20 Damaged Road from the Earthquake

Source: Sindhupalchowk DDC 2015, prepared by JICA Project Team



Picture 3.9 Road Condition after the Earthquake



Picture 3.10 Landslide Hit Highway

(5) Damage to Hydropower

According to the PDNA, total installed capacity of hydropower is 782MW in Nepal and 78.95MW in Sindhupalchowk District. A lot of hydropower projects were damaged by the earthquake in Nationwide. The damages were 171.5MW in Nepal and 71.4 MW in Sindhupalchowk District. Total losses in hydropower sector were estimated 18.75 billion NPR in Nepal and 7.8 Bbillion NPR in Sindhupalchowk District. In addition, total 14 micro hydro power was damaged with 123 KW installed capacity which affected 948 households in Sindhupalchowk District.

(6) Damage to Cultural Heritage

According to DDC as of September 2015, 206 Gumba, Monasteries and Stupas, and 426 temples collapsed by the earthquake.



Picture 3.11 Collapsed Monastery

3.2.5 Economic Damage

According to the PDNA, the per capita disaster effect of Sindhupalchowk District is around NPR 233,000. Economic damage statuses of several sectors from PDNA are as shown in following tables.

(1) Agriculture

Table. 3.4 Damage and Loss of Agriculture (NPR Million)

Crop Subsector			Livestock Subsector			Agriculture Total				
Damage	Loss	Total Effect	Damage	Loss	Total Effect	Damage	Loss	Total Effect	Private (%)	Public (%)
1,075.6	1,414.8	2,490.4	3,382.0	106.5	3,488.5	4,456.8	1521.3	5978.9	99.1	0.9

Source: PDNA, 2015

(2) Industry and Commerce

Table. 3.5 Damage and Loss to Industry Sector (NPR Million)

Micro		Cottage/Small		Medium & Large		Total	
Damage	Loss	Damage	Loss	Damage	Loss	Damage	Loss
230.13	127.85	130.85	1.05	8.72	13.84	369.71	142.7

Source: PDNA, 2015

Table. 3.6 Damage and Loss to Commerce Sector (NPR Million)

Micro		Cottage/Small		Medium & Large		Total	
Damage	Loss	Damage	Loss	Damage	Loss	Damage	Loss
603.02	121.82	78.2	0.36	8.01	12.5	689.25	134.68

Source: PDNA, 2015

(3) Tourism

Table. 3.7 Loss to Tourism Sector (NPR Million)

Damage to Physical Assets and Infrastructure	Impact on Livelihood Estimated at 10% of Damage	Loss from Tourist Ticket Sale	Total Value	Total Cost of Recovery and Reconstruction
150	15	0	165	180

Source: PDNA, 2015

(4) Employment and Livelihood

Table. 3.8 Lost Work Days and Loss of Income

Lost Work Days	Loss of Personal Income (Million NPR)
8,528,389	1,540.4

Source: PDNA, 2015



Picture 3.12 Collapsed Private Store in Barabise VDC



Picture 3.13 Collapsed Private Buildings in Sindhupalchowk District

Appendix. 4 HAZARD ASSESSMENT

4.1 Earthquake Hazard Assessment

4.1.1 Earthquake Disaster Profile in Nepal

Nepal is located in a unique location where Indian Plate moves beneath the Eurasian Plate as shown in following figure. Monitoring plate movement by Global Positioning System (GPS) indicates that the slip rate is an average of 20mm/year. Such continuous tectonic movement causes large scale earthquakes from time to time as have occurred in the past, when the accumulation of stress reaches to a point to break one of the plates. This is unique situation is unlike other areas where the subduction is in the ocean.

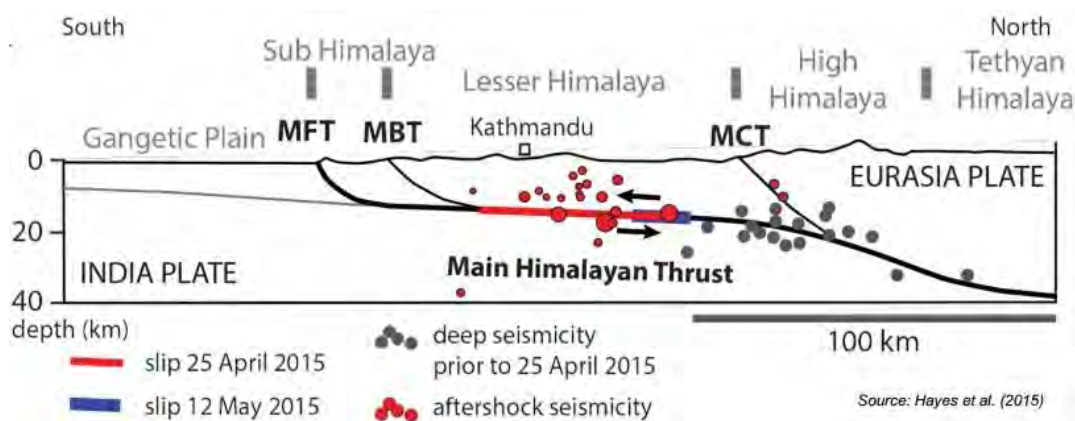


Figure 4.1 Generalized Cross Section²

Source: Hayes, G., R. Briggs, W. Barnhart, W. Yeck, D.E. McNamara, D.J.Wald, J. Nealy, H.M Benz, R. Gold, K. Jaiswal, K. Marano, P. Earle, M. Hearne, G. Smoczyk, L. Wald, and S. Samsonov, Rapid characterization of the 2015 Mw7.8 Nepal (Gorkha) earthquake sequence, in review, Seis. Res. Letters, 2015

4.1.2 Earthquake History in Nepal

Nepal has experienced significant earthquakes over the past centuries. Epicenters of historical earthquake are shown in the following figure, and list of historical earthquake that affected Nepal is tabulated in the following table. Due to the limited availability of historical records, earthquakes before 18th century are not well known.

Due to the existence of subduction zone, great earthquake with Magnitude greater than 8 occurred in Nepal historically. One example is the 1934 earthquake with magnitude 8, the worst disaster which killed more than 10,000 persons.

² It shows the approximate locations of slip during the 25 April and 12 May 2015 ruptures on the Main Himalayan Thrust, and approximate aftershock locations of both events. (MFT = Main Frontal Thrust, MBT = Main Boundary Thrust, MCT = Main Central Thrust Cross section generalized after Lave and Avouac, 2000 and Kumar et al., 2010.)

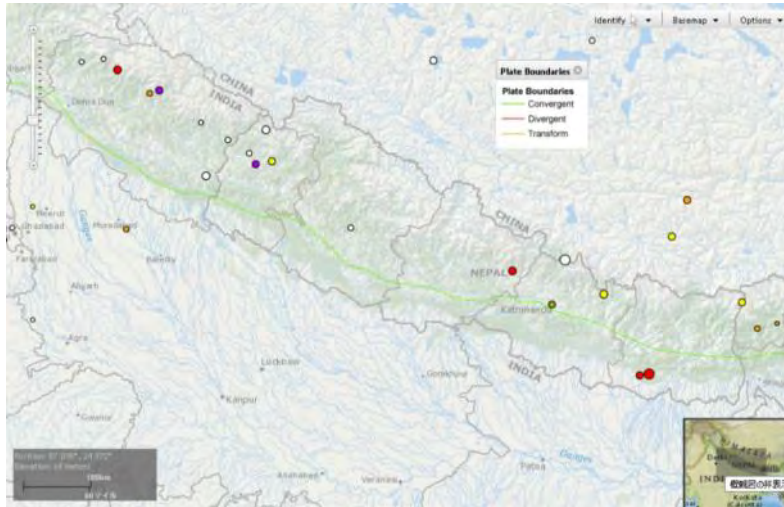


Figure 4.2 Location of Significant Earthquake in Nepal
Source: National Geophysical Data Center

Table 4.1 List of Significant Earthquake in Nepal

Date			Earthquake Location	Earthquake			Earthquake Effects									
				Focal Depth	Mag	MMI Int	Deaths		Injuries		Damage		Houses Destroyed		Houses Damaged	
Year	Mo	Dy	Name				Num	De	Num	De	\$Mill	De	Num	De	Num	De
1255	6	7	NEPAL: KATHMANDU					3			3		3			
1833	8	26	NEPAL: KATHMANDU; INDIA: BIHAR		8						3		3			3
1866	5	23	NEPAL: KATHMANDU								2		2			2
1869	7	7	NEPAL: KATHMANDU					3			4		4			4
1916	8	28	NEPAL: TIBET (XIZANG PROVINCE)	33	7.7											
1934	1	15	NEPAL; INDIA: BIHAR	35	8	11	10600	4			4		4			4
1966	6	27	NEPAL-INDIA	23	6.3	8	80	2	100	2	1	2	5200	4		
1980	7	29	NEPAL-INDIA: PITHORAGARH	18	6.5		200	3		3	245	4				
1988	8	20	NEPAL-INDIA: KATHMANDU, BIHAR	57	6.6	8	1091	4			131.5	4				
1993	10	20	NEPAL: NW; INDIA: UTTAR PRADESH	37	5.1						1					
2011	4	4	NEPAL-INDIA: UTTARAKHAND, UTTAR PRADESH	26	5.4						1					
2015	4	25	NEPAL: KATHMANDU	15	7.8		8200	4	17866	4	10000	4	299588	4	269107	4
2015	5	12	NEPAL: DOLAKHA	15	7.3		117	3	2800	4	2		2			

Source: National Geophysical Data Center

Iso-seismal maps for the 1833 earthquake (M 8) and the 1934 earthquake (M 8) are estimated as shown in following figures, respectively. Due to the great magnitude, a wide area was affected with seismic intensity greater than VII (very strong).

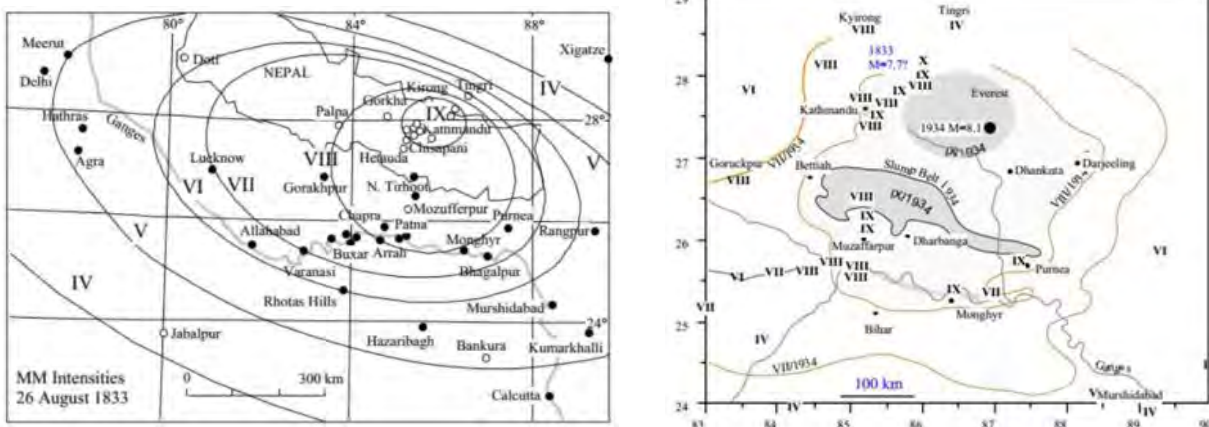


Table 4.2 Iso-seismal Map for the 1833 (Left) and 1934 (Right)

Source: Bilham, R., Location and magnitude of the 1833 Nepal earthquake and its relation to the rupture zones of contiguous great Himalayan earthquakes, Current Science, 69(2), 155-187, 25 July 1995

4.1.3 Active Faults in Nepal

Active faults are another source of potential earthquakes. Though the expected magnitude of earthquakes by active faults is smaller than that by inter plate earthquakes, earthquakes by active faults can cause locally severe damage due to the short distance to the affected area. Active faults in Nepal are identified from aerial photo interpretation, topography maps, and field survey are shown in following figure.

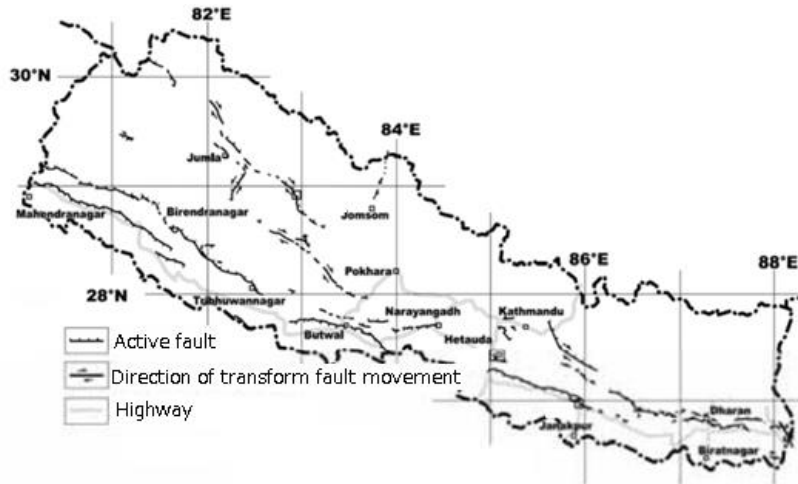


Figure 4.3 Active Faults in Nepal

Source: Kumahara Y and Nakata T, Detailed mapping on an active fault in a developing region and its significance : A case study of Nepal, ANREG 14, March 2005

4.1.4 Seismic Hazard in Nepal

Seismic hazards on regional scale is evaluated as shown in following figure. Modified Mercalli Scale to return period of 475 years for medium subsoil is evaluated as IX or higher in Southern part of Nepal, and the value for the rest of the country is VIII.

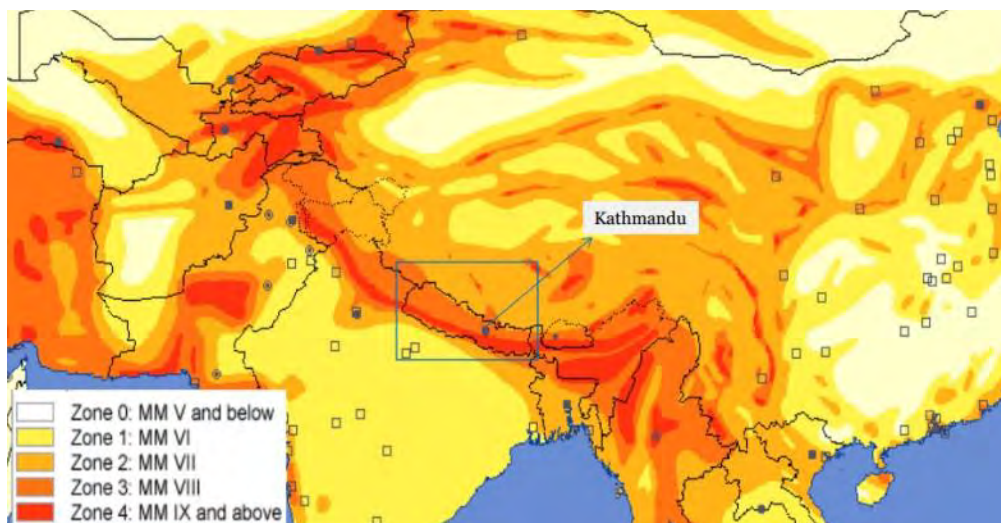


Figure 4.4 Probable Maximum Intensity in Regional Scale

Source: Global Seismic Hazard Assessment Program, 1999

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An earthquake is the most significant hazard in Nepal, though the occurrence is infrequent. Earthquakes with magnitude greater than 8 occurred historically because of the subduction environment. Active faults are also another source of local scale earthquake. Probabilistic seismic hazard assessment shows that Mercalli Intensity greater than IX in southern Nepal and VIII in the rest of Nepal on medium subsoil in return period of 475 years.

Seismic Intensity distribution is estimated for the 2015 earthquake based on human reports and empirical estimation. Long period of motion in Kathmandu valley was observed due to the amplification by deposit. High-rise buildings or scale structures should be built taking this factor into account. Slip potential and GPS observation suggests that potential of major earthquake with magnitude greater than 8 in the western part of Nepal remains. The figure showed the possible intensity is VIII in Sindhupalchowk District. The figure indicates it is probable that similar intensity of earthquake will occur in the future.

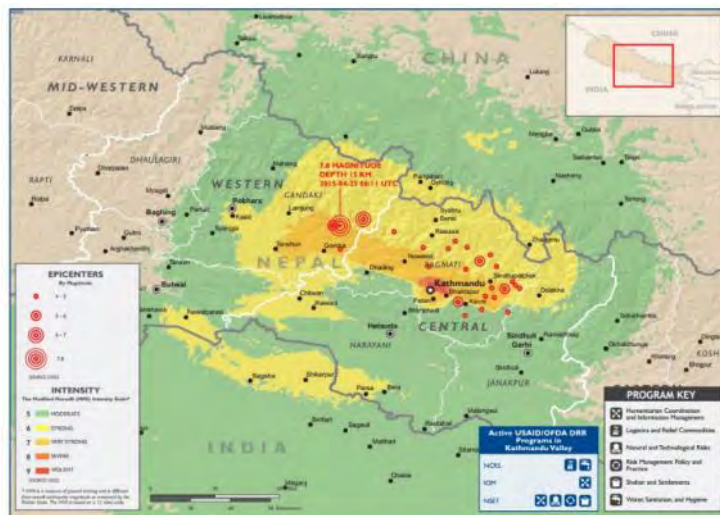


Figure 4.5 Estimated Seismic Intensity Distribution of the 2015 Gorkha Earthquake

Source: United States Geological Survey (USGS)

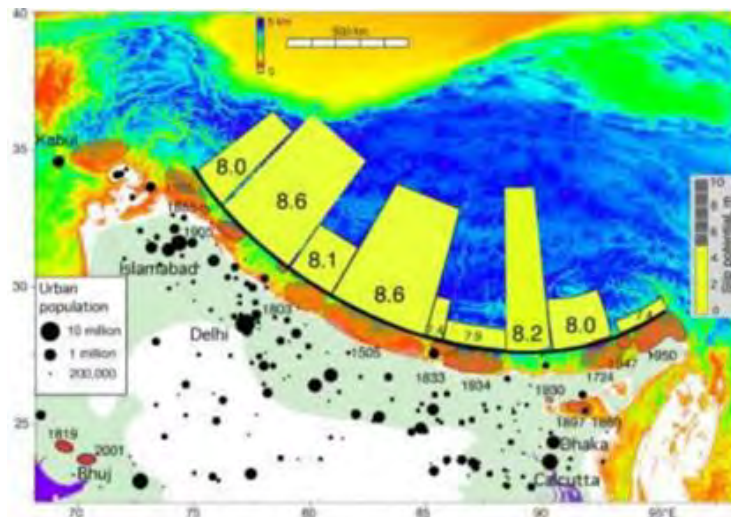


Figure 4.6 Slip Potential in Himalaya based on Elapsed Time since Last Major Earthquake and GPS Observation

Source: Ambraseys, N., and D. Jackson, A note on early earthquakes in northern India and southern Tibet, Current Science, 84(4), 571-582, 2003

4.2 Landslide Hazard Assessment

4.2.1 Landslide Characteristics

The JICA Project Team identified almost of all landslides caused by the earthquake in Sindhupalchowk District by plotting each landslide from the satellite maps both before and after the earthquake. The prepared map on the distribution of landslides by the earthquake in Sindhupalchowk District is as shown in the following figure 3.7. According to this distribution map, a large number of landslides were caused by the earthquake and many of landslides were located in northern part of the district. The figure 3.8 indicates the area of landslide by each VDC. In regard to the landslide area, Tatopani, Helambu and Bhotang were most affected areas by landslides from the earthquake. The following table indicates the number and the area of landslides on top 20 VDCs in Sindhupalchowk District. The area and number of landslides on above three VDCs are: 1)Tatopani; 2.57Km² for 351 landslides, 2) Helambu; 462, 2.41Km² for 462 landslides, 3) Bhotang; 2.27Km² for 507 landslides.

Table 4.3 Number and Area of Landslides on Top 20 VDCs in Sindhupalchowk District

VDCname	VDC Area (sqkm)	Number of Landslide	Landslide Area (sqkm.)	Rank
TATOPANI	93.29	351	2.5694	1
HELAMBU	186.09	462	2.4068	2
BHOTANG	186.50	507	2.2732	3
BARUWA	137.10	456	1.9820	4
GUMBA	314.22	212	1.7865	5
GOLCHE	191.67	398	1.7015	6
MARMING	49.00	226	0.9679	7
PHULPINGKATTI	85.25	196	0.8195	8
LISTIKOT	50.43	214	0.8092	9
RAMCHE	11.33	2	0.7240	10
DHUYANG	36.34	244	0.4544	11
GATI	19.23	90	0.4089	12
GHORTHALI	28.93	47	0.3987	13
KARTHALI	26.07	72	0.3622	14
THAKANI	19.12	35	0.2582	15
LAGARCHE	16.66	97	0.2239	16
TEKANPUR	4.56	3	0.1786	17
CHOKATI	25.87	43	0.1730	18
THANPALKOT	21.78	37	0.1405	19
BATASE	22.12	41	0.1248	20

Source: JICA Project Team



Picture 4.1 Landslide by the Earthquake in Sindhupalchowk District

Source: JICA Project Team

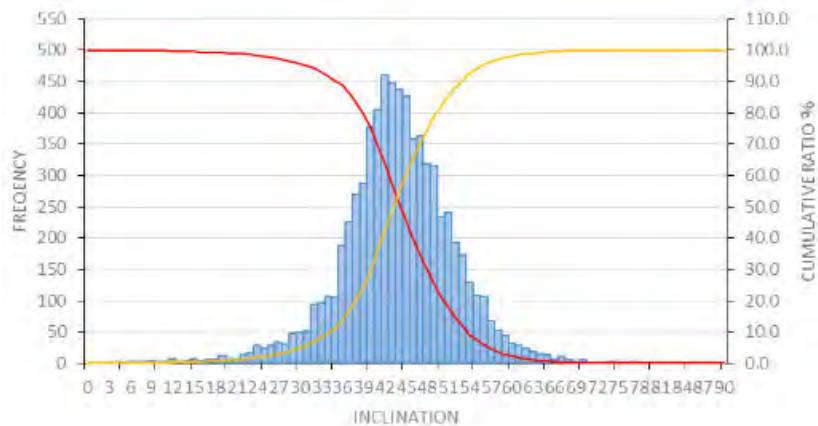


Figure 4.9 Collapsed Slope Frequency Distribution by Inclination

Source: JICA Project Team

(2) Slope Direction

Every landslide slope direction is divided into eight directions and each collapsed slope is statistically processed to compare its tendency of slope direction. The slope collapse of the South-East direction (S-E) holds a large proportion. The reason why the S-E direction holds a high proportion is considered to be the influence of geological structures, such as the strike and dip of schistosity plain or joint surface, or the fault and fold structure of strata. According to the released analysis of the Tokyo University Earthquake Research Institute, the fault rupture proceeded from the epicenter to east-southeast direction. This fact is consistent with the slope directions with a lot of slope failure.

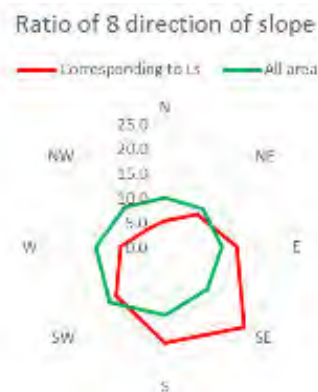


Figure 4.10 Proportions of Collapsed Slope Direction in Sindhupalchowk District

Source: JICA Project Team

(3) Geological Structure

The geology of Sindhupalchowk District features some kind of crystalline schist in Precambrian. The following figure shows the geology, distribution of epicenters in previous earthquakes, and locations of landslides by the earthquake in 2015. The Main Central Thrust (MCT) exists south of the center of Sindhupalchowk District with a curved shape. There are several thrust faults within the MCT, and landslides tend to be distributed along with these faults. There were many landslides in the north of MCT.

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value to 20 points. The final evaluation points were modified by consideration of local circumstances and the other criteria as shown in remarks.

Table 4.4 Risk Evaluation Point List by Quantification Theory 2

Item	Classification	Category	Gorkha			Remarks	Shindhupalchok			Remarks
			Category score※1	Primary evaluation point ※2	Final evaluation point ※3		Category score※1	Primary evaluation point ※2	Final evaluation point ※3	
Slope inclination (degree)	0~10 or less	1	-0.45	2	0	*The 10 degrees or less slope was evaluated 0 in accordance with local situation *The evaluation points 20 to 30 were considered to be point3 as same as Shindhupalchok.	-0.89	2	0	*The 20 degrees or less slope was evaluated 0 in accordance with local situation
	10~20 or less	2	-0.69	0	0		-0.81	2	0	
	20~30 or less	3	-0.66	0	3		-0.71	3	3	
	30~40 or less	4	-0.06	6	6		-0.07	7	7	
	40~50 or less	5	0.59	11	11		1.30	16	16	
	50~60 or less	6	0.67	12	12		1.90	20	20	
	60~70 or less	7	0.51	11	11		1.60	18	18	
	70~80 or less	8	0.14	7	7		0.75	12	12	
	80~90 or less	9	0.12	7	7		0.00	0	0	
Slope direction (8 direction)	N	1	-0.12	5	3	*Comparing the field survey results and analysis results, modified evaluation points should be evaluated as around 1/2 of the primary evaluation point because the influence by the slope direction was confirmed to be relatively low.	-0.30	6	3	*Comparing the field survey results and analysis results, modified evaluation points should be evaluated as around 1/2 of the primary evaluation point because the influence by the slope direction was confirmed to be relatively low.
	NE	2	0.08	7	3		-0.06	7	4	
	E	3	0.16	8	4		0.20	9	4	
	SE	4	0.33	9	5		0.68	12	6	
	S	5	0.13	7	4		0.25	9	5	
	SW	6	-0.08	5	3		-0.15	7	3	
	W	7	-0.22	4	2		-0.29	6	3	
	NW	8	-0.21	4	2		-0.36	5	3	
Relationship with MCT	Inside MCT	1	1.58	20	7	*According to the actual condition of the fault affects, evaluation points were reduced to 1/3 of the primary ones. For the others, the evaluation score was reduced to 1/2. *Regarding to the distance 10 km or more from the south side, the evaluation point was adjusted from the surrounding situation.	0.39	10	5	*According to the actual condition of the fault affects, evaluation points were reduced to 1/2 of the primary ones. *Regarding to the distance 10 km or more from the south side, the evaluation point was adjusted from the surrounding situation.
	North 0~10km below	2	-0.20	4	2		0.05	8	4	
	North 10~20km below	3	-0.55	1	1		0.16	9	4	
	North 20~30km below	4	-0.46	2	1		-0.18	6	3	
	North 30km or more	5	-0.43	2	1		-1.16	0	0	
	South 0~10km below	6	-0.38	3	1		-0.16	6	3	
	South 10~20km below	7	0.04	7	1		-0.59	4	2	
	South 20~30km below	8	0.44	10	0		0.00	0	0	
Distance from hypocenter	0~10km below	1	-0.20	4	1	*Since the influence on the slope collapse was seem to be small, the evaluation point 1 was uniformly set.	0.06	8	3	*Evaluation score was set to be 1/2 to 1/3 of the primary evaluation point as well as MCT factor and slope direction factor.
	10~20km below	2	-0.20	4	1		-0.03	7	2	
	20~30km below	3	-0.30	3	1		-0.94	1	1	
	30km or more	4	—	0	0		0	0	0	

*1: Analysis results based on Quantification Theory 2
 *2: Evaluating score was modified to proportional distribution and its maximum value 20.
 *3: Evaluating score was modified based on field situation and disaster record.

Source: JICA Project Team

Based on evaluation points by Quantification Theory 2, total points of each mesh were calculated. The following figure shows the aggregated result of the total score in Sindhupalchowk Districts. The larger the value means higher risk of slope collapse and particular evaluation colors were allocated in accordance with each risk level. In these tables, “Cumulative relative frequency” means piled up each occupancy rate (%) from the lowest range to targeted range, so that it shows total occupancy rate (%) at the targeted range. Based on the evaluated total points in each mesh, the landslide hazard map was created as shown in following figures.

Table 4.5 Risk Evaluation Point List by Quantification Theory 2 in Sindhupalchowk District

Range of color	Total points	Cumulative relative frequency	Situation in the field
White~Blue <i>Low risk</i> ~	5~11	About 6% cumulative relative frequency	Mainly incline 20 degrees or less, gentle slope
Yellow green~ Yellow <i>Medium risk</i> ~	12~16	6%~34% cumulative relative frequency	Incline 20 to 30 degrees, normal slope
Orange~Red <i>High risk</i> ~	17~19	Total relative frequency is 34%~86%.	Incline more than 30 degrees, sharp terrain
Red~Purple <i>Very high risk</i> ~ <i>Extremely high risk</i>	20~30	Total relative frequency is above 86%	Incline more than 30 degrees, very sharp terrain reflects geological conditions of Sindhupalchowk District.

Source: JICA Project Team

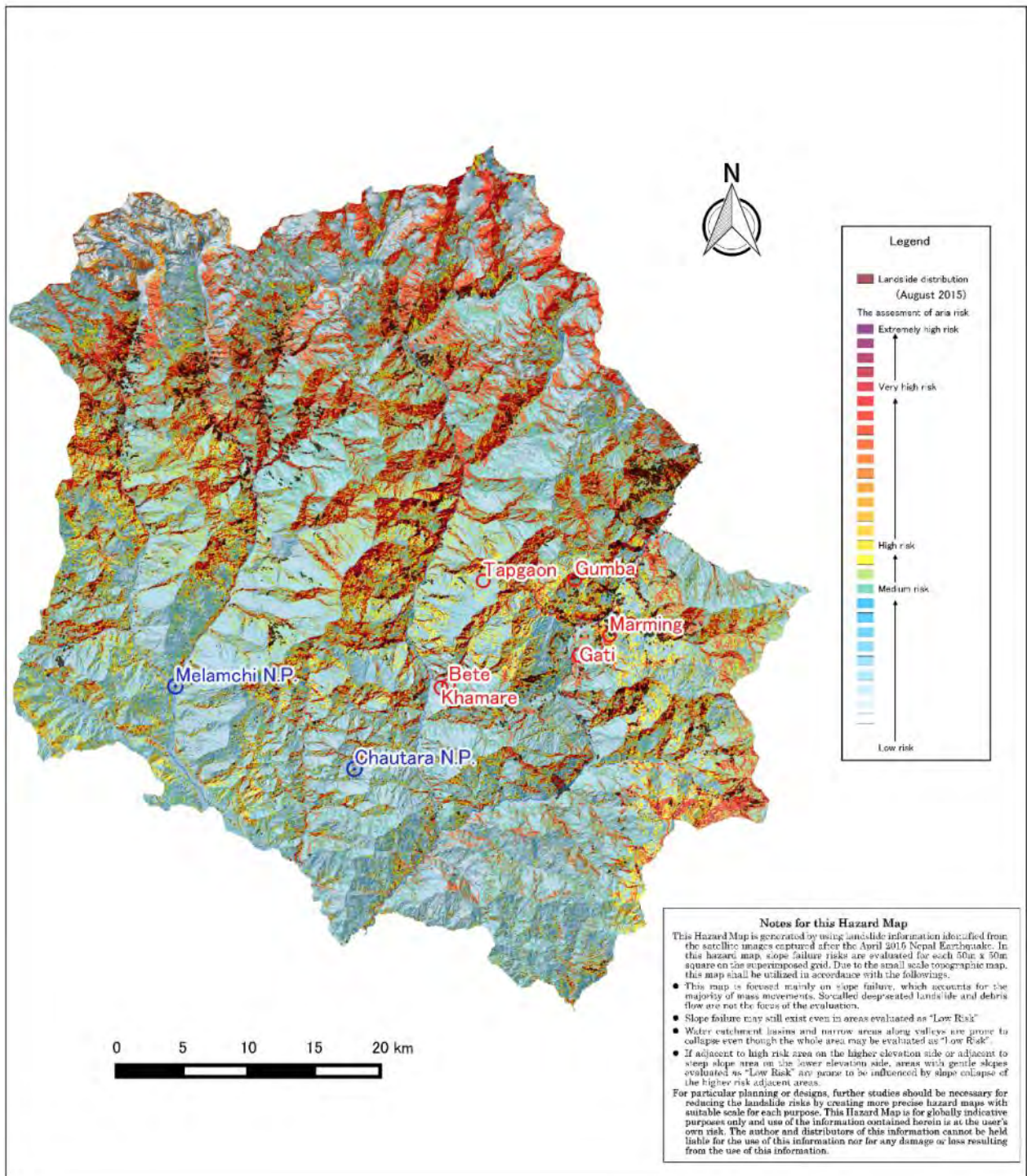


Figure 4.12 Landslide Hazard Map of Sindhupalchowk District

Source: JICA Project Team

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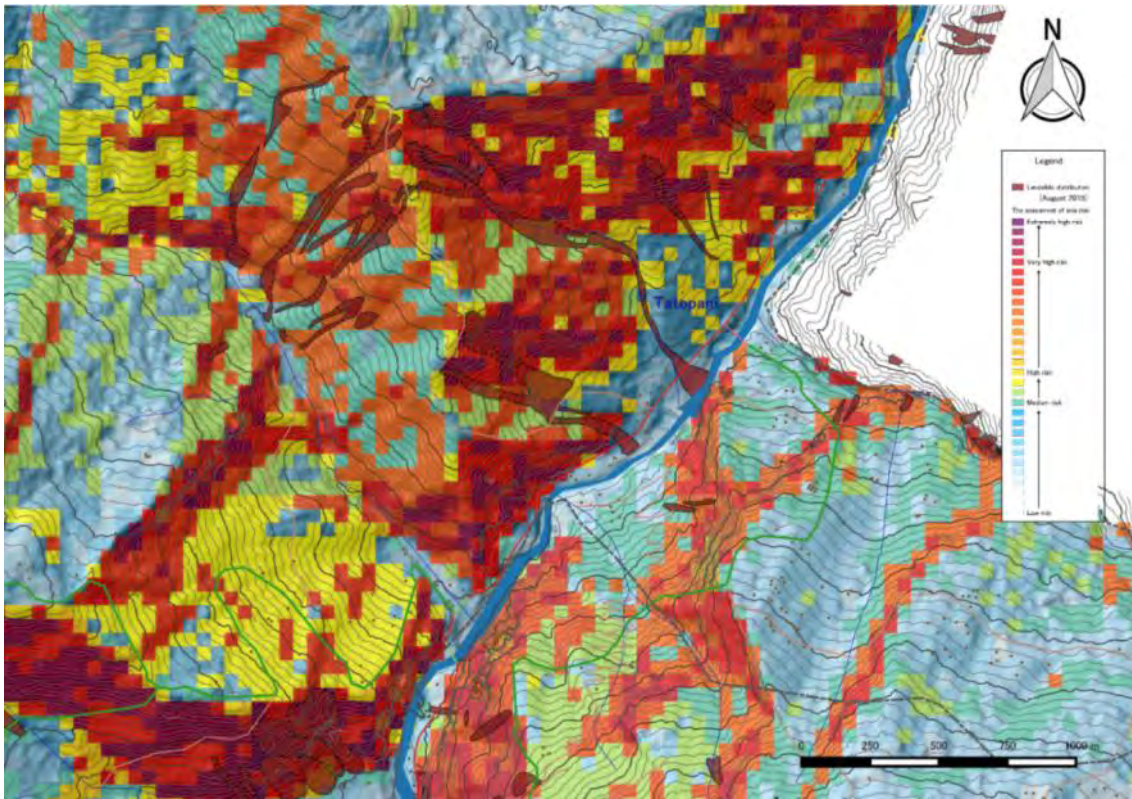


Figure 4.13 Enlarged Landslide Hazard Map in Tatopani VDC

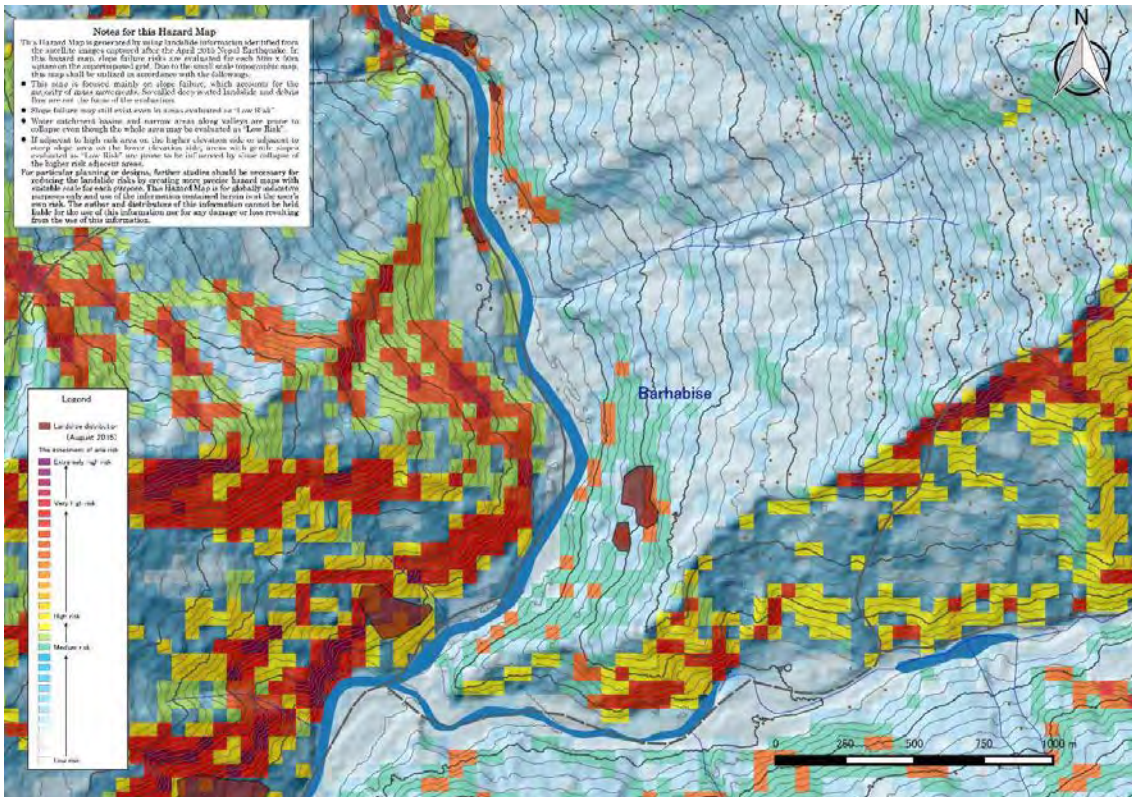


Figure 4.14 Enlarged Landslide Hazard Map in Barabise VDC

Source: JICA Project Team

(2) Notice for Utilization of Landslide Hazard Map

The landslide hazard map is generated by using landslide information identified from the satellite images captured after the April 2015 Nepal Earthquake. In this hazard map, slope failure risks are evaluated for each 50m x 50m square on the superimposed grid. Due to the small scale topographic map, this map shall be utilized in accordance with the followings.

- This map is focused mainly on slope failure, which accounts for the majority of mass movements. So-called deep-seated landslide and debris flow are not the focus of the evaluation.
- Slope failure may still exist even in areas evaluated as “Low Risk”
- Water catchment basins and narrow areas along valleys are prone to collapse even though the whole area may be evaluated as “Low Risk”.
- If adjacent to high risk area on the higher elevation side or adjacent to steep slope area on the lower elevation side, areas with gentle slopes evaluated as “Low Risk” are prone to be influenced by slope collapse of the higher risk adjacent areas.

For particular planning or designs, further studies should be necessary for reducing the landslide risks by creating more precise hazard maps with a suitable scale for each purpose. This hazard map is for globally indicative purposes only and use of the information contained herein is at the user’s own risk. The author and distributors of this information cannot be held liable for the use of this information nor for any damage or loss resulting from the use of this information.

Appendix. 5 FORMULATION PROCESS OF PDDP AND RRP

The JICA Project Team had been communicating with the LDO and relevant officials of the Sindhupalchowk District since the beginning of the project and has agreed to formulate a PDDP. Initial discussion on the RRP was conducted on July 21st, 2015 between the Sindhupalchowk DDC and the JICA Project Team. The contents of RRP were also discussed between the JICA Project Team and officials of MOFALD on August 18th, 2015. After a series of discussions, all parties including the Sindhupalchowk DDC, the MOFALD and the JICA Project Team came to a mutual understanding to jointly prepare the PDDP for Sindhupalchowk District incorporating necessary rehabilitation and recovery aspects (RRP) with input from the JICA Project Team.

The JICA Project Team and the Sindhupalchowk DDC concluded the MOU to formulate the PDDP incorporating the RRP on March 1st, 2015. The MOU also incorporated the NRA as a stakeholder of PDDP revision with role of coordination and monitoring the progress.

The chronology of meetings and consensus building on preparation of Sindhupalchowk District PDDP incorporating RRP until the Preliminary Preparedness Workshop is as shown in the following tables.

Table 5.1 Chronology of Events on Preparation of Sindhupalchowk District PDDP and RRP (1/2)

Date	Participants	Contents
15 June 2015	GON (MOF, NPC) GOJ (JICA)	Record of Discussion on the “Project on Rehabilitation and Recovery from Nepal Earthquake” including preparation of the Rehabilitation and Recovery Plans in Gorkha and Sindhupalchowk District was agreed upon between the Government of Nepal and Government of Japan through JICA
21 July 2015	LDO: Mr. Mahesh Barel JICA Project Team	Meeting: Discussion on preparing Sindhupalchowk District
Aug.-Sep. 2016	JICA Project Team	Social Survey was conducted in 6 VDCs and 2 Municipalities by JICA Project Team
11 Aug. 2015	LDO JICA Officials JICA Project Team	Meeting: Discussion and agreement for preparation of RRP by JICA, and PDDP incorporating RRP
18 Aug. 2015	MoFALD: Mr. Chhabi Rijal(US), Mr. Jagannath Adhikar (Planning Specialist) JICA Officials, JICA Project Team	Meeting: Discussion and agreement for preparation of RRP by JICA, and PDDP incorporating RRP
27 Aug. 2015	Mr. Anirudra Nepal (DDC Auditing Officer & DDRC Focal Person) JICA Project Team	Meeting: Discussion and agreement for preparation of RRP by JICA, and PDDP incorporating RRP
6 Oct. 2015	LDO: Mr. Krishna Bahadur Shahi, CDE: Mr. Ganeshral Kaju, Mr. Anirudra JICA Project Team	Meeting: Discussion for preparation of RRP by JICA, and PDDP incorporating RRP

Table 5.2 Chronology of Events on Preparation of Sindhupalchowk District PDDP and RRP (2/2)

Date	Participants	Contents
11 Jan. 2016	DDC: Mr. Rajubhai Shrestha, Mr. Anirudra	Meeting: Discussion on preparing Sindhupalchowk District PDDP incorporating RRP
4 Feb. 2016	DDC: LDO, Planning Officer, Mr. Anirudra, JICA Project Team	Meeting: Discussion on MOU for preparing Sindhupalchowk District PDDP incorporating RRP
24 Feb. 2016	MoFALD: Mr. Chhabi Rijal (US), Mr. Khem Raj Joshi (Planning Section) JICA Officials JICA Project Team	Meeting: Discussion on MOU for preparing Gorkha and Sindhupalchowk District RRP and PDDP
30 Feb. 2016	NRA Dr. Bhisma K. Bhusal (Under Secretary)	Meeting: Discussion on preparing Sindhupalchowk District RRP and PDDP, and MOU
1 Mar. 2016	NRA, MoFALD, LDO, JICA, JICA Project Team	MOU for preparation of Sindhupalchowk District RRP and PDDP with JICA Team was signed by LDO and JICA Project Team, as witness MoFALD and NRA
18 Mar. 2016	DDC	EOI publication on the consultants for PDDP planning
29 Apr. 2016	NRA, MoFALD, UNDP, JICA, JICA Project Team	Meeting: In the discussion on “Disaster Recovery Planning Guidebook”, NRA Dr. Bhusal reminded JICA initiatives in preparing RRP for Sindhupalchowk and Gorkha and signed MoU with DDCs regarding the support in PDDP.
22 May 2016	DDC: Mr. Anirudra(IAO), Mr. Rajendra (PMAO) JICA Project Team	Meeting: Discussion on contents, planning process and collaboration of PDDP consultants on Sindhupalchowk District RRP and PDDP
12 June 2016	DDC: LDO, IAO, PMAO PDDP Consultants JICA Project Team	Joint Meeting: Discussion on contents, planning process and the schedule of the Preliminary Preparedness Workshop on Sindhupalchowk District PDDP and RRP
12 June 2016	NRA Special Contact Office: Mr. Bhuwaneshwor Lamichhane (Chautara CEO)	Meeting: Discussion and agreement for preparing Sindhupalchowk District PDDP incorporating RRP
17 June 2016	PDDP Consultants JICA Project Team	Meeting: Discussion for preparing Sindhupalchowk District PDDP incorporating RRP and formulation of Joint Planning Team
20 June 2016	PDDP Consultants JICA Project Team	Meeting: Discussion on Preliminary Preparedness Workshop and necessary information for formulating PDDP incorporating RRP
23 June 2016	DDC PDDP Consultants	Contract agreement between Sindhupalchowk DDC and PDDP Consultants
23 June 2016	DDC: LDO, Mr. Anirudra, Planning Officer PDDP Consultants JICA Project Team	Meeting: Discussion on the Preliminary Preparedness Workshop of PDDP incorporating RRP

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The summary of planning activities for the formulation of PDDP and RRP after the Preliminary Preparedness Workshop is as shown in following tables.

Table 5.3 Summary of Planning Activities on Sindhupalchowk District PDDP and RRP (1/6)

Date/Events	Participants	Summary of Contents / Discussions
24 June. 2016 Preliminary Preparedness Workshop	LDO, CDE, PMAO CDO DDC Officials NRA-SCO Line Agencies Parliament Members Political Parties I/NGOs Former DDC Chairman UNDP Team Other Stakeholders Journalists PDDP Consultants JICA Officials JICA Project Team (Approx. 80 people)	Chairman: LDO (Mr. Krishna Bahadur Shahi) Facilitator: Mr. Anirudra Nepal (Focal person of PDDP and DDRC) ➤ Opening remarks from Mr. Rajendra Nepal (PMAO) ➤ Explanation of the programme from LDO ➤ Presentation from PDDP Consultants (Background, vision, process and output of PDDP) ➤ Formulating sectoral committees by PDDP consultants as follows; - Physical Infrastructure Development Committee - Social Development Committee - Economic Development Committee - Forest, Environment and Disaster Management Committee - Institutional Dev. and Resource Mobilization Committee ➤ Presentation from JICA Project Team (Necessity and Concept of RRP, Framework of PDDP incorporating RRP, Background of JICA Project, Japanese Experience) ➤ Remarks from Former DDC chair., Mr. Gokarna Mani Duwadi (CDO), Mr. Sher Bahadur Tamang (MP), LDO ➤ Explanation from PDDP Consultants (Overall work schedule, formulation of committees as follows) - Steering Committee - 1 - Sectoral Committee – 5 sectors - Technical committee (Internal task force from DDC) - 1 ➤ Open discussion with participants ➤ Closing remarks from the representatives of all political parties, Mr. Hirabayashi from JICA, LDO
25 June. 2016 Meeting with Local Service Providers	DDC Officials Local Service Providers PDDP Consultants JICA Project Team	➤ Consultant team requested LSPs (Local NGOs working for information collection) to provide information while performing cluster level WS. LSPs agreed to avail information, basically related to poverty mapping. JICA Project Team explained the importance of data & information needed for both RRP and PDDP.
1 July 2016 Meeting with Development Partners, I/NGOs	Development Partners (UNDP, WHO, INGOs etc.) LDO, PMAO Mr. Anirudra (IAO) DDC Officials PDDP Consultants JICA Project Team	Chairman: LDO (Mr. Krishna Bahadur Shahi) Facilitator: Mr. Anirudra Nepal (DDC Focal person of PDDP) ➤ Opening remarks from Mr. Anirudra Nepal (PDDP Focal Person) (Objectives, Overview of preparing the PDDP integrating RRP, Roles and responsibilities, partners and political parties) ➤ Presentation from PDDP Consultant (Background of PDDP) ➤ Presentation from JICA Project Team (Importance and necessity of RRP, JICA activities after earthquake) ➤ Request check list to participants from PDDP Consultants ➤ Explanation from LDO (Importance of PDDP as a guide documents to all stakeholders) ➤ Closing remarks from LDO
26 July 2016 VDC Secretaries Orientation Programme	VDC Secretaries, Municipalities (Chautara, Melamchi) NRA-SCO DDC Officials PDDP Consultant JICA Project Team (Approx. 60 people)	➤ Explanation from PDDP Consultants (PDDP and its legal provision, Data collection checklist) ➤ Explanation from JICA Project Team (Importance and process of RRP, Expected support from VDCs) ➤ Open Discussion (All VDC secretaries agreed to provide requested information. VDC secretaries also agreed to facilitate the cluster WSs.)

Table 5.4 Summary of Planning Activities on Sindhupalchowk District PDDP and RRP (2/6)

Date/Events	Participants	Summary of Contents / Discussions
26 July 2016 Steering Committee Meeting	Line Agencies LDO, IAO DAO DDC Officials Former DDC Chairman PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Meeting was held to discuss further actions and work plan. ➤ Steering committee meeting instructed all the line agencies and stakeholders to provide data and information needed for plan preparation. ➤ Mr. Anirudra (IAO) will be a coordinator of cluster WSs. ➤ Meeting also gave responsibility to Mr. Raju Bhai Shrestha to coordinate with DPs, I/NGOs and UN agencies to collect relevant information from them.
1-10 Aug. 2016 Cluster Workshops (8 clusters)	VDC Secretaries VDC Social Mobilizers District Level Political Parties representing each cluster Illaka Level Offices VDC Organisations School Management Committee Health Posts etc. PDDP Consultants JICA Project Team (50-70 people/cluster)	<ul style="list-style-type: none"> ➤ To identify sub-district level problems, issues and specific potential for planning purpose, Cluster Workshops were held in each 8 cluster, which were formed including all VDCs and Municipalities. ➤ Clusters are as follows: 1)1)Melamchi, 2) Tipeni, 3) Sipaokhare, 4)Jalbire, 5)Chaurata, 6)Barabise Bazar, 7)Khadichour, 8)Thulopakhar ➤ JICA Project Team focused mainly on rehabilitation and recovery issues of the area. In most of the places, local market for the construction materials were not seen. (For details of problems and issues which were discussed in the meeting, refer to the following table)
23 Aug. 2016 Meeting with DDC	DDC Officials PDDP Consultant JICA Project Team	<ul style="list-style-type: none"> ➤ Meeting: Planning proceedings and the contents of the Vision Workshop were discussed.
24 Aug. 2016 Social Development Committee	District Medical Superintendent DEO, DWCO NGO Federation, Children Club, Youth Network, DDC Social Development Officer LDO, DAO Other Stakeholders PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Consultants presented the issues and problems identified from Cluster WSs. ➤ Social problems and issues were discussed (Health, Education and others). ➤ The main issue in both health and education in the reconstruction was that donors or supporter has been mainly focusing on building structures and support for internal furniture and equipment is insufficient. (For details of problems and issues which were discussed in the meeting, refer to the following table)
25 Aug. 2016 Institutional Development Committee	DDC Officials Municipality CEO, Treasury Officer PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Consultants presented the issues and problems identified from Cluster WSs. ➤ Institutional problems and issues were discussed (Health, Education and others). (For details of problems and issues which were discussed in the meeting, refer to the following table)
25 Aug. 2016 Meeting with Community People (Participatory Rural Appraisal)	1) Majhi Community at Bhimtar, Sangachowk VDC (Approx. 60 people) 2) Tamang Community at Gunsale, Syaule VDC (Approx. 40 people) PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Explanation from PDDP Consultants and JICA Project Team ➤ Problems and issues of community people were discussed. (For details of problems and issues which were discussed in the meeting, refer to the following table)

Table 5.5 Summary of Planning Activities on Sindhupalchowk District PDDP and RRP (3/6)

Date/Events	Participants	Summary of Contents / Discussions
28 th Aug. 2016 (Morning) Economic Development Committee	District Agriculture Development Office (DADO), District Livestock Office (DLSO), District Cottage and Small Industry Office, District Cooperative Association, Representative from tourism, business & banking sector, DDC & PDDP Consultants	<ul style="list-style-type: none"> ➤ Consultants presented the issues and problems identified from Cluster Ws. ➤ Problems and issues related to economy and livelihood were discussed (Agriculture, Livestock, Tourism, Industries, Banking and Financial sector etc.). ➤ Line agencies and other participants shared their views and issues related to economic sector. ➤ Meeting also decided to facilitate data and information collection process. (For details of problems and issues which were discussed in the meeting, refer to the following table)
28 th Aug. 2016 (Afternoon) Forest, Environment and Disaster Management Committee	District Forest Office, District Land Conservation Office, Nepal Red Cross Society, Chautara Municipality, District Administration Office, Nepal Army, Nepal Police, Armed Police Force, NGO Federation, DDC & PDDP Consultants	<ul style="list-style-type: none"> ➤ Consultants presented the issues and problems identified from Cluster Ws. ➤ Problems and issues related to environment, Forest & Disaster Management were discussed. ➤ Line agencies and other participants shared their views and issues related to the sector. ➤ Meeting also decided to facilitate data and information collection process. (For details of problems and issues which were discussed in the meeting, refer to the following table)
29 th Aug. 2016 Physical Infrastructure Committee	District Technical Office, DUDBC Division Office, District Irrigation Office, Nepal Telecom, Drinking Water Supply and Sanitation Office, Chautara Municipality, DDC & Consultants	<ul style="list-style-type: none"> ➤ Consultants presented the issues and problems identified from Cluster Ws. ➤ Line agencies and other participants shared their views and issues related to physical infrastructure sector. (For details of problems and issues which were discussed in the meeting, refer to the following table)
30 th Aug. 2016 FGD (with Disabled People Children and Youths)	Focus Group (Representatives of Disable people, Children (District Children Network), and Youths (District Youth Committee)) (Approx. 12 people) DDC & Consultants	<ul style="list-style-type: none"> ➤ The FGD (Focus Group Discussion) was held with Focus Group to identify their specific issues, problems and needs. ➤ Consultants presented the issues and problems identified from Cluster Ws and sectoral meetings. ➤ Problems and issues related to disabled people, children and youths were discussed. (For details of problems and issues which were discussed in the meeting, refer to the following table)
31 st Aug. 2016 FGD (with Dalits & Women)	Focus Group (Representatives of Dalit, and Women (District Women Network)) (Approx. 12 people) DDC PDDP Consultant	<ul style="list-style-type: none"> ➤ The FGD (Focus Group Discussion) was held with Focus Group to identify their specific issues, problems and needs. ➤ Consultants presented the issues and problems identified from Cluster Ws and sectoral meetings. ➤ Problems and issues related to Dalits and women were discussed. (For details of problems and issues which were discussed in the meeting, refer to the following table)

Table 5.6 Summary of Planning Activities on Sindhupalchowk District PDDP and RRP (4/6)

Date/Events	Participants	Summary of Contents / Discussions
22 nd Sep. 2016 UNDP Orientation Programme	UNDP, LDO, PMAO DDC Officials CDO: Mr. Antar Bahadur Silwal, I/NGOs JICA Project Team (Approx. 40 people)	<ul style="list-style-type: none"> ➤ Opening remarks from Rajendra Nepal (PMAO) ➤ Explanation of programme objective from UNDP ➤ Explanation on preparing PDDP and RRP from JICA Project Team ➤ Introduction of “Integrated Recovery and Periodic Planning Guidance Note” prepared by UNDP ➤ Closing remarks from LDO
25-26 th Sep. 2016 Vision Workshop (2 days)	LDO, CDE, PMAO DDC Officials NRA-SCO Parliament Members Political Parties Line Agencies DAO, I/NGOs, DPs Members of Sectoral Committees Former DDC Chairmen Other Stakeholders Journalists PDDP Consultants JICA Project Team (Approx. 120 people)	<p>Chairman: LDO (Mr. Krishna Bahadur Shahi) Facilitator: Mr. Anirudra Nepal (Focal person of PDDP and DDRC)</p> <p><1st Day></p> <ul style="list-style-type: none"> ➤ Opening remarks from Mr. Rajendra Nepal (PMAO) ➤ Technical Presentation from Dr. Nani Ram Subedi “Periodic Planning: A Perspective of Climate Change” ➤ Presentation on District Profile from PDDP Consultants ➤ Presentation on Damage and Loss Profile from JICA Project Team ➤ Remarks from Mr. Suresh Nepal (Former DDC Chairman), Members of Parliament (Mr. Agni Sapkota, Mr. Sher Bahadur Tamang, Mr. Amrit Kumar Bohara) ➤ 1st Session Closing Remarks from LDO ➤ Presentation from PDDP Consultants ➤ Presentation from JICA Project Team ➤ Presentation on Vision Setting from Dr. Parap Chatkuli ➤ Open Discussion and Preparation of District Vision <p><2nd Day></p> <ul style="list-style-type: none"> ➤ Open Discussion on Vision District Vision was set as: “Safer, Prosperous and Beautiful Sindhupalchowk” ➤ Explanation from PDDP Consultants (Logical Framework Approach, District Problems) ➤ Explanation from JICA Project Team (Rehabilitation and Recovery Vision, Goals, Policies) ➤ Group Work and Presentation (Problem Tree Analysis) ➤ Group Discussion (Sectoral Goals/Objectives) (For details of problems and issues which were discussed in the meeting, refer to the following table)
16 th Nov. 2016 Forest, Environment and Disaster Management Committee	DFO, DLCO, Nepal Red Cross Society, Chautara Municipality, District Administration Office, Nepal Army, Nepal Police, Armed Police Force, NGO Federation, DDC & PDDP Consultants	<ul style="list-style-type: none"> ➤ Opening remarks from JICA Project Team and PDDP consultants. ➤ Group discussion on Action Plan in RRP and PDDP.
16 th Nov. 2016 Physical Infrastructure Committee	DTO, DUDBC Division Office, DIO, Nepal Telecom, DWSSO, Chautara Municipality, DDC & Consultants	<ul style="list-style-type: none"> ➤ Opening remarks from JICA Project Team and PDDP consultants. ➤ Group discussion on Action Plan in RRP and PDDP.

Table 5.7 Summary of Planning Activities on Sindhupalchowk District PDDP and RRP (5/6)

Date/Events	Participants	Summary of Contents / Discussions
16 th Nov. 2016 Economic Development Committee	DADO, DLSO, District Cottage and Small Industry Office, District Cooperative Association, Representative from tourism, business & banking sector, DDC & PDDP Consultants	<ul style="list-style-type: none"> ➤ Opening remarks from JICA Project Team and PDDP consultants. ➤ Group discussion on Action Plan in RRP and PDDP.
17 th Nov. 2016 Social Development Committee	District Medical Superintendent, DEO, District Women and Children Officer NGO Federation, Children Club, Youth Network, DDC Social Development Officer LDO, DAO Other Stakeholders PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Opening remarks from JICA Project Team and PDDP consultants. ➤ Group discussion on Action Plan in RRP and PDDP.
17 th Nov. 2016 Institution and Resource Development Committee	DDC Officials Municipality CEO, Treasury Officer PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Opening remarks from JICA Project Team and PDDP consultants. ➤ Group discussion on Action Plan in RRP and PDDP.
23 rd -24 th Nov. 2016 Planning Workshop (2days)	LDO, CDO, CDE, PMAO DDC Officials NRA-SCO Parliament Members Political Parties Line Agencies DAO, I/NGOs, DPs Members of Sectoral Committees Other Stakeholders Journalists PDDP Consultants JICA Project Team (Approx. 120 people)	<p>Chairman: LDO (Mr. Krishna Bahadur Shahi) and Rajendra Nepal (Acting LDO) Facilitator: Mr. Anirudra Nepal (Focal person of PDDP and DDRC)</p> <p><1st Day></p> <ul style="list-style-type: none"> ➤ Opening remarks from Mr. Rajendra Nepal (Acting LDO) and CDO ➤ Presentation from PDDP consultants and JICA Project Team (Planning framework, Concept of RRP, Lessons learned from Japanese/Overseas experiences) ➤ Group discussion on rehabilitation and recovery by five sectors ➤ Group discussion on PDDP by five sectors (Program, Budget and Responsibility) <p><2nd Day></p> <ul style="list-style-type: none"> ➤ Group discussion ➤ Presentation form each sectoral group ➤ Closing Remarks from LDO
8 th Feb. 2017 Economic Development Committee	DADO, DLSO, District Cottage and Small Industry Office, District Cooperative Association, Representative from tourism, business & banking sector, DDC & PDDP Consultants	<ul style="list-style-type: none"> ➤ Group discussion on PRRP ➤ Group discussion on Rehabilitation and Recovery Plan (Programme and Action Plan on PDDP and RRP)

Table 5.8 Summary of Planning Activities on Sindhupalchowk District PDDP and RRP (6/6)

Date/Events	Participants	Summary of Contents / Discussions
8 th Feb. 2017 Social Development Committee	District Medical Superintendent, DEO, DWCO, NGO Federation, Children Club, Youth Network, DDC Social Development Officer LDO, DAO Other Stakeholders PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Group discussion on PRRP ➤ Group discussion on Rehabilitation and Recovery Plan (Programme and Action Plan on PDDP and RRP)
9 th Feb. 2017 Forest, Environment and Disaster Management Committee	DFO, DLCO, Nepal Red Cross Society, Chautara Municipality, District Administration Office, Nepal Army, Nepal Police, Armed Police Force, NGO Federation, DDC & PDDP Consultants	<ul style="list-style-type: none"> ➤ Group discussion on PRRP ➤ Group discussion on Rehabilitation and Recovery Plan (Programme and Action Plan on PDDP and RRP)
9 th Feb. 2017 Physical Infrastructure Committee	DTO, DUDBC Division Office, DIO, Nepal Telecom, DWSSO, Chautara Municipality, DDC & Consultants	<ul style="list-style-type: none"> ➤ Group discussion on PRRP ➤ Group discussion on Rehabilitation and Recovery Plan (Programme and Action Plan on PDDP and RRP)
10 th Feb. 2017 Institution and Resource Development Committee	DDC Officials Municipality CEO, Treasury Officer PDDP Consultants JICA Project Team	<ul style="list-style-type: none"> ➤ Group discussion on PRRP ➤ Group discussion on Rehabilitation and Recovery Plan (Programme and Action Plan on PDDP and RRP)
10 th Feb. 2017 Final Presentation Workshop	LDO, CDO, CDE, PMAO, DDC Officials Parliament Members Political Parties Line Agencies DAO, I/NGOs, DPs Members of Sectoral Committees Other Stakeholders Journalists PDDP Consultants JICA Project Team (Approx. 120 people)	<ul style="list-style-type: none"> ➤ Opening remarks from Chief Guests and JICA Nepal Representative ➤ Presentation of PDDP from PDDP consultants ➤ Presentation of RRP from JICA Project Team ➤ Presentation from LDO (Experience of his Japan Visit) ➤ Open Discussion ➤ Closing Remarks by Chief Guests and LDO
8 th Mar. 2017 Approval of PDDP and RRP (DDC Board Meeting)	Members of District Board Meeting	<ul style="list-style-type: none"> ➤ PDDP and RRP were officially approved by District Board Meeting chaired by LDO.

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Picture 5.1 Preliminary Preparedness Workshop in Sindhupalchowk District



Picture 5.2 Meeting with Development Partners and I/NGOs (left) and VDC Secretaries Orientation Programme (right) in Sindhupalchowk District



Picture 5.3 Cluster Workshops at Meramuchi Municipality (left) and Tipeni Bazar (right)



Picture 5.4 Cluster Workshops at Sipakhokhare VDC (left) and Jalbire VDC (right)



Picture 5.5 Cluster Workshops at Chautara Municipality (left) and Barabise VDC



Picture 5.6 Cluster Workshops at Mankha VDC (left) and Thulopakhar VDC



Picture 5.7 Social Development Committee Meeting in Sindhupalchowk District



Picture 5.8 Meeting with Community People in Sindhupalchowk District

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Picture 5.9 Vision Workshop in Sindhupalchowk District



Picture 5.10 Sectoral Meetings in Sindhupalchowk District



Picture 5.11 Final Presentation Workshop in Sindhupalchowk District

Appendix. 6 ONGOING RECOVERY PROJECT LIST

(1) Recovery Project List of Line Agencies

This project list was compiled based on the information of Annual District Development Plan 2073/2074.

Activity /Project name	PDDP Sectors	Project Location	Estimated Budget (NRP) in 1000	Remarks	
RRP Program			7000	Ongoing	
Office building construction of Drinking Water and Sanitation, District jail office Construction.	Physical	Chautara	2000		
Earthquake emergency assistance project				Ongoing	
Quarter Building construction for District Administrative Office.	Physical	Chautara	8000		
Construction of District Technical Office.	Physical	Chautara	15000		
Construction of Quarter for the Chief of the District Forest Office.	Physical	Chautara	80000		
Construction of District Land Conservation Office.	Physical	Chautara	10000		
Construction of District Jail.	Physical	Chautara	20000		
Construction of Fund and Account Controller Office.	Physical	Chautara	15000		
Construction of District Livestock Service office	Physical	Chautara	10000		
District Agriculture Development Office	Physical	Chautara	10000		
Integrated office building for Divisional office of Urban Development and Building Construction and Divisional Office of Drinking Water and Sanitation Office	Physical	Chautara	2000		
Office of the District Post Office	Physical	Chautara	10000		
Office of the District Development Committee	Physical	Chautara	20000		
Maintenance of District Administrative Office	Physical	Chautara	1500		
Construction of District Agriculture Development Office Building	Physical	Chautara	10000		
ongoing					ongoing
Construction of combined division office building of water and sanitation, Urban Development and Building Construction	Physical	Chautara	20000		
Construction of District Post Office Building	Physical	Chautara	10000		
Construction of District Development committee building	Physical	Chautara	20000		
Maintenance of District administrative office building	Physical	Chautara	2000		
Maintenance of Agricultural Development office building	Physical	Chautara	1500		
Maintenance of District Post Office Building.	physical	Chautara	1000		
Maintenance of District Fund and Account Controller Office Building	physical	Chautara	1500		
Maintenance of Division Office Building of Urban Development and Building Construction.	Physical	Chautara	1500		
Maintenance of District Court Building.	Physical	Chautara	2000		
Maintenance of office building of Women Development Office.	Physical	Chautara	1500		
New Construction				New Construction	
Construction of National Investigation, District office	Physical	Chautara	20000		
Construction of Division Irrigation Office	Physical	Chautara	25000	"	
Office of the Cottage and Small Industry Development Committee	Physical	Chautara	20000		
Construction of Quarter for District Justice	Physical	Chautara	10000		
Construction of District Legal Police Barrack	Physical	Chautara	7500	New Construction	
Construction of ilaka Forest Office, Chautara, Nawalpur and Dadapkhari	Physical		19000		
Construction of District Election Office	Physical	Chautara	20000	New Construction	
Construction of Quarter for the Land Revenue Office	Physical	Chautara	10000		
Maintenance and rehabilitation of 15 different water supply projects.	Physical	Sindhupalchowk	4500	"	
New Construction				New Construction	
Kami gaun Integrated Settlement development	Physical	Kami gaun	10000		
Integrated settlement development, Acharya foundation	Physical		10000		
Setidevi integrated settlement development , Shikharpur	Physical		5000		
Integrated settlement development, Permanent reconstruction and Rehabilitation	Physical	Melamchi -7	5000		
Giranchaur Integrated settlement development	Physical	Giranchaur	500		
Sigdel tole Integrated settlement development	Physical	Sigdel tole	500		
Manjhi Gaun integrated settlement development, Banshbari, Melamchi -9	Physical	Manjhi gaun	10000		
Melamchi old town integrated town development, Melamchi – 6	Physical	Melamchi	1000		
Dulal village Integrated settlement development, Melamchi Municipality-5	Physical	Dulal Village	1000		
Kakera tolebari settlement relocation, Melamchi -6	Physical	Kakera	500		

Note: Only physical sector projects has been included in above list.

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(2) Project List of Development Partners

This project list was compiled based on the information from each organization as of November, 2016.

Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries(HH/ Population)	Supporting Organization
			VDC/Municipality			
HELVETAS	Rehabilitation of Facilities of Earthquake affected People in Sindhupalchowk	Social	Helambu Kiwool, Ichok, Mahankal, Palchok, Duwachaur, 5 wards of Melamchi Municipality	502,883.30	1000 HH for Shelter reconstruction, 3000 HH for water supply and sanitation	CDECF
HELVETAS	Recovery of Agricultural Livelihood (ReAL)	Economic	"	120,507.75	2500 Households	CDECF
UNDP	Community Infrastructure and Livelihood Recovery Programme (CI-LRP)	Social	First phase completed in 5 VDCs and second phase is ongoing in 5 VDCs	10500		
UNDP	Rapid Enterprise and Livelihoods Recovery Project (RELRP)		51 VDCs & 2 Municipalities	72128.678		
UNDP	Renewable Energy for Rural Livelihood (RERL)	Economic	Sindhupalchok district			
UNDP	Comprehensive Disaster Risk Management Programme (CDRMP)	Forest, Environment and Disaster Management Sector	Equipment and human resource support to District Emergency Operation Center (DEOC) in Chautara Municipality	500		
UNDP	Prefab structures for Restoration of Public Services	Physical	DAO, DDC, DPO, Chautara and Melamchi Municipality; and Kunchok VDC			
UNDP	(CDRMP)Conducted multi hazard risk assessment & prepared integrated watershed management plan; construction and maintenance of infrastructures (small irrigation canal, drinking water, community building etc.); livelihood promotion activities (homegardening, off season vegetable farming, poultry/goat/ pig/ bee support, floriculture training and tool support; bio-engineering activities (plantation, gabion/check dam/ masonry wall construction) Carried out capacity building activities for the communities, local GoN agencies such as Early Warning System, First Aid, Search and Rescue, LDRMP orientation for VDC secretaries etc.	Forest, Environment and Disaster Management Sector	Haibung, Bhotechaur & Thakani VDC; 3,4,7,8 wards of Melamchi Municipality (former Bansbari & Sindhukot VDC)	5,41,833.324		
UNDP	Debris clearance training	"	Government offices and engineers			IFES/US AID
UNDP	Supporting in implementation of National Building Code complaint building permit system in the municipalities, together with production pool of skilled human resources on earthquake resistant safer building construction (masons, engineers and sub engineers), Carrying out activities to increase awareness in the community on safer building construction through trained masons, mobile van clinics and	Forest, Environment and Disaster Management Sector				

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries(HH/ Population)	Supporting Organization
			VDC/Municipality			
	planning to expand it, as well as plans for preparation of community based reconstruction action plan for the VDCs, conduct training of masons through construction of prototypes.					
UNDP	Debris Management via Cash for Work modality	Forest, Environment and Disaster Management Sector	Irkhu, Karthali, Kunchok, Chautara Municipality, Kadambas, Phulchodanda, Phulpingkatti, Sangachok, Tauthali, Thokarpa, Thulopakhar and Thumpakhar			
JICA	Mason Training	Economic	Bhotasipa,Irkhu, Kadambas ,Syaule Bazar, Sangachok, Thulo Sirubari, Melamchi Municipality, Bhotechaur. Dubachaur Haibung, Thakani, Bharabise, Maneswara, Mankha, Fulping, Danda, Fulping, Kot, Ramche		448	
JICA	House Owner Training	social	"		1345	
JICA	Training Of Trainers/ DLPIU Engineers	Institution and resourced mobilization	ALL			
JICA	Enrollment Camp	"	Bharabise ,Karthali,Chautara Municipality Irkhu ,Kadambas ,Sindhukot VDC(Melamchi)			JICA, Qips Project
JICA	Mobile Team (Monitoring and Supervision)	"	Chautara Municipality,Chautara Cluster Melamchi Cluster			
JICA	Construction of NRA Resource Center in Melamchi Muicpality	Physical	Melamchi, Sindhupalchok			
JICA	Constructiomn of Community Training Center in Irkhu VDC	Physical	Irkhu, Sindhupalchok			
JICA	Construction of NRA Resource Center in Barhabise VDC	Physical	Barabise, Sindhupalchok			
JICA	Recovery of social service for women, children and social welfare through construction of Women and Children Office facility in Chautara Municipality	Physical	Chautara, Sindhupalchok			
JICA	Recovery of social service and development activities through reconstruction of Village Development Committee building at Thokarpa VDC	Physical	Thokarpa, Sindhupalchok			
JICA	Recovery of agricultural activities through reconstruction of District Agriculture Development Office building in Chautara	Economic	Chautara, Sindhupalchok			

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries(HH/ Population)	Supporting Organization
			VDC/Municipality			
	Municipality					
JICA	Recovery of agriculture activities through reconstruction of Small Farmer Agriculture Product Collection Center at Bhotechaur VDC	Economic	Bhotechaur, Sindhupalchok			
JICA	Recovery of water supply facilities through construction of Water supply system at Bhotenamlang and Lagarche VDC	Physical	Bhotenamlang, Sindhupalchok			
JICA	Recovery of transportation and irrigation facilities through improvement of Road facilities at Bhotechaur VDC and a part of Melamchi Municipality	Physical	Bhotechaur, Melamchi, Sindhupalchok			
JICA	Recovery of health service through reconstruction of Health Post building at Barhabise VDC	social	Barabise, Sindhupalchok			
JICA	Recovery of social service through establishment of peace, order and security with reconstruction of Barhabise Area Police Office buildings at Barhabise VDC	social	Barabise, Sindhupalchok			
JICA	Recovery of social service and development activities through reconstruction of Village Development Committee building at Maneshwara VDC	social	Maneshwara, Sindhupalchok			
JICA	Vegetable Cultivation Technique (Targeting Local Women Group)	Economic	(Irkhu, Talarang, Bansbari, Mangkha, Maneshwara, Thokarpa) Sindhupalchok			
JICA	Improvement of maize farming practices	Economic	“			
JICA	Improvement of the production of quality seed	Economic	Ichok, Sindhupalchok, Kiwool, Phulpingdanda			
JICA	Promotion of Safety measures for Housing Reconstruction engineers	Physical	Chautara, Sindhupalchok			
JICA	Majhuwa No.1, No.2 Water Supply Headrace Improvement Project	Physical	Selang VDC, Sindhupalchok			

(3) Project List of INGO

This project list was compiled based on the information from each organization as of November, 2016.

Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries(HH/ Population)	Implementing Partner
			VDC/Municipality			
Build Change	Abibridhi: Safe houses, Resilient Communities	Physical	Sangachowk VDC	29,106.56	580 Families	
Caritas Switzerland	Jyotibhanjyang L Sec. School	Social	Duwachaur	21,128	199	Tuki
Caritas Switzerland	Mahendra H Sec. School	Social	Ichok	49,153	275	Tuki
Caritas Switzerland	Srijana P. School	Social	Mahankal	14,067	28	MANK
Caritas Switzerland	Palchok L Sec School	Social	Palchok	27,826	176	MANK
Caritas Switzerland	Kolechaur P. School	Social	Talarang	14,104	46	MANK
Caritas Switzerland	Balsudhar H. Sec. School	Social	Duwachaur	47,143	506	Tuki
Caritas Switzerland	Jalwai Devi Sec School	Social	Duwachaur	27,401	300	Tuki
Caritas Switzerland	Pragya P. School	Social	Duwachaur	13,316	107	Tuki
Caritas Switzerland	Golmadevi Sec. School	Social	Helambu	29,227	203	MANK
Caritas Switzerland	Melamchi Ghyang Sec School	Social	Helambu	34,940	259	MANK
Caritas Switzerland	Sarkathali P. School	Social	Helambu	12,313	22	MANK
Caritas Switzerland	Harisiddhi Community P. School	Social	Ichok	13,373	43	Tuki
Caritas Switzerland	Mahakaleshowri L. Sec. School	Social	Ichok	27,515	118	Tuki
Caritas Switzerland	Gyanodaya P. School	Social	Mahankal	12,313	119	MANK
Caritas Switzerland	Helambu P. School	Social	Mahankal	12,313	83	MANK
Caritas Switzerland	Saraswati H. Sec. School	Social	Mahankal	57,425	476	MANK
Caritas Switzerland	Sarbodaya L. Sec. School	Social	Mahankal	12,228	138	MANK

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Implementing Partner
			VDC/Municipality			
Caritas Switzerland	Jayabagheshori Sec. School	Social	Palchok	32,026	321	MANK
Caritas Switzerland	Batase Sec. School	Social	Talamarang	33,172	267	Tuki
Caritas Switzerland	Suryodaya P. School	Social	Talamarang	13,288	44	Tuki
Caritas Switzerland	Terse H. Sec. School	Social	Talamarang	58,598	510	Tuki
Caritas Switzerland	Laavgaun P. School	Social	Duwachaur	13,345	50	Tuki
Caritas Switzerland	Mahendra P. School	Social	Ichok	19,030	133	Tuki
Caritas Switzerland	Bhanjyang P. School	Social	Mahankal	12,313	29	MANK
Caritas Switzerland	Bolde P. School	Social	Mahankal	12,313	19	MANK
Caritas Switzerland	Mahakali Nindeshori P. School	Social	Manhankal	12,256	61	MANK
Caritas Switzerland	Padmeshowri P. School	Social	Mahankal	12,313	81	MANK
Caritas Switzerland	Sidhartha P. School	Social	Mahankal	15,142	61	MANK
Caritas Switzerland	Urleni P. School	Social	Mahankal	9,557	51	MANK
Caritas Switzerland	Jageshowri L. Sec. School	Social	Talamarang	33,086	162	Tuki
Caritas Switzerland	Panchakanya L. Sec. School	Social	Talamarang	30,343	100	Tuki
FAIRMED	"Towards recovery" Upakar Pariyojana	Social	12	31,000		MANK
GNHA	School Building Construction and repair	Social	Bahrabise	6963	115	MANK
GNHA	School Building Construction and repair	Social	Ghumthan	8889	136	MANK
GNHA	School Building Construction and repair	Social	Dhuskun	4563	77	MANK
GNHA	School Building Construction and repair	Social	Ramche	4563	23	MANK
GNHA	School Building Construction and repair	Social	Haibung	5926	53	MANK
GNHA	School Building Construction and repair	Social	Bhotechaur	4563	59	MANK
Hellen Keller International	SUAAHARA	Social	68/2	70,60.12	1000 days' mother	MANK
Help-e.V.	1. Home garden training	Economic	Thulosirubari	3641	1887	TUKI
Help-e.V.	2. IGGs Book Keeping training to 1 key person	Economic	Thulosirubari			"
Help-e.V.	3. IGGs Management Training to 1 executive members and staff	Economic	Thulosirubari			"
Help-e.V.	4. Revolving fund for IGGs	Economic	Thulosirubari			"
Help-e.V.	5. Vocational training on Carpentry	Economic	Thulosirubari			"
Help-e.V.	6. Hygiene Promotion and behavior change session in community level	Social	Thulosirubari	396.5	1887	"
Help-e.V.	7. Hygiene Promotion and behavior change session in community level	Social	Thulosirubari			"
Help-e.V.	8. Hygiene Promotion and behavior change session in community level	Social	Thulosirubari			"
Help-e.V.	9. Hygiene Promotion and behavior change session in community level	Social	Thulosirubari			"
Help-e.V.	10. Hygiene Promotion and behavior change session in community level	Social	Thulosirubari			"
Help-e.V.	Hygiene Promotion and behavior change session in community level	Social	Thulosirubari	211.5	1887	"
Help-e.V.	1. DRR training for community	Social	Thulosirubari			"
Help-e.V.	2. Disaster preparedness session	Social	Thulosirubari	442.3	1887	"
Help-e.V.	1. Parenting Education (Community sensitization)	Social	Thulosirubari			"
Help-e.V.	2. Mother/ parent orientation (4 hours) on 10 school and 2 ECCD	Social	Thulosirubari			"
Help-e.V.	3. Quality education and Child friendly schooling	Social	Thulosirubari			"
Help-e.V.	4. Household counseling	Social	Thulosirubari			"
Help-e.V.	5. CEMIS (Community Education Management Information System)	Social	Thulosirubari	21053	1372 students and 25 teachers	"
Help-e.V.	Rehabilitation of 4 schools	Social	Thulosirubari			"
Help-e.V.	1. Ganesh Pra V (3 buildings - 6 rooms)	Social	Thulosirubari			"
Help-e.V.	2. Seti Devi Uchha Ma V (3 buildings - 6 rooms)	Social	Thulosirubari			"
Help-e.V.	3. BP Memorial Ni Ma V (4 buildings - 8 rooms)	Social	Thulosirubari			"
Help-e.V.	4. Dadhuwa Bhawani Shankar Uchha Ma V (5 buildings - 10 rooms)	Social	Thulosirubari	"		
HelpAge International Nepal	Nepal Earthquake Recovery Project	Social	Ichok, Kiul, Talmarang, Helambu, Nawalpur, Mahankal	15,251.00	2,612 (Old age household)	CSRC
Lutheran World Federation Nepal	Support for Community for safe Building	Physical	Baramachi VDC	49875	155 HH	ACT Alliance/ CLWR
Lutheran World	Psycho Social Support to Community	Social	Baramachi VDC	745	856 HH	"

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Implementing Partner
			VDC/Municipality			
Federation Nepal						
Malteser International	Health Facility Reconstruction	Social	1	4600	945	CDEFCE
Malteser International	Basic medical support	Social	5	184	1220	"
Malteser International	Mental health support (trainings) Five health Facilities and three schools	Social	5	1986.029		CVICT
"	WASH	Social		4600	945	CDEFCE
"	DDR	Social	2	1569.7	1220	CDEFCE
Medecins du Monde (MDM)	Activity area 1: Health facility maintenance	Social	16 VDCs	3,976		CDEFCE
Medecins du Monde (MDM)	Activity area 2: Support to quality service provision	Social	23 VDCs	13528		CDEFCE
Medecins du Monde (MDM)	Activity area 3: Revitalize existing health focused cooperatives	Social	16 VDCs	11033		CDEFCE
Medecins du Monde (MDM)	Activity area 4: Water, Sanitation and Hygiene solutions	Social	2 VDCs	16565		CDEFCE
Medecins du Monde (MDM)	Activity area 5: Support to health-focused cooperative activities	Social	16 VDCs	2855		CDEFCE
Medecins du Monde (MDM)	Activity area 6- Strengthen the health surveillance system	Social	79 VDCs	8742		CDEFCE
Medecins du Monde (MDM)	Activity area 7: Support cooperatives to implement health-focused DRR activities within their VDC	Social	8 VDCs	5251		CDEFCE
"	Coordination, Monitoring and Evaluation	Social	Overall	3866		CDEFCE
OXFAM	7 Days Mason Training	Social	Kiul	550	30	JGSS, GMSP
OXFAM	42 days Mason Training	Social	Baramchi, Hagam, Pangtang, Pangretar, Kiul,	9000	100	JGSS, GMSP
OXFAM	Livestock Shelter	Social	Kunchowk, Nawalpur	3000	60	"
OXFAM	Carpentry Training	Economic	Kiul, Helambu, Pangtang, Baramchi, Pangretar, Sunkhani	1800	90	MANK, JGSS, GMSP
OXFAM	Wiring Training	Economic	"	1800	90	"
OXFAM	Information Centre	Social	"	2500	All	"
OXFAM	Granary Storage	Economic	Jalbire, Kadambas	4063	704	"
OXFAM	Block Making	Economic	Sunkhani	550	20	"
OXFAM	Livestock	Economic	Helambu, Kiul, Nawalpur, Kunchowk, Pangtang, Baramchi, Hagam, Jalbire, Kadambas, Kalika, Tatopani, Barhabise, Ramche, Chokati, Pangretar, Sunkhani,	48000	4800 HHs/24000	"
OXFAM	Wash in School (Both Hardware & Software Activities)	Social	"	13574	26 Schools	"
OXFAM	Agri-Input	Economic	"	36000	4500 HHs/22500	"
OXFAM	Petty Trader	Economic	"	12000	600 HHs/3000	"
OXFAM	Rehabilitation / construction of small and medium scale irrigation scheme (Irrigation channel, pond irrigation,) and other communal productive infrastructure	Economic	Helambu, Keul, Hagam, Pangtang, Baramchi, Tatopani, Pangretar, Sunkhani, Chokati, Barhabise	3216	1200 HH indirect	GMSP, MANK, JGSS
OXFAM	Cash for work	Economic	"	6000	600 HH/3000 pop	GMSP, MANK, JGSS
Oxfam/DLSO	Animal Health Camp	Economic	"	600	6 Event (600 HH/3000)	"
OXFAM	Enterprise Development/ Promotion thorough skill enhancement: Training on SYIB	Economic	"	900	60 HHs	"
OXFAM	Support for construction/Maintenance of market outlet/collection centre, product drier, and other equipment/infrastructure in	Economic	"	1500	(300 HH indirect beneficia	"

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Implementing Partner
			VDC/Municipality			
	coordination with DADO and DLSO				ry)	
OXFAM	Cooperative assessment and capacity development	Economic	Helambu, Keul, Hagam, Pangtang, Baramchi, Tatopani, Pangretar, Sunkhani, Chokati, Barhebase	1300	10 Nos	GMSP/MANK/JGSS
OXFAM	Support for modernization/mechanization in agriculture & livestock, and technology transfer	Economic	Keul, Pangtang, Pangretar	375	60 HH/300	GMSP/MANK/JGSS
OXFAM	Water Supply Schemes	Social	"	27780	1440 HHs/7200	"
OXFAM	Cooperative assessment and capacity development	Economic	"	1300	10 Nos	"
OXFAM	Hygiene Promotion in Communities	Social	Chautara and Melamchi Municipalities			"
OXFAM	Water Supply Schemes	Social	Chautara and Melamchi Municipalities			"
OXFAM	HH Latrine	Social	Helambu, Kiul, Nawalpur, Kunchowk, Pangtang, Baramchi, Hagam, Kadambas, Kalika, Tatopani, Barhabise, Ramche, Chokati, Pangretar, Sunkhani, Jalbire,	26541	6000HHs	"
OXFAM	ODF Campaign	Social	"	3155	All	"
OXFAM	Public Latrine	Social	Kunchowk, Nawalpur, Jalbire, Kiul, Helambu, Pangtang, Pangretar	3000	Public of the selected areas	"
OXFAM	Wash In Health post	Social	Jalbire, Kiul, Pangtang, Pangretar, Chokati, Hagam, Gumbang, Gumba, Golche,	2975	People of selected VDCs	"
OXFAM	Shared Latrine Decommissioning	Social	"	1543	1187 Latrine	JGSS
OXFAM	Media Mobilization /IEC/Meetings with stakeholders(VWASH-CC, DWASH-CC, MWASH-CC)	Social	"	2795	All	JGSS
OXFAM	Solid waste Management Plan	Social	Chautara and Melamchi Municipality	2000	Whole Municipality	JGSS
OXFAM	Support to organize coordination meetings with DDRC and/or DEOC	Forest, Environment and Disaster Management Sector	Chautara	50		JGSS
OXFAM	Organize workshop to mainstream DRR/CCA into development plans (with considering GESI approach) in OXFAM coordination with DDRC and DDC	Forest, Environment and Disaster Management Sector	Chautara	120		JGSS
OXFAM	Prepare District Disaster Management Plan (DDMP) as per the guideline by MoFALD (including comprehensive hazard, risk and vulnerability mapping)	Forest, Environment and Disaster Management Sector	Chautara			JGSS
OXFAM	Prepare and/or revise Local Disaster Risk Management Plan (including VCA preparation, training to volunteers and mobilisation).	Forest, Environment and Disaster Management Sector	Helambu, Kiul, Pantang, Baramche, Pangretar, Sunkhani, Chokati, Jalbire, Tatopani,	2242		JGSS
OXFAM	Organize district level workshop to update District Preparedness and Response Plan (DPRP) in coordination with DDRC	Forest, Environment and Disaster Management Sector	Chautara	200		JGSS

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Implementing Partner
			VDC/Municipality			
OXFAM	Review facilities and equipments and provide necessary support to strengthen district committees and centres (DDRC and DEOC) for disaster management (including pre-positioning of search & rescue materials, information centre, etc.)	Social	Chautara	400		JGSS
OXFAM	Support to construct district-wise warehousing and stockpiling of non-food items(Municipality as well)	Social	Chautara	1000		JGSS
OXFAM	Mock-drilling exercise of Oxfam, partner and local government authorities on disaster response	Social	Chautara	400		JGSS
OXFAM	Form CDMCs, Task Force, Volunteers(Community search and rescue (CSR), first aid (FA), health task group (HTG) at 8 VDCs and OXFAM community level	Social	Helambu, Kiul, Pantang, Baramche, Pangretar, Sunkhani, Chokati, Jalbire, Tatopani,Chautara	500		JGSS
OXFAM	CBDRM training to CDMC members	Social	"	500		JGSS
OXFAM	First Aid training to Task force	Social	"	500		JGSS
OXFAM	CSAR training to taskforce	Social	"	500		JGSS
OXFAM	Establishment of Emergency fund at VDC/Municipality	Social	"	500		JGSS
OXFAM	Support Emergency stockpile at VDC/Municipality	Social	"	1000		JGSS
OXFAM	Installation of Hazard map at strategic place at VDC	Social	"	450		JGSS
OXFAM	Support to implement LDRMP(Mitigation)	Social	"	3000		JGSS
OXFAM	Support to establish Disaster Management and Climate change adaptation OXFAM learning centre in Chautara	Social	"	1000		JGSS
OXFAM	Organize VDC/commune-wise simulation exercises to Volunteers, Task Force and CDMC member	Social	"	500		JGSS
OXFAM	Support to develop community level DRR plan (including comprehensive hazard, risk and vulnerability mapping).	Social	"	1500		JGSS
OXFAM	Develop and test School Disaster Management plans at few participating schools and aware them on build back better (BBB)	Social	"	500		JGSS
OXFAM	Development of evacuation routes, small scale open spaces, shelters, and their conservation at community, district, VDC and Municipality	Social	"	500		JGSS
OXFAM	Organize coordination meetings at VDC with local level committees, VDC and NGOs. One coordination meeting in each VDC.	Social	"	150		JGSS
OXFAM	Organize district level workshop with stakeholders to implement building code and bylaws to support build back better (BBB)	Social	"	150		JGSS
OXFAM	Public awareness raising through meetings and demonstration events on safe building (building code and bylaws, earthquake resistant structures, reconstruction guideline) and land-use planning to support build back better (BBB)	Social	"	400		JGSS
OXFAM	Design and implement earthquake, flood and fire resistance low cost building/houses	Social	"	4000		GMSP, MANK and JGSS
OXFAM	Organize Masson training to youth and provide certificate to Masson	Social	"	850		"
OXFAM	Organize learning sharing workshop on Build Back Better	Social	"	80		"
OXFAM	Ward level Gender equality orientation	Social	"	375	750	"

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population) people.	Implementing Partner
			VDC/Municipality			
OXFAM	Self defense training	Social	"	300	123 adolescent girls.	"
OXFAM	Joint land ownership campaign. Drama show and interaction.	Social	"	300	3000 community people	
OXFAM	IEC materials on gender equality related message.	Social	"	320	More than 2000	"
OXFAM	Day celebration/community level awareness programme.	Social	"	350	"	"
OXFAM	Citizens' awareness centre mobilization.	Social	"	100	400 people	"
People in Need (PIN)	Community Driven Public Infrastructure and Livelihood Support		Baruwa and Selang	22,107	1090 HH	GSMP
Plan International Nepal	1. Community Based Child Protection Mechanisms	Social	Badegaun, Bhimtar, Bhotenamlanga, Ichok, Kiul, Kunchok Lagarche, Melamchi (ward-12 &13) Nawalpur, Simpalkavre, Shipapokhare, Thankpaldhap, Thankpalkot,	60261	2992	TUKI
Plan International Nepal	2. Fighting Against Child Trafficking					Child Nepal , Partnershi p nepal
Plan International Nepal	1. Building Back Better and Safer School	Social	Melacmhi Muniaplity (4, 12, 13)	92762	13500	SMC, NSET
Plan International Nepal	2. Inclusive Education		12 VDC (Badegaun, Batase, Bhimtar, Bhotenamlanga, Bhotsipa, Kunchok, Lagarche, Nawalpur, Simpalkavre			TUKI
Plan International Nepal	Water Supply, Health facilities and School wash rehabilitation	Social	"	26645	(4554 Water supply and 3250 Toilet)	CDECF
Plan International Nepal	Cash base work, Vocational Skill development and entrepreneurship support to family of high vulnerable children (Partner: to be confirmed)	Social	"	52380	1674	
Samaritan's Purse International Relief	Sindhupalchowk School Rebuild -Rebuild 2 Schools (Bhimsen LS School & Kalidevi P School)	Social	Marming	25,390	227	SPN
Samaritan's Purse International Relief	Rebuild school water systems in 2 schools (Latrines, Hand wash, Hygiene Training	Social	Marming	4,594	227	SP/ CarNet
Save the Children	Emergency in Health	Social	Sangachowk, Golchhe, Gumba, Phulpingdada, Thumpakhar, Ramche and Nawalpur	4832	26000 (population)	TUKI Association in Sunkoshi
Save the Children	Emergency in Shelter (Private housing and Masons training)	Social	Sangachowk, Golchhe, Gumba, Phulpingdada,	90607	450	"
Save the Children	Emergency in FSL (Cash for Work, Livelihood support and Entrepreneur support)	Social	Sangachowk, Gumba and Phulpingdada	51841	1165	"
Save the Children	Emergency in Child Protection	Social	Golchhe, Gumba, Phulpingdada, Sangachowk, Bansbari and Phataksila	5683	500	Shakti Samuha
Save the Children	Emergency in WASH	Social	Golchhe, Gumba and Phulpingdada	14458	2900	MANK
Save the Children	Emergency in Education	Social	Bansbari, Phataksila, Melamchi, Baruwa and Bhotang	7243	2500	MANK
Save the Children	Emergency in Nutrition	Social	Phulpingdada, Sangachowk, Thulopakhar, Thum	6498	12300	TUKI Associatio

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Implementing Partner
			VDC/Municipality			
			pakhar, Banskhar, Bhimtar, Bhotenamlang, Chautara, Jalbire, Karthali, Kiwool, Melamchi, Nawalpur, Piskar, Ramche,			n in Sunkosh
Save the Children	Disaster Risk Reduction	Social	Golchhe, Gumba, Phulpingdada, Sangachowk, Jethal, Thulopakhar, Thumpakhar and Mankha	2054	7762	

(4) Recovery Project List of Local NGO

This project list was compiled based on the information from each organization as of November, 2016.

Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
ARSOW-Nepal	Intergraded Global Reconstruction Program	Social	Gunsa, Thanpaldhap and Thanpalkot	21420.00	Earthquake victim	
ARSOW-Nepal	Abibridhi program	Social	Sangachok VDC	5100.00		
Beautiful Coffee Nepal	Temporary learning Center (TLC, Art healing workshop and school material distribution)	Social	Kalika, Sangachok, Ichok, Sikharpur, Barabise, Thokarpa, Pakhardovan, Sindhukot	18,68.00	1200 students, 11 school and 70 Teachers	
"	Trauma and Lementation Training	Social		5,20.00	40 coffee farmers	
"	village Festival	Social	All working VDC	2,50.00	600 coffee Cooperative member	
"	Construction of Agriculture Collection and processing Center	Infrastructure/Physical	1 in Ichok and 1 in Sukute, 1 will not yet decided.	23,20.00	600 cooperative member	
"	Coffee seedling, shade tree and intercrop seed distribution	Economic	All project VDC	10,86.4	350 farmers	
"	Disease prevention campaign	Economic	All project VDC	513.40	350 coffee farmers	
"	Irrigation support	Physical	Pakhardovan, Badegaun, kalika	200.00	75 coffee farmers	
"	ICS implementation for Organic certification	Economic	All project VDC	1089.56	350 farmers	
	Cooperative Strengthening training	Economic	All Project VDC	922.13	20 cooperative member	
Caritas Nepal	Drinking water Activities	Social	Thokarpa and Kalika	6491.00	1833 HHs	Caritas Internatiolist
Caritas Nepal	Hygiene and Sanitation Activities	Social	Thokarpa and Kalika	13455.00		Caritas Internatiolist
Caritas Nepal	Capacity Building Activities (training, workshops, meeting)	Social	Thokarpa and Kalika	1984.00		Caritas Internatiolist
Caritas Nepal	Baseline Study	Social	Thokarpa and Kalika	77.83	1833 households	Caritas Internatiolist
Caritas Nepal	Mental wellbeing and protection needs assessment (TA DA, village) meeting household village	Social	Thokarpa and Kalika	108.00	1833 households	Caritas Internatiolist
Caritas Nepal	Training on protection mainstreaming and feed back mechanism (2 days training, 24 people, cost is for lodge, food, stationary, training materials)	Social	Thokarpa and Kalika	211.20	1833 households	Caritas Internatiolist
Caritas Nepal	Meeting for orientation, set ups feed back	Social	Thokarpa and Kalika	80.00	1833	Caritas

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
	mechanism and review (2 days VDC level 2 time.				households	Internatiolist
Caritas Nepal	Materials for feed back mechanism (information board, phone, phone re-charge, suggestion box, stationary, planning and reporting format, case study format)	Social	Thokarpa and Kalika	347.40	1833 households	Caritas Internatiolist
Caritas Nepal	Village office feed back mechanis materials (suggestion box, phone, recharge, information board, documentation and stationary.	Social	Thokarpa and Kalika	39.60	1833 households	Caritas Internatiolist
Caritas Nepal	District office feed backcosts (suggestion, box, phone, recharge, information board	Social	Thokarpa and Kalika	19.80	1833 households	Caritas Internatiolist
Caritas Nepal	Monthly meeting of social volunteers (counselors) - cost snack, stationary.	Social	Thokarpa and Kalika	42.00	1833 households	Caritas Internatiolist
Caritas Nepal	Committee (ward level) meeting on protection and psychosocial (9 people and 1 day each month for 12 month) -cost is for stationary, snacks)	Social	Thokarpa and Kalika	243.00	1833 households	Caritas Internatiolist
Caritas Nepal	VDC level sharing / stakeholder meeting on issue of protection and psychosocial. Cost is stationary and snacks.	Social	Thokarpa and Kalika	33.75	1833 households	Caritas Internatiolist
Caritas Nepal	Referral support (transport, registration, snacks)	Social	Thokarpa and Kalika	54.00	1833 households	Caritas Internatiolist
Caritas Nepal	Stipend for social volunteers	Social	Thokarpa and Kalika	702.00	1833 households	Caritas Internatiolist
Caritas Nepal	Awareness through radio	Social	Thokarpa and Kalika	90.00	1833 households	Caritas Internatiolist
Caritas Nepal	Drama show by artists on the issues and for training of children of schools	Social	Thokarpa and Kalika	300.00	1833 households	Caritas Internatiolist
Caritas Nepal	support for schools/child club for preparing dramas on the issues	Social	Thokarpa and Kalika	160.00	1833 households	Caritas Internatiolist
Caritas Nepal	IEC materials (printing or purchase and distribution of protection, psychosocial, and recovery materials)	Social	Thokarpa and Kalika	50.00	1833 households	Caritas Internatiolist
Caritas Nepal	District Level Child welfare committee and disrict women and children development office support (materials and networking)	Social	Thokarpa and Kalika	200.00	1833 households	Caritas Internatiolist
Caritas Nepal	Cash for Work: 20 days per HH @NRs. 500 per day for 2,500 HHs	Social	Thokarpa and Kalika	8750.00	1833 households	Caritas Internatiolist
Caritas Nepal	Tools for Cash for work	Social	Thokarpa and Kalika	30.00	1833 households	Caritas Internatiolist
Caritas Nepal	Agriculture training : 30 participants for 3 days including food, travel and training materials, total 1650 persons (cost for snacks, stationary training materials, and hall rental and miscellaneous)	Economic	Thokarpa and Kalika	497.25	1833 households	Caritas Internatiolist
Caritas Nepal	Farm input support (seeds including fodder, fruit saplings, farming tools, equipment, plastic tunnel ,etc. to 2,670 HHs)	Economic	Thokarpa and Kalika	8010.00	1833 households	Caritas Internatiolist
Caritas Nepal	VDC level farmer groups' coordination meeting (4 times a year) (cost for snacks, stationary materials, local travel, and hall rental and miscellaneous)	Economic	Thokarpa and Kalika	68.00	1833 households	Caritas Internatiolist
Caritas Nepal	Kitchen garden Training (3 days - 2 day training and 1 day review) Cost for stationary, agriculture materials, snacks)	Economic	Thokarpa and Kalika	270.00	1833 households	Caritas Internatiolist
Caritas Nepal	Kitchen garden (seeds, biomaterials, tools)	Social	Thokarpa and Kalika	517.50	1833 households	Caritas Internatiolist
Caritas Nepal	Irrigation canal repair (material cost, skilled labour cost)	Social	Thokarpa and Kalika	80.00	1833 households	Caritas Internatiolist
Caritas Nepal	Administrative grant support to local cooperatives (grant support administration for salary of manager, general assembly, committee	Social	Thokarpa and Kalika	240.00	1833 households	Caritas Internatiolist

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
	meetings, stationary, office rent, communications, reporting)					
Caritas Nepal	Micro-credit grant to cooperatives to provide to earthquake affected people for livelihood activities and household emergency	Social	Thokarpa and Kalika	1700.00	1833 households	Caritas Internatiolist
Caritas Nepal	Livestock basic training (3 days, cost for stationary, snacks, tools, miscellaneous)	Economic	Thokarpa and Kalika	270.00	1833 households	Caritas Internatiolist
Caritas Nepal	Grant support to citizens for livestock purchase (for 2000 HH)	Economic	Thokarpa and Kalika	13500.00	1833 households	Caritas Internatiolist
Caritas Nepal	Rebuilding of 4 markets /milk collection centres (construction material, milk collection equipment, skill labour etc)	Economic	Thokarpa and Kalika	300.00	1833 households	Caritas Internatiolist
Caritas Nepal	Project office rooms and meeting rooms to be used for community shelter by VDC in post project period	Social	Thokarpa and Kalika	3000.00	1833 households	Caritas Internatiolist
Caritas Nepal	Disaster risk reduction community meetings (4 district level meetings and 8 VDC level one day planning meetings)	Social	Thokarpa and Kalika	25500.00	1833 households	Caritas Internatiolist
Caritas Nepal	District office monitoring costs (travel, food, lodge, TA DA)	Social	Thokarpa and Kalika	1800.00	1833 households	Caritas Internatiolist
Caritas Nepal	Village office field travel and monitoring (travel, food, lodge, TA DA)	Social	Thokarpa and Kalika	1200.00	1833 households	Caritas Internatiolist
Caritas Nepal	Making of Sign boards, entitlement cards, banners, leaflets, T-shirts, bags, brochure etc.	Social	Thokarpa and Kalika	125.00	1833 households	Caritas Internatiolist
CarNetNepal	Safer Child Initiative Project (SCI)	Social	Gati	4750.00	1332	VIVA
CarNetNepal	Vigilant and Viable Community for Child Protection (VVCP)	Social	Marming	15434.00	952	SP Canada
CarNetNepal	Child Protection in the Aftermath of Earthquake (CPAE)	Social	Karthali and Chogati	9172.00	1246	SP UK
CarNetNepal	Education and WASH Project	Social	Marming	32076.00	630	SP Nepal
CDECF	Community Infrastructure and Livelihood Recovery Program (CILRP)	Social	Irku, Sangachok, Kadambash, Chautara	16342.50		UNDP/LRP
CDECF	Rehabilitation of Earthquake Affected Public School DRR & WASH component Project in Sindhupalchok	Social	Dubachaur, Palchowk, Helambu, Mahankal, Taramarang, Ichowk	6806.28		Caritas Switzerland
CDECF	Rural water supply and sanitation program	Social	Bhotechaur, Thakani, Mahankal, Ichowk, Nawalpur, Sipapokhare	12292.46		Fun Board
CDECF	Re-establishing and reinforcing the Continuum of primary health care system and community health services damaged by the earthquake in Sindhupalchok District, Nepal"	Social	Nawalpur, Batase, Sangachok, Selang, Baramchi, Golche, Jalbire, Fulpingkot, Fulpingdanda, Sunkhani, Kalika, Thokarpa, Lisankhu, Maneshwora & Karthali VDCs	44446.00		MDM
CDECF	Concerning facilitation and social mobilizing for implementation of rehabilitation of facilities of Earthquake affected people in sindhupalchok (REAP)	Social	Melamchi, Taramarang, Mahankal, Ichok, Kiul, Helambu, Palchowk & Dubachaur VDCs	479783.00		Helvetas Nepal and SOLIDAR Switzerland
CDECF	Concerning facilitation and social mobilizing for implementation of Economic Recovery for Earthquake affected Population in sindhupalchok.	Social	"	84651.82		
CDECF	Earthquake Recovery Project	Social	Hagam, Ramche, Maneshwara, Gumthang, Karthali &			Mercycorps

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
CDECF	Child Protection in Emergencies Project.	Social	Kubinde, Phulpingkot, Sanusiruwari, Pipaldanda	9447.50		WVI-N
CDECF	Nepal Earthquake Response Livelihood Project	Social	7	62097.82		WVI-N
CDECF	Emergency relief and DWS rehabilitation support for Earthquake affected families	Social	Bhotenamlang, Jyamire, Lagarche, Shikharpur, Nawalpur, Badegaun, Sipapokhare, Bhimtar, Bhoteshipa, Kunchok, Simpalkavre, Batase, Syaule	27144.47		Plan International
CDECF	Health Facility WASH	Social	"	5353.23		"
CECI- Nepal	<ul style="list-style-type: none"> Support agriculture and agro-based enterprise of the community training on producers group on identified market requirement facilitated, facilitate links coordination between producer groups and local market actors private group byers, government agencies for economic scale 	Economic	Ramche, Maneshwora and Ghumthang	3 years Anticipated project (Budget break down yet to be known)	All VDC houses coverage (2885)	Government of Canada
CECI- Nepal	DRR training for producers group, community, local government agencies, community leaders to improve resilience of economic enterprises	Social	Ramche, Maneshwora and Ghumthang	"	All VDC houses coverage (2885)	Government of Canada
CECI- Nepal	Support to increase access of community to business products and services that address micro-enterprise needs	Economic	Ramche, Maneshwora and Ghumthang			Government of Canada
CECI- Nepal	Development of labor market skills curriculum and job readiness skills	Economic	"			Government of Canada
CECI- Nepal	Support to create linkage with employers, MSMEs, chamber of commerce and government to support women and youth sensitive employment practice	Social	"			Government of Canada
Childreach Nepal	Toilet Construction	Physical	"	6327.13		Rotary International
Childreach Nepal	Classroom Construction	Physical	"	1849.33		Rotary International
COMMITTED	School Reconstruction of Taltuleshwory Primary School- II phase	Social	Thangpalkot VDC	2131.00		Nepal Rising & Run to Stop Child trafficking
COMMITTED	School Repairing of raithane Secondary School	Social	Thangpalkot VDC	1000.00		COMMITTED -US
COMMITTED	Star Reader/Writer Program	Social	Thangpalkot VDC	1748.00		Alice Sieun Park & CMI-US
COMMITTED	School Improvement Program (Reconstruction of multipurpose play ground, stone wall and fence and drinking water)	Social	Thangpalkot VDC	1184.69		COMMITTED -US & NemiraGMB H
Gramin Mahila Srijansil Pariwar (GSMP)	Education for Hope	social	Dhuskun, Piskar, Maneswara and Pangretar	43000.00	2848/11557	Child Fund Japan
"	Communication and social mobilization for promoting recovery and resilience among earthquake affected communities	Physical	Tekanpur, Thauthali, Mankha, Phulpingdanda, Lisankhu, Gati,	8221.00	6775/28505	AATWIN/UNICEF

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
			Ghumthang			
"	Punar Nirman Jibiko Parjan	Social	Pisakar, Thumpakhar, Thulodhading, Attarpur, Jethal, Petku, Mankha	4899.00	5379/2213 1	World Education
"	Community driven public infrastructure and livelihood support Program		Baruwa, Selang	12056.00	1013/4444	People in Need (PIN)
"	Nepal Earthquake recovery 2016	Social	Pangretar, Kalika, Sunkhani, Ramche, Tatopani, Barabhise, Chokati	50855.00	6975/2820 3	OXFAM
"	Bringing back regular life	Social	Karthali, Marming, Petk	50866.00	1935/8102	DIE JOHANNITER
"	Prevention of children from the worst form of slavery	Social	Tatopani, Phulpinkatti, Gati, Listikot, Maneswara	5100.00	5128/2079	Geneva Global
"	Reconstruction and rebuilding of lives in Sindhupalchowk	Social	Pangretar, Thulohakar, Dhuskun	2409.00	2279/8787	HuRENDEC-Nepal/TDH-Germany/NL
"	Nepal earthquake recovery reconstruction and resilience (3R) Project	Social	Baramchi, Selang	59447.00	1231/5861	The Lutheran World Federation
"	Drinking water and sanitation project and post ODF total sanitation project	Social	Mankha, Pangretar, Lishanhu	6623.00	3560/1447 8	RWSSFDB
Good Neighbour Nepal	The improvement Agriculture Products for Poor Households in Sindhupalchowk District	Economic	Irkhu, Maneswara, Mankha, Thokarpa, Jethal, Ichok, Kyul, Melamchi	6362.525	495	JICA
HELP	Shree Pema Chholing Lower Secondary School,	Social	Helambu	3500.00		
HELP	Shree Satdhara Lower Secondary School	Social	Kiul	5000.00		
HELP	Shree Satkanyamati Seconddary School	Social	Gunsa	9000.00		
HELP	Shree Deurali Primary School	Social	Helambu	7000.00		
HELP	Shree Pating Lower Secondary School	Social	Ichok	8000.00		
HELP	Shree Golma Devi Secondary School	Social	Helambu	5000.00		
HELP	Shree Nurbuling Manichaur Secondary School	Social	Kiul	4000.00		
HELP	Shree Dhapasung Primary School	Social	Ichok	2500.00		
HELP	Shree Bhotenamlang Secondary School	Social	Bhotenamlang	7500.00		
HELP	Shree Narayan Lower Secondary School	Social	Ichok	7500.00		
HELP	Shree Saraswati Primary School	Social	Lagarche	5000.00		
HELP	Shree Mahendra Priya Lower Secondary School	Social	Sindhukot	7500.00		
HELP	Shree Kyaulethana Lower Secondary School	Social	Jyamire	5000.00		
HELP	Shree Panchakanya Primary School	Social	Jyamire	5000.00		
HELP	Shree Bhotang Devi Secondary School	Social	Bhotang	7500.00		
HELP	Shree Ganesh Primary School	Social	Baruwa	200.00		
HELP	4. Dadhuwa Bhawani Shankar Uchha Ma V (5 buildings - 10 rooms)	Social				
ISARD	Restoration/establishment of physical and non-physical infrastructure that relate to on-farm and off-farm income generation activities restored/ Recovering Livelihoods and Empowering Community	Economic	Karthali, Chokati, Piskar	2390.00	2660	ICCO/ D&P
ISARD	Availability of agriculture and poultry services ensured	Economic	"	1405.00	454	ICCO/ D&P
ISARD	Availability and access to crops and poultry insurance services ensured	Economic	"	360.00	100	ICCO/ D&P
ISARD	Restoration of linkages between buyers and sellers (relations) facilitated	Economic	"	1400.00	620	ICCO/ D&P

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
ISARD	Access to finance through registered cooperatives/saving groups facilitated	Economic	"	1360.00	250	ICCO/ D&P
ISARD	Improvement on awareness of safety of physical infrastructure that relate to on/off farm market supported	Economic	"	80.00	204	ICCO/ D&P
ISARD	Recovery of Socio-economic Infrastructure	Economic	"	3655.00	3095	ICFON
ISARD	Agriculture farming Development	Economic	"	2090.00	950	ICFON
ISARD	Capacity Building Trainings	Economic	"	430.00	520	ICFON
ISARD	Small Industry and Microenterprise Promotion	Economic	"	1050.00	787	ICFON
Janahit Gramin Sewa Samiti(JGSS)	WASH Project	Social	Kubinde , Sanosirubari, Jalbire, Phulpinkot, Haibung	31000.00	4702 HH	World Vision
Janahit Gramin Sewa Samiti(JGSS)	School WASH	Social	Kadambas, Jalbire, Baramchi, Hagam, Pangtang, Chautara	1613.00	4566	OXFAM
"	Water supply	Social	"	7159.00	4566	OXFAM
"	Support for emergency	Social	"	2498.00	4566	OXFAM
"	Livelihood Project		"	1090.00	4566	OXFAM
Janahit Gramin Sewa Samiti(JGSS)	Support for DRR	Forest, Environment and Disaster Management Sector	Pangretar, Sunkhani, Chokati, Tatopani, Helambu, Kiul, Jalbire, Pangtang, Baramchi, Barbise VDCs and Chautara Municipality.	6812.00	4566	OXFAM
Janahit Gramin Sewa Samiti(JGSS)	School TLC WASH	Social	Barhabise Thumpakhar Barhabise Thumpakhar Thulopakhar Mankha	6300.00		OXFAM
"	WASH activities	Social	Syaule, Batase, Simpalkabhre	8320.00	2375	OXFAM
"	Livelihood		"	3970.00	2375	Caritas
"	Disaster Risk Reduction		"	3090.00	2375	Caritas
"	Health Project	Social	Kubinde ,Haibung,Pipa Idanda,Bhotechaur	52239.00		World vision
"	Poverty Alleviation Fund	Social	Gumba ,Pantang,Bara mchi	1900.00		
Janahit Gramin Sewa Samiti(JGSS)	LGCDP Program	Social	Gumba ,Pantang,Bara mchi,Hagam,Jalbire,Phulpinkot,Golche,Selang,Syaule,Batase	600.00		DDC Sindhupalchowk
Janahit Gramin Sewa Samiti(JGSS)	Livelihood	Social	Phulpinkot and Kubinde	2000.00		Oxfam
"	Social Mobilization	Social	4 VDCs	500.00		Pragya India
Li-BIRD	Distribution of seasonal vegetable and filed crop seeds and agri tools (Spade, Rake Watering can to 20% HH) / Rebuilding Family Farming	Economic	Dhuskun,	2100.27	873	Diakonie Katastrophe nhilfe(DKH)
Li-BIRD	"	Economic	Piskar	1464.56	619	"
Li-BIRD	"	Economic	Pangretar	2083.77	872	"
Li-BIRD	"	Economic	Tekanpur	1319.38	485	"
Li-BIRD	"	Economic	Pedku	1237.80	450	"
Li-BIRD	"	Economic	Tauthali	2238.65	892	"
Li-BIRD	"	Economic	Jethal	1652.59	713	"
Li-BIRD	"	Economic	Sunkhani	1629.24	720	"
Li-BIRD	"	Economic	Attarpur	1311.70	534	"
Li-BIRD	"	Economic	Thulodhading	1398.55	585	"
Li-BIRD	"	Economic	Dhuskun	400.00	90	"

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
Li-BIRD	"	Economic	Pedku	350.00	30	"
Li-BIRD	"	Economic	Tauthali	400.00	32	"
Li-BIRD	"	Economic	Attarpur	300.00	30	"
Li-BIRD	"	Economic	Thulodhading	300.00	62	"
Li-BIRD	"	Economic	Piskar	300.00	80	"
Li-BIRD	"	Economic	Pangretar	200.00	80	"
Li-BIRD	"	Economic	Tekampur	200.00	60	"
Li-BIRD	"	Economic	Jethal	200.00	42	"
Li-BIRD	"	Economic	sunkhani	200.00	35	"
Li-BIRD	Distribution of seasonal vegetable, legumes and filed crop seeds and agri tools -Spade, Rake Watering can, jab planter(5 per VDC), Silpauline tunnel(2%) mushroom cultivation training with material support / Rebuilding Family Farming	Economic	Gati Ghorthali Chokati Karthali Marming	7034.00	3221	Swiss Government Development Cooperation (SDC)
Li-BIRD	"	Economic	"	13742.00	10007	Ministry of Foreign Affairs, Norway
Living Hope Nepal	Project Kalika – Reconstruction of 3 Primary School in Kalika	Social	Kalika	41040.00	190	Singapore Red Cross
MANK	Creating Protective Environment for Children _ CPEC	Social	30	9015.00		Save the Children
MANK	Emergency Relief and Response Program	Social				18500
MANK	WASH Program	Social	3VDC	13000.00		Save the Children
MANK	Education Program	Social		5500.00		
MANK	Nepal Earthquake Response Program	Social	4 VDC	47886.00	13000	Oxfam GB
MANK	WASH	Social				
MANK	Shelter	Social				
MANK	Gender	Social				
MANK	Livelihood	Social				
MANK	UPAKAR for Health	Social				
MANK	Part of Rehabilitation of Earthquake affected public School	Social				Fairmate Caritas Switzerland
MANK	Life for livelihood Project	Social	7	4932.00	2700	World Education
MANK	GBV/ Protection Project	Social	6	15405.00	15500	Care Nepal
MANK	Building Resilience and Preventing Trafficking through Family Preservation, Community Engagement, and Systems Strengthening	Social	20	4725.00	4000	Unicef
MANK	Communication and Social mobilization for promoting recovery and resilience among earthquake affected communities	Social	7	7524.00	5500	AATWIN/UNICEF
MANK	Nepal Earthquake Response for Education in Emergency (NEQR-EIE)	Social	3	44815.00	7000	World Vision Nepal
MANK	Female Friendly Space management	Social	Center in Chautara	4200.00	700	UNFPA
MANK	Child Care home (Transit home in emergency)	Social	Center in Melamchi	3020.00	300	MANK international
Namaste Nepal	School partnership Project	Social	Gati	5907.70		
	School partnership Project		Kiul	4602.00		
	School Building Construction and Project		Gati	47500.00		
Nepal Red Cross Society	CSAR Training	Social	All	12000.00	474	
"	Relief Distribution Activities		Need Base	17500.00	7560	
"	Emergency Fund	Social	All	5000.00		
"	First Aid Training In All VDC		All	4900.00	316	
"	Epidemic control		Need Base			
"	Eye Health		Regular			

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
"	Enabling Youth to Combat HIV, trafficking & Social Discrimination Programme	Social	Nawalpur & Shikharpur	3000.00	6500	
"	RFL Programme	Social	20 Family	200.00	87	
"	Integrated Earthquake Recovery Operation (I)(WASH, Health, Livelihood, Shelter)	Social	Nawalpur, shikharpur, Kunchok, Badegau	15446.40	20640	
"	Health Post Reconstruction Program	Social	14	1500.00	58213	
"	Integrated Earthquake Recovery Operation (II)(WASH, Health, Livelihood, Shelter)	Social	Banskarka, Baruwa, Bhotang, Bhotenamlang, Gunsa, Lagarche, Thapaldhap, Thapalkot	15000.00	7740	
"	House Reconstruction Grant support Program	Social	Gunsa, Thapaldhap	45000.00	2000	
"	Blood bank establishment	Social	Chautara	7500.00		
"	District chapter development plan	Social		7000.00		
"	Warehouse construction at strategic location	Social		40000.00		
"	Volunteer capacity development	Social		3000.00		
"	Seven days mason training	Social	Kunchowk, Hagam, Pangtang, Tatopani, Chokati, Baramchi	3300.00	180	
PHASE Nepal	WASH recovery in Sindhupalchowk	Social	Hagam, jalbire, Fupingkot, Selang, Pantang, Baramchi	58729.75	16,166 Pop.	DKH Germany
PHASE Nepal	School reconstruction project		Hagam			CARITAS Austria
PHASE Nepal	Health post Reconstruction	Social	Hagam	4700.00		NERA
PHASE Nepal	Toilet Reconstruction		Thauthali/Piskar	9650.98	850 HH	Guernsey and Caritas
SEBAC-Nepal	WASH Recovery Activity (WRA Program)	Social	14	114000.0		USAID
SEBAC-Nepal	Menstrual Hygiene Management	Social	All the Schools of the district	6000.00	Total schools of district	
Shakti Samuha	To prevent human trafficking among children and women from anti trafficking booths	social	Bahunepatti & Bhotechaur	971.30	Up to data record of June 2016, 54 children intercepted	Plan International
Shakti Samuha	Recovery and Rehabilitation Post Disaster	Social	Bhimtar, Shipapokhare	2149.36	N/A	Center for Disaster Philanthropy
Shakti Samuha	Preventing and Responding to Child Trafficking in a post Earthquake Setting	Social	Golche, Gumba, Bansbari, Fataksila, Sangachok, Phulpingdanda	8200.00	N/A	Save the Children International
TUKI	Poverty Alleviation program	Social	4	2200.00	4500 Pop	PAF
TUKI	Education in recovery phase,	Social	13	25000.00	12600	Plan International
TUKI	Child Protection in recovery phase	Social	13	8050.00	8000	"
TUKI	Empowering Adolescent Girls in Emergency	Social	6	2500.00	2000	"
TUKI	Disaster Risk Reduction project (DRR)	Social	4	12000.00	2000	Save the children (ECHO)
TUKI	Disaster Risk Reduction Project (DRR)	Social	Thumpakhar	2400.00	500	"
TUKI	Earthquake response in Shelter,	Social	1 (Sangachok)	43000.00	140HH/715 Pop.	"
TUKI	Food security and livelihood,	Social	1 (Sangachok)	20700.00	2250	"
TUKI	Health	Social	7	4800.00	26000	"
TUKI	Shelter	Social	3	67340.00	310 HH	"
TUKI	Food security and livelihood	Social	2	31000.00	503 HH	"
TUKI	Nutrition	Social	13	4400.00	29000 Pop.	"
TUKI	Transitional learning center and WASH in public school	Social	9	4700.00	1364 Pop.	Hands International (UNICEF)

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Name of Organization	Activity /Project name	PDDP Sectors	Project Location	Budget (NRP) in 1000	Beneficiaries (HH/ Population)	Supporting Organization (Doner)
			VDC/Municipality			
TUKI	Rehabilitation of public school, DRR and Income generation.	Social	1 Thulosirubari		9000 Pop.	Help Germen
TUKI	Rehabilitation of Public school and promotion of school attendance.	Social	3- Ichok, Duwachaur, Talarang	8000.00	3264 Pop	Caritas Switzerland
TUKI	Livelihood	Social	51 VDCS	10800.00		Food and Agriculture Org. (UN)
Youth Initiative	Community Integrity Building	Institution and resourced mobilization	Peepaldanda, Irkhu, Sangachowk, Thulosirubari, Talarang, Nawalpur, Girachaur, Melamchi Municipality,	2679.65	1000	Integrity Action

Appendix. 7 JICA TEAM CONDUCTED SURVEYS AND ACTIVITIES

Table 7.1 Additional Survey by JICA Expert Team

Date	Survey	Description
2015/7/30, 2015/8/9	Landslide damage survey	Kerabari Sindhupalchok, Topopani, Marning Sindhupalchok
Aug-Sep 2015	Social Survey (Quick Survey)	(1) Collection of existing data (2)Key informant interviews (3) Field observation. Information was collected through existing data and interview with VDC Secretaries and Social Mobilizers (SMs)
2015/8/25	Landslide awareness workshop	Workshop about mechanism of landslide and installation of rainfall/crack monitoring equipment
Jan.-Mar. 2016	Social Survey (Detail Survey)	(1) VDC-level Participatory Resource Mapping (2) Focus Group Discussion (FGD) (3)Sample household (HH) interview survey on housing reconstruction.
2016/4/23	Community Evacuation Drill, Syaule VDC	Confirmation of evacuation route, information transmission system at District level
2017/3/2	Follow up of landslide prone area, Syaule VDC	(1)Site investigation of crack and landslide area (2)Survey of relocated site (3) Interview for residents in the relocation

Appendix. 8 FORMAT FOR INFORMATION COLLECTION

Preparation of Periodic District Development Plan (PDDP) and
 Rehabilitation and Recovery Plan (RRP) for Sindhupalchowk District

Information Collection Form

Name of the Organization			
Address			
Respondent (for the query in case of confusion)			
Name		Mobile No	
Email ID			

General Information

Name of the Project/ Program					
Target Period:		Possibility of Extension?	Yes		No
If yes, what is the possible date of Extension?					
Total Development Budget					
Total Recurrent Budget					
Target VDCs (annex if it cannot be mentioned here)					
Working Sectors					
Regarding sectors, please refer following sectors as per Post Disaster Recovery Framework (PDRF) of NRA. Please mention sub-sectors under each sectors. For example, A1, A2, B1, B2.					
A. Social Sector: 1)Cultural Heritage, 2)Education, 3)Health, 4)Nutrition B. Infrastructure: 1)Electricity & Renewable Energy, 2)Transport - Access & Communication, 3)Water & Sanitation, 4)Government Buildings, 5)Housing & Settlement (Urban/ Rural), 6)Community Infrastructure, 7)Mason Training C. Cross-Cutting Issues: 1)Disaster Risk Reduction, 2)Employment & Livelihood, 3)Environment & Forestry, 4)Gender & Social Inclusion, 5)Governance, 6)Social Protection					
Please tell us briefly about your involvement in Rehabilitation, Recovery and DRR activities.					

सिन्धुपाल्चोक जिल्लाको आवधिक जिल्ला विकास योजना (२०७३/७४-२०७७/७८)
तर्जुमा अन्तर्गत जिल्ला वस्तुगत विवरण तयार गर्नका लागि गाविस/ नगरपालिका
कार्यालयबाट तथ्यांक संकलन निम्ति चेकलिष्ट

(Data Collection Checklist from VDC/ Municipality office to prepared district profile for the preparation of **Sindhupalchok** Periodic District Development Plan (2016/17-2020/21)

- गाविस/नगर वस्तुस्थिति विवरण (प्रोफाइल) (VDC/ Municipality profile report)
- गाविस/नगर सम्बन्धी अन्य अध्ययन तथा योजना प्रतिवेदनहरू (VDC/ Municipality related other plans and reports)
- उपलब्ध गाविस /नगरका नक्शाहरू (Available VDC/ Municipality maps)
- निम्न उल्लेखित क्षेत्रहरूमा गाविसको समस्या, सम्भावना, अवसर तथा चुनौतीहरू (Problems, Potential, Opportunities and Challenges prevailing in the VDC/ Municipality)
 - भौतिक - सडक तथा यातायात, खानेपानी, आवास तथा वस्ती विकास, ढल निकास, विद्युत्, सिंचाइ, जलविद्युत्, आदि । (Physical: Road and Transportation, Drinking water, Shelter and settlement development, sewerage and drainage, electricity, irrigation, hydropower etc)
 - सामाजिक-शिक्षा तथा खेलकुद, भाषा र संस्कृति, स्वास्थ्य सेवा, बाल विकास, आदिवासी, जनजाति, उपेक्षित वर्ग, महिला सशक्तिकरण, आदि । (Social: Education and Sports, Linguistics and Culture, Health Service, Child Development, Indigenous, Marginalized and Discarded population, Women Empowerment etc)
 - आर्थिक-कृषि, घरेलु उद्योग, पर्यटन, औद्योगिक विकास, खाद्य सुरक्षा आदि । (Economic: Agriculture, Cottage Industry, Tourism, Industrial Development, Food Security etc)
 - वातावरण/प्रकोप - वन, नदी तथा खोलानाला, फोहोरमैला व्यवस्थापन, उर्जा, भूक्षय तथा नदी नियन्त्रण, आगलागी, आदि । (Environment and Disaster: Forest, River and Streams, Waste Management, Energy, Soil Erosion, River Control, Fire etc)
- गाविस /नगर परिषदबाट पारित गरिएका वार्षिक कार्यक्रमहरू (ती मध्ये कार्यान्वयन भएका वा नभएका चिन्ह लगाउनुहोला) (Annual Programs approved through VDC/ Municipal Council (please tick among them which are implemented or not-implemented))

सिन्धुपाल्चोक जिल्लाको आवधिक जिल्ला विकास योजना (२०७३/७४-२०७७/७८) तर्जुमा
गाविस/ नगरको सामुहिक भेलाका क्रममा तथ्यांक संकलन तथा नक्शांकन निम्ति चेकलिष्ट
 (Data Collection Checklist from VDC/ Municipality office during group gathering for preparation of **Sindhupalchok**
 Periodic District Development Plan (2016/17-2020/21))

नोट: हरेक विषयमा वडा नम्बर नछुटाउनु होला (Note: Please don't miss ward Number in each Subject)

भेला भएको स्थान (Place of Gather):

मिति (Date):.....

1. प्रमुख बस्तीहरू (Main Settlements)

वडा नं (Ward No.)	बस्तीको नाम (Settlement Name)	घरघुरी संख्या (HH No.)	वडा नं (Ward No.)	बस्तीको नाम (Settlement Name)	घरघुरी संख्या (HH No.)

2. प्रमुख नदीहरू, ताल, पोखरी, जलाधार क्षेत्र, सिमसार क्षेत्र (Main Rivers, Ponds, Lake, Watershed Area, Wetland Area)

नाम (Name)	समेटेको वडा (Covered Ward)	उपयोगको विवरण (Description of Use)	परिमाण(लम्बाई/ क्षेत्रफल)(Quantity (Length/ Area))

3. वनजंगल (सरकारी, सामुदायिक, कबुलियति) (Forest/ Jungle (Government, Community, Leasehold))

क्र.सं. (S.N)	नाम (Name)	किसिम (Type)	लाभान्वित समूह (Beneficiary groups)	वन पैदावर (Forest Products)	वन्य जन्तु (Wild life)

4. सडक तथा यातायात (Roads and Transportation)




● प्रमुख सडक, लम्बाई चौडाइ तथा सतहको किसिम (Main Road, Length, Width and Surface Type)

क्र.सं (S.N)	बाटोका नाम (Road Name)	देखि.... सम्म (From....To)	लम्बाई कि मी (Length Km)	चौडाई मी (Width Km)	सडक सतहको प्रकार (Surface Type)
१					
२					
३					





क्र.सं (S.N)	बाटोका नाम (Road Name)	देखि.... सम्म (From....To)	लम्बाई कि मी (Length Km)	चौडाई मी (Width Km)	सडक सतहको प्रकार (Surface Type)
५					
६					
७					
८					
९					
१०					

- सार्वजनिक यातायात चल्ने रुटहरु तथा साधनको किसिम (Public Transportation Routes and Vehicle Types)







क्र.सं. (S.N)	रुट (Routes)	साधन (Vehicle Type)	ट्रिप संख्या (Trip Number)	यात्रु संख्या (Passenger Number)

- प्रमुख बस विसौनीहरु (Main Bus-Stops)  बसपार्क (Bus Parks), जिल्ला स्तरीय बसपार्क (District Level Bus park),  स्थानीय स्तरको बसपार्क Local Bus parks 

5. खानेपानी (Drinking Water)

- विद्यमान खानेपानी स्रोत अनुसार घरधुरी अनुपात (The HH ratio in proportion to drinking water Source)
- बोरिङ गरिएका घरधुरी प्रतिशत (HH with water Boring)
- खानेपानीका सम्भावित स्रोतहरु (जिल्लास्तरीय,  गाविस स्तरीय ) (Probable sources of Drinking Water (District level  VDC/ Level ))

6. विद्युत् (Electricity)

- विद्युत् सेवा पुगेका घरधुरी प्रतिशत (HH with Electricity Facility)
- विद्युत् प्रसारण लाइन तथा ट्रान्सफरमर (), स्टेशन,  सब स्टेशन  (Electricity Transmission Line and transformer (), Station,  Sub-Station ))

7. ढल निकास तथा सरसफाइ (Sewerage and Sanitation)

पाइप ढल प्रणाली भएको घरधुरी (HH with sewerage facility)	सेप्टिक टैंक मात्र भएको घरधुरी (HH with Septic Tank Only)	सेप्टिक टैंक तथा पाइप ढल प्रणाली भएको घरधुरी (HH with both Septic Tank and Piped Sewer Line)

- खुल्ला दिशा मुक्त क्षेत्रको स्थिति, यसमा जम्मा कति घरधुरी छन् र कतिमा चर्पी छन् भनेर उल्लेख गर्ने (Condition of Open Defecation Free Area, please mention total HH and how many of them have toilets) :
- यदि ODF नभएको खण्डमा, शौचालय नभएको घरधुरी प्रतिशत (If not ODF, Number of HHs without Toilet) :
- भूकम्पले क्षतिग्रस्त शौचालय, Earthquake Damaged Toilets:
- हाल चर्पी कसरी प्रयोग हुन्छ ?, How toilet is being used? :

- सार्वजनिक शौचालय (T) (Public Toilet (T))

क्र.सं. (S.N)	नाम, स्थान, वडा नं (Name, Place and Ward No)	क्षमता (Capacity)	स्वामित्व (Ownership)

8. फाहोरमैला व्यवस्थापन (Solid Waste Management)

- फाहोर संकलन प्रकार (Waste Collection Type)
- डम्पिङ साइट (स्थान, वडा नं) (Dumping Sites (Area, Ward No.))
- ल्याण्डफिल साइट (स्थान, वडा नं) (Landfill Site (Area, Ward No.))
- सम्भाव्य डम्पिङ साइट (स्थान, वडा नं) (Possible Dumping Site (Area, Ward No.))
- सम्भाव्य ल्याण्डफिल साइट (स्थान, वडा नं) (Possible Landfill Site (Area, Ward No.))

9. बस्ती विकास तथा शहरीकरण (Settlement Development and Urbanization)

- प्रमुख बजारहरू (Main Market Centers) ○

क्र.सं. (S.N)	नाम (Name)	स्थान / वडा नं (Place/ Ward No.)	लाभान्वित गाविसहरू (Beneficiaries VDCs)	भूकम्प पछिको अवस्था (Condition after EQ)	
				छ	छैन

- घर भाडामा बस्ने तथा स्थानीय जनसंख्या अनुपात (Ratio of people living in Rent in respect to local residents)
- सुकुम्बासी बस्तीहरू छन् भने उल्लेख गर्नुहोस (Please mention if there are squatter settlements)

क्र.सं. (S.N)	नाम (Name)	स्थान/वडा नं (Place/ Ward No.)	घरधुरी संख्या (HH numbers)

- निजी स्तरमा प्लटिङ (अनौपचारिक) गरेका क्षेत्र (Private Level Plotting (informal) area)

क्र.सं. (S.N)	स्थान/वडा नं (Place/ Ward No.)	क्षेत्रफल (Area)	घडेरी संख्या (Number of Plot)	कैफियत (Remarks)

- व्यवस्थित आवास क्षेत्र (जग्गा एकिकरण, हाउजिङ, अपार्टमेन्ट) (Managed Settlement Area (Land Pooling, Housing, Apartment))

क्र.सं. (S.N)	स्थान/वडा नं (Place/ Ward No)	क्षेत्रफल (Area)	घडेरी संख्या (Number of Plot)	सञ्चालन (Operational)

- तीव्र जग्गा बेचबिखन भइरहेको क्षेत्र (Area with High Land Transaction)
- तीव्र रुपमा बस्ती वृद्धि भइरहेको क्षेत्र (Area with high rate of Settlement Development)
- शहरी विस्तारका लागि उपयुक्त क्षेत्र (Appropriate Area for Urban Expansion)

10. उद्योगहरु (किसिम : १=घरेलु, २ = साना, ३ = मझौला, ४ = ठूला) (Industries (Types: 1= Cottage, 2= Small, 3= Medium, 4= Large))

क्र.सं. (S.N)	उद्योगको नाम (Name of Industry)	किसिम (Type)	उत्पादन गर्ने वस्तु (Production Material)	रहेको स्थान (वडा नं) (Location, Ward No.)	दर्ता (छ या छैन) (Registered, Yes/No)

11. कृषि (Agriculture)

क्र.सं. (S.N)	प्रमुख कृषि उत्पादनहरु (Main Agriculture Production)	उत्पादन (मे.ट) (Production Mt. Ton)

12. प्रमुख कृषि उत्पादन (निर्यात गरिने) (Main Agriculture Products (Export))

क्र.सं. (S.N)	बस्तु (Product)	निर्यात (Volume)	निर्यात गरिने स्थान (Place of Export)

13. प्रमुख आयातित बस्तुहरु (Main Imported Products)

क्र.सं. (S.N)	बस्तु (Product)	निर्यात (Volume)	आयात गरिने स्थान (Place of Import)

14. प्रांगारिक खेतीको अवस्था (Condition of Organic Farming):

15. प्रमुख व्यवसायिक पशुपालन (Main commercial Livestock Farming)

16. कृषि पकेट क्षेत्रहरु (Agriculture Pocket Areas)

क्र.सं. (S.N)	प्रमुख कृषि उत्पादन (संभावित) (Main Agro-Production (potential))	स्थान (वडा नं) (Place, Ward No.)	संलग्न कृषक (Associated Farmers)	कुल पकेट क्षेत्रफल (Total Pocket Area)	कैफियत (Remarks)

17. स्वास्थ्य संस्था (किसिम : १=अस्पताल २=स्वास्थ्य चौकी ३=प्रा स्वा केन्द्र, ४=क्लिनिक, ५=जन स्वास्थ्य (प्रसूति सेवा, बाल सेवा आदि) (Health Institution (Types: 1= Hospital, 2=Health Post, 3= Primary Health Center, 4= Clinic, 5= Public Health (Delivery Service, Immunization Center, Child Service etc.))

क्र.सं. (S.N)	स्वास्थ्य संस्थाको नाम (Name of Health Institution)	स्थान/वडा नं (Place, Ward No.)	किसिम (Type)	नीजि/सरकारी/सामुदायिक (Private/Govt./Community)	तह (बेड संख्या) (Level (Bed Nos.))

18. खेलकुद (Sports)

- खुल्ला चौर तथा खेलमैदान (Open Field and Play Ground) PG

क्र.सं. (S.N)	नाम, स्थान (Name, Place)	वडा नं (Ward No.)	क्षेत्रफल (Area)	स्वामित्व (Ownership)	विद्यमान उपयोग (Current Use)

19. सार्वजनिक खुल्ला क्षेत्रहरु/ सामुदायिक भवन/ पुस्तकालय/ सभा गृह/ सहकारी भवन (Community Open Spaces/ Community Buildings/ Library/ Conference Halls/ Government Buildings) PL

क्र.सं. (S.N)	नाम, स्थान (Name, Place)	वडा नं (Ward No.)	क्षेत्रफल (Area)	स्वामित्व (Ownership)	विद्यमान उपयोग (Current Use)

20. पानीघट्ट/मिल/पावर हाउस/माइक्रो हाईड्रो (Water Mill/ Mill/ Power House/ Micro Hydro)

क्र.सं. (S.N)	नाम, स्थान (Name, Place)	वडा नं (Ward No.)	क्षमता (कि वा) (Capacity (K.W))	स्वामित्व (Ownership)	विद्यमान उपयोग (Current Use)

21. सरकारी /सामुदायिक कार्यालयहरु (Government/ Community Offices)

नाम, ठेगाना (Name, Address)	स्थापना वर्ष (Estd. Year)	वडा नं (Ward No)	स्वामित्व (Ownership)

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22. सो क्षेत्रमा कार्यरत संघ संस्थाहरु (Organization and Institutions working in this area)

- गैसस तथा अगैसस (NGO and INGO)

नाम, ठेगाना (Name, Address)	वडा नं (Ward No)	काम गर्ने विषयगत क्षेत्र (Subjective Working Area)	कार्यक्षेत्र गाविसहरु (Working VDCs)

23. सामाजिक संस्था (संख्या लेख्ने) (Social Organizations (write the numbers))

- अनाथालय (Orphanage)
- वृद्धाश्रम (Old age / Elderly Home)
- सुधार गृह (Rehabilitation Center)
- फरक क्षमता भएका व्यक्तिहरुकोलागि संघ संस्था (Organizations / Institutions for differently able people)

24. प्रमुख धार्मिक स्थलहरु (Main Religious Places)

क्र.सं. (S.N)	नाम (Name)	स्थान/वडा नं (Place/ Ward No.)	कुन कुन ठाँउबाट तिर्थार्हु आउछन् (Pilgrim from which Place)	कति जना आउछन् (How Many)

25. प्रमुख जात्राहरु (Main Carnivals (Jatra)

क्र.सं. (S.N)	नाम (Name)	रुट (Routes)	अवधि (Time/ For how long)

26. पर्यटकिय स्थलहरु (Touristic Places)

क्र.सं. (S.N)	नाम, स्थान (Name, Place)	वडा नं (Ward No.)	पर्यटनको प्रकार* (Types of Tourism)	स्थिति (सञ्चालित/सम्भावित) (Condition (Operational/ Potential)

क्र.सं. (S.N)	नाम, स्थान (Name, Place)	वडा नं (Ward No.)	पर्यटनको प्रकार* (Types of Tourism)	स्थिति (सञ्चालित/सम्भावित) (Condition (Operational/ Potential)

* धार्मिक, साहसिक (हाइकिंग, साइक्लिंग, प्याराग्लाइडिंग), अनुसन्धात्मक (*Religious, Adventure, (Cycling, Hiking, Paragliding, Rafting etc.))

27. प्रमुख खानी तथा कच्चा पदार्थ (Main mines and Raw Materials)

क्र.सं. (S.N)	खानी (Mines and Raw Material type)	स्थान/वडा नं (Ward No.)	स्वामित्व (Ownership)	विद्यमान अवस्था (Current Condition)

28. गाविस/ नपाको वार्षिक आम्दानी र खर्च विवरण (Description of Annual Income and Expenditure of VDC/ Municipality) स्रोत: गाविस/ जिबिस/ नगरपालिका (Source: VDC/ DDC/ Municipality)

शिर्षकहरु (Titles)	गतवर्ष (Last Year) 2071/72	यस वर्ष (This Year) 2072/73	आगामी वर्ष (Coming Year, Projection) 2073/74
आम्दानी (Income)			
खर्च (Expenses)			
कर (Tax)			

29. वित्तीय संस्था सम्बन्धी विवरण (Description of Financial Institutions)

वित्तीय संस्थाको नाम (Name of Financial Institution)	किसिम (Type)	रहेको स्थान, वडा नं (Place, Ward No)	कर्मचारी संख्या (Nos. of Staffs)	ऋण लगानी (Loan Investment)	निक्षेप संकलन (Saving Collection)	मुख्य लगानी क्षेत्र (Main Investment Area)

नोट: किसिम भन्नाले १ = कर्मासियल बैंक, २= विकास बैंक, ३ =फाइनाइन्स, ४ = सहकारी ५ = अन्य भन्ने बुझिन्छ । (Note: Types means, 1= Commercial Banks, 2= Development Banks, 3= Finances, 4= Cooperatives, and 5= others)

30. गा वि स.मा कर्मचारी तथा पेन्सनरहरुको संख्या (Number of public servants and Pensioners in VDC)

प्रकार (Type)	कर्मचारी संख्या (No of Public Servants)	पेन्सनरको संख्या (No of Pensioners)

जम्मा		

प्रकार भन्नाले सरकारी कर्मचारी, संस्थानका कर्मचारी, सेना तथा प्रहरी, भारतीय/ब्रिटिस सेना/प्रहरी, शिक्षक आदी, (Type means, Government, Govt. Institutions, Army/ Police, British/Indian Army/ Police, Teachers etc.)

31. भूकम्प पश्चात्को क्षति विवरण (31. Description of Damage after Earthquake)

१. कृषि क्षेत्र (1. Agriculture Sector)

क. कृषिमा क्षति (a. Damage in Agriculture)

कृषि उपजको प्रकार	जम्मा क्षति (मे.ट)	जम्मा क्षति (रु हजारमा)	उत्पादनमा ह्रास वा वृद्धि (- %, वा + %)
Type of Agro-Products	Total loss (mt. ton)	Total loss (Rs. 000)	Loss in production (- % or +%)
कृषि उपज: १- धान, २-मकै, ३-गहुँ, ४-कोदो, अन्य प्रमुख उत्पादन केहि भए उल्लेख गर्ने (Agro-Products: 1- Paddy, 2- Maize, 3-Wheat, 4- Millet, Mention if any other major products)			

ख. पशु क्षति (b. Damage in Livestock)

पशुको प्रकार	जम्मा क्षति (संख्या)	जम्मा क्षति (रु हजारमा)	उत्पादनमा ह्रास वा वृद्धि (- %, वा + %)
Type of Livestock	Total loss (mt. ton)	Total loss (Rs. 000)	Loss in production (- % or +%)
पशुको प्रकार: १- बाख्रा, २-कुखुरा, ३-गाई, ४-गोरु ५-भैसि, ६-भेडा, अन्य प्रमुख केहि भए उल्लेख गर्ने (Livestock Types, 1- Goat, 2- Chicken, 3- Cow 4- Ox, 5- Buffalo, 6- Sheep , Mention if any other major livestock)			

ग. पशु जन्य उत्पादनमा ह्रास (c. Decrease in Livestock Production)

पशु जन्य उत्पादन	जम्मा क्षति (केजी /लि/संख्या.)	जम्मा क्षति (रु हजारमा)	उत्पादन ह्रास वा वृद्धि (- %, वा + %)
Livestock Product type	Total loss (KG/Ltr./ Nos)	Total Loss (Rs. 000)	Loss in production (- % or +%)
पशु उत्पादन प्रकार: दुध, मासु, अण्डा आदी अन्य प्रमुख केहि भए उल्लेख गर्ने (Livestock Product type : Milk, Meat, Egg, etc, Mention if any other major products)			

२. उद्योग तथा बजार क्षति (Damage in Industry and Markets)

क. पहिला बजार केन्द्रको रूपमा रहेका र हाल लुप्त भएका बजारहरु (a. Lost market centers which were formerly a market center)

बजारको नाम	स्थान तथा वडा नं	पसल संख्या	लाभान्वित घरहरु
Name of Market	Place and Ward no	Number of Shops	Beneficiary HHs

ख. उद्योगमा क्षति (Damage in Industry)

उद्योगको किसिम	प्रकार	स्थान तथा वडा नं	रोजगारी संख्या	लाभान्वित घरहरु
Types of Industry	Type	Place and Ward No.	Total employed	Beneficiary HHs

किसिम भन्नाले १=घरेलु, २ = साना, ३ = मझौला, ४ = ठूला) , प्रकार : कृषि प्रषोधन, काष्ठ, वन पैदावार तथा जडिबुटि, खाद्य प्रषोधन, ग्रील, निर्माण, आदी (Type of Industry means, 1- Cottage, 2- Small, 3- Medium, 4- Big and Type means, Agro Processing, Timber, Forest Products & Herbal, Food-Processing, Metal works, construction etc.)				

३. पर्यटन (Tourism)

क. होटल तथा होम स्टेमा क्षति (a. Damage in hotels and homestays)

क्षतिको विवरण (Description of Loss)	संख्या (Number)	कोठा (Rooms)	क्षति रु हजारमा (Loss in terms of Rs. 000)
होटल (Hotel)			
होम स्टे (Home stays)			
संस्कृतिक सम्पदा (Cultural Heritages)			
	संख्या (Number)	स्थान, वडा नं (Place, Ward No.)	क्षति रु हजारमा (Loss in terms of Rs. 000)
मन्दिर (Temple)			
गुम्बा (Monastery)			
पाटी पौवा (Rest Houses)			
अन्य (Other)			

ख. पर्यटकीय पदमार्ग (b. Tourist Trail)

स्थान, वडा नं (Place, Ward No)		जम्मा लम्बाई (Total Length)
देखि (From)	सम्म (To)	

ग. पर्यटक संख्यामा कमी (c. Loss in Number of Tourist)

भूकम्प अघि जम्मा संख्या (Number of Tourist before EQ)		भूकम्प पछि जम्मा संख्या (Number of Tourist after EQ)	
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४. सिंचाइ नहरमा / सुविधामा क्षति (Damage in Irrigation canals/ facilities)

स्थान, वडा नं (Place, Ward No.)		सिंचाइ किसिम (Type of irrigation)	जम्मा लम्बाई (Total Length)	सिंचित क्षेत्र (Irrigated area)	लाभान्वित घरधुरी (Beneficiaries HHs)
देखि (From)	सम्म (To)				

५. सार्वजनिक भवन तथा संरचना (Public buildings and Infrastructures)

भवन किसिम (Types of building)	स्थान, वडा नं (Place, Ward No.)	तल्ला (Storey)	अन्दाजी क्षति (Estimated Damage)
किसिम भन्नाले, प्रहरी चौकी, सामुदायीक भवन, पुस्तकालय, सामुदायीक सभा हल आदी (Type means, Police Station, community buildings, library, community halls etc.)			

६. खानेपानीमा क्षति (Damage in Drinking Water Supply)

क्षति विवरण (Description of)	संख्या/ मि पाइप (Nos./	स्थान, वडा नं (Place, Ward	प्रभावित घरधुरी
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Loss)	Pipes Meter)	No)	(Affected Households)
स्रोत सुकेको (Source Dried)			
धारा बिग्रेको (Damage in Tap)			
वितरण प्रणाली बिग्रेको (Damage in Supply System)			

32. वातावरण, प्रकोप तथा शान्ति सुरक्षा (Environment, Disaster and Peace & Security)

a) वातावरणीय संवेदनशील क्षेत्र (Environmentally Sensitive Area)

विवरण (Description)	स्थान (Place)	वस्तीको नाम (Name of Settlement)	वडा नं (Ward No.)
हाल चालू अवस्थामा रहेका ईटाभट्टा (Currently Operational Brick Kilns)			
वायु प्रदूषण गर्ने खालका उद्योगहरू (Air Polluting Industries)			
भूक्षय प्रभावित क्षेत्र (Area affected with soil erosion)			
नदी कटान तथा बाढी पहिरो ग्रस्त क्षेत्र (Area affected by flood, landslide and River cutting)			
सिमसार क्षेत्र (Wetlands)			
वस्ती भित्र तथा बस्तीबाट ५० मिटरको परिधिमा पर्ने पेट्रोल पम्प (Petrol pumps in settlement and falling within 50 m. distance from settlement)			
प्लाष्टिक मुक्त क्षेत्र घोषणा भएको अवस्था (Declaration of Plastic Free Area)			

b) गाविसमा प्रकोप/विपद्को क्षेत्रगत स्थिति (Sectorial disaster situation in the district)

विपद् (Hazard)	जोखिम (Risk)		स्थान, वडा नं (Location, Ward No.)	पछिल्लो पटक कहिले घटना भयो ? (When it occurred last time?)	कतिको घट्ने गरेको छ ? (How often it Occurs)	जोखिम युक्त घरधुरी तथा जनसंख्या (Households and Population at Risk)	
	Yes (छ)	No (छैन)				घरधुरी संख्या (Households)	जनसंख्या (Population)
पहिरो (Landslide)							
बाढि (Floods)							
महामारी (Epidemic)							
आगलागी (Fire)							
आर्धौहुरी तथा असिना (Strom/ Hailstorm)							
खडेरी (Drought)							
चट्याङ्ग (Lightening)							
अन्य (Others)							

c) गत वर्षमा प्रकोपबाट पिडित परिवार संख्या (Disaster Affected Families Last Year)

वडा नं (Ward No.)	बस्तीको नाम (Name of Settlement)	गत वर्ष प्रकोपबाट पिडित परिवार संख्या (Number of Disaster Affected Families Last Year)									
		बाढी (Flood)	पहिरो (Landslide)	आगलागी (Fire)	असिना (Hail)	हुरी बतास (Strom)	भुकम्प (EQ)	महामारी (Epidemics)	खडेरी (Drought)	चट्याङ्ग (Lightening)	जम्मा (Total)

d) गत वर्षमा प्रकोपबाट भएको क्षती विवरण (Loss due Disaster in Last Year)

वडा नं (Ward No.)	बस्तीको नाम (Name of Settlement)	गत वर्ष प्रकोपबाट भएको क्षती (अन्दाजी रुपैया) (Loss due Disaster in Last Year (Approx. in Rupees))									
		बाढी (Flood)	पहिरो (Landslide)	आगलागी (Fire)	असिना (Hail)	हुरी बतास (Strom)	भुकम्प (EQ)	महामारी (Epidemics)	खडेरी (Drought)	चट्याङ्ग (Lightening)	जम्मा (Total)

वडा नं (Ward No.)	बस्तीको नाम (Name of Settlement)	गत वर्ष प्रकोपबाट मृत्यू भएको व्यक्ति संख्या (Number of Disaster Deceased Last Year/Human Loss)									
		बाढी (Flood)	पहिरो (Landslide)	आगलागी (Fire)	असिना (Hail)	हुरी बतास (Strom)	भुकम्प (EQ)	महामारी (Epidemics)	खडेरी (Drought)	चट्याङ्ग (Lightening)	जम्मा (Total)

e) वस्ती अयोग्य स्थानमा बसोबास गरेका परिवार, घरपरिवार विवरण (Description of Families/ HHs residing on inappropriate area for settlement)

वडा नं (Ward No.)	बस्तीको नाम (Name of Settlement)	वस्ती अयोग्य स्थानमा बसोबास गरेका परिवार संख्या (Number of Families living in Inappropriate area for settlement)	वस्ती अयोग्य हुनुको सम्भावित कारण (Reason For being inappropriate for Settlement)					जम्मा (Total)
			पहिरो (Landslide)	बाढी वा कटान (Flood or River Cutting)	अन्य (Others)	अन्य (Others)	अन्य (Others)	

f) विपद् व्यवस्थापन योजना, विपद् व्यवस्थापन समिति एवं कोषको स्थिति (Condition of Disaster Management Plan, Disaster Management Committee and Fund)

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- ग) विपद् उद्धारका लागि सुरक्षित स्थलहरू र न्यूनतम पूर्वाधार तयारी स्थिति (Condition of Safe Places during Disaster rescue and preparation of Minimum infrastructures)
 क. विकास तथा अस्थायी आवासकोलागि सुरक्षित स्थलहरू, सावजनिक तथा निजी (Safe Places for Evacuation and Temporary Shelter, Public and Private)

रहेको स्थान (Location, Name of the place)	वडा नं (Ward No.)	स्वामित्व (Ownership)	हालको उपयोग (Current Use)	क्षेत्रफल (Area)

- ख. पूर्वाधार स्थिति, उद्धार सामग्री, राहत सामग्री (Status of Physical Equipment, Rescue materials, Relief materials)

भौतिक पूर्वाधार (Physical Equipment)	उद्धार सामग्री (Rescue materials)	राहत सामग्री (Relief materials)

- ग. उद्धार तथा प्राथमिक उपचार तालिम प्राप्त व्यक्ति (Individual trained for rescue and primary health care)

उद्धार तालिम प्राप्त व्यक्तिको संख्या (Number of Individual Trained for Rescue)	प्राथमिक उपचार तालिम प्राप्त व्यक्तिको संख्या (Number of Individual Trained for Primary Health Care)

- ह) सुरक्षा निकाय र प्रहरी चौकी (Security Agencies and Police Stations)

वडा नं (Ward No.)	वस्तीको नाम (Name of Settlement)	सुरक्षा निकाय वा प्रहरी चौकी संख्या (Security Agencies or Number of Police Stations)						कार्यक्षेत्र गाविसहरू (Working VDCs)
		जनपथ प्रहरी (Nepal Police)		सशस्त्र प्रहरी (Armed Police)		नेपाली सेना (Nepal Army)		प्रहरी (Police)
		जम्मा (Total)		जम्मा (Total)		जम्मा (Total)		
		महिला (Female)	पुरुष (Male)	महिला (Female)	पुरुष (Male)	महिला (Female)	पुरुष (Male)	सशस्त्र प्रहरी (Armed Police)

33. भूकम्प पश्चात्को अवस्था (Status after Earthquake)

a) गाविस तथा नपामा संचालित पूर्ननिर्माण तथा पुनर्स्थापना कार्यहरु, यहा अपुग भएमा अन्यमा छुट्टै उल्लेख गर्नुहोस (Reconstruction and Rehabilitation works being conducted in VDC or Municipality, Please mention at last separately if not sufficient)

i) गाविस आफ्नो (VDC's own)

सञ्चालित कार्यक्रम तथा परियोजना (Programs and Projects being operated)	वडा नं (Ward No.)	लक्षित समय (Target Period)	लाभान्वित घरधुरी (Beneficiaries Households)	कुल बजेट (Total Budget)	बजेटको श्रोत (Source of Budget)

ii) अन्य संघसंस्थाहरुको (Other Organizations)

संघसंस्थाहरुको नाम (Name of Other Organizations)	संचालित कार्यक्रम तथा परियोजना (Programs and Projects being operated)	कार्य क्षेत्र (Working Sector)	वडा नं (Ward Nos.)	लक्षित समय (Target Period)	लाभान्वित घरधुरी (Beneficiaries Households)	कुल बजेट (Total Budget)	बजेटको श्रोत (Source of Budget)

b) एकिकृत बस्ति विकासका प्रयासहरु (Efforts in integrated settlement development)

स्थान तथा वडा नं (Place and ward No.)	क्षेत्रफल (Area)	घरधुरी संख्या (Household Nos.)	स्वामित्व (Ownership)	हालको अवस्था (संख्यामा) (Current Status in numbers)		
				निर्माणाधीन (Under Construction)	निर्माण सम्पन्न (construction Completed)	प्रस्तावित (Proposed)

c) वस्ति विकास गर्न सकिने स्थानहरु (नक्साङ्कन गर्ने) (Places where settlement could be developed, mention in the map as well)

स्थान तथा वडा नं (Place and ward No.)	क्षेत्रफल (Area)	हालको प्रयोग (Current Use)	स्वामित्व (Ownership)	जमिनको बनेट (Shape of land)

जमिनको बनेट भन्नाले हल्का भिरालो, सम्म परेको (जङ्गलले, कृषि भूमिले तथा भाडिले ढाकेको वा खुल्ला उल्लेख गर्ने) (Formation of the land means, light slope, flat etc (please mention whether the land is barren, cultivated or the forest)				

d) पुनर्निर्माण भैसकेका तथा सुरु भएका घर तथा भवनहरूको संख्या (Number of Houses and Buildings reconstructed/ or started reconstruction)

पुनर्निर्माण सम्पन्न घरहरू (Constructed Houses)	संख्या (Number)	निर्माणाधिन घरहरू (Houses under Construction)	संख्या (Number)
सरकारी भवन (Government Buildings)		सरकारी भवन (Government Buildings)	
सामुदायीक भवन (Community Buildings)		सामुदायीक भवन (Community Buildings)	
निजी आवास (Private Houses)		निजी आवास (Private Houses)	

e) गाविस तथा नपामा निर्माण कर्मीहरू (Number of construction workers in the VDC of Municipality)

डकर्मि संख्या (Number of Masons)		सिकर्मि संख्या (Number of Carpenters)		मजदुर संख्या (Number of Labors)	
दक्ष संख्या (Skilled)	अर्धदक्ष (Semi- Skilled)	दक्ष संख्या (Skilled)	अर्धदक्ष (Semi- Skilled)	दक्ष संख्या (Skilled)	अर्धदक्ष (Semi- Skilled)
गाविस/नपामा पुनर्निर्माण कार्य सहजताका साथ सम्पन्न गर्न निर्माणकर्मी पर्याप्त छन् ? (Is there sufficient construction workers to complete reconstruction works in easy way?)				छ (Yes)	छैन (No)

f) गाविस केन्द्र देखि निर्माण सामग्री प्राप्त गर्न सकिने नजिकको बजार सम्मको दुरी (Distance nearest market for construction materials from the VDC center)

निर्माण सामग्री प्राप्त हुने नजिकको बजार (Nearest Market for the construction materials)	रहेको गाविस तथा नपा, स्थान तथा वडा नं (Located VDC/ Municipality and Ward no.)	यस गाविस देखि बजार सम्मको दुरी (Distance from this VDC to the market)	दुवानी गर्न लाग्ने समय (Time for the transportation)	
			पैदल (walking)	गाडी (Vehicular)

g) भूकम्प पश्चात् गाविस तथा नपाको प्रमुख तिन समस्या तथा सवाल जुन तत्काल समाधान गर्न जरुरि छ । (Three most urgent issues or problem in VDC or Municipality that has to be resolved at the earliest)

समस्या तथा सवाल (Problems and Issues)	कारण (Cause)	प्रत्यक्ष असर (Direct Effect)

h) भूकम्प पश्चात् रोजगारी तथा आयआर्जनको अवस्थामा केहि परिवर्तन भएको छ ? छ भने कस्तो प्रवृत्ति देखिएको छ, छोटकरीमा उल्लेख गर्नु होस् । (In there any kind of change in occupation and livelihood pattern after earthquake? is yes please mention briefly about the trend being seen.)

गाविस/नपा को नाम : गाविस/नपा को छाप:

कार्यकारी अधिकृत / सचिवको नाम :

सूचना दिने व्यक्ति : पद:

प्रमाणित गर्ने : पद:

Build Back Better

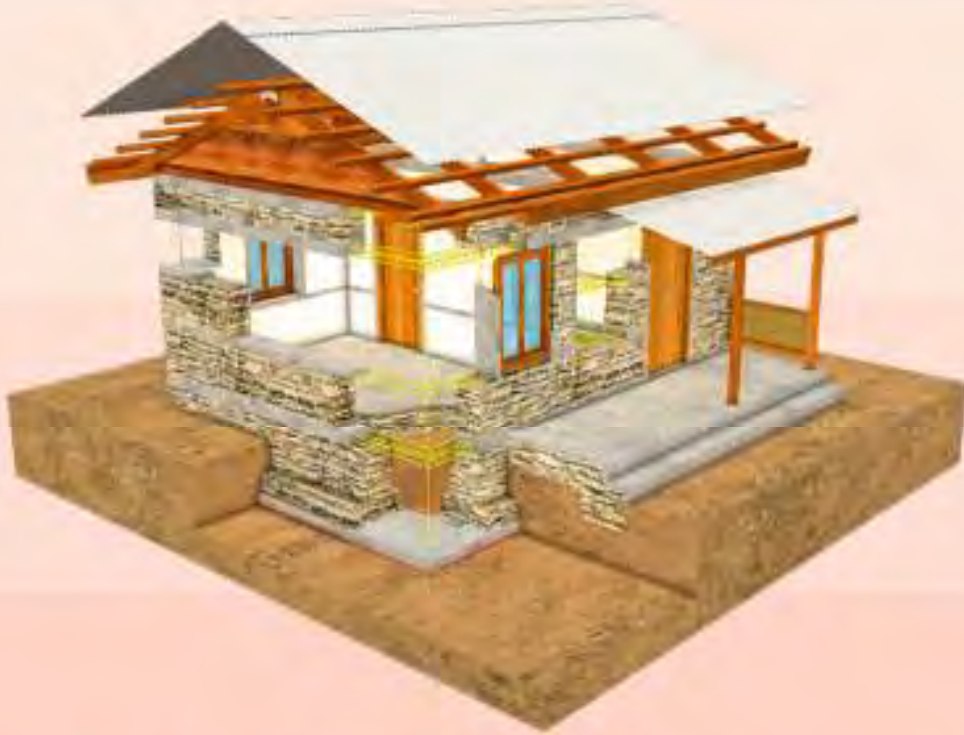


Falgun 2073

**Appendix-8-1: Brochure of Minimum Requirements for
masonry**



नेपाल सरकार
राष्ट्रिय पुनर्निर्माण प्राधिकरण



गारो वाला भवन निर्माणको लागि चाहिने न्यूनतम मापदण्ड
(ढुङ्गाको गारोमा माटोको जोडाई, ईट्टाको गारोमा माटोको जोडाई,
ढुङ्गाको गारोमा सिमेन्टको जोडाई, ईट्टाको गारोमा सिमेन्टको
जोडाई) सम्बन्धी हाते पुस्तिका

विषय सूची

■ न्यूनतम मापदण्ड	-----	१
क) ढुङ्गाको गारोमा सिमेन्ट मसला	-----	२
ख) ईट्टाको गारोमा सिमेन्ट मसला	-----	३
ग) ढुङ्गाको गारोमा माटो मसला	-----	४
घ) ईट्टाको गारोमा माटो मसला	-----	६
■ ध्यान दिनुपर्ने महत्वपूर्ण बिषयहरु	-----	८
१. निर्माण स्थलको छनोट	-----	१०
२. भवनको आकार प्रकार	-----	११
३. निर्माण सामग्री	-----	१३
४. जग	-----	१६
५. ठाडो सबलीकरण	-----	१८
६. कुर्सी सतह(डि.पि.सि)	-----	२०
७. गारो	-----	२२
८. गारोमा राखिने खुल्ला भाग	-----	२४
९. तेर्सो बन्धन	-----	२६
१०. छाना	-----	२८

प्रकाशक :

जापान अन्तराष्ट्रिय सहयोग निकाय

भाग १ : मङ्सिर, २०७३

प्रकाशित प्रतिलिपि : १२०००

न्यूनतम मापदण्ड

राष्ट्रिय भवन संहिता भनेको नेपालमा उपलब्ध निर्माण सामाग्रीको गुणलाई सकेसम्म बढी उपयोग गरी भूकम्प प्रतिरोधात्मक घरहरूको डिजाइन गर्ने तथा बनाउने तरिकाहरू समेटिएको नेपाल सरकारको आधिकारिक दस्तावेज हो ।

भवन संहितामा फरक फरक किसिमको घरलाई फरक फरक प्रविधिको मद्दतले कसरी भूकम्प प्रतिरोधी बनाउन सकिन्छ भनेर लेखिएको हुन्छ ।

राष्ट्रिय पुनर्निर्माण प्राधिकरणले भवन संहिताको आधारमा कोडलाई सामान्य मानिसले पनि सजिलै बुझ्ने गरि न्यूनतम मापदण्ड तयार गरेको छ । भवन संहिताको साधारण रूपनै न्यूनतम मापदण्ड हो ।

यो आवास पुनर्निर्माणका निम्ति आवश्यक पर्ने निर्माण सामाग्री र प्रविधिको बारेमा जानकारी हो । चार प्रकारको न्यूनतम मापदण्डमा एस.एम.सि. (ढुङ्गाको गारोमा सिमेन्ट मसला) एस.एम.एम (ढुङ्गाको गारोमा माटो मसला) बि.एम.सि (ईट्टाको गारोमा सिमेन्ट मसला) बि.एम.एम (ईट्टाको गारोमा माटो मसला) रहेका छन् ।

नं	विवरण																
१	निर्माण स्थलको छनोट	<p>निर्माणका लागि अनुपयुक्त स्थान यस प्रकार छनः :</p> <ul style="list-style-type: none"> भौगर्भिक थिरा परेको ठाउँ । पहिरो जान सक्ने क्षेत्र भिरालो क्षेत्र $> २०^{\circ}$ (१:३, ठाडो:तेँसो) माटो भरेको वा पुरुवा माटो भएको स्थान ढुङ्गा भर्ने ठाउँ तरलीकरण हुन सक्ने ठाउँ नदीको बगर वा सिमसार ठाउँ <p>* यदि निर्माणस्थल माथि उल्लेखित अनुपयुक्त स्थानमा भए विशेषज्ञसँग सल्लाह लिएर मात्र निर्माण कार्य गर्नु पर्दछ ।</p>															
२	भवनको आकार प्रकार र नाप	<p>तल्ला संख्या दुई तल्ला र बुईगल सम्म सिमित राख्नु पर्छ ।</p> <p>कोठाको लम्बाई गारोको कुल लम्बाई ४.५ मि. भन्दा बढी हुनुहुँदैन ।</p> <p>कोठाको नाप कोठाको क्षेत्रफल १३.५ वर्ग मिटर भन्दा बढी हुनुहुँदैन ।</p> <p>गारोको उचाई गारोको उचाई ३.० मिटर भन्दा बढी हुनुहुँदैन ।</p> <p>अनुपात घरको आकार वर्गाकार वा आयताकार स्वरुप भएको हुनुपर्छ । घरको लम्बाई चौडाइको ३ गुणा भन्दा बढी हुनुहुँदैन । उचाइमा पनि घरलाई जलिसक्दो साधारण बनाउनु पर्छ र सेटव्याक राख्नु हुँदैन ।</p>															
३	निर्माण सामग्री	<p>ढुङ्गा सजिलैसँग टुक्रने, नरम, हलुका र गोलो किसिमको ढुङ्गा प्रयोग गर्नु हुँदैन । खोलाबाट ल्याइएका गोलो ढुङ्गालाई ताछेर र फुटालेर लगभग चेट्टो आकार मिलाएर मात्र प्रयोग गर्नुपर्छ । यस्ता फुटालेका ढुङ्गाहरु मोटाइ तर्फ कम्तिमा ५० मि.मि.(२ ईन्च) र लम्बाइ तर्फ कम्तिमा १५० मि.मि. (६ ईन्च) हुनुपर्छ ।</p> <p>मसला सिमेन्टको मसलामा सिमेन्ट र बालुवाको अनुपात १ : ६ (१ भाग सिमेन्ट र ६ भाग बालुवा) भन्दा कम हुनुहुँदैन ।</p> <p>कंक्रीट कंक्रीटको ग्रेड M २० वा कंक्रीटको मिश्रण १: १.५: ३ (१ भाग सिमेन्ट १.५ भाग बालुवा र ३ भाग गिट्टी) भन्दा कम हुनु हुँदैन ।</p> <p>डण्डी उच्च बल भएको HYSY ४१५ ग्रेडको $f_y = ४१५ \text{ MPa} / ५०० \text{ MPa}$ भएको डण्डी प्रयोग गर्नुपर्छ ।</p> <p>काठ भार लिने ठाउँहरु जस्तै दलिन, थाम, पट्टी आदिमा राम्रोसँग उपचार(सिजनिङ) गरिएको, धान्न प्रयोग हुने काठ आँकला नभएको र राम्ररी सुकाइएको हुनुपर्छ । अलकत्रा वा अन्य कुनै काठलाई संरक्षण गर्ने विधिबाट काठहरुलाई कुहिन र किरा लाग्नबाट बचाउन सकिन्छ ।</p>															
४	जग	<p>सामान्य कुरा गारो वाला जगको खाडल एकैनासको र एकै सतहमा निर्माण गर्नुपर्छ । यदि पुरानो जगमा भवन निर्माण गर्ने हो भने विशेषज्ञ सँग सल्लाह लिने ।</p> <p>गहिराइ एक तल्ले भवनको लागि जगको गहिराइ ८०० मिमि र दुई तल्ले भवनको लागि जगको गहिराइ ९०० मिमि हुनुपर्छ ।</p> <table border="1"> <thead> <tr> <th>तल्ला संख्या</th> <th>माटोको प्रकार</th> <th>जगको चौडाइ</th> </tr> </thead> <tbody> <tr> <td rowspan="3">एक तल्ला</td> <td>नरम माटो</td> <td>कम्तीमा ८०० मिमि</td> </tr> <tr> <td>मध्यम माटो</td> <td>कम्तीमा ६०० मिमि</td> </tr> <tr> <td>कडा माटो</td> <td>कम्तीमा ६०० मिमि</td> </tr> <tr> <td rowspan="2">दुई तल्ला</td> <td>नरम माटो</td> <td>कम्तीमा ८०० मिमि</td> </tr> <tr> <td>मध्यम माटो</td> <td>कम्तीमा ६०० मिमि</td> </tr> </tbody> </table> <p>* नरम माटोमा दुई तल्ले भवन निर्माण गर्नुहुँदैन ।</p>	तल्ला संख्या	माटोको प्रकार	जगको चौडाइ	एक तल्ला	नरम माटो	कम्तीमा ८०० मिमि	मध्यम माटो	कम्तीमा ६०० मिमि	कडा माटो	कम्तीमा ६०० मिमि	दुई तल्ला	नरम माटो	कम्तीमा ८०० मिमि	मध्यम माटो	कम्तीमा ६०० मिमि
तल्ला संख्या	माटोको प्रकार	जगको चौडाइ															
एक तल्ला	नरम माटो	कम्तीमा ८०० मिमि															
	मध्यम माटो	कम्तीमा ६०० मिमि															
	कडा माटो	कम्तीमा ६०० मिमि															
दुई तल्ला	नरम माटो	कम्तीमा ८०० मिमि															
	मध्यम माटो	कम्तीमा ६०० मिमि															
५	ठाडो सबलीकरण	<p>सामान्य कुरा ठाडो सबलीकरण तत्वहरु जगबाट शुरु भई छानाको सतह सम्म जानुपर्छ । ठाडो सबलीकरण तत्व गारोको सुर, जोर्नी र भयाल ढोकाको दायाँ बायाँ दिशामा राख्नुपर्छ । यसको लागि फलामे डण्डी अथवा काठको प्रयोग गर्न सकिन्छ ।</p> <p>डण्डी सुर र जोर्नीहरुमा एक तल्ले भवनको लागि १२ मिमि र दुई तल्ले भवनमा १६ मिमि व्यास भएको ठाडो फलामे डण्डीको प्रयोग गर्नुपर्छ ।</p> <p>अंकुश जगबाट शुरु भई छानाको पट्टी सम्म अंकुश गर्नुपर्छ यदि पुरानो जग प्रयोग गर्ने हो भने कुसी पट्टी देखि अंकुश गर्नुपर्छ अंकुश गर्ने लम्बाई डण्डीको व्यासको ६० गुणा हुनुपर्छ</p>															

६	कुर्सी सतह (डि.पि.सि)	सामान्य कुरा मोटाई चौडाई डण्डी	कुर्सी सतहको लेबल जमीन सतह भन्दा कम्तीमा ३०० मिमि माथि हुनुपर्छ। नरम र मध्यम माटोमा पट्टीको मोटाई १५० मिमि र ७५ मिमि हुनुपर्छ भने कडा माटोमा ७५ मिमि हुनुपर्छ। पट्टी वा ब्यान्डको चौडाई गारोको चौडाई भन्दा कम हुनुहुँदैन। १५० मिमि र ७५ मिमि मोटाई भएको पट्टीमा ४-१२ मिमि मोटाई र २-१२ मिमि मोटाई भएको डण्डीको प्रयोग गर्नुपर्छ ६ मिमि मोटाई भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टर को दुरीमा राख्नुपर्छ र यि डण्डीहरू लाई कम्तीमा पनि २५ मिमि (कभर) ढलान गरी छोप्नुपर्छ।
७	गारो	सामान्य कुरा मोटाई कैची मार्ने वारपार ढुङ्गा जोर्नी आड दिने गारो चूली गारो	गारोहरू घन्टी मिलाएर सिधा ठाडो हुने गरी लगाउनुपर्छ। गारोहरूको ठाडो जोर्नीहरू एउटै सीधा रेखामा पर्ने नदिन जोर्नीहरूलाई छलेर लगाउनुपर्छ। सबै गारोहरू एक आपसमा राम्ररी बाँध्ने गरी लगाउनुपर्छ। गारोको सुर र जोर्निहरूमा लामो वारपार ढुङ्गाको प्रयोग गर्नुपर्छ। एक तल्ले भवनमा गारोको मोटाई ३५० मिमि र दुई तल्ले भवनको गारोको मोटाई जमिन तल्लामा ४५० मिमि र पहिलो तल्लामा ३५० मिमि भन्दा कम हुनुहुँदैन। गारोको मोटाई बराबरको कैची मार्ने वारपार ढुङ्गा प्रत्येक ६०० मिमिको ठाडो दुरी र १.२ मी को तेर्सो दुरीमा राख्नुपर्छ। मसलाको जोर्नीहरूको मोटाई २० मिमि भन्दा बढी र १० मिमि भन्दा कम हुनुहुँदैन। यदि गारोको लम्बाइ धेरै लामो भयो भने आड दिने गरी छुट्टै गारो ९ध्रुवतचभकक० जडाउनु पर्दछ। यस्ता आड दिने गारो ३ मिटर भन्दा टाढा राख्नु हुँदैन। यसको न्यूनतम मोटाई मुख्य गारो बराबरको हुनु पर्दछ र आधारको न्यूनतम चौडाई गारोको उचाईको १/६ भाग हुनुपर्दछ। साथै माथिल्लो भागको चौडाई कम्तीमा गारो बराबर हुनु पर्दछ। काठ र जस्ता पाता जस्तो हलुका सामग्रीको प्रयोग गर्नुपर्छ।
८	गारोमा राखिने खुल्ला भाग	सामान्य कुरा कुल लम्बाई दूरी	सबै भन्ज्याल ढोकाको लागि भन्ज्याल मुनिको पट्टी र भन्ज्याल ढोका माथिको पट्टी एउटै तहमा राख्नुपर्दछ। भन्ज्याल र ढोका गारोको सुरवाट कम्तीमा ६०० मि.मि. वा सानो भन्ज्यालढोकाको उचाइको १ चौथाइको दुरीमा हुनुपर्दछ। गारोमा राखिने खुल्ला भागको कुल लम्बाई एक तल्ले र दुई तल्ले क्रमशः भवनमा हरेक गारोको लम्बाइको ५०५ र ४२५ भन्दा कम हुनु हुँदैन। गारोमा राखिने खुल्ला भागहरू बीचको तेर्सो दुरी ६०० मिमि अथवा होचो खुल्ला भागको उचाइको १/२ भन्दा कम हुनुहुँदैन।
९	तेर्सो बन्धन	सामान्य कुरा सिल पट्टी (भन्ज्यालको तल्लो सतह) लिनटेल पट्टी (भन्ज्याल ढोकाको माथिल्लो सतह) स्टिच पट्टी छानाको पट्टी डण्डी जोडाइ	तेर्सो पट्टीहरू भवनको जग, डि. पि. सि., भन्ज्याल ढोकाको तल्लो र माथिल्लो सतह र छानाको सतहमा पूरै गारो भरी लगाउनुपर्छ। ढोकाको लागि छोडिने खुल्ला भाग बाहेक गारोमा राखिने खुल्ला भागको तल्लो सतहमा सिल पट्टी राखिन्छ। यसको न्यूनतम मोटाई ७५ मिमि हुन्छ। खुल्ला भागको माथिल्लो सतहमा लिनटेल ब्यान्ड राख्नुपर्छ यदि भन्ज्यालढोकाको चौडाई र खुल्ला भाग माथीको उचाई १२५० मि. मि. र ९०० मि. मि. छ भने यसको न्यूनतम मोटाई ७५ मिमि को हुन्छ। यदि खुल्ला भागको चौडाई ९०० मि.मि. भन्दा बढि भएमा १५० मिमि मोटाइको लिनटेल ब्यान्डको प्रयोग गर्नुपर्छ। न्यूनतम मोटाई ७५मिमि हुन्छ। सुर र जोर्नीमा उचाई तर्फ ५०० देखि ७०० मि.मि. को दुरीमा स्टिचको प्रयोग गर्नु पर्दछ। गारो र छानालाई एक आपसमा बाँध्न गारोको माथिल्लो सतहमा छानाको पट्टी राख्नुपर्छ यसको न्यूनतम मोटाई ७५ मिमि हुनुपर्छ। १५० मिमि मोटाइको पट्टी भएको अवस्थामा १२ मिमि ब्यास भएको ४ वटा मुख्य डण्डी राख्नुपर्छ भने ७५ मिमि मोटाइ भएको पट्टीमा २ वटा १२ मिमि ब्यास भएको डण्डी राख्नुपर्छ। ६ मिमि ब्यास भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टरमा राख्नुपर्छ। यी डण्डीहरूलाई २५ मिमि को कभर हुने गरी ढलान गरी छोप्नुपर्छ। स्टिच ब्यान्डको पट्टीमा २ वटा ८ मिमि ब्यास भएको मुख्य डण्डी राख्नुपर्छ। डण्डीको लम्बाइ तपुगी खट्ट्याउनु परेमा खट्ट्याउने भागको लम्बाइ डण्डीको ब्यासको ६० गुणा हुनुपर्दछ। जस्तै ८ मिमिको डण्डी भएमा ४८० मिमि, १० मिमि डण्डी भएमा ६०० मिमि, १२ मिमि डण्डी भएमा ७२० मिमि र १६ मिमि डण्डी भएमा ९६० मिमि
१०	छाना	सामान्य कुरा जोडाइ छड्के तान	ढलाने छाना बनाउन नसकेमा जस्तापाता जस्ता हलुका सामान प्रयोग गरी छाना बनाउनु पर्दछ। छाना तथा तल्लाहरू गारोसँग उपयुक्त तरिकाले बाँधेको हुनुपर्छ। छानाका टुस वा दलिनहरू बाँध्न छड्के तान (bracing) राख्नुपर्दछ।

नं	विवरण																		
१	निर्माण स्थलको छनोट	<p>निर्माणका लागि अनुपयुक्त स्थान यस प्रकार छनः :</p> <p>भौगर्भिक चिरा परेको ठाउँ ।</p> <p>पहिरो जान सक्ने क्षेत्र</p> <p>भिरालो क्षेत्र श्र २० ° (।:३, ठाडो:तेसो०</p> <p>माटो भरेको वा पुरुवा माटो भएको स्थान</p> <p>दुष्ठा भर्ने ठाउँ</p> <p>तरलीकरण हुन सक्ने ठाउँ</p> <p>नदीको बगर वा सिमसार ठाउँ</p> <p>* यदि निर्माणस्थल माथि उल्लेखित अनुपयुक्त स्थानमा भए विशेषज्ञसँग सल्लाह लिएर मात्र निर्माण कार्य गर्नु पर्दछ ।</p>																	
२	भवनको आकार प्रकार र नाप	<p>तल्ला संख्या दुई तल्ला र बुईगल सम्म सिमित राख्नु पर्छ ।</p> <p>कोठाको लम्बाई गारोको फुल लम्बाई ४.५ मि. भन्दा बढी हुनुहुँदैन ।</p> <p>कोठाको नाप कोठाको क्षेत्रफल १३.५ वर्ग मिटर भन्दा बढी हुनुहुँदैन ।</p> <p>गारोको उचाई गारोको उचाई ३.० मिटर भन्दा बढी हुनुहुँदैन । बुईगल बनाउदा बुईगलको धूरीको उचाइ पहिलो तल्लाको भुइवाट १.८ मी तथा बुईगलको इभ्स लेभलको उचाइ पहिलो तल्लाको भुइवाट १.० मी. भन्दा बढी हुनु हुँदैन ।</p> <p>अनुपात घरको आकार वर्गाकार वा आयताकार स्वरुप भएको हुनुपर्छ । घरको लम्बाई चौडाइको ३ गुणा भन्दा बढी हुनुहुँदैन । उचाइमा पनि घरलाई जतिसक्दो साधारण बनाउनु पर्छ र सेटव्याक राख्नु हुँदैन ।</p>																	
३	निर्माण सामग्री	<p>ईहा कम पोलेको, अधिक पोलेको र चिरा नपरेको ईहा प्रयोग गर्नु हुँदैन । ईहाको क्रसिङ्ग बलियोपना (Crushing Strength) निर्माणको लागि ३.५ एम.ए. हुनुपर्छ ।</p> <p>मसला सिमेन्टको मसलामा सिमेन्ट र बालुवाको अनुपात १ : ६ (१ भाग सिमेन्ट र ६ भाग बालुवा) भन्दा कम हुनुहुँदैन ।</p> <p>कंक्रीट कंक्रीटको ग्रेड M २० वा कंक्रीटको मिश्रण १:१.५:३ (१ भाग सिमेन्ट १.५ भाग बालुवा र ३ भाग गिट्टी) भन्दा कम हुनु हुँदैन ।</p> <p>डण्डी उच्च बल भएको HYSB ४१५ ग्रेडको थ. ४१५ MPa/५०० :एब भएको डण्डी प्रयोग गर्नुपर्छ ।</p> <p>काठ भार लिने ठाउँहरू जस्तै बलिन, थाम, पट्टी आदिमा राम्रोसँग उपचार(सिजनिङ) गरिएको, धान्न प्रयोग हुने काठ आँखला नभएको र राम्ररी सुकाइएको हुनुपर्छ । अलकत्रा वा अन्य कुनै काठलाई संरक्षण गर्ने विधिबाट काठहरूलाई कुहिन र किरा लाग्नबाट बचाउन सकिन्छ ।</p>																	
४	जग	<p>सामान्य कुरा गारो वाला जगको खाडल एकैनासको र एकै सतहमा निर्माण गर्नुपर्छ ।</p> <p>यदि पुरानो जगमा भवन निर्माण गर्ने हो भने विशेषज्ञ सँग सल्लाह लिने ।</p> <p>गहिराइ एक तल्ले भवनको लागि जगको गहिराइ ८०० मिमि र दुई तल्ले भवनको लागि जगको गहिराइ ९०० मिमि हुनुपर्छ ।</p> <table border="1"> <thead> <tr> <th>तल्ला संख्या</th> <th>माटोको प्रकार</th> <th>जगको चौडाइ</th> </tr> </thead> <tbody> <tr> <td rowspan="3">एक तल्ला</td> <td>नरम माटो</td> <td>कम्तीमा ६५० मिमि</td> </tr> <tr> <td>मध्यम माटो</td> <td>कम्तीमा ५५० मिमि</td> </tr> <tr> <td>कडा माटो</td> <td>कम्तीमा ४५० मिमि</td> </tr> <tr> <td rowspan="3">दुई तल्ला</td> <td>नरम माटो</td> <td>कम्तीमा ९०० मिमि</td> </tr> <tr> <td>मध्यम माटो</td> <td>कम्तीमा ६५० मिमि</td> </tr> <tr> <td>कडा माटो</td> <td>कम्तीमा ५५० मिमि</td> </tr> </tbody> </table>	तल्ला संख्या	माटोको प्रकार	जगको चौडाइ	एक तल्ला	नरम माटो	कम्तीमा ६५० मिमि	मध्यम माटो	कम्तीमा ५५० मिमि	कडा माटो	कम्तीमा ४५० मिमि	दुई तल्ला	नरम माटो	कम्तीमा ९०० मिमि	मध्यम माटो	कम्तीमा ६५० मिमि	कडा माटो	कम्तीमा ५५० मिमि
तल्ला संख्या	माटोको प्रकार	जगको चौडाइ																	
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	मध्यम माटो	कम्तीमा ६५० मिमि																	
	कडा माटो	कम्तीमा ५५० मिमि																	
५	ठाडो सबलीकरण	<p>सामान्य कुरा ठाडो सबलीकरण तत्वहरू जगबाट शुरु भई छानाको सतह सम्म जानुपर्छ । ठाडो सबलीकरण तत्व गारोको सुर, जोर्नी र भयाल ढोकाको वायाँ वायाँ दिशामा राख्नुपर्छ । यसको लागि फलामे डण्डी अथवा काठको प्रयोग गर्न सकिन्छ ।</p> <p>डण्डी सुर र जोर्नीहरूमा एक तल्ले भवनको लागि १२ मिमि र दुई तल्ले भवनमा १६ मिमि व्यास भएको ठाडो फलामे डण्डीको प्रयोग गर्नुपर्छ ।</p> <p>अंकुश जगबाट शुरु भई छानाको पट्टी सम्म अंकुश गर्नुपर्छ । यदि पुरानो जग प्रयोग गर्ने हो भने कर्सी पट्टी देखि अंकुश गर्नुपर्छ । अंकुश गर्ने लम्बाई डण्डीको व्यासको ६० गुणा हुनुपर्छ ।</p>																	

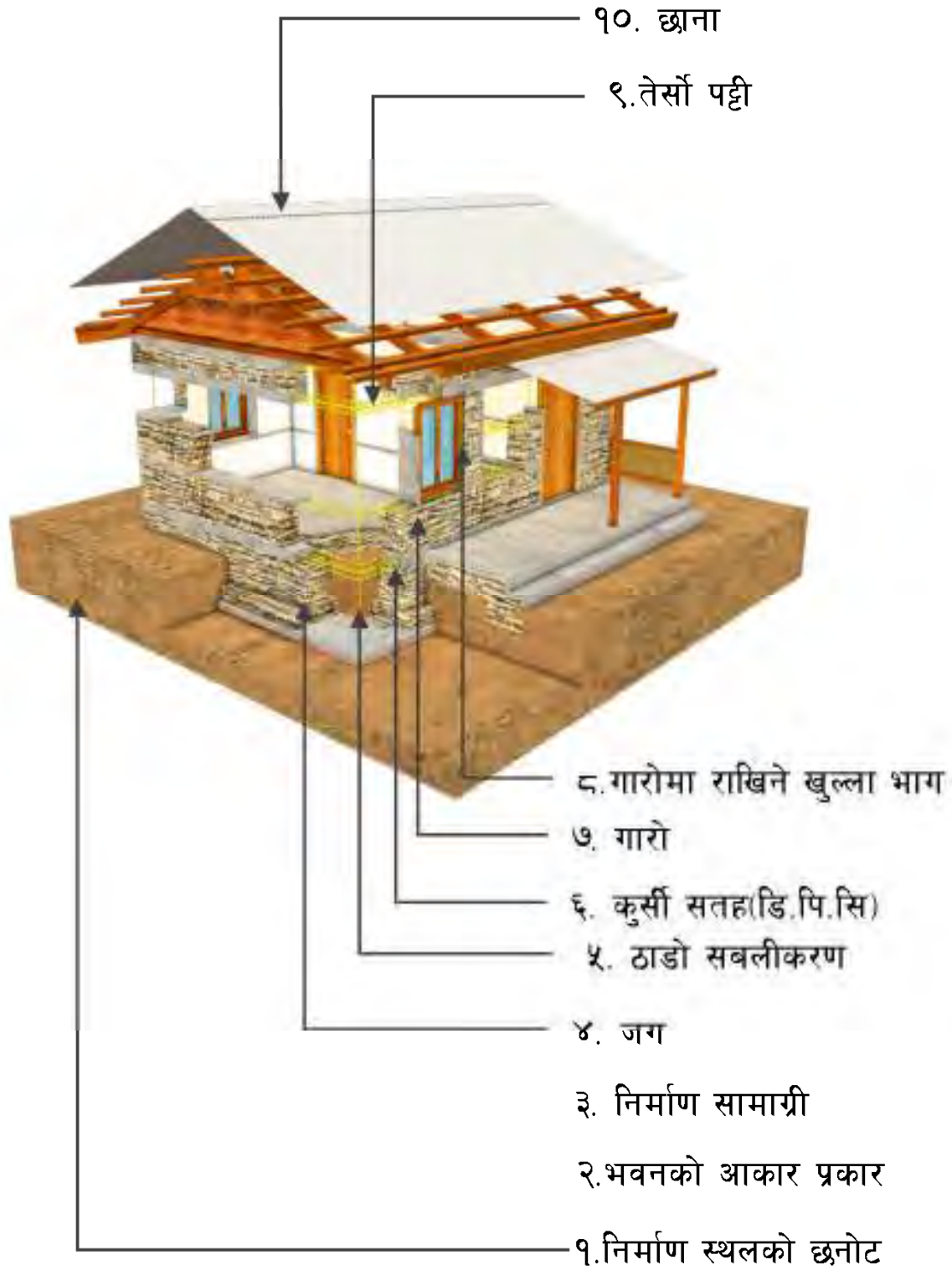
६	कुर्सी सतह (डि.पि.सि)	सामान्य कुरा मोटाई	कुर्सी सतहको लेबल जमीन सतह भन्दा कम्तीमा ३०० मिमि माथि हुनुपर्छ। नरम र मध्यम माटोमा पट्टीको मोटाई १५० मिमि र ७५ मिमि हुनुपर्छ भने कडा माटोमा ७५ मिमि हुनुपर्छ।
		चौडाई डण्डी	पट्टी वा ब्यान्डको चौडाई गारोको चौडाई भन्दा कम हुनुहुँदैन। १५० मिमि र ७५ मिमि मोटाई भएको पट्टीमा ४-१२ मिमि मोटाई र २-१२ मिमि मोटाई भएको डण्डीको प्रयोग गर्नुपर्छ ६ मिमि मोटाई भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टर को दुरीमा राख्नुपर्छ र यि डण्डीहरूलाई कम्तीमा पनि २५ मिमि (कभर) ढलान गरी छोप्नुपर्छ।
७	गारो	सामान्य कुरा	गारोहरू घन्टी मिलाएर सिधा ठाडो हुने गरी लगाउनुपर्छ। गारोहरूको ठाडो जोर्नीहरू एउटै सिधा रेखामा पर्न नदिन जोर्नीहरूलाई छलेर लगाउनुपर्छ। सबै गारोहरू एक आपसमा राम्ररी बाँधिने गरी लगाउनुपर्छ। गारोको सुर र जोर्नीहरूमा लामो वारपार बुझाको प्रयोग गर्नुपर्छ।
		मोटाई	एक तल्ले ईटाको गारे भवनमा राखिने गारोको मोटाई २३० मिमि हुनुपर्छ भने दुई तल्ले भवनको भुईँ तल्लामा गारोको मोटाई ३५० मिमि तथा पहिलो तल्लामा गारोको मोटाई २३० मिमि हुनुपर्छ।
		जोर्नी	मसलाको जोर्नीहरूको मोटाई २० मिमि भन्दा बढी र १० मिमि भन्दा कम हुनुहुँदैन।
		आड दिने गारो	यदि गारोको लम्बाइ धेरै लामो भयो भने आड दिने गरी छुट्टै गारो ९ध्रुवतकभकक० उठाउनु पर्दछ। यस्ता आड दिने गारो ३ मिटर भन्दा टाढा राख्नु हुँदैन। यसको न्यूनतम मोटाई मुख्य गारो बराबरको हुनु पर्दछ र आधारको न्यूनतम चौडाई गारोको उचाईको १/६ भाग हुनुपर्दछ। साथै माथिल्लो भागको चौडाई कम्तीमा गारो बराबर हुनु पर्दछ।
		चूली गारो	काठ र जस्ता पाता जस्तो हलुका सामग्रीको प्रयोग गर्नुपर्छ।
८	गारोमा राखिने खुल्ला भाग	सामान्य कुरा	सबै भन्ज्याल ढोकाको लागि भन्ज्याल मुनिको पट्टी र भन्ज्याल ढोका माथिको पट्टी एउटै तहमा राख्नुपर्दछ। भन्ज्याल र ढोका गारोको सुरवाट कम्तीमा ६०० मि.मि. वा सानो भन्ज्यालढोकाको उचाईको १ चौथाइको दुरीमा हुनुपर्दछ।
		कुल लम्बाई	गारोमा राखिने खुल्ला भागको कुल लम्बाई एक तल्ले र दुई तल्ले क्रमशः भवनमा हरेक गारोको लम्बाइको ५०५ र ४२५ भन्दा कम हुनु हुँदैन।
		दूरी	गारोमा राखिने खुल्ला भागहरू बीचको तेर्सो दूरी ६०० मिमि अथवा होचो खुल्ला भागको उचाईको १/२ भन्दा कम हुनुहुँदैन।
९	तेर्सो बन्धन	सामान्य कुरा	तेर्सो पट्टीहरू भवनको जग, डि. पि. सि., भन्ज्याल ढोकाको तल्लो र माथिल्लो सतह र छानाको सतहमा पूरै गारो भरी लगाउनुपर्छ।
		सिल पट्टी (भन्ज्यालको तल्लो सतह)	ढोकाको लागि छोडिने खुल्ला भाग बाहेक गारोमा राखिने खुल्ला भागको तल्लो सतहमा सिल पट्टी राखिन्छ। यसको न्यूनतम मोटाई ७५ मिमि हुन्छ।
		लिन्टेल पट्टी (भन्ज्याल ढोकाको माथिल्लो सतह)	खुल्ला भागको माथिल्लो सतहमा लिन्टेल ब्यान्ड राख्नुपर्छ। यदि भन्ज्यालढोकाको चौडाई र खुल्ला भाग माथीको उचाई १२५० मि. मि. र ९०० मि. मि. छ भने यसको न्यूनतम मोटाई ७५ मिमि को हुन्छ। यदि खुल्ला भागको चौडाई ९०० मि.मि. भन्दा बढि भएमा १५० मिमि मोटाईको लिन्टेल ब्यान्डको प्रयोग गर्नुपर्छ।
		स्टिच पट्टी	न्यूनतम मोटाई ७५ मिमि हुन्छ। सुर र जोर्नीमा उचाई तर्फ ५०० देखि ७०० मि.मि. को दुरीमा स्टिचको प्रयोग गर्नु पर्दछ।
		छानाको पट्टी	गारो र छानालाई एक आपसमा बाँध्न गारोको माथिल्लो सतहमा छानाको पट्टी राख्नुपर्छ। यसको न्यूनतम मोटाई ७५ मिमि हुनुपर्छ।
		डण्डी	१५० मिमि मोटाईको पट्टी भएको अवस्थामा १२ मिमि व्यास भएको ४ वटा मुख्य डण्डी राख्नुपर्छ भने ७५ मिमि मोटाई भएको पट्टीमा २ वटा १२ मिमि व्यास भएको डण्डी राख्नुपर्छ। ६ मिमि व्यास भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टरमा राख्नुपर्छ। यी डण्डीहरूलाई २५ मिमि को कभर हुने गरी ढलान गरी छोप्नुपर्छ। स्टिच ब्यान्डको पट्टीमा २ वटा ८ मिमि व्यास भएको मुख्य डण्डी राख्नुपर्छ।
		जोडाई	डण्डीको लम्बाइ नपुगी खप्ट्याउनु परेमा खप्ट्याउने भागको लम्बाइ डण्डीको व्यासको ६० गुणा हुनुपर्दछ। जस्तै ८ मिमिको डण्डी भएमा ४८० मिमि, १० मिमि डण्डी भएमा ६०० मिमि, १२ मिमि डण्डी भएमा ७२० मिमि र १६ मिमि डण्डी भएमा ९६० मिमि
१०	छाना	सामान्य कुरा	ढलाने छाना बनाउन तसकेमा जस्तापाता जस्ता हलुका सामान प्रयोग गरी छाना बनाउनु पर्दछ।
		जोडाई	छाना तथा तल्लाहरू गारोसँग उपयुक्त तरिकाले बाँधेको हुनुपर्छ।
		छड्के तान	छानाका टुस वा दलिनहरू बाँध्न छड्के तान (bracing) राख्नुपर्दछ।

नं	विवरण							
१	निर्माण स्थलको छनोट	<p>निर्माणका लागि अनुपयुक्त स्थान यस प्रकार छनः :</p> <ul style="list-style-type: none"> भौगर्भिक चिरा परेको ठाउँ । पहिरो जान सक्ने क्षेत्र भिरालो क्षेत्र श्र २० °(१:३, ठाडो:तेस्रो) माटो भरेको वा पुरुवा माटो भएको स्थान दुङ्गा भर्ने ठाउँ तरलीकरण हुन सक्ने ठाउँ नदीको बगर वा सिमसार ठाउँ <p>* यदि निर्माणस्थल माथि उल्लेखित अनुपयुक्त स्थानमा भए विशेषज्ञसँग सल्लाह लिएर मात्र निर्माण कार्य गर्नु पर्दछ ।</p>						
२	भवनको आकार प्रकार र नाप	<p>तल्ला संख्या कंक्रीट प्रबलित पट्टी प्रयोग गरेर बनाउँदा भवनको तल्ला संख्या एक तल्ला र बुईगल सम्म सिमित राख्नुपर्छ । काठको प्रबलित पट्टी प्रयोग गरेर बनाउँदा भने भवनको तल्ला एक तल्ला सम्म मात्र सिमित राख्नुपर्छ ।</p> <p>यदि तल्ला संख्या थप्नु परेमा विशेषज्ञसँग सल्लाह लिएर मात्र निर्माण कार्य गर्नु पर्दछ ।</p> <p>कोठाको लम्बाई गारोको कुल लम्बाई ४.५ मि. भन्दा बढी हुनुहुँदैन ।</p> <p>कोठाको क्षेत्रफल १३.५ वर्ग मिटर भन्दा बढी हुनुहुँदैन ।</p> <p>गारोको उचाई गारोको उचाई ३.० मिटर भन्दा बढी हुनुहुँदैन ।</p> <p>अनुपात घरको आकार वर्गाकार वा आयताकार स्वरुप भएको हुनुपर्छ । घरको लम्बाई चौडाइको ३ गुणा भन्दा बढी हुनुहुँदैन । उचाइमा पनि घरलाई जतिसक्दो साधारण बनाउनु पर्छ र सेटव्याक राख्नु हुँदैन ।</p>						
३	निर्माण सामग्री	<p>दुङ्गा सजिलैसँग टुक्रने, नरम, हलुका र गोलो किसिमको दुङ्गा प्रयोग गर्नु हुँदैन । खोलाबाट ल्याइएका गोलो दुङ्गालाई ताछेर र फुटालेर लगभग चेटो आकार मिलाएर मात्र प्रयोग गर्नुपर्छ । यस्ता फुटालेका दुङ्गाहरु मोटाइ तर्फ कम्तिमा ५० मि.मि. (२ ईन्च) र लम्बाइ तर्फ कम्तिमा १५० मि.मि. (६ ईन्च) हुनुपर्छ ।</p> <p>मसला माटोको मसला जैविक सामग्री, फोहर र गिट्टी बाट मुक्त हुनुपर्छ ।</p> <p>सिमेन्टको मसला सिमेन्टको मसलामा सिमेन्ट र बालुवाको अनुपात १ : ६ (१ भाग सिमेन्ट र ६ भाग बालुवा) भन्दा कम हुनुहुँदैन ।</p> <p>कंक्रीट कंक्रीटको ग्रेड : १५ वा कंक्रीटको मिश्रण १:२:४ (१ भाग सिमेन्ट २ भाग बालुवा र ४ भाग गिट्टी) भन्दा कम हुनु हुँदैन ।</p> <p>डण्डी उच्च बल भएको HYSD ४१५ ग्रेडको $f_y = ४१५$:एबर ५०० :एब भएको डण्डी प्रयोग गर्नुपर्छ ।</p> <p>काठ भार लिने ठाउँहरु जस्तै दलिन, थाम, पट्टी आदिमा राम्रोसँग उपचार(सिजनिङ) गरिएको, धान्न प्रयोग हुने काठ आँकला नभएको र राम्ररी सुकाइएको हुनुपर्छ । अलकत्रा वा अन्य कुनै काठलाई संरक्षण गर्ने विधिबाट काठहरुलाई कृहिन र किरा लाग्नबाट बचाउन सकिन्छ ।</p>						
४	जग	<p>सामान्य कुरा गारो वाला जगको खाडल एकैनासको र एकै सतहमा निर्माण गर्नुपर्छ ।</p> <p>यदि पुरानो जगमा भवन निर्माण गर्ने हो भने विशेषज्ञ सँग सल्लाह लिने ।</p> <p>गहिराइ एक तल्ले भवनको लागि जमीन सतहबाट जगको गहिराइ ७५० मिमि हुनुपर्छ ।</p> <p>जगको चौडाइ</p> <table border="1"> <tr> <td>नरम माटो</td> <td>कम्तीमा ६०० मिमि</td> </tr> <tr> <td>मध्यम माटो</td> <td>कम्तीमा ७५० मिमि ।</td> </tr> <tr> <td></td> <td>कम्तीमा ७५० मिमि ।</td> </tr> </table>	नरम माटो	कम्तीमा ६०० मिमि	मध्यम माटो	कम्तीमा ७५० मिमि ।		कम्तीमा ७५० मिमि ।
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मध्यम माटो	कम्तीमा ७५० मिमि ।							
	कम्तीमा ७५० मिमि ।							
५	ठाडो सबलीकरण	<p>सामान्य कुरा ठाडो सबलीकरण तत्वहरु जगबाट शुरु भई छानाको सतह सम्म जानुपर्छ । ठाडो सबलीकरण तत्व गारोको सुर, जोर्नी र भयाल ढोकाको दायाँ बायाँ दिशामा राख्नुपर्छ । यसको लागि फलामे डण्डी अथवा काठको प्रयोग गर्न सकिन्छ ।</p> <p>कलान</p> <p>डण्डी एक तल्ले भवनको लागि कृना र जोर्नीहरुमा १२ मिमि व्यास भएको ठाडो फलामे डण्डीको प्रयोग गर्नुपर्छ । निर्माण कार्य गर्दा त्यस्तो डण्डीको वरिपरि सिमेन्ट कंक्रीटले भरनु पर्छ ।</p> <p>अंकुश यदि पुरानो जग प्रयोग गर्ने हो भने कुर्सो पट्टी देखि अंकुश गर्नुपर्छ । अंकुश गर्ने लम्बाइ डण्डीको ६० गुणा व्यास हुनुपर्छ ।</p> <p>काठ ठाडो सबलीकरणको लागि कडा काठ प्रयोग गर्नु पर्छ । सुर तथा जोर्नीको लागि ७५ मिमि X १०० मिमि । भयाल ढोकाको दायाँ बायाँको लागि ७५ मिमि X १०० मिमि</p>						

६	कुर्सी सतह (डि.पि.सि)	सामान्य कुरा	कुर्सी सतहको लेबल जमीन सतह भन्दा कम्तीमा ३०० मिमि माथि हुनुपर्छ।	
		मोटाइ	नरम र मध्यम माटोमा पट्टीको मोटाई १५० मिमि र ७५ मिमि हुनुपर्छ भने कडा माटोमा ७५ मिमि हुनुपर्छ।	
७	गारो	चौडाइ	पट्टी वा ब्यान्डको चौडाइ गारोको चौडाई भन्दा कम हुनुहुँदैन।	
		ढलान	काठको पट्टी	
		डण्डी	१५० मिमि उचाई भएको पट्टी प्रयोग भएको अवस्थामा १२ मिमि ब्यास भएको ४ वटा मुख्य डण्डी राख्नुपर्छ भने ७५ मिमि मोटाइ भएको पट्टीमा २ वटा १२ मिमि ब्यास भएको डण्डी राख्नुपर्छ। ६ मिमि ब्यास भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टरमा राख्नुपर्छ।	
		सामान्य कुरा	गारोहरू घन्टी मिलाएर सिधा ठाडो हुने गरी लगाउनुपर्छ। गारोहरूको ठाडो जोर्नीहरू एउटै सीधा रेखामा पर्न नदिन जोर्नीहरूलाई छलेर लगाउनुपर्छ। सबै गारोहरू एक आपसमा राम्ररी बाँधिने गरी लगाउनुपर्छ। गारोको सुर र जोर्नीहरूमा लामो वारपार बुझाको प्रयोग गर्नुपर्छ।	
८	गारोमा राखिने खुल्ला भाग	मोटाइ	एक तल्ले भवनको गारोको मोटाई ३५० - ४५० मिमि भन्दा कम हुनुहुँदैन।	
		कैची मार्ने वारपार बुझा	गारोको मोटाइ बराबरको कैची मार्ने वारपार बुझा प्रत्येक ६०० मिमिको ठाडो दुरी र १.२ मी को तेर्सो दुरीमा राख्नुपर्छ।	
		जोर्नी	मसलाको जोर्नीहरूको मोटाइ २० मिमि भन्दा बढी र १० मिमि भन्दा कम हुनुहुँदैन।	
		आड दिने गारो	यदि गारोको लम्बाइ धेरै लामो भयो भने आड दिने गरी छुट्टै गारो ९४गतचभकक० उठाउनु पर्दछ। यस्ता आड दिने गारो ३ मिटर भन्दा टाढा राख्नु हुँदैन। यसको न्यूनतम मोटाइ मुख्य गारो बराबरको हुनु पर्दछ र आधारको न्यूनतम चौडाई गारोको उचाईको १/६ भाग हुनुपर्दछ। साथै माथिल्लो भागको चौडाई कम्तिमा गारो बराबर हुनु पर्दछ।	
		चूली गारो	काठ र जस्ता पाता जस्तो हलुका सामग्रीको प्रयोग गर्नुपर्छ।	
९	तेर्सो बन्धन	सामान्य कुरा	सबै भन्ज्याल ढोकाको लागि भन्ज्याल मुनिको पट्टी र भन्ज्याल ढोका माथिको पट्टी एउटै तहमा राख्नुपर्दछ। भन्ज्याल र ढोका गारोको सुरवाट कम्तिमा ६०० मि.मि. वा सानो भन्ज्यालढोकाको उचाइको १ चौथाइको दूरीमा हुनुपर्दछ।	
		कूल लम्बाई दुरी	गारोमा राखिने खुल्ला भागको कूल लम्बाइ हरेक गारोको लम्बाइको ३०% भन्दा बढी हुनुहुँदैन। गारोमा राखिने खुल्ला भागहरू बीचको तेर्सो दुरी ६०० मिमि अथवा होचो खुल्ला भागको उचाइको १/२ भन्दा कम हुनुहुँदैन।	
१०	छाना	तेर्सो पट्टीहरू भवनको जग, डि. पि. सि., भन्ज्याल ढोकाको तल्लो र माथिल्लो सतह र छानाको सतहमा पूरै गारो भरी लगाउनुपर्छ।		
		सिल पट्टी (भन्ज्यालको तल्लो सतह)	ढलान न्यूनतम मोटाई ७५ मिमि हुनु पर्छ।	काठको पट्टी २ ५ मिमि ३३ मिमि काठ लाई गारो
		लिन्टेल पट्टी (भन्ज्याल ढोकाको माथिल्लो सतह)	खुल्ला भागको माथिल्लो सतहमा लिन्टेल ब्यान्ड राख्नुपर्छ यदि भन्ज्यालढोकाको चौडाई र खुला भाग माथीको उचाई १२५० मि. मि. र ९०० मि. मि. छ भने यसको न्यूनतम मोटाइ ७५ मिमि को हुन्छ। यदि खुल्ला भागको चौडाई ९०० मि.मि. भन्दा बढि भएमा १५० मिमि मोटाइको लिन्टेल ब्यान्डको प्रयोग गर्नुपर्छ।	सँग सँगै ५० मिमि ३३ मिमि काठको पट्टीले ९४वततभल० ५०० मिमि सेन्टर देखि सेन्टरको दुरीमा बाँध्नुपर्छ
		स्टिच पट्टी	न्यूनतम मोटाई ७५ मिमि हुन्छ। सुर र जोर्नीमा उचाई तर्फ ५०० देखि ७०० मि.मि. को दुरीमा स्टिचको प्रयोग गर्नु पर्दछ।	स्टिच पट्टी (मध्य पट्टी) गारोको वरिपरि लगाउनुपर्छ।
		छानाको पट्टी	न्यूनतम मोटाइ ७५ मिमि हुनुपर्छ।	
		डण्डी	१५० मिमि मोटाइको पट्टी भएको अवस्थामा १२ मिमि ब्यास भएको ४ वटा मुख्य डण्डी राख्नुपर्छ भने ७५ मिमि मोटाइ भएको पट्टीमा २ वटा १२ मिमि ब्यास भएको डण्डी राख्नुपर्छ। ६ मिमि ब्यास भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टरमा राख्नुपर्छ। यी डण्डीहरूलाई २५ मिमि को कभर हुने गरी ढलान गरी छोप्नुपर्छ। स्टिच ब्यान्डको पट्टीमा २ वटा ८ मिमि ब्यास भएको मुख्य डण्डी राख्नुपर्छ।	
जोडाई	डण्डीको लम्बाइ नपुगी खप्ट्याउनु परेमा खप्ट्याउने भागको लम्बाइ डण्डीको ब्यासको ६० गुणा हुनुपर्दछ। जस्तै ८ मिमिको डण्डी भएमा ४८० मिमि, १० मिमि डण्डी भएमा ६०० मिमि, १२ मिमि डण्डी भएमा ७२० मिमि र १६ मिमि डण्डी भएमा ९६० मिमि	काठको मुख्य स्ट्रपलाई ४ वटा किल्ला र काठको पट्टिलाई २ वटा किल्लाले ठोकनुपर्छ ५ मिमि काठको किल्ला अथवा ३.१५ मिमि जस्ता किल्ला प्रयोग गर्न सकिन्छ		
१०	छाना	सामान्य कुरा	ढलाने छाना बनाउन नसकेमा जस्तापाता जस्ता हलुका सामान प्रयोग गरी छाना बनाउनु पर्दछ।	
		जोडाई	छाना तथा तल्लाहरू गारो सँग उपयुक्त तरिकाले बाँधेको हुनुपर्छ।	
		छड्के तान	छानाका ट्रेस वा दलिनहरू बाँध्न छड्के तान (bracing) राख्नुपर्दछ।	

६	कुर्सी सतह (डि.पि.सि)	सामान्य कुरा	कुर्सी सतहको लेबल जमीन सतह भन्दा कम्तीमा ३०० मिमि माथि हुनुपर्छ।	
		मोटाइ	नरम र मध्यम माटोमा पट्टीको मोटाई १५० मिमि र ७५ मिमि हुनुपर्छ भने कडा माटोमा ७५ मिमि हुनुपर्छ।	
		चौडाइ		पट्टी वा ब्यान्डको चौडाइ गारोको चौडाई भन्दा कम हुनुहुँदैन।
		ढण्डी	१५० मिमि उचाई भएको पट्टी प्रयोग भएको अवस्थामा १२ मिमि व्यास भएको ४ वटा मुख्य ढण्डी राख्नुपर्छ भने ७५ मिमि मोटाइ भएको पट्टीमा २ वटा १२ मिमि व्यास भएको ढण्डी राख्नुपर्छ। ६ मिमि व्यास भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टरमा राख्नुपर्छ।	काठको पट्टी २ वटा ७५ मिमि र ३३ मिमि साइजको काठको स्ट्रिपलाई गारो सँग सँगै ५० मिमि X ३३ मिमि काठको पट्टीले (Batten) ५०० मिमि सेन्टर देखि सेन्टरको दुरीमा बाँध्नुपर्छ। स्टिच पट्टी (मध्य पट्टी) गारोको वरिपरि लगाउनुपर्छ।
७	गारो	सामान्य कुरा	गारोहरू घन्टी मिलाएर सिधा ठाडो हुने गरी लगाउनुपर्छ। गारोहरूको ठाडो जोर्नीहरू एउटै सीधा रेखामा पर्न नदिन जोर्नीहरूलाई छलेर लगाउनुपर्छ। सबै गारोहरू एक आपसमा राम्ररी बाँधिने गरी लगाउनुपर्छ। गारोको सुर र जोर्नीहरूमा लामो वारपार बुझाको प्रयोग गर्नुपर्छ।	
		मोटाइ	एक तल्ले भवनको गारोको मोटाई ३५० - ४५० मिमि भन्दा कम हुनुहुँदैन।	
		जोर्नी	मसलाको जोर्नीहरूको मोटाइ २० मिमि भन्दा बढी र १० मिमि भन्दा कम हुनुहुँदैन।	
		आड दिने गारो	यदि गारोको लम्बाइ धेरै लामो भयो भने आड दिने गरी छुट्टै गारो (Butress) उठाउनु पर्दछ। यस्ता आड दिने गारो ३ मिटर भन्दा टाढा राख्नु हुँदैन। यसको न्यूनतम मोटाइ मुख्य गारो बराबरको हुनु पर्दछ र आधारको न्यूनतम चौडाई गारोको उचाईको १/६ भाग हुनुपर्दछ। साथै माथिल्लो भागको चौडाई कम्तीमा गारो बराबर हुनु पर्दछ।	
		चूली गारो	काठ र जस्ता पाता जस्तो हलुका सामग्रीको प्रयोग गर्नुपर्छ।	
८	गारोमा राखिने खुल्ला भाग	सामान्य कुरा	सबै भन्ज्याल ढोकाको लागि भन्ज्याल मुनिको पट्टी र भन्ज्याल ढोका माथिको पट्टी एउटै तहमा राख्नुपर्दछ। भन्ज्याल र ढोका गारोको सुरवाट कम्तीमा ६०० मि.मि. वा सानो भन्ज्यालढोकाको उचाइको १ चौथाइको दुरीमा हुनुपर्दछ।	
		कूल लम्बाई	गारोमा राखिने खुल्ला भागको कूल लम्बाइ हरेक गारोको लम्बाइको ३०% भन्दा बढी हुनुहुँदैन।	
		दुरी	गारोमा राखिने खुल्ला भागहरू बीचको तेर्सो दुरी ६०० मिमि अथवा होचो खुल्ला भागको उचाइको १/२ भन्दा कम हुनुहुँदैन।	
९	तेर्सो बन्धन	तेर्सो पट्टीहरू भवनको जग, डि. पि. सि., भन्ज्याल ढोकाको तल्लो र माथिल्लो सतह र छानाको सतहमा पूरै गारो भरी लगाउनुपर्छ।		
		सिल पट्टी भन्ज्यालको तल्लो सतह)	ढलान न्यूनतम मोटाई ७५ मिमि हुनु पर्छ।	काठको पट्टी २ X ७५ मिमि X ३३ मिमि काठ लाई गारो सँग सँगै ५० मिमि X ३३ मिमि काठको पट्टीले (Batten) ५०० मिमि सेन्टर देखि सेन्टरको दुरीमा बाँध्नुपर्छ
		लिन्टेल पट्टी भन्ज्याल ढोकाको माथिल्लो सतह)	खुल्ला भागको माथिल्लो सतहमा लिन्टेल ब्यान्ड राख्नुपर्छ यदि भन्ज्यालढोकाको चौडाई र खुला भाग माथीको उचाई १२५० मि. मि. र ९०० मि. मि. छ भने यसको न्यूनतम मोटाइ ७५ मिमि को हुन्छ। यदि खुल्ला भागको चौडाई ९०० मि.मि. भन्दा बढि भएमा १५० मिमि मोटाइको लिन्टेल ब्यान्डको प्रयोग गर्नुपर्छ।	
		स्टिच पट्टी	न्यूनतम मोटाई ७५ मिमि हुन्छ। सुर र जोर्नीमा उचाई तर्फ ५०० देखि ७०० मि.मि. को दुरीमा स्टिचको प्रयोग गर्नु पर्दछ।	स्टिच पट्टी (मध्य पट्टी) गारोको वरिपरि लगाउनुपर्छ।
		छानाको पट्टी	न्यूनतम मोटाइ ७५ मिमि हुनुपर्छ।	
		ढण्डी	१५० मिमि मोटाइको पट्टी भएको अवस्थामा १२ मिमि व्यास भएको ४ वटा मुख्य ढण्डी राख्नुपर्छ भने ७५ मिमि मोटाइ भएको पट्टीमा २ वटा १२ मिमि व्यास भएको ढण्डी राख्नुपर्छ। ६ मिमि व्यास भएको रिङ्ग १५० मिमि सेन्टर देखि सेन्टरमा राख्नुपर्छ। यी ढण्डीहरूलाई २५ मिमि को कभर हुने गरी ढलान गरी छोप्नुपर्छ। स्टिच ब्यान्डको पट्टीमा २ वटा ६ मिमि व्यास भएको मुख्य ढण्डी राख्नुपर्छ।	
		जोडाई	ढण्डीको लम्बाइ तपुगी खप्ट्याउनु परेमा खप्ट्याउने भागको लम्बाइ ढण्डीको व्यासको ६० गुणा हुनुपर्दछ। जस्तै ६ मिमिको ढण्डी भएमा ४६० मिमि, १० मिमि ढण्डी भएमा ६०० मिमि, १२ मिमि ढण्डी भएमा ७२० मिमि र १६ मिमि ढण्डी भएमा ९६० मिमि	काठको मुख्य स्ट्रिपलाई ४ वटा किल्ला र काठको पट्टिलाई २ वटा किल्लाले ठोक्नुपर्छ। ५ मिमि काठको किल्ला अथवा ३.१५ मिमि जस्ता किल्ला प्रयोग गर्न सकिन्छ।
		१०	छाना	सामान्य कुरा
जोडाई	छाना तथा तल्लाहरू गारो सँग उपयुक्त तरिकाले बाँधेको हुनुपर्छ।			
छड्के तान	छानाका ट्रेस वा दलिनहरू बाँध्न छड्के तान (bracing) राख्नुपर्दछ।			

■ १० ध्यान दिनुपर्ने महत्वपूर्ण बिषयहरू



१. निर्माण स्थलको छनोट

यदि निर्माणस्थल तल उल्लेखित अनुपयुक्त स्थानमा भए भवन निर्माण कार्य गर्नुहुँदैन । यदि तल उल्लेखित स्थानमा भए विशेषज्ञसँग सल्लाह लिएर मात्र निर्माण कार्य गर्नु पर्दछ ।



भौगर्भिक चिरा परेको ठाउँ ।



पहिरो जान सक्ने क्षेत्र



ढुङ्गा झर्ने ठाउँ



नदीको बगर वा सिमसार
ठाउँ



भिरालो क्षेत्र



माटोले भरेको वा पुरुवा
माटो भएको स्थान



समथर जमिन



२. भवनको आकार प्रकार

उपयुक्त

आकार



अनुपात



बिचको गारो

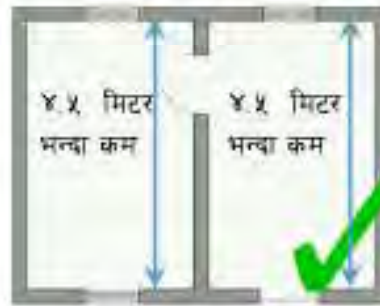


उचाई



बढीमा ३मि (१०फिट उचाई)

➤ कोठाको लम्बाई:



➤ कोठाको नाप:



➤ गारोको उचाई:



अनुपयुक्त

एल बाकारको



क्षैरै लामो



बीचमा गारो नभएको



उचाई ३ मिटर भन्दा बढी



३. निर्माण सामग्री



हुङ्गा

कुंदिका हुङ्गा, चारपाटे हुङ्गा



गोली हुङ्गा



आकार मिलेको, रातो रंगको राम्ररी पाकेको



गुणस्तरको जाँच!

१मि. उचाईबाट खसाल्दा नफुट्ने

सिमेन्ट मसला



पानीको मात्रा नबुगीको



पानी ठिक मात्रामा पुगेको



पानीको मात्रा बढी भएकै



बालुवा

सफा, खस्रो, माटो, जैविक पदार्थ नमिसिएको



गिट्टी (रोडा)

कडा, आकार मिलेको



डण्डी



नडले कोर्तादा डाम नबस्ने



काठ

नडले कोर्तादा डाम बस्ने

धेरै खिया लागेको डण्डी प्रयोग गर्नुहुदैन।

३. निर्माण सामग्री

कंक्रीटको मिश्रण:

M20 ग्रेड कंक्रीट

न्यूनतम कम्प्रेसिभ बल: 20N/mm² (20MPa)

नोमिनल मिश्रण अनुपात: १:१.५:३ (सिमेन्ट : बालुवा : गिट्टी)

पानी र सिमेन्टको अनुपात: अधिकतम ०.६

१ एक बाल्टिन सिमेन्ट र १.५ बाल्टिन बालुवा सुख्खा मिसाउने

सिमेन्ट र बालुवालाई समानरूपमा मिश्रण गर्ने



१ भाग सिमेन्ट
१.५ भाग बालुवा

२ त्यस पछि ३ बाल्टिन गिट्टी मिसाउने

बिचबाट छेउतिर साबेल चलाउने, त्यसपछि फेरी बीचतिर लग्ने र फेरी छेउतिर ल्याउने



३ भाग गिट्टी

३ बीचभागमा खाल्डो बनाउने र विस्तारै पानी हाल्दै मसला बल्टाई पल्टाई गर्दै जाने



४ सबै सामग्रीहरू समान रूपले तर्निसिए सम्म मिश्रण गर्ने



५ कंक्रीटको गुणस्तर जाँच गर्ने



राश्री मिसिएको लस्सा भएको, पानी ठिक मात्रामा पुगेको

* यदि कंक्रीटको मिश्रण अनुपात १:२:४ भएमा १ बाल्टिन सिमेन्ट, २ बाल्टिन बालुवा, चार बाल्टिन गिट्टी र एक बाल्टिन पानीको प्रयोग गर्नुपर्छ ।

३. निर्माण सामग्री

मसलाको मिश्रण:

१:६ मसला

नॉमिनल मिश्रण अनुपात: १:६ (सिमेन्ट : बालुवा)

१ पाँहलो चरणमा ६ बाल्टिन बालुवा हाल्ने



६ भाग बालुवा

३ यी सबै सामग्रीहरु मिसाइसके पछि बिचमा खाल्डो खन्ने र आधा बाल्टिन पानी खन्याउने



२ एक बाल्टिन सिमेन्ट धर्ने र साबेलले राम्ररी मिश्रण गर्ने



१ भाग सिमेन्ट

बालुवा र सिमेन्टलाई साबेलले राम्ररी सुल्ला फेट्ने

४ सबै सामग्रीहरु समान रूपले नर्मलिनर सम्म मिश्रण गर्ने



पानीको मात्रा तपुगेको



पानी ठिक मात्रामा पुगेको



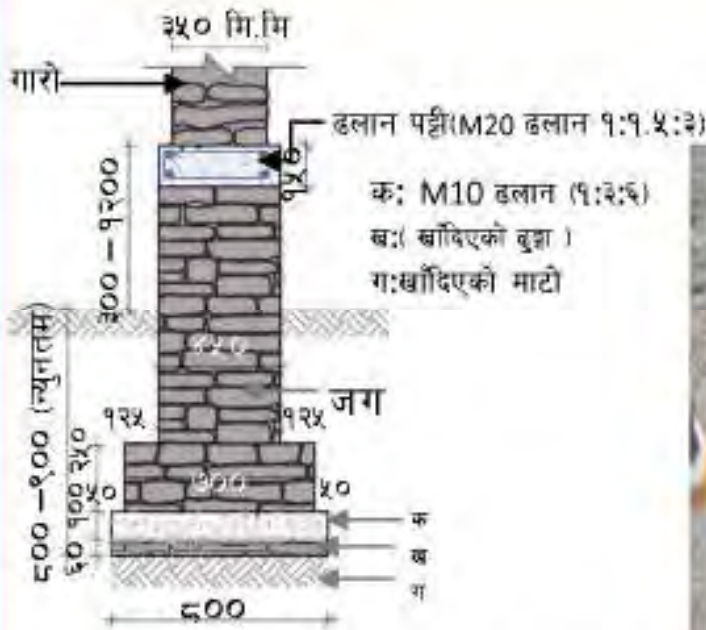
पानीको मात्रा बढी भएको

५ मसलाको गुणस्तर जाँच गर्ने

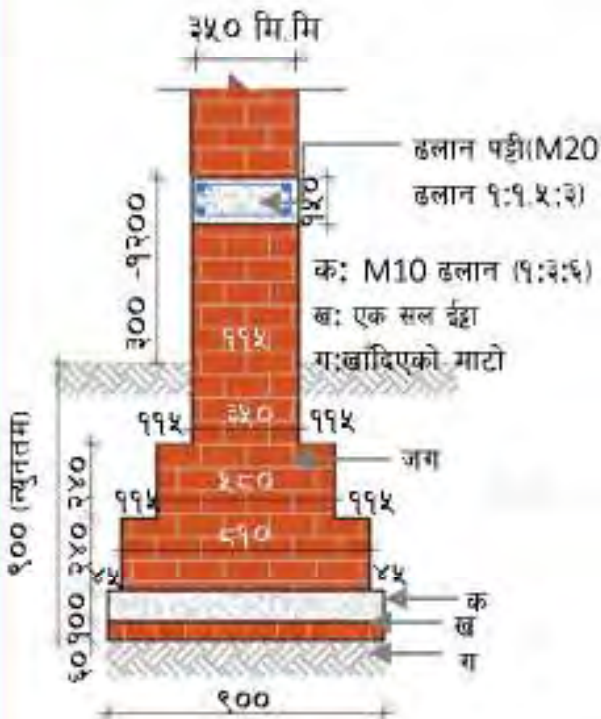


पानी ठिक मात्रामा पुगेको

४. जग

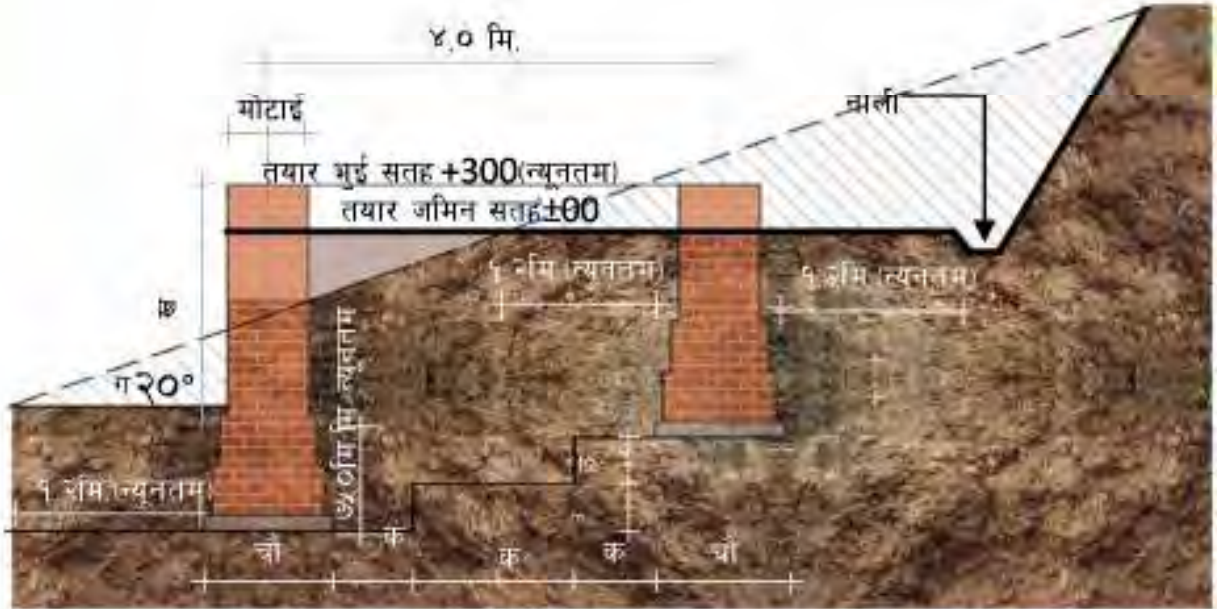


१ तल्ला (नरम माटो), २ तल्ला (मध्यम माटो)



दुई तल्ले भवन-नरम माटो

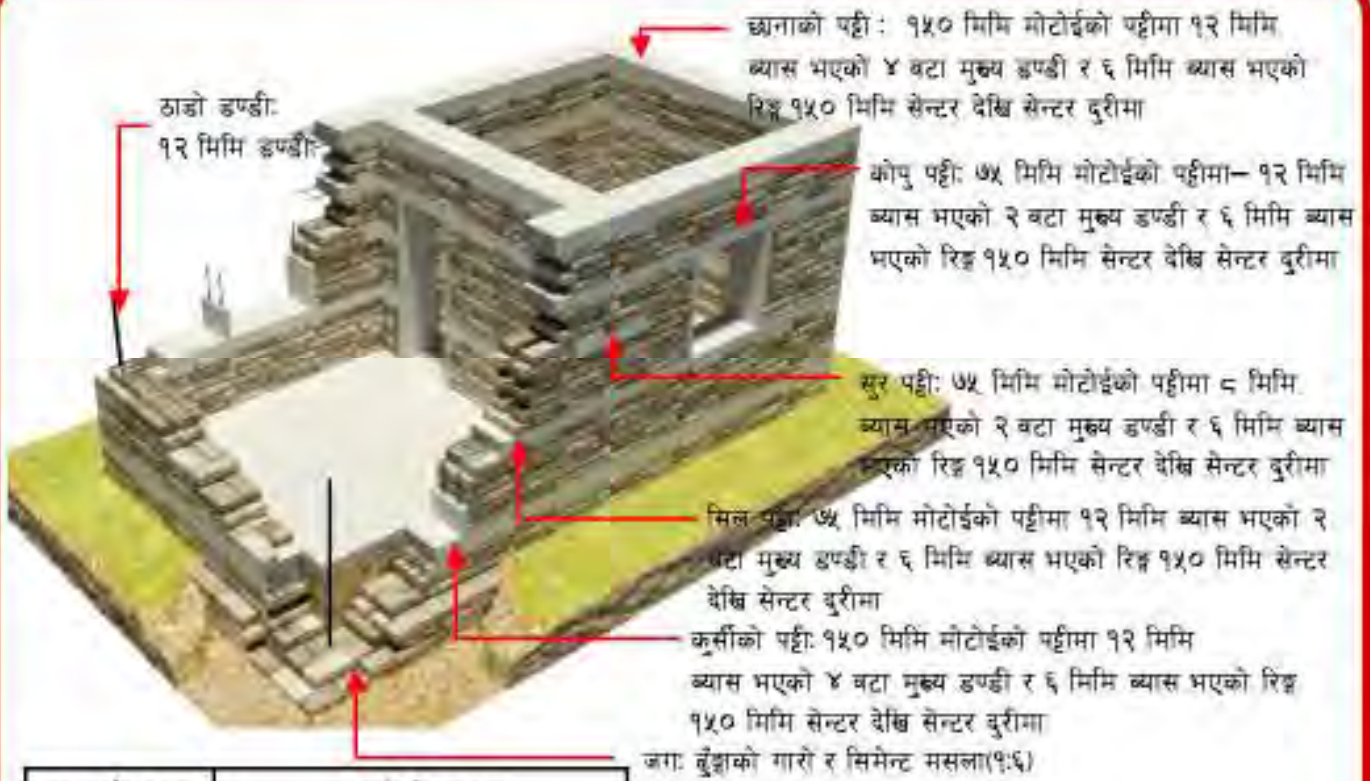
भिरालो जग्गामा जग बनाउने तरिका



- क= न्यूनतम मोटाईको दुई गुणा अथवा १.० मि जुन बढि हुन्छ ।
 ख = अड्याउने टेवा पर्खाल नराख्दा अधिकतम १ मिटर
 ग= अधिकतम ढाल २० डिग्री
 उ = अधिकतम ०.३ मि

जमिन सकेसम्म समथर हुनुपर्छ । यदि जमिन भिरालो छ भने जमिनलाई बिभिन्न तह तहमा खारेर निर्माण कार्य गर्नुपर्छ (लम्बाईमा १ मि. (३.२८ फिट) र उचाईमा ०.३०४८ मि. (१ फिट) घर बनाउने भाग सम्माई घर निर्माण गर्नुपर्छ । अधिक भिरालो जमिनमा टेका पर्खाल लगाएर मात्र घर बनाउनुपर्छ ।

५. ठाडो सबलीकरण



तल्लाको संख्या	ढण्डीको ब्यास	
१ तल्ले	१२ मि.मि	
२ तल्ले	जमिन तल्ला	१६ मि.मि
	पहिलो तल्ला	१२ मि.मि



फोटो: ठाडो सबलीकरण

५. ठाडो सबलीकरण



ठाडो काठ (७५ मि.मि. X १०० मि.मि.)

तेस्रो काठ २ X ७५मि.मि. X ३८ मि.मि.

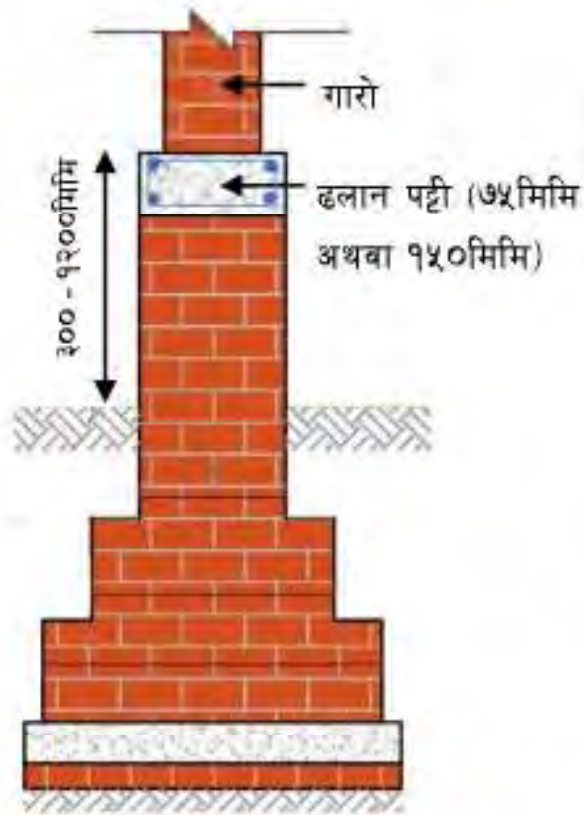
काठको पट्टी ५० मिमि X ३८ मि.मि. प्रत्येक ५००मि.मि. सेन्टर देखि सेन्टरमा

यदि पुरानो जग प्रयोग गर्ने हो भने कुर्सि पट्टी देखि अंकुश गर्नुपर्छ। अंकुश गर्ने लम्बाई डण्डीको व्यासको ६० गुणा हुनुपर्छ।



फोटो: काठको ठाडो सबलीकरण

६. कुर्सी सतह(डि.पि.सि)



पट्टीको मोटाई	ढण्डीको मोटाई
७५ मिमि	२ - १२ मिमि
१५० मिमि	४ - १२ मिमि



फोटो: प्रबलित ढलान पट्टी निर्माण

६. कुर्सी सतह(डि.पि.सि)



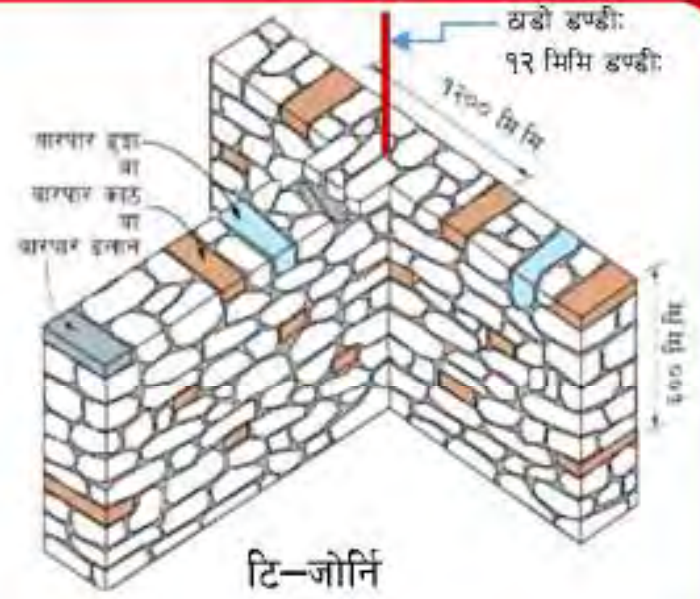
फोटो: काठको प्रबलित पट्टी निर्माण

७. गारो

गारोको प्रकार	तल्ला संख्या		
	एक तल्ला	दुई तल्ला	दुई तल्ला र बुईगल
ईट्टा (माटो मसला)	३५० मि.मि	-	-
ढुङ्गा (माटो मसला)	३५० - ४५० मि.मि	-	-
ईट्टा (सिमेन्ट मसला)	२३० मि.मि	तल्लो तल्ला - ३५० माथिल्लो तल्ला - २३०	तल्लो तल्ला - ३५० माथिल्लो तल्ला - २३०
ढुङ्गा (सिमेन्ट मसला)	३५० - ४५० मि.मि	तल्लो तल्ला - ४५० माथिल्लो तल्ला - ३५०	तल्लो तल्ला - ४५० माथिल्लो तल्ला - ३५०



७. गारो



३५० - ४५० मि.मि



इटाको गारो



वारपार हुंझा



२३० - ३५० मि.मि



इटाको गारो



द. गारोमा राखिने खुल्ला भाग

ईटा/ढुङ्गाको गारोमा सिमेन्ट/माटो मसलाको जोडाई



ईटा/ढुङ्गाको गारोमा माटो मसला जोडाई :

नोट:

- ❖ चौ १ + चौ २ + चौ ३ $\leq ०.३ \times$ लम्बाई १ - एक तल्लाको लागि
- ❖ चौ ६ + चौ ७ $\leq ०.३ \times$ लम्बाई २ - एक तल्लाको लागि
- ❖ चौ ४ $\geq ०.५ \times$ उ २ तर ६०० मि.मि भन्दा कम हुनुहुँदैन।
- ❖ चौ ५ $\geq ०.२५ \times$ उ १ तर ६०० मि.मि भन्दा कम हुनुहुँदैन।

ईटा/ढुङ्गाको गारोमा सिमेन्ट मसलाको जोडाई :

नोट:

- ❖ चौ १ + चौ २ + चौ ३ $\leq ०.५ \times$ लम्बाई १ - एक तल्लाको लागि, $०.४२ \times$ लम्बाई १ - दुई तल्लाको लागि
- ❖ चौ ६ + चौ ७ $\leq ०.५ \times$ लम्बाई २ - एक तल्लाको लागि, $०.४२ \times$ लम्बाई २ - दुई तल्लाको लागि
- ❖ चौ ४ $\geq ०.५ \times$ उ २ तर ६०० मि.मि भन्दा कम हुनुहुँदैन।
- ❖ चौ ५ $\geq ०.२५ \times$ उ १ तर ६०० मि.मि भन्दा कम हुनुहुँदैन।

८. गारोमा राखिने खुल्ला भाग

उपयुक्त



कम खुल्ला भाग



स्थान (कुना/जोर्नी बाट आवश्यक दुरी)



खुल्ला भागको वितरण समान भएको

अनुपयुक्त



अधिक खुल्ला भाग



गारोको कुना/जोर्नी तभएको



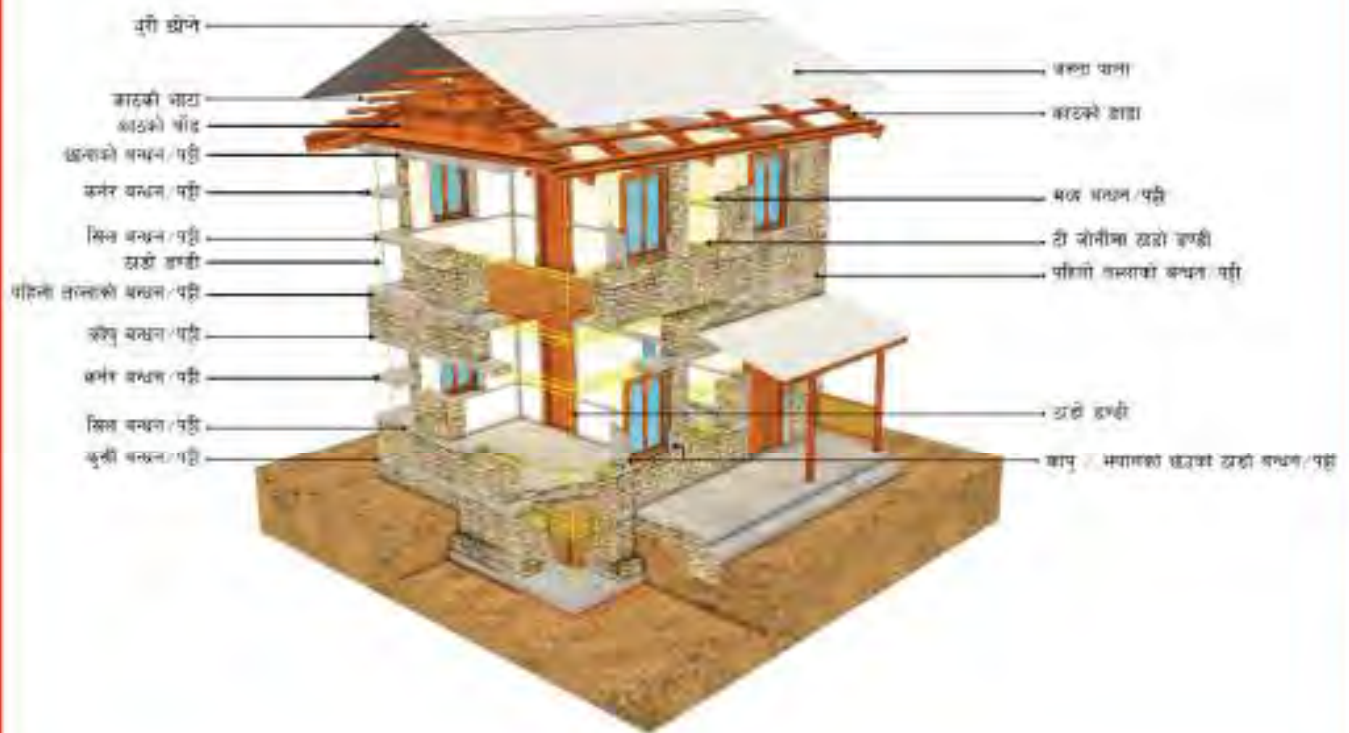
खुल्ला भागको वितरण असमान भएको

९.तेर्सो बन्धन

भुकम्प प्रतिरोधी बनोटहरु राखिएको घरको समग्र दृश्य

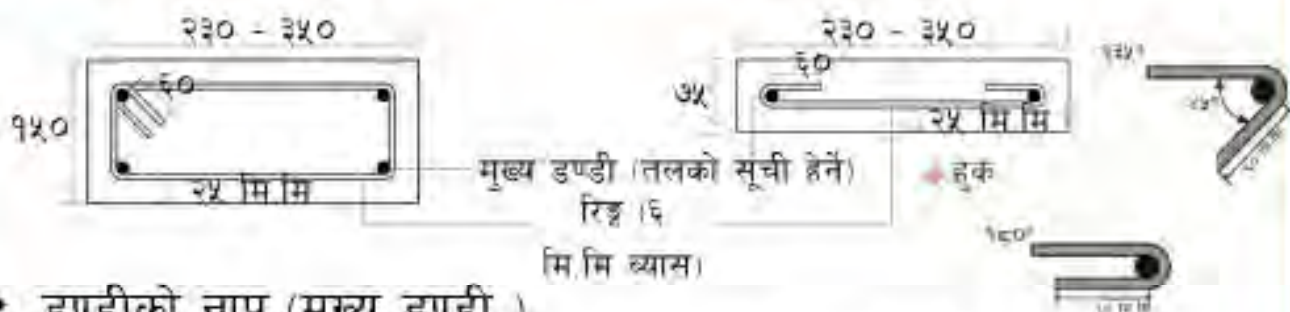


भुकम्प प्रतिरोधी बनोटहरु राखिएको घरको समग्र दृश्य



९.तेर्सो बन्धन

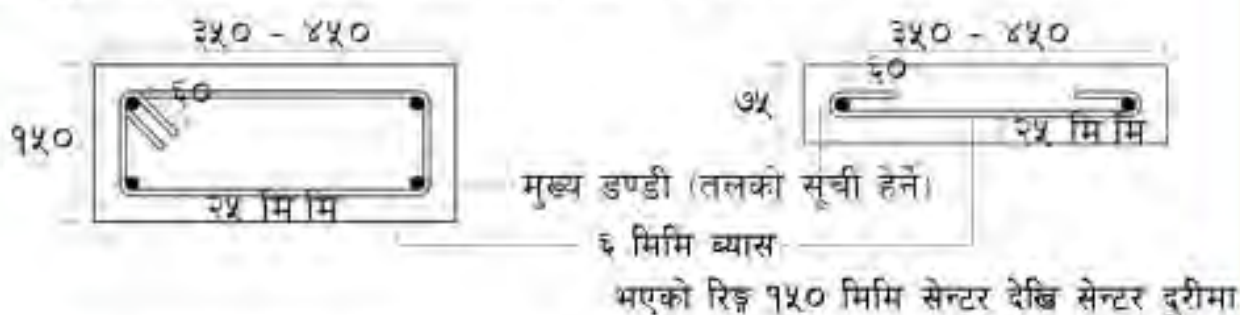
❖ ईटाको गारोमा रिड-लाई बडन्याउने तरिका



❖ डण्डीको नाप (मुख्य डण्डी)

पट्टी	प्रचलित सिमेन्ट पट्टीको न्यूनतम मोटाई	फलामे डण्डीको न्यूनतम संख्या	फलामे डण्डीको न्यूनतम व्यास (मि.मि)	
कुसी सतह (दि.मि.सी.)	नरम, मध्यम	१५० मि.मि	४	१२
	कडा	७५ मि.मि	२	१२
सिमा पट्टी (भ्यालको तल्लो सतह)	७५ मि.मि	२	१२	
निच पट्टी	७५ मि.मि	२	८	
भान्जल पट्टी (भाषाम ढोकाको माथिल्लो सतह)	१५० मि.मि (*१)	४	१२	
	७५ मि.मि (*२)	२	१२	
छान्च पट्टी	७५ मि.मि	२	१२	

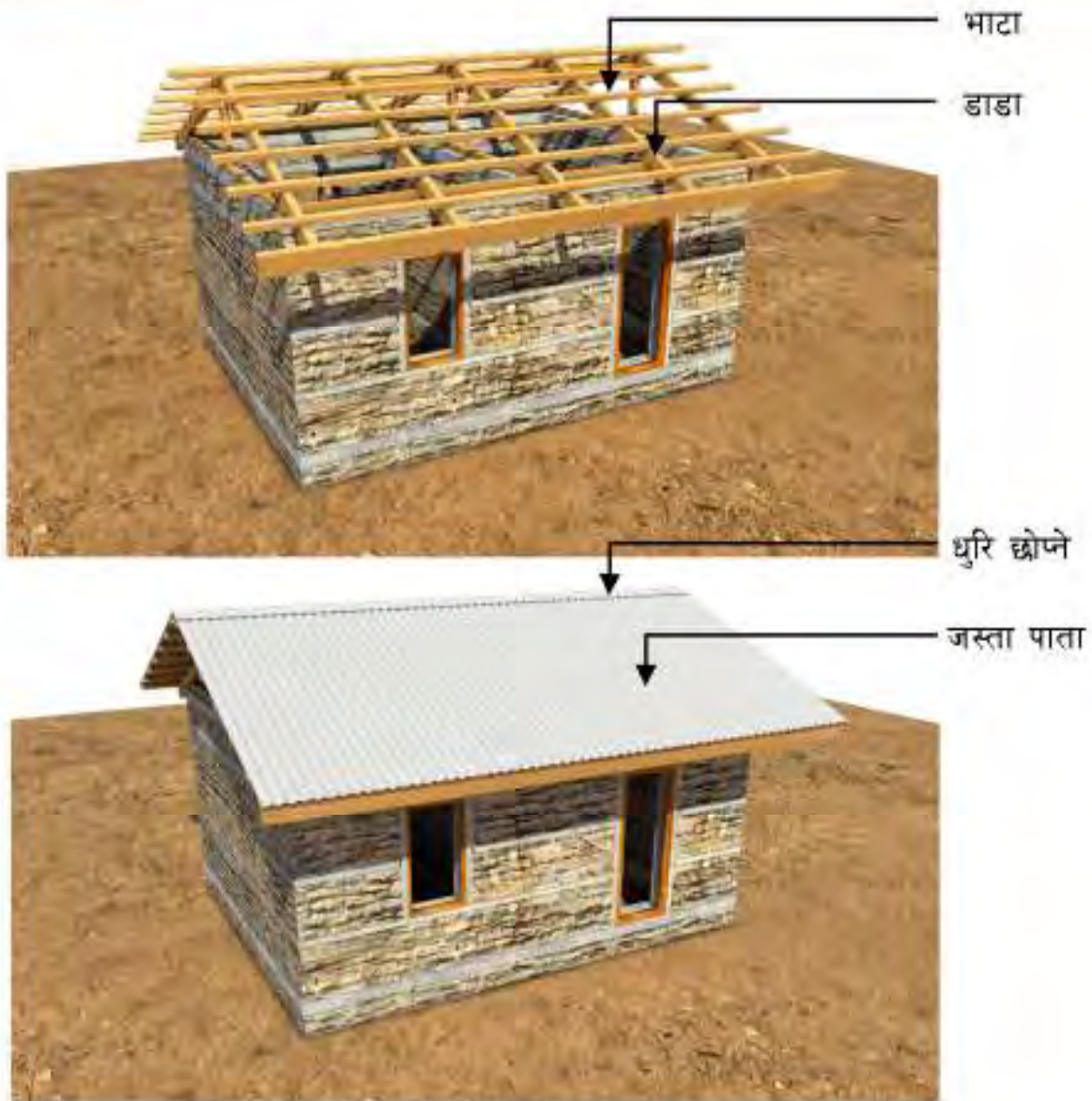
❖ ढुङ्गाको गारोमा रिड-लाई बडन्याउने तरिका



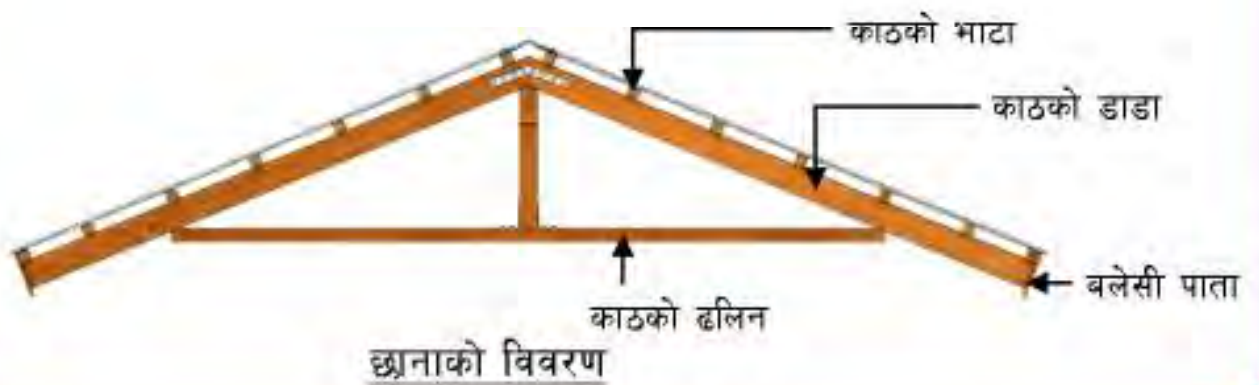
नोट:

- ढुङ्गा अथवा ईटाको लिन्टेल पट्टीको मोटाई ७५ मि. मि हुनुपर्छ ।
- सिमेन्ट मसला जडित गारे भवनमा यदि खुला भागको चौडाई १२५० मि. मि भन्दा बढी र खुला भाग माथी लगाइएको गाराको उचाई ९०० मि. मि भन्दा बढी भएमा १५० मि.मि मोटाइको लिन्टेल ब्यान्डको प्रयोग गर्नुपर्छ ।
- माटो मसला जडित गारे भवनमा यदि खुला भागको चौडाई १००० मि. मि भन्दा बढी र खुला भाग माथी लगाइएको गाराको उचाई ९०० मि. मि भन्दा बढी भएमा १५० मि.मि मोटाईको लिन्टेल ब्यान्डको प्रयोग गर्नुपर्छ ।

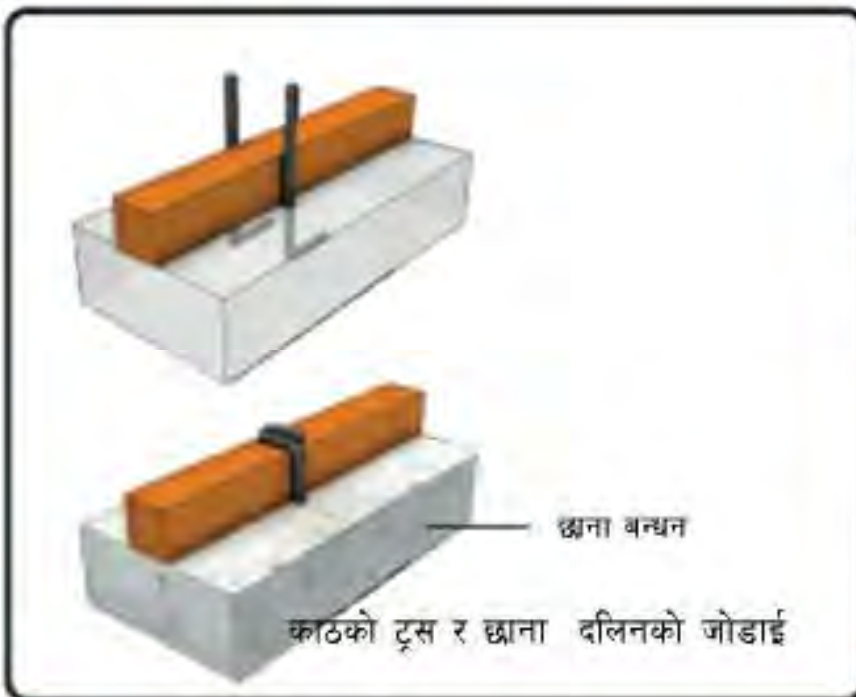
१०. छाना



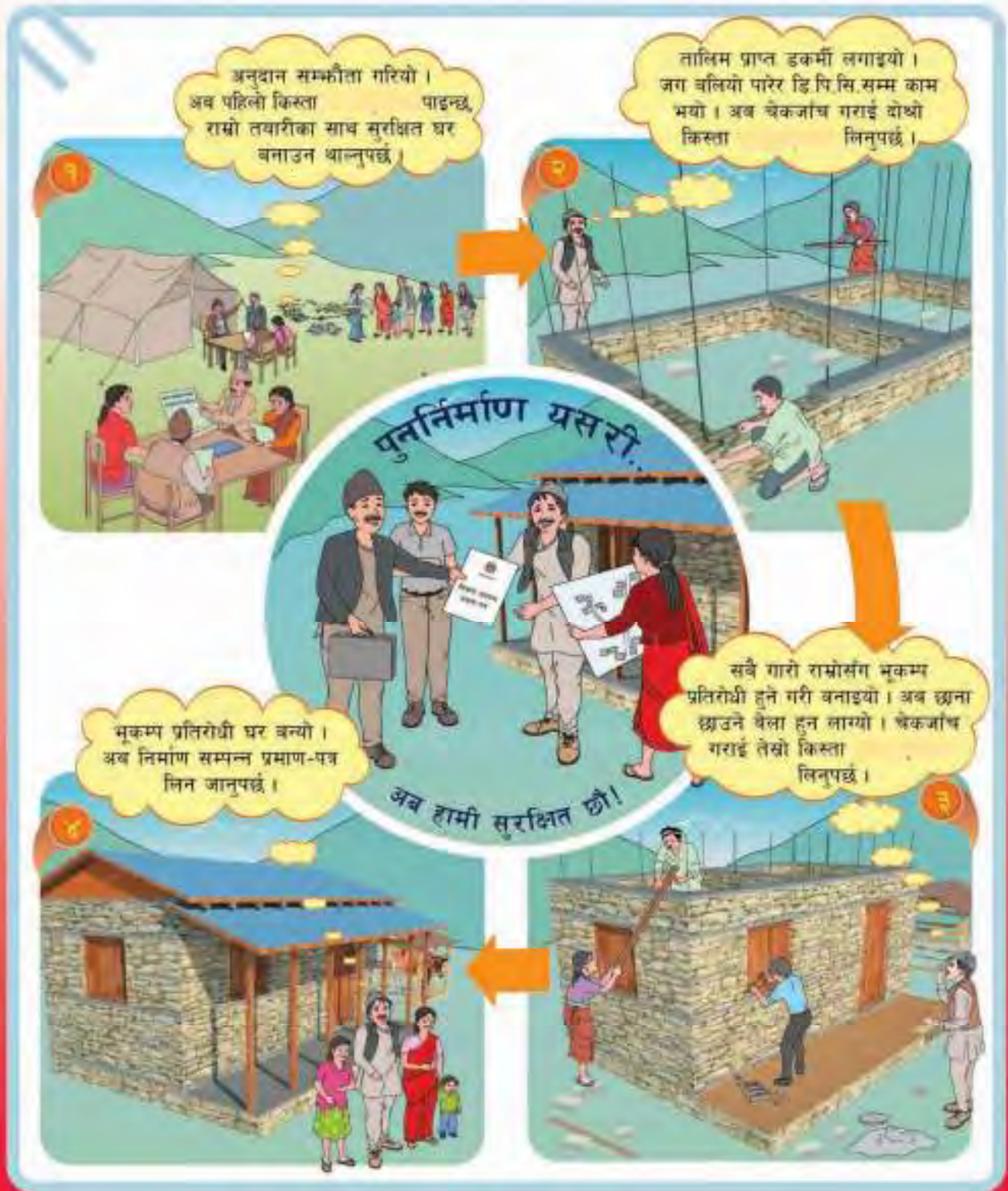
छानाको निर्माण क्रम:



१०. छाना



पुनर्निर्माण अनुदान प्राप्त गरी घर बनाउँदा पालना गर्नु पर्ने कुराहरु



नेपाल सरकार
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आवास पुनर्निर्माण कार्यक्रम
सिंहदरवार, काठमाडौं
फोन नं. ०१४२००२६६, ४२१११०३
इमेल: info@nra.gov.np