

Environment and Social Impact Assessment and  
Environment and Social Management Plan of  
Improvement of Talchowk-Begnas Road-P23.i

Pokhara Metropolitan City

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## Acronym

BoQ	Bill of Quantity
CBOs	Community Based Organizations
CBS	Central Bureau of Statistics
DIZ	Direct Influence Zone
DPR	Detailed Project Report
DTMP	District Transport Master Plan
DTO	District Transport Office
DUDBC	Department of Urban Development & Building Construction
EA	Environmental Assessment
EHS	Environment, Health and Safety
EPR	Environmental Protection Rule
ESIA	Environmental Impact Assessment
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussion
FR	Feasibility Report
GAP	Gender Action Plan
HIV AIDS	Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome
HR	Human Resources
IDA	International Development Association
IEE	Initial Environmental Examination
IIZ	Indirect Influence Zone
ILO	International Labor Organization
IP	Indigenous People
ISR	Implementation Status Review
KII	Key Informant Interview
NGO	Non-Governmental Organization
NUGIP	Nepal Urban Governance and Infrastructure Project
OP	Operational Policy
OP/BP	Operational Policy/Bank Policy
PAP	Project Affected Person
PCO	Project Coordination Office
PCU	Passenger Car Unit
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PMC	Pokhara Metropolitan City
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
RoW	Right of Way
SHE	Safety, Health and Environment
STD	Sexually Transmitted Disease
TOR	Terms of Reference
ULG	Urban Local Governments

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# CHAPTER 1: INTRODUCTION

## 1.1. Project description

Nepal has recently transitioned from a unitary to a federal government system, comprised of three tiers of government with seven provinces and 753 local governments for which new legislation, institutions, and administrative procedures are being formalized as constitutionally prescribed. To enable the federal implementation process and to support Urban Local Governments (ULGs) in the efficient provision of assigned service delivery responsibilities in the context of rapid urbanization, the proposed Nepal Urban Governance and Infrastructure Project (NUGIP), with support from the World Bank (WB), aims to address two main challenges under the new federal context: (i) limited institutional systems and capacities of ULGs; and (ii) critical gaps in core municipal services and infrastructure.

The development objective of NUGIP is to expand municipal infrastructure and strengthen institutional and financial systems in participating ULGs in Nepal. NUGIP comprises three components. The first component is investment support for strategic city-wide municipal infrastructure development and local/regional economic development projects (International Development Association (IDA) allocation of USD 130 million). This component will provide financial resources to participating ULGs for financing critical infrastructure requirements, focusing on improving access and quality of core municipal services such as drinking water supply, solid waste management, municipal roads, storm water drainage and street lights. The second component is the capacity building and technical support for improved institutional and financial systems (indicative IDA allocation: USD 10 million). This component would provide capacity building support and technical assistance to participating ULGs for targeted improvements in institutional and financial systems at the local level. The third component is the project management, co-ordination and monitoring (indicative IDA allocation: USD 10 million): This component would provide the technical support to the Ministry of Urban Development (MoUD) at the federal level, and the participating ULGs at the local level, for project implementation, coordination, monitoring and reporting.

## 1.2. Project objectives

The following are the key results of the project objectives.

- Improved access to core municipal services
  - ✓ solid waste management
  - ✓ municipal roads and drainage
  - ✓ wastewater management
- Developed and implemented own revenue source plans by the participating municipalities
- Improved access to urban living conditions

The present study is on a sub-project located in PMC. The sub-project was chosen based on its economic value addition and urban development requirements. The selection of the sub-projects is based on technical, environmental, social and financial sustainability.

### 1.3. Project details

The project area for this proposed sub-project is located in Pokhara Metropolitan City (PMC) of Kaski District, Province No 4. The sub-project involves capacity augmentation and rehabilitation of a 3.2 kilometer section of the Talchowk-Begnas road commencing from Talchowk junction on Prithvi Highway to the KhudiKhola Bridge. It passes through flat lands with gentle slopes and irrigated canals in many places. This road currently has a single-lane operational paved carriageway and does not segregate slow-moving vehicles and pedestrians. The road section requires capacity augmentation and pavement reconstruction to maintain acceptable levels of service. The 30-metre Right of Way (RoW) of the road was acquired in 1977 and the compensation for the land was provided in 1980 by the Government of Nepal (GoN). At present, the road alignment including the RoW is under the jurisdiction of the PMC.

A long list of sub-projects was prepared based on the information obtained from the Stakeholder Consultative Workshop (SCW) meeting for PMC. Amongst them, the “Improvement of Talchowk-Begnas Road” sub-project was one of the infrastructure sub-projects selected with high priority for the first year investment, and a feasibility study was carried out and forwarded for developing a detailed project report (DPR) of the subproject. The importance of this sub-project is to help ensure that the road can adapt to growing traffic volume as well as to improve the livelihood of the locality and tourist attraction to Begnas Lake.

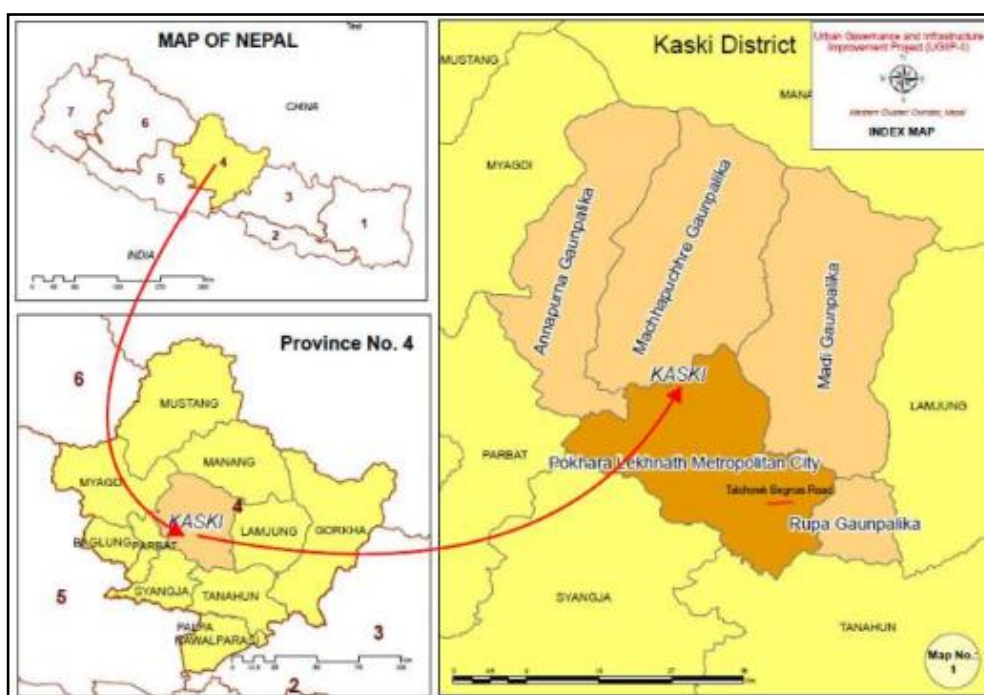


Figure 1-1. Project location map

Table 1-1. Existing and Proposed Road Characteristics

SN	Description	Existing Scenario	Proposed Scheme
1	Length of Road	3.2 km	3.284km
2	Right of Way (RoW)	30 m	30 m
3	Traffic (Passenger Car Unit, or PCU)	5,885 PCU (traffic count in 2019at CH 0+400)	29,006 PCU (traffic count in 2041 at CH0+400)
4	Carriageway	4.5 m	14 m (4 lanes,divided carriageway)
5	Pavement type	Flexible pavement with 80 mm BT and 250 mm gravel layer.	Flexiblepavement as per IRC: 37-2018
6	Median/Landscape or Green land areas	No median but Grass on shoulderportion	1.5 m on median from 0+000 to 3+284 (3.284 km length). 1.0 m Green zone beyond parking area.
8	Cycle track	Nil	1.5 m Provided from Ch 0+00 to 3+284 on LHS and RHS of road.
9	Drain cum footpath	Earthen drain at few stretches of varying width 1 to 2.5 m. No dedicated footpath	2 m RCC drain cum interlock tile footpath on LHS and RHS of the road.
10	Cross drainage Structures	16 slab culverts and 2 minor bridges (CH 1+930 and 3+220) in poor condition.	10 Culverts and 5 minor Bridges (CH 0+880, 1+760, 1+980, 3+070 and 3+260) 3 culverts (ch 0+980,ch 2+005 and ch 2+085) disused as no natural water stream exists at these locations
11	Embankment/ Cutting	Approximately 1.5 m above groundlevel from CH 0+200 to CH 3+284.	Approximately 1.5 m above ground level from CH 0+200 to CH 3+284.
12	Protection Works	Nil	Retaining wall/slope protection measures as per requirement
13	Traffic signs/signage and road marking	Nil	Provided all along the road to ensure maximum safety to pedestrian and vehicular traffic.
14	Road furniture (street lights, delineators, etc.)	Nil	Provided all along the road
15	Utility	All wires and cable are hanging above ground and are in unmanaged condition	Dedicated utility duct is provided throughout the section - 1
16	Trees and plants	Unmanaged plantation	As per requirement along the alignment.

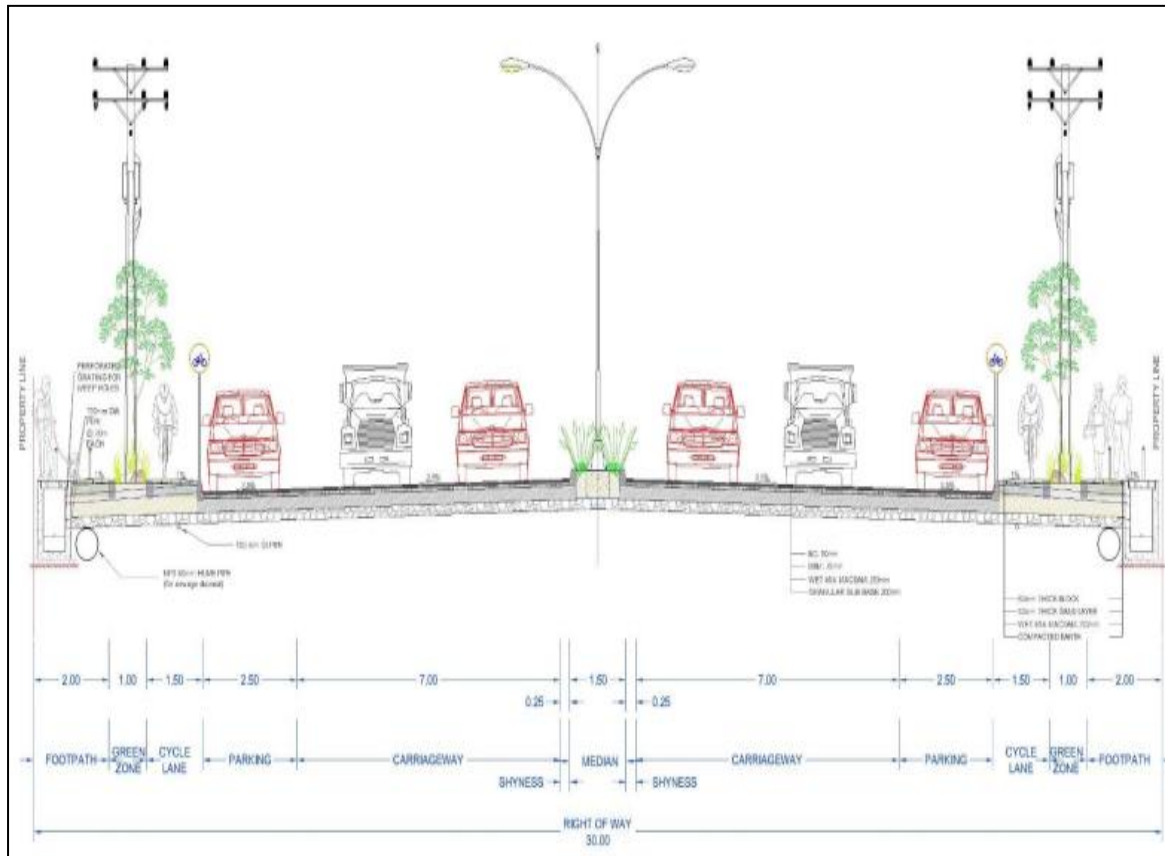


Figure 1–2. Schematic of 4 Lanes

### Carriageway

Based on the traffic volume studied during the design, the carriageway width for Talchowk-Begnas Road of 4 lanes (3.5 m each) has been provided.

### Kerb

Barrier kerbs are designed to discourage vehicles leaving the pavement. Mountable kerbs are provided at median.

### Median

A median of 1.5m in width is provided between the carriageways of 7 m, as per the provision in Nepal Urban road standard. The median has been raised to 0.15 m from the road surface for the segregation of traffic from the carriageway. The median is discontinued at significant branch roads, minor intersections and major intersections.

### Selection of Catchment Area / Zoning of Project

The hydrological catchment area of the project road covers about 38 sq.km including various lakes. The catchment area map has been prepared by considering topographical sheets, based on topography and water shed lines. The highest geological altitude at upstream of the catchment area is about 1,440m at Kalikasthan-Deumadi area, whereas, lowest geological altitude is about 685m at Begnas Lake area.

For the designing of run-off at various major drainage crossing, the overall catchment area has been subdivided into various sub-catchment area by demarking in corresponding topographical map with clear stream lines. The sub-catchment area consists of various inflowing streams which concentrate toward the concerned cross drainage (Figure 1–5).

### **Parking Lane**

Provision for parking is provided throughout the alignment at required locations as per the survey investigation for parking. A width of 2.5 m for parallel parking has been provided. Separate parking provision for cars and motorcycles has been provided.

### **Cycle Lane**

A separate cycle lane of 1.5m in width is provided throughout the alignment on both sides of the road. The provision of a cycle lane helps to reduce the traffic congestion, and increase the safety of cycle commuters.

### **Electrical Lights and Bollard Lights**

One hundred and forty-five electrical lights poles are proposed to be installed in the median throughout the alignment at interval of 20 m in the median. Meanwhile, 986 bollard lights are proposed to be installed in the footpath and cycle lane area to guide vehicular traffic from not entering into these areas. The provision of electrical lights and bollard lights increase the visibility of road, increasing the driving efficiency, and helping to reduce the number of traffic accidents. Besides, these lights also add to the aesthetic value of the road.

### **Road crossings**

Zebra crossings, in combination with cycle crossings, have been provided at locations with high pedestrian crossing areas as well as settlement areas. A total of 12 such crossings have been provided along the alignment. In addition to that, two branch roads at 0+300 and 1+080 with large widths have also been provided with zebra crossing.

## **1.4. Pokhara Metropolitan City**

The adjacent Lekhnath Municipality merged with Pokhara Municipality in May 2017 forming the present day PMC as the largest city in terms of the area it occupies in Nepal. It is located at the geographical coordinates of 28°15'50"N and 83°58'20"E. It is also the capital of Gandaki Province, and is the headquarters of Kaski District comprising of 33 wards. Pokhara is one of the largest valleys in Midhills of Nepal. The PMC is a famous tourist destination in Nepal. The total area occupied by the city is 465 sq km. The city is surrounded by Annapurna, Machhapuchre, Madi and Rupa Gaupalikas<sup>1</sup> of

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<sup>1</sup>Gaupalika is a rural municipality

Kaski District, and other districts, namely Parbat, Syangja and Tanahu. The PMC is a strategically located tourist destination in relation to other tourist locations of Western Nepal.

### 1.5. Physiography

The PMC is located 200 km west of the capital city Kathmandu at an altitude varying from 827 meters in the south to 1,740 meters in the north in the Midhills region of Nepal. The Pokhara valley is formed of Seti gandaki River which is the tributary to the Trishuli River. The Gandaki River originates in Annapurna massif of north-central Himalayas of Nepal. The Setigandaki River flows through the Pokhara valley. Geomorphologically, river benches are obvious of the Setigandaki in Pokhara. The Machhapuchre (6993m) is close by the city. The PMC is also noted with high geological relief, river escarpments, karst topography and glacial lakes (e.g. Phewa and Begnas lakes). Despite the high relief within short geological formation, the PMC is built on broad flat plain.

### 1.6. Temperature and climate

Climatically, the PMC falls into a humid subtropical climate regime. Temperatures range from 25°C to 35°C in the summer, and from -2°C to 15°C in the winter. The winter season is marked by thick fog clouds at the lower elevation. The variation in the precipitation between the driest and wettest months is 870 mm in a year.

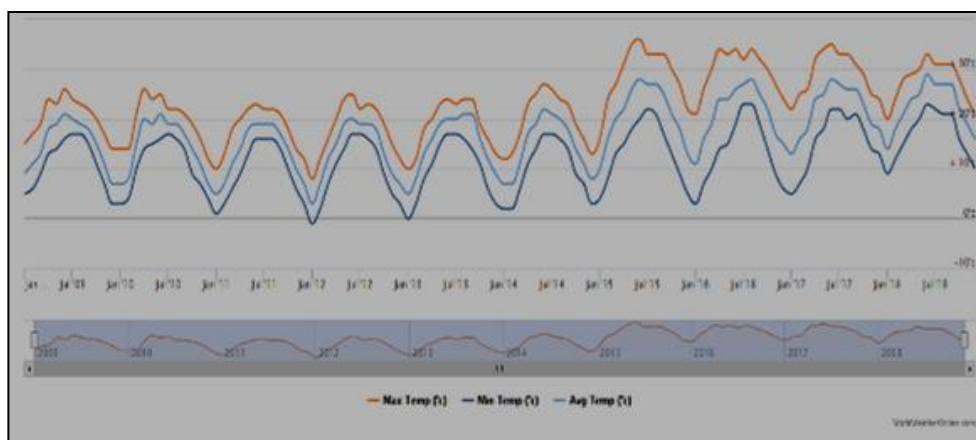


Figure 1–3. Temperature regime of Pokhara<sup>2</sup>

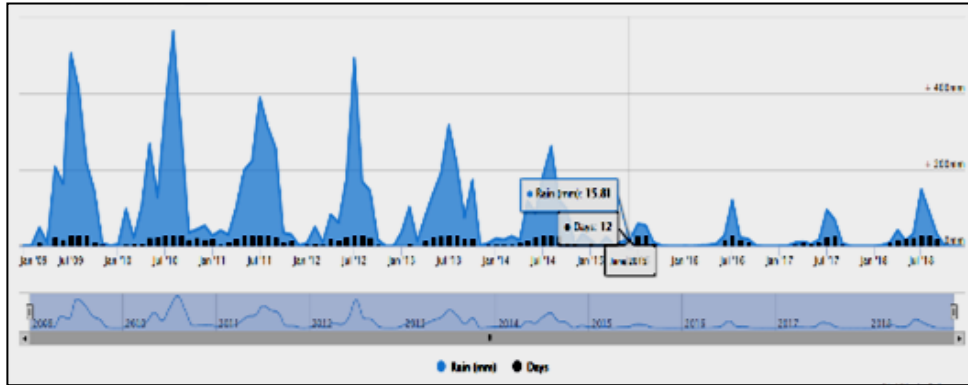


Figure 1–4. Average rainfall in Pokhara<sup>3</sup>

## 1.7. Water resources

The PMC is rich in water resources with several rivers such as Seti, Bijayapur, Kahu, Kali, Yamdi, Fusre, Buloudi and Herpan. The PMC is dotted with lakes (i.e.: Phewa, Begnas, Rupa, Maldi, Khaste and Gunde and Niureni, Dipang and Kamal referred often as Pokhari or ponds). The topographic map also shows drainage pattern in the area.

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<sup>2</sup><https://www.worldweatheronline.com/pokhara-weather-averages/np.aspx>

<sup>3</sup>Ibid.

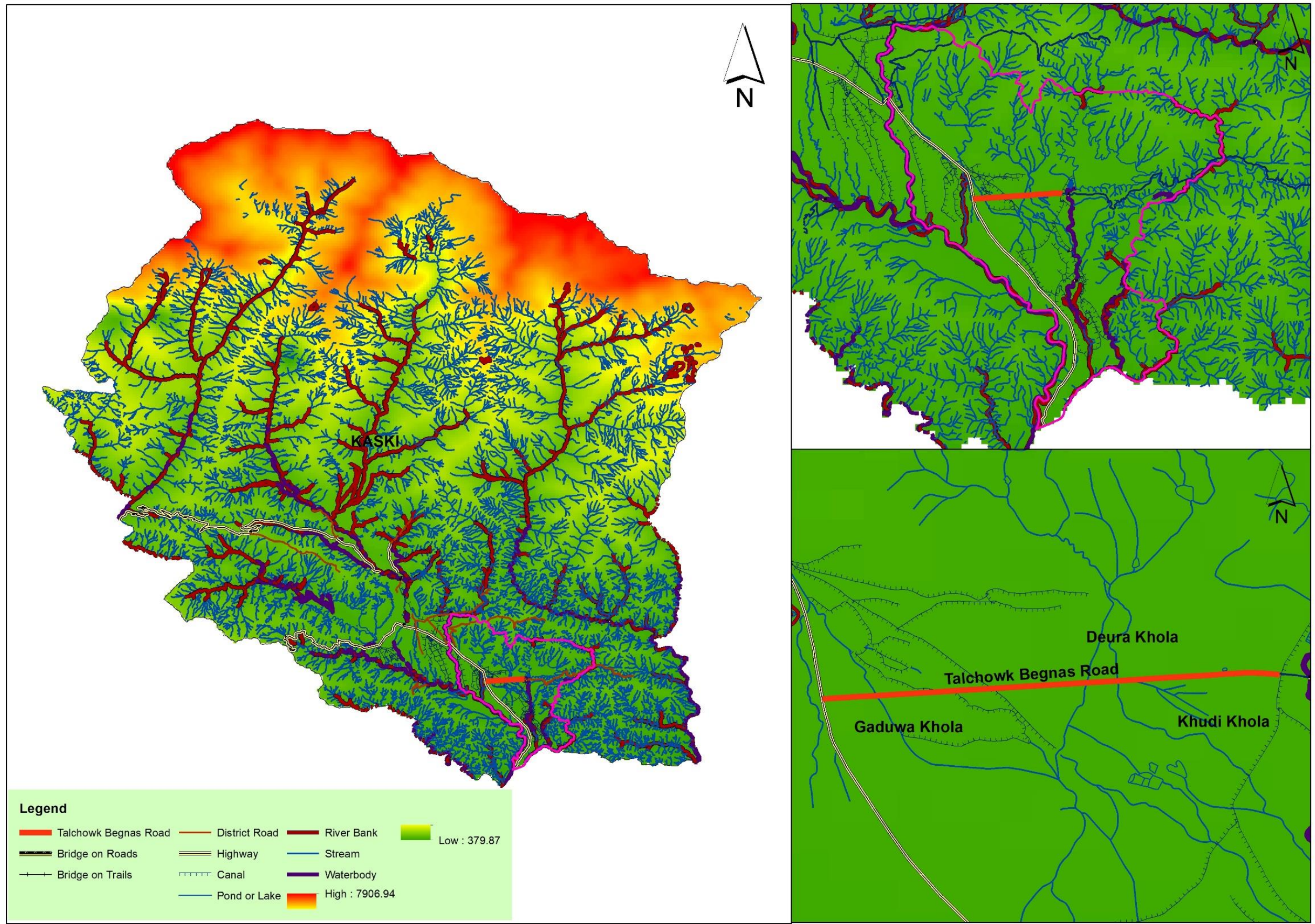


Figure 1-5. Drainage pattern of project districts and project site

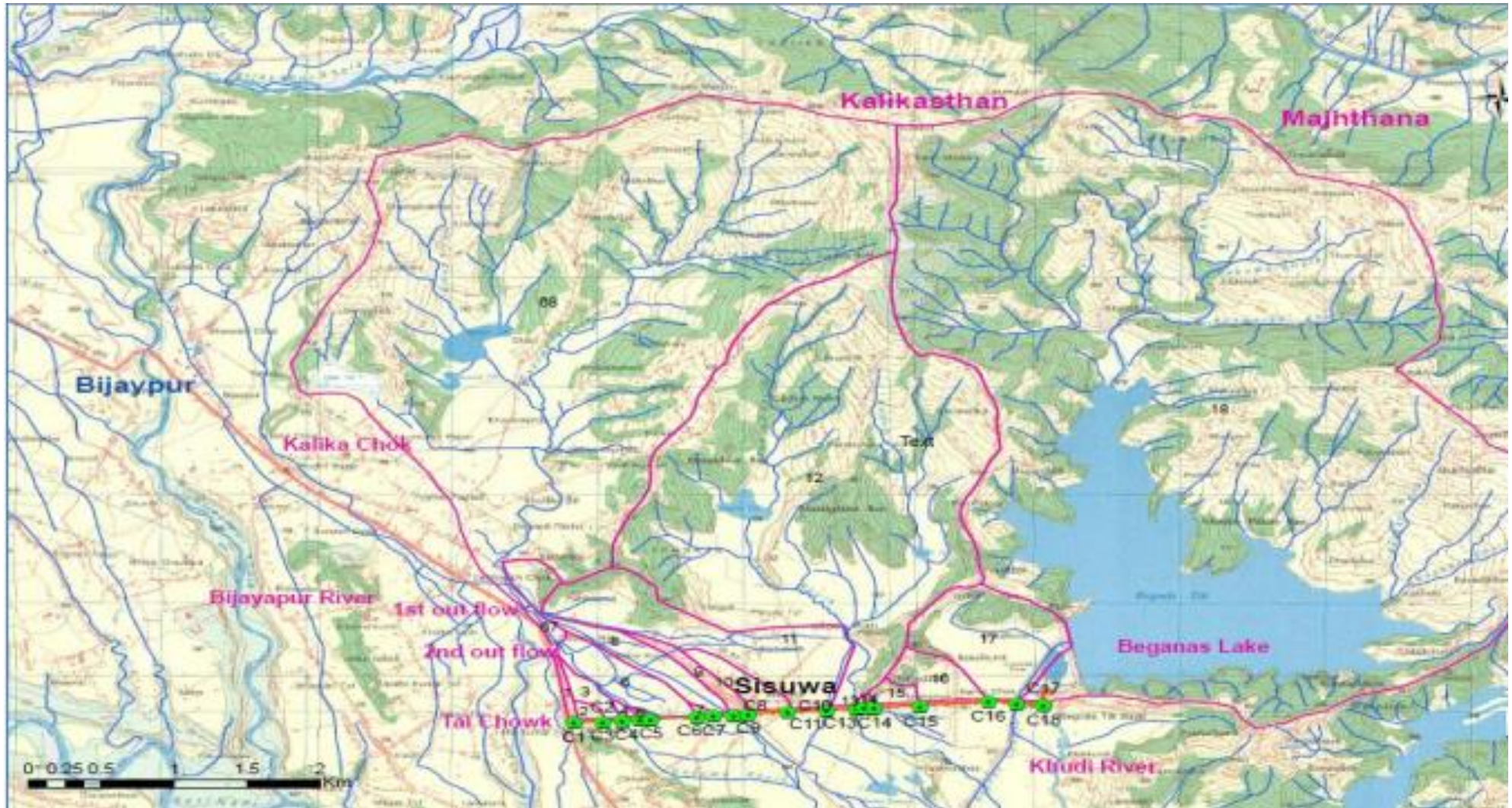


Figure 1-6. Culverts in the RoW

The nearest rain gauge station is in Pokhara Airport which is 8.7 km aerial distance from Talchowk. The precipitation in Kaski District is rainfall with an average annual rainfall in the district is 12,500mm to 3,000mm. The rainfall occurs mainly in the monsoon between the months of May to September.

## 1.8. Catchment Area

The hydrological catchment area of the sub-project road covers about 38 sq.km including various lakes. The highest geological altitude at upstream of the catchment area is about 1,440m at Kalikasthan-Deumadi area, whereas, lowest geological altitude is about 685m at Begnas Lake area. For the designing of run-off at various major drainage crossing, the overall catchment area has been subdivided into various sub-catchment area by demarking in corresponding topographical map with clear stream lines. The sub-catchment area consists of various inflowing streams which concentrate toward the concerned cross drainage. Table 1-2 provides the hydrology of cross drainage structures and streams

Table 1-2. Hydrology of Cross Drainage Structures and Streams

Catchment Points	Chainage	Existing structure	Area of Catchment (sqkm)	Discharge (m <sup>3</sup> /s)	Rainfall intensity (mm/hr: 150)	Addition Discharge from Road side drain (m <sup>3</sup> /s)	Total estimation discharge (m <sup>3</sup> /s)	Existing Clear Depth (m)	Proposed Clear Depth (m)	Existing Flow Depth (m)	Proposed Depth of Flow (m)	Remarks
C1	0+020	Slab Culvert: road crossing	0.032	1.52	258.09	0.00	1.52	1.141	1.141	0.841	0.841	Culvert
C3	0+350	Slab Culvert: u/s with narrow irrigation canal	0.1	2.84	255.86	0.30	3.13	1.114	1.114	0.814	0.814	Culvert
C4	0+480	Slab Culvert: u/s with narrow irrigation canal from Gaduwa Khola	0.014	0.54	284.25	0.12	0.66	0.959	0.959	0.659	0.659	Culvert
C5	0+550	Slab Culvert: u/s with narrow irrigation canal from Gaduwa Khola	0.024	1.09	300.79	0.06	1.16	1.744	1.744	1.444	1.444	Culvert
C6	0+880	Slab Culvert: Gaduwa Khola	1.806	42.95	197.22	0.17	43.11	1.384	1.6	0.884	1.1	Bridge
C8	1+120	Slab Culvert: 1~2m wide irrigation canal	0.375	12.42	240.13	0.22	12.63	0.761	1.25	0.361	0.85	Culvert

C9	1+220	Slab Culvert: road crossing at Sisuwa junction	0.099	4.10	242.3 6	0.09	4.19	0.774	0.8	0.474	0.5	Culvert
C10	1+490	Slab Culvert: road crossing	0.141	4.62	254.3 5	0.24	4.87	0.3	0.949	0.649	0.649	Culvert
C11	1+760	Slab Culvert: 3~4 wide irrigation canal from Deuralik hola	2.911	85.1 3	226.9 7	0.24	85.37	1.134	1.7	0.534	1.1	Bridge
C12	1+980	Slab Culvert: Road crossing of Deurali river	4.367	113. 74	226.9 7	0.20	113.9 4	1.619	1.8	1.019	1.2	Bridge
C14	2+085	Slab Culvert: road crossing	0.009	0.38	304.8 9	0.10	0.48	1.211	1.211	0.911	0.911	Culvert
C15	2+400	Slab Culvert: road crossing	0.056	2.37	304.8 9	0.29	2.66	1.327	1.327	1.027	1.027	Culvert
C16	2+880	Slab Culvert: road crossing	0.197	7.35	298.3 2	0.44	7.79	7.026	7.026	6.726	6.726	Culvert
C17	3+070	Slab Culvert: Irrigation Canal from Beganas Lake	3.901	102. 79	210.6 1	0.17	102.9 7	0.5	2.986	2.486	2.486	Bridge
C18	3+260	Bridge: KhudiKh ola from Beganas lake	12.778	257. 16	210.6 1	0.17	257.3 4	3.119	3.119	2.219	2.219	Bridge

Source: DPR 2019

## 1.9. Topography and geology

The Pokharavalley is covered by fan deposits of 4 to 5 km owing to aggradations from the Annapurna massif. Figure 1–7 oblique view of the Pokhara region shows the fan-shaped Pokhara Formation ponding several lakes and tributaries and 2012 rock-ice avalanche and Figure 1–8 geology of the region including project site and shows the shaded relief map from 15masl (meter above sea level).<sup>4</sup>

<sup>4</sup>Ibid.

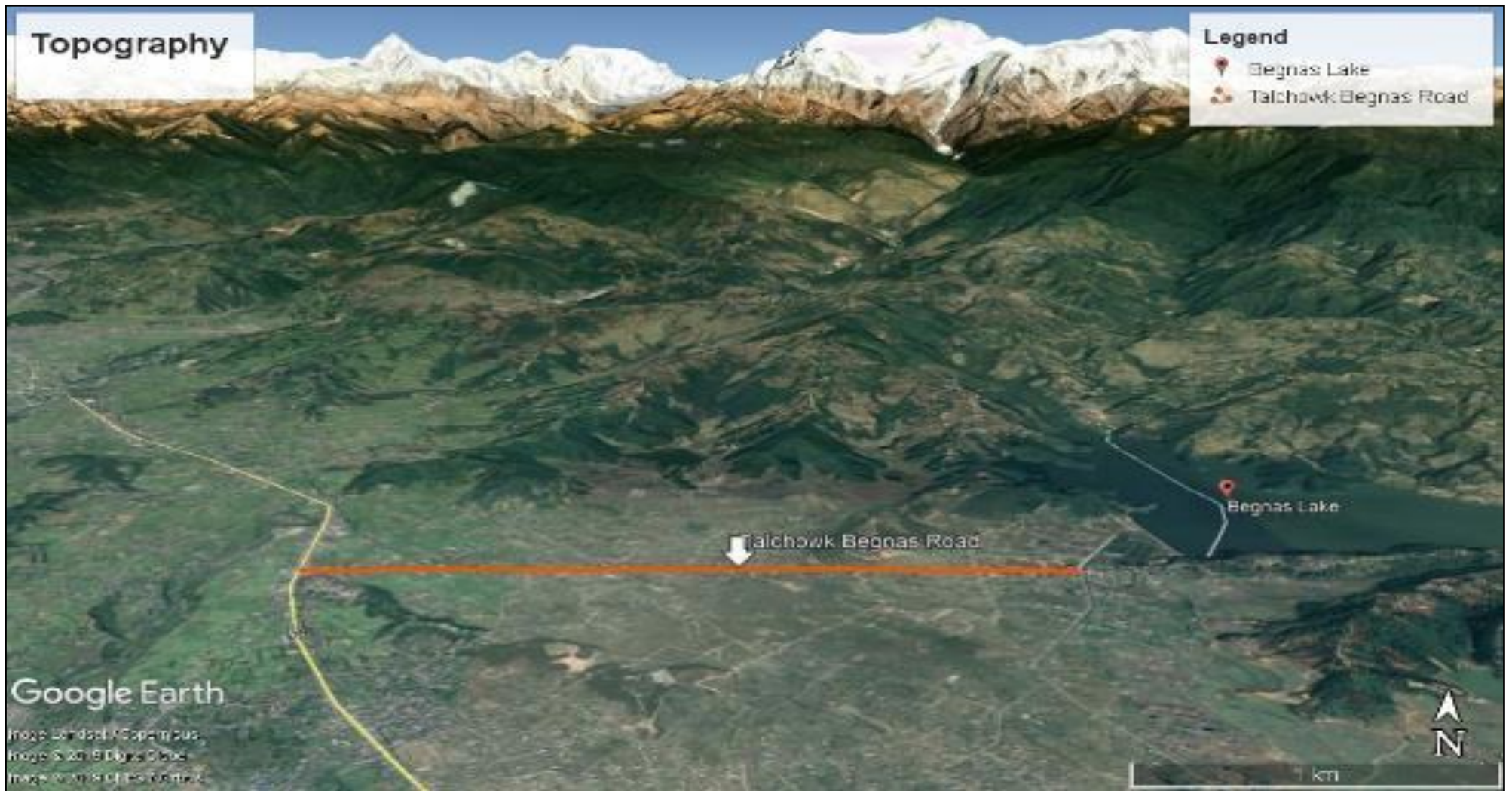


Figure 1-7. Topography and geological setting of Pokhara

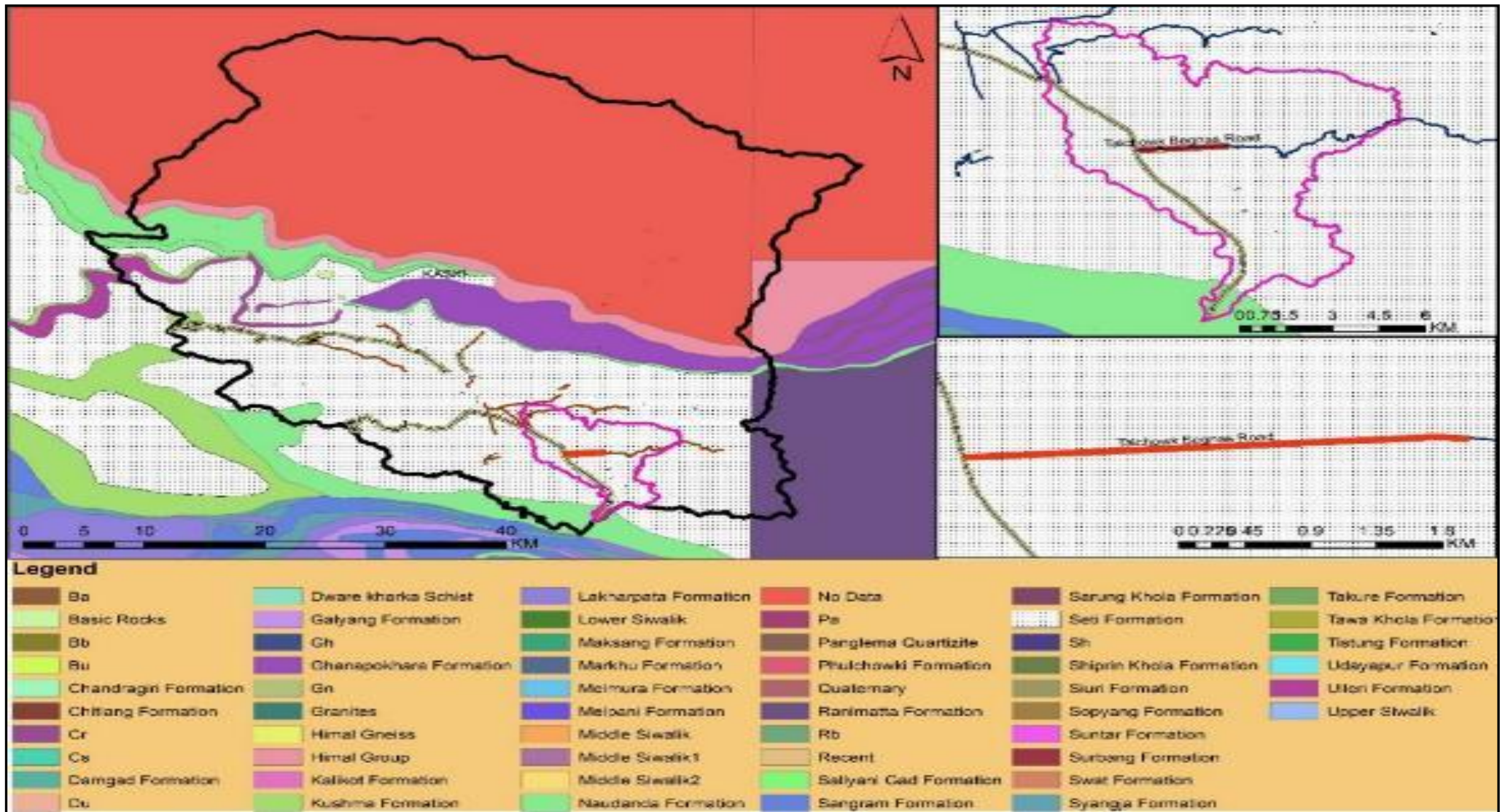


Figure 1-8. Geological characteristics of Pokhara valley including PMC

The California Bearing Ratio (CBR) value of soil was found to be 6 % at Talchowk, indicating solid stability for road construction. Generally the terrain of the road alignment is flat however some sections of road may require soil filling of earth materials in the undulated section. There are several cross drainage in the road alignment.

### **1.10. Agriculture**

There is limited availability of land for agriculture in the core metropolitan area due to congested settlement covering most of the agricultural land. Traditional farming is practiced in most of the areas of the PMC. However, paddy, maize, wheat, millet and barley are the major cereal agricultural products. As a substitute for the subsistence agriculture, they are shifting production from cereal crop to high value crops as vegetable and jute farming as seasonal and non-seasonal as well as horticulture. Varieties of vegetables farming includes radish, green leafy vegetables, gourd, marrow, pumpkin tomato, potato, cauliflower, cabbage, carrots, and fruit farming includes orange, lemon, banana, mango and papaya. Similarly, spices grown are ginger, garlic, pepper and onion. Hemja alone produces about 9,700 metric tons of potatoes. Most of the agriculture fields have good access to irrigation facilities. Fisheries are also being done in the lakes. Besides, plenty of livestock farming including cow, buffalo, pig, goat and poultry are being undertaken.

### **1.11. Industry**

PMC, compared to other parts of the country, has had significant development in industrial sector. A salient feature of industrial sector is the success of tourism industry. The PMC, as the tourism capital of the country, has 3,190 tourism-oriented trades, contributing to thriving business and market-oriented productions. The highest number of product-oriented industries counts to at least 3,512 registered in Domestic and Small Industry Development Committee. Industries producing noodles, biscuits, chocolates, Bhujia, are famous for exports.

### **1.12. Trade & Services**

As PMC is the largest metropolitan city in Nepal, there are many markets in the city area of this Metropolitan City. Trades of the different types of the goods occur in the city area of the Metropolitan City. There are about 10,635 shops registered in Domestic and Small Industry Development Committee. These shops are categorized as product oriented, tourist oriented, service oriented, agriculture and forest-oriented. General stores with daily needs like clothing, foods are the major business trade established in the Metropolitan City while schools, colleges, hospital, health post, banks, cooperatives, NGOs are the major service affiliated business of Pokhara. There are two 5-star hotels and approximately 305 other hotels that include five 3-star, fifteen 2-star and non-star hotels in the city. Also, a number of small hotels, lodges and restaurants have been opened in the Metropolitan City targeting local people and foreign tourists. Vehicle showrooms, furniture showrooms, engineering

consultancy services etc. are also located in different parts of the Metropolitan City which show the urbanization trend of the area.

Since the 1990s Pokhara has experienced rapid urbanization. As a result, service-sector industries have increasingly contributed to the local economy overtaking the traditional agriculture. An effect of urbanization is seen in high real estate prices, which are amongst the highest in the country. The major contributors to the economy of Pokhara are manufacturing and service sector including tourism; agriculture and the foreign and domestic remittances. Tourism, service sector and manufacturing contribute approximately 58% to the economy, remittances about 20% and agriculture nearly 16%.

### **1.13. Land use/Land cover**

The PMC is rapidly urbanizing with population growth. The subsequent impacts are felt in the increasing multiple hazards and risks because of unsustainable land use practices because of haphazard built-up areas development (Rimal et. al. 2015<sup>5</sup>). Rimal (2015) indicates that urban cover of the Seti watershed has increased by 60 percent from 24.03 km<sup>2</sup> in 1990 to 54.20 km<sup>2</sup> in 2013, which has led to conversion of 29.19 km<sup>2</sup> of cultivated land in the built environment. The Figure 1–9 shows the level of urbanization over little more than two decades.

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<sup>5</sup> “Growing City and Rapid Land Use Transition: Assessing Multiple Hazards and Risks in the Pokhara Valley, Nepal” by Bhagawat Rimal and et. al in Land 2015, 4, 957-978; doi:10.3390/land4040957

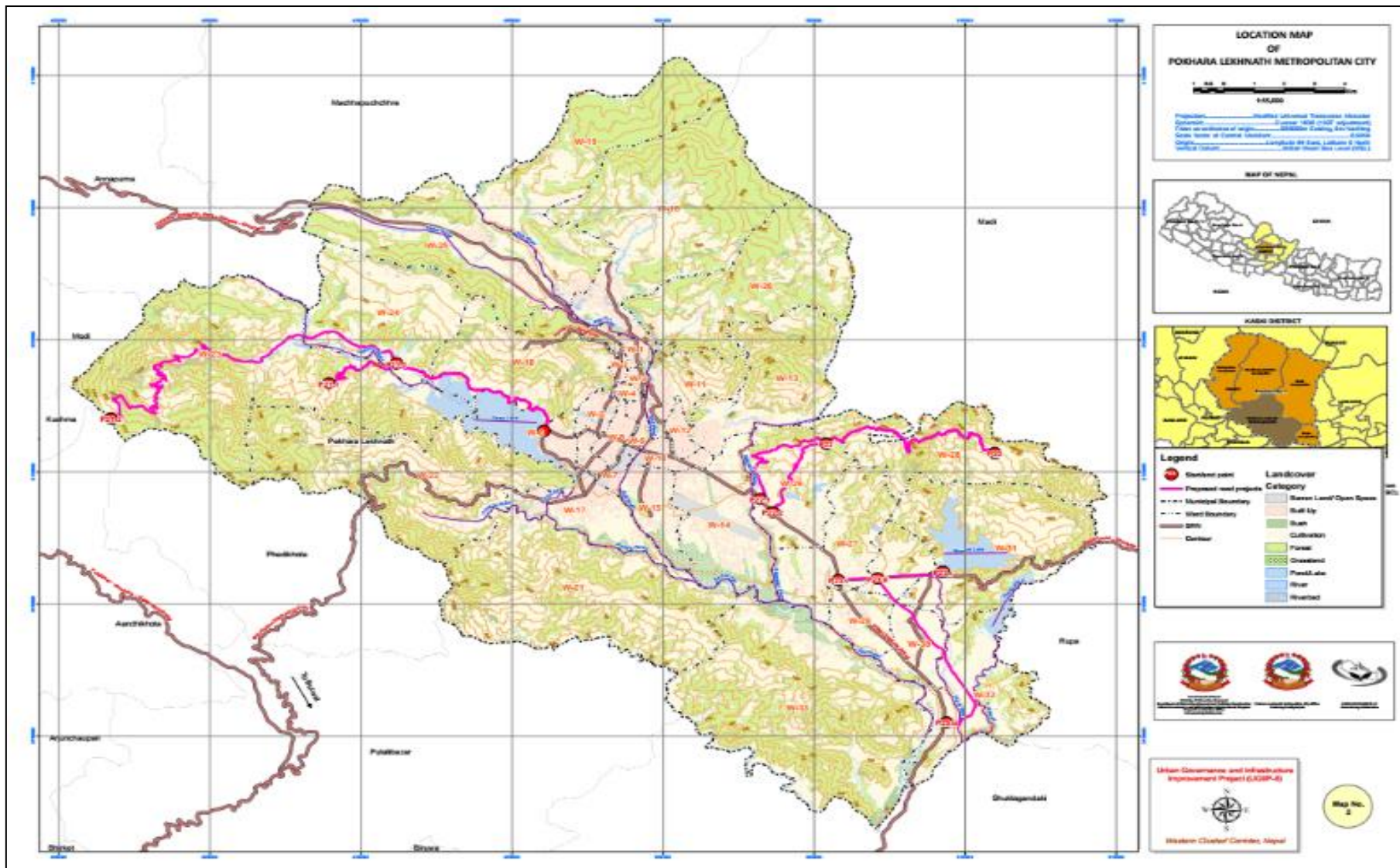


Figure 1-9. Level of Urbanization of PMC

## 1.14. ESIA Methodology

The study is undertaken following an overarching approach for Environmental and Social Impact Assessment (ESIA) and subsequently developing an Environmental and Social Management Plan (ESMP), following guidance provided by the Environmental and Social Management Framework (ESMF). A consultative and participatory process was adopted in conducting the ESIA and preparing the ESMP for the sub-project. The strategies to undertake the ESIA and preparing the ESMP required both qualitative and quantitative information gathering at both primary and secondary levels. The project team at Project Coordination Office (PCO) of Department of Urban Development and Building Construction (DUDBC), the World Bank, different national and local level stakeholders involved in NUGIP and the interaction with the community and related stakeholders on technical, environmental and social issues and consultants' observation of the intervention sites were undertaken. The ESIA/ESMP is in compliance with the GoN and the World Bank's policies and builds on the recent approaches and incorporates learning and previous experiences. The stepwise process in the preparation of ESIA/ESMP includes the following activities.

1. Reviewed scope of works in the Terms of Reference (TOR) for the ESIA/ESMP, Project Implementation Manual (PIM), feasibility reports of the sub-project
2. Reviewed applicable laws of the GoN and the WB policies.
3. Consulted project team, PCO, stakeholders, WB and experts.
4. Reviewed the DPR of the Talchowk-Begnas project, consulted PCO and DPR consultants.
5. Followed checklist for environmental and social data of DPR.
6. Prepared safeguard (including resettlement) checklists prior to the field visit.
7. Visited sub-project site and consulted municipality office, district level.
8. Conducted consultations, Focus Group Discussions (FGDs), Key Informant Interviews (KII), with several stakeholders including police, land revenue office (LRO), schools, health posts, clubs, mother groups and Community Forest User Groups (CFUGs).
9. Collected primary data for physical, biological, and socio economic baseline information. For socio economic information, 20% households' survey was carried. Instrumentation monitoring were performed for air, water, and noise. For biological assessment, vegetation survey was carried out.

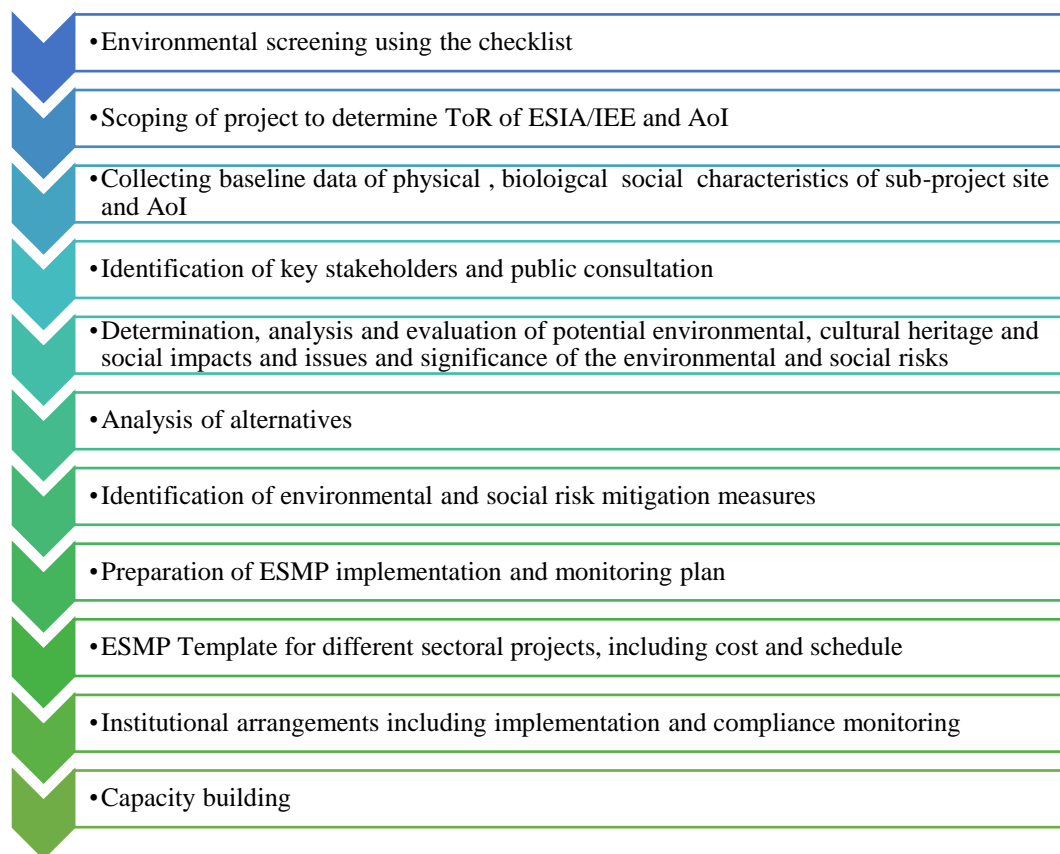


Figure 1–10. ESIA Process for all sub-projects

### Baseline study

Baseline data was collected for both environmental and social aspects in conducting the ESIA and was used in developing the ESMP, based on the ESMF (**Error! Reference source not found.**).

### Stakeholder Analysis

A stakeholder analysis was carried out during the ESIA stage. The following activities were carried out during the analysis:

1. Identified stakeholders of the sub-project
2. Consulted stakeholders
3. Incorporated feedback from the stakeholders into project design
4. Incorporated recommendations and mitigation measures during construction and operation
5. Involved stakeholders in stages of project implementation for ownership.

### Gender assessment and GBV status analysis

The following activities were undertaken for gender assessment.

1. Review of the legal policy framework of GoN
2. Review of the set-up, capacity, and constrains within relevant institutions
3. Analyze the culture amongst women of different cultural groups
4. Analyze potential positive and negative impacts on women

5. Analyze barriers, challenges, and constrains for the participation of women
6. Identify potential entry points and interventions to enhance gender sensitivity
7. Recommend project planning and implementation teams in addressing gender context

**Assessment of potential environmental and social impacts**

1. Likely Beneficial Impacts
2. Likely Adverse Impacts

**Environmental and social screening**

Every sub-project under the NUGIP is subject to an environmental and social screening process. The screening process establishes the level of environmental and social assessment required. The screening process intends to identify relevant possible environmental and social concerns as well as suggest any further investigation and assessment as necessary. Primarily, the environmental and social screening exercise is undertaken to determine the key environmental and social issues/concerns and the nature and magnitude of the potential impacts that are likely to arise on account of the proposed sub-projects. The fundamental environmental and social issues to be identified were determined by the type, location, sensitivity and scale of the municipal investment and sub-grant intervention. The results were used to determine the need for detailed assessment and the extent and type of environmental and social assessment. The results of screening are provided in table 4.1

**World Bank Safeguard Policies**

The WB classifies projects into one of the four categories, depending upon the type of project or specific components which have inherent environmental risks, location proximity to environmentally, socially and culturally important areas, sensitivity, potential impacts which may be irreversible or environment sensitive to changes, the scale and extent of environmental and social issues of the project, and the nature and magnitude of its potential environmental impacts.

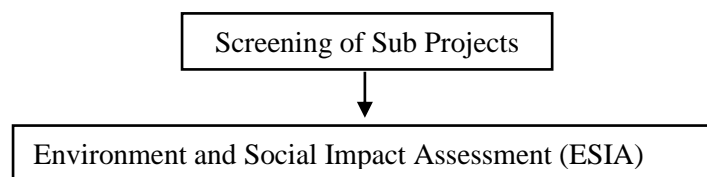


Figure 1–11. Flow of preparation of safeguard instruments for the project

**Revision and modification of ESMP**

The ESIA and ESMP is an ‘up-to-date’ document that will be publicly disclosed and disseminated. Unexpected situations in the sub-project or component design would therefore be assessed and appropriate management measures will be incorporated by updating the ESMP. Such revisions will also cover any modifications introduced in the design of sub-project at any stage of the project. Also, based

on the experience of application and implementation of such a framework, provisions and procedures would be updated as applicable and when required with due process.

### **Alternative analysis**

Alternative analysis is considered as an integral part of an ESIA study, which involves an examination of alternative ways of achieving the objectives of a proposed sub-project. The alternative analysis for a roads project includes the development of an alternative transportation network for the enhancement of safe and faster connectivity of the rural area to market centers and there by improve the economic conditions of the people living in the zone of influence. The alternatives, in this regard, could be alternative road alignment and alternative design. The various possible alternatives are discussed in the following sub-sectors:

#### **a. No-project alternative**

This alternative does not allow the implementation of the proposal. The no-project option will conserve some of the environmental adverse impacts at the expense of low level social and physical development..

#### **b. Option for Alternative alignment and Rational for selection of present alignment**

Talchowk-Begnas Road is a feeder road with a RoW of 30 m. It has the strategic importance in terms of rural linkage. This road continues joining further to the Rupa Rural Municipality. The complete road is the most direct and shortest route to Begnas Lake, one of the major tourist destination points. There are no other feeder roads within the vicinity of this road. There area number of other municipal roads coming and meeting as arterials to this main Talchowk-Begnas road, which have RoW of 15 m and cannot be an alternative solution to this road. Also, there is not enough space on either side of adjoining roads for widening as part of improvement, and without widening they cannot meet the 20 years of expected traffic demand. Hence, there no other viable improvement option to this alignment.

#### **c. Alternative route and Construction Approach**

The proposed road is already in operation and the project is related to its up-gradation. Hence the alternative to this route is ruled out. The construction approach follows both the manual labor and mechanized equipment.

### **Traffic Management during construction**

An alternative road will be used during the upgrading of the Pokhara-Begnas road. The PMC will consult with the local people regarding the selection of alternative route prior the beginning of the construction. Please refer to the ESMP.

### **Raw materials to be used**

The physical resources consumed for the upgrading of the proposed road will mainly include soil, sand for filling purpose, aggregates for road sub surface, boulders for gabions, stone for dry masonry wall and sand. The stones and fine aggregates such as sand have to be transported from a licensed quarry.

## CHAPTER 2: ENVIRONMENT AND SOCIO-ECONOMIC BASELINE

### 2.1. Background

A detailed ESIA was carried out as per the GoN's national laws and the WB safeguard policies, and Environmental Health and Safety (EHS) Guidelines, and covering any separate or additional requirements as per national laws. Further, the project's Detailed Design Report (August 2019) presents the results of a topographical survey of all stations to be rehabilitated, including the existing conditions of the following physical environment:

- Carriageway, shoulder, footpath, median, existing and potential parking spots, land use and road side drain location including its width, depth, type / shape, material of construction etc.
- Tree details such as location, name of species, religious/social significance and girth. Details of road side vegetation and forest such as location, size, type etc.
- Location and details of over ground utilities like electrical and telecom lines, poles, junction boxes, transformers etc.
- Location and details of underground services like electrical cables, telephone cables, cable chambers, water pipelines (material of construction and diameter), valve chambers with sizes, sewerage lines (material of construction and diameter) and manholes with sizes.
- Location and details of any water bodies, natural drainage / canals. Relevant documentation for ownership / jurisdiction to be provided if they fall under Dept. of Irrigation.
- Details of cross drainage structures like culverts and bridges mentioning type, number of spans, length, width, deck / crown level, invert level, formation level and road level.
- Highest Flood Level (HFL) data of natural drains, ponds, lakes and rivers along the road.
- Location of gates / doors, height of boundary walls, and fencing of the existing houses and / or commercial establishments along with ramp.
- Location and RoW of connected roads (Min 50mtrs beyond the RoW of the existing road).
- Location of existing signage boards or advertisements boards.
- Location and area of existing as well as potential Bus / Auto stands / commercial vehicles etc.
- Existing landscaping features, landmarks, road furniture etc.
- Important landmarks like religious structures, schools, hospitals, cooperatives and other important establishments along the road.
- Location of vendors and vending zones, street parking and type of parking.

## 2.2. Physical environment

### Topography

The Talchowk-Begnas road is located in the PMC of Kaski District, Province No 4. The PMC does not have a Transport Master Plan. As the road is under the authority of the PMC, it is called a municipal road. The road lies in the plain terrain. The altitude variation in the road alignment is between 682 m to 723 m from sea level. The road is extended from east to west and almost like a straight line that passes by the settlements and agriculture land.



Plain Topography near Talchowk including Green Space



Road Near Sisuwa at 0+900



Plain Topography near Sisuwa



Road in Talchowk at starting Area

Figure 2–1. Pictures showing the Topography

### Geology and soil

Geologically, the sub-project site lies in the lesser Himalaya having Seti formation, which comprises of grey greenish grey gritty chlorite muscovite sandstones gritstones with conglomerates and white massive quartzite. The sub-project site is not on the geological faultlines. The soil composition of the road area is dominated by sandy soil. The shows the geological pattern of project site.

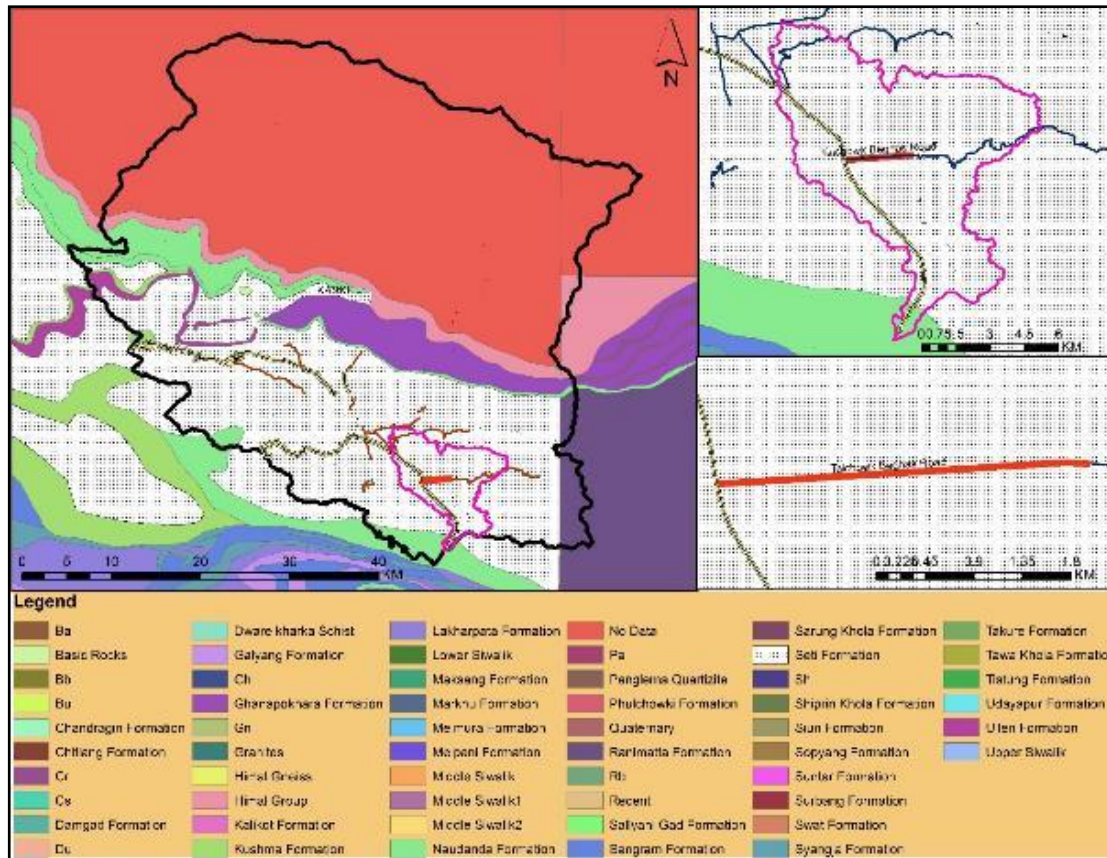


Figure 2–2. Geology of Project Site

### 2.2.1. Hydrology and meteorology<sup>6</sup>

The major rivers in the hydrological drainage basin of the Kaski District are the Seti, Madi and Bijayapur rivers with its tributaries. The nearby project is within Begnas Lake, Deura River, Aduwa River, Bagadi River. Only Deura and Gaduwa rivers cross the road alignment and present Khudi River bridge is the end point of the project. Since, the sub-project area is situated in valley plain at down hills of various mountainous areas such as Lamjung Himalaya, Annapurna and Machhapuchre peaks and various lakes within its catchment area, the surface drainage system is very important to be considered while designing, upgrading or re-constructing the proposed road section. The map below **Error! Reference source not found.** shows the drainage pattern of the project sites.

<sup>6</sup>Feasibility Study of Report Improvement of Talchowk Begnas Road (P23.i) Pokhara Metropolitan City .

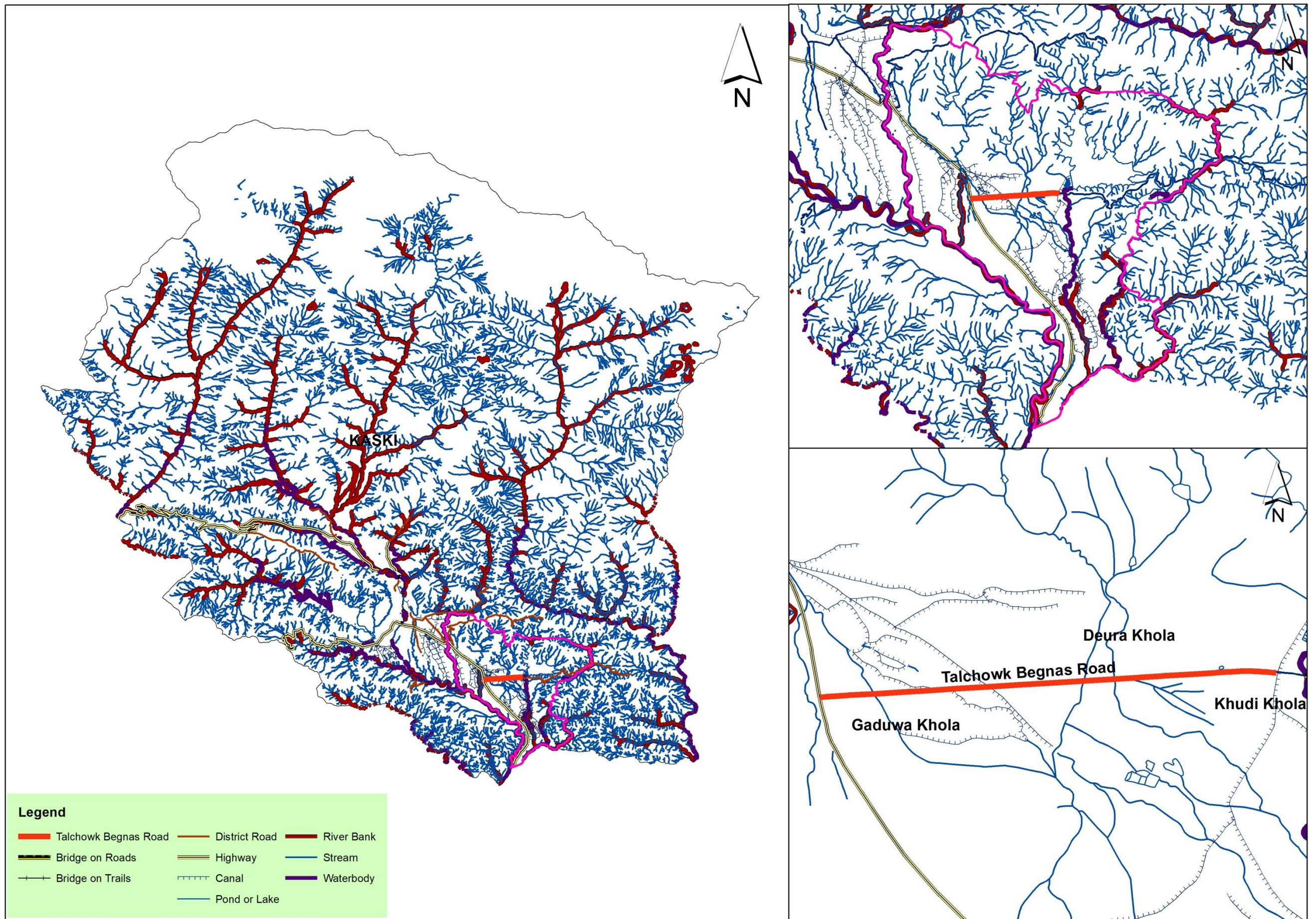


Figure 2-3: Drainage Pattern of Project Site

Annual average rainfall around the sub-project area is 2138mm (Pokhara Airport Gauging Station). Annual average rainfall varies from minimum 1250mm to a maximum of 3,000 mm. The snowfall is rare and exceptional form of precipitation along project area. Pokhara has rainfall from January to November, but the most rainy days are during the months from May to September.

**Water Course:** The GaduwaKhola and DeuraKhola crosses the proposed road alignment in 2 locations. The DeuraKhola is also the tributary of KhudiKhola. DeuraKhola has several other small seasonal tributaries that crosses the road. The details of these water courses are presented in report.

**Present landuse<sup>7</sup>**

The present land use of Kaski Districts includes cultivated land (40.5%), followed by forest (37.6%). Other land types in the district are settlement (14.17%), grassland (1.1%), pond/Lake (2.3%), Bush (1.10%), river (1.2%), riverbed (1.4%), open spaces (0.5%) and embankment (0.1%). The surrounding land types in project site are mostly settlements and cultivated land. Figure 2–4 shows the land use type of the project site.

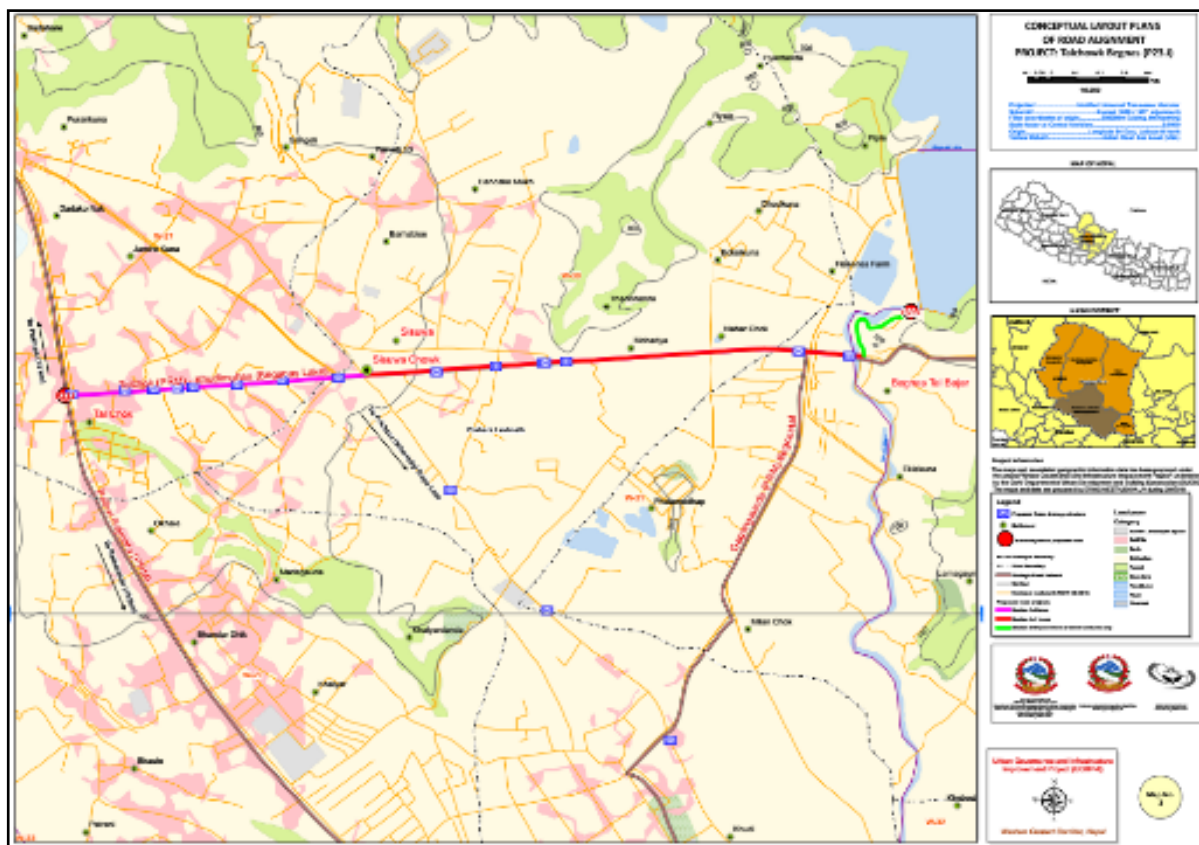


Figure 2–4. Land use type in project site

**Noise and air quality**

<sup>7</sup>Feasibility Study of Report Improvement of Talchowk Begnas Road (P23.i) Pokhara Metropolitan City

The Talchowk-Begnas Road connects with the Prithvi Highway at Talchowk. The vehicles passing along this road contribute to air and noise pollution. The vehicle count in the existing road is shown in Table 2-1. Table 2-1. Vehicle Count (Source: Survey, 2018) and air quality with temp, humidity and wind is shown in Table 2-2 which indicates that continuous rain observed during monitoring duration lead to the air pollutants were probably washed away due to rain.

Table 2-1. Vehicle Count (Source: Survey, 2018)

Station	Normal AADT in Pcus 2021												
	>= 3 Axl e Truck	2 Axl e Truck	Mi ni Truck	Lar ge Bu se	Mi ni Bu s	Mi cro Bus	Car/Jeep /Taxi	Utility/ Pick up	3 Whe eler	Trac tor	Mo tor Cyc le	Bicy cle	Tot al
<b>Talchowk</b>	43	193	200	495	12	200	958	261	43	410	225	157	64
<b>Begnas Buspark</b>	10	66	146	384	12	146	667	83	0	170	129	72	43
					19	85					1	6	24

Table 2-2. Ambient Air Quality Details<sup>8</sup>

Particulate Size, (µm)	Weight of Dust, (mg)	Percentage Weight Fraction	Cumulative Weight Percentage
<b>PM&gt;10 µm</b>	0.1	10	100
<b>7.0 µm to 10 µm</b>	0.1	10	90
<b>3.3 µm to 4.7 µm</b>	0.1	10	80
<b>2.1 µm to 3.3 µm</b>	0.2	20	70
<b>4.7 µm to 7.0 µm</b>	0.1	10	50
<b>&lt;0.43 µm</b>	0.1	10	40
<b>0.43 µm to 0.65 µm</b>	0.1	10	30
<b>1.1 µm to 2.1 µm</b>	0.1	10	20
<b>0.65 µm to 1.1 µm</b>	0.1	10	10
<b>Total</b>	1	100.0	0

Indicators→	Total Suspended Particulates (TSP)	Particulate Matter of Aerodynamic Size 10 micron (PM10)	Particulate Matter of Aerodynamic Size 2.5 micron (PM2.5)
NAAQS Limits for 24 hour averaging time, 2012 (GoN)	230µg/m <sup>3</sup>	120 µg/m <sup>3</sup>	40 µg/m <sup>3</sup>

<sup>8</sup>Sampling Point: Talchowk, Pokhara Municipality – 27 (28°9'47.8"N, 84°3'43.5"E, Altitude: 706m, Starting Monitoring Date: 22 - 06 - 2019, Ending Monitoring Date: 23 - 06 - 2019, Monitoring Duration:1440 minutes, Monitoring Instrument: Low Volume Air Sampler (Anderson Type), Flow Rate: 28.3L/min, Total Air Volume: 40.752m<sup>3</sup>.

Total Suspended Particles:  $24.54\mu\text{g}/\text{m}^3$ ; Respirable Particulate Matter (PM<sub>10</sub>): 90% of TSP =  $22.08\mu\text{g}/\text{m}^3$  and Respirable Fine Particle (PM<sub>2.5</sub>): 70% of TSP =  $17.17\mu\text{g}/\text{m}^3$

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The observed concentrations of TSP, PM<sub>10</sub> and PM<sub>2.5</sub> comply with the prescribed national ambient NAAQS 2012. The ratio of PM<sub>10</sub>:TSP and PM<sub>2.5</sub>:PM<sub>10</sub> were about 0.89 and 0.78 respectively. The average air temperature during the monitoring duration was 24 degree Celsius. The average wind speed was 1.08m/s. The resultant wind was blown at 172 degree for 45% of the monitoring duration with 16.7% calm hours (Figure 2–5). The dominant wind was light air (about 79.2%) as per Beaufort wind scale (Figure 2–6). The air pollutants directed along the observed average wind direction. The metrological parameters of the site are listed below **Error! Reference source not found.**

Figure 2–5. Wind rose Based on Air Blowing From the Site

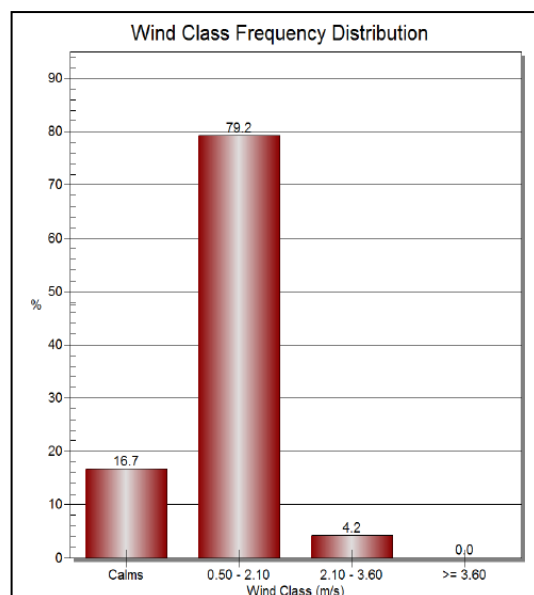


Figure 2–6. Dominant Wind and Frequency Classification

## Gaseous Pollutants

The monitored gases were not detected. In the site as indicated in the following table.

Table 2-3. Gaseous Pollutants in the Site<sup>9</sup>

Gases	n	Volume of Air Drawn per Stroke, (ml)	No. of Draws	Calculated Concentration, (ppm)
SO <sub>2</sub>	2	100	5	<0.08
NO <sub>2</sub>	2	100	5	<0.08
CO	1	100	5	<1

The air and noise of the rest of the surrounding areas is also affected by the local city vehicles and the noise created in this section. The characteristics of the road including settlement in the project site as illustrated in Appendix J.

The noise is measured at the site during the survey and found within the permissible limit. Expert judgment reveals that there were vehicles plying on the road and partly the width of the road is dirt road. The noise level is depicted in Table 2-4.

Table 2-4. Sound pressure measurement at Tal Chowk

Average Sound Pressure Level, dB(A)	Time Zone, Hr								
	06:00	08:00	11:00	13:00	15:00	18:00	21:00	23:00	
<b>Equivalent Sound Pressure Level, (L<sub>eq</sub>)</b>	56	65	76	66	68	69	58	55	

## Drinking water

Because of the intervention, water supply pipelines requires replacement. The alternative planning for the water supply system is required as the existing water supply system will be affected during the construction period. There are two drinking water schemes in the project area, which are the Lekhnath and Red Cross water supply. The water quality analysis of Red Cross is free from contamination and safe for drinking. All observed values complied with the national drinking water quality standards and the water quality report from the testing laboratory is enclosed.

Table 2-5. Water Quality of Red Cross Water Supply. Source: Water Sampling During the Field Visit

S. N.	Parameters	Test Methods	Observed Values	NDWQS, Nepal
1.	pH at 23°C	Electrometric, 4500 - H+B, : APHA	7.3	6.5 - 8.5

<sup>9</sup>Sampling Point: Talchowk, Pokhara Municipality – 27, Coordinates: 28°9'47.8"N, 84°3'43.5"E, Altitude: 706m, Starting Monitoring Date: 22 - 06 – 2019, and Method : Gas Detector Tube

2.	Electrical Conductivity, ( $\mu\text{S}/\text{cm}$ )	Conductivity Meter, 2510 B, APHA	163.3	<b>1500</b>
3.	Turbidity, (NTU)	Nephelometric, 2130 B, APHA	4	<b>5</b>
4.	Total Hardness as $\text{CaCO}_3$ , (mg/L)	EDTA Titrimetric, 2340 C, APHA	82	<b>500</b>
5.	Total Alkalinity as $\text{CaCO}_3$ , (mg/L)	Titrimetric, 2320 B, APHA	109.25	-
6.	Chloride, (mg/L)	Argentometric Titration, 4500 - Cl- B, APHA	N. D. (<1)	<b>250</b>
7.	Ammonia, (mg/L)	Direct Nesslerization, 4500 - $\text{NH}_3$ C APHA	0.15	<b>1.5</b>
8.	Nitrate, (mg/L)	UV Spectrophotometric Screening, 4500 - $\text{NO}_3^-$ B, APHA	1.70	<b>50</b>
9.	Nitrite, (mg/L)	NEDA, Colorimetric, 4500 - $\text{NO}_2^-$ B, APHA	0.04	-
10.	Calcium, (mg/L)	EDTA Titrimetric, 3500 - Ca B & 3500 - Mg B APHA	25.65	<b>200</b>
11.	Magnesium, (mg/L)		15.55	-
12.	Iron, (mg/L)	Direct Air - Acetylene AAS, 3111 B, APHA	1.11	<b>0.3</b>
13.	Manganese, (mg/L)		0.04	<b>0.2</b>
14.	Arsenic, (mg/L)	<b>SDDC, 3114 B: APHA</b>	<b>N. D. (&lt;0.01)</b>	<b>0.05</b>

### Water resources and drainage channels crossing Talchowk Road

The Khudi River water is turbid in nature due to presence of suspended solids, and other turbid materials. The eutrophication is probable at observed total phosphorous level. Therefore parameters are responsible degradation of water quality of Khudi River. The river has degraded water quality and lies in medium level of pollution range. The water quality at Gaduwa and Deuda rivers are of comparable to Khudi River based on the qualitative judgment of the river. Both rivers are not perennial rivers.

Table 2-6. Khudi River Quality (Ambient Water Quality) (Source: Field Water Sampling)

S. N.	Parameters	Test Methods	Observed Values
1.	pH at 23°C	Electrometric, 4500 - $\text{H}^+\text{B}$ .; APHA	<b>6.9</b>
2.	Electrical Conductivity, ( $\mu\text{S}/\text{cm}$ )	Conductivity Meter, 2510 B, APHA	<b>180.3</b>
3.	Turbidity, (NTU)	Nephelometric, 2130 B, APHA	<b>18</b>
4.	Total Dissolved Solids, (mg/L)	Oven Drying Method, 180°C, 2540 C, APHA	<b>310</b>
5.	Total Hardness as $\text{CaCO}_3$ , (mg/L)	EDTA Titrimetric, 2340 C, APHA	<b>86</b>
6.	Total Alkalinity as $\text{CaCO}_3$ , (mg/L)	Titrimetric, 2320 B, APHA	<b>109.25</b>
7.	Chloride, (mg/L)	Argentometric Titration, 4500 - Cl <sup>-</sup> B, APHA	<b>N. D. (&lt;1)</b>

8.	Nitrate, (mg/L)	UV Spectrophotometric Screening, 4500 - NO <sub>3</sub> <sup>-</sup> B, APHA	0.89
9.	Total Phosphorous, (mg/L)	Ascorbic Acid, 4500 - P E, APHA	0.29
10.	Chemical Oxygen Demand, (mg/L)	Potassium Dichromate Reflux, 5220 B, APHA	13
11.	Arsenic, (mg/L)	SDDC, 3114 B: APHA	N. D. (<0.01)
12.	Iron, (mg/L)	Direct Air - Acetylene AAS, 3111 B, APHA	1.11
13.	Manganese, (mg/L)		0.12
14.	Lead, (mg/L)		<0.01
15.	Zinc, (mg/L)		0.05

Khudi is the major river under the Bridge. The upgrading of the road and demolition of bridge and its construction will have a major impact on the Khudi River. Hence the impact of Khudi River could be significant as compared to other small tributaries. It is for this reason, for the baseline River water quality the Khudi is considered.

### Sewage and Solid Waste Management

The planning norms and standard 2015 by DUDBC dictates that a city-sized municipal area should have a municipal solid waste management system with collection points, transfer station (if disposal site is more than 10 km away), segregation reduce, reuse and recycle of waste and a medium sized (25-500MT per day) sanitary landfill site. Currently, the PMC manages its sewage and solid waste at a solid waste management site situated at Bachhebuduwa. Five containers operate throughout the metropolitan city, pumping septic waste from septic tanks of households and transporting them to the site where it is treated. However, there are no transfer stations. There is no segregation at source level. No sewage network system exists in the PMC. The existing sewerage management site is on its 14<sup>th</sup> year of a 15 year design period. Hence, the PMC should seek an alternative site for the sewerage management and in the process develop a sewerage network as well. The site falls within the 3km restriction radius of the proposed regional international airport

### Road Network and Transportation

Kaski District has 19 district roads of class "A" and 23 district roads of class "B". Most of the district roads are gravel surface, which are mostly all-weather roads. Moreover, construction quality of the road is poor and needs to be upgraded to all-weather roads to provide accessibility throughout the year to the people to improve overall transport situation of the district. Different roads need different types of interventions.

Prithvi Highway connects the metropolitan to the capital, Kathmandu (200 km) while Sidhartha Highways connects Pokhara to Bhairawa via Putalibazar (184 km). Pokhara-Baglung-Benin (90km) highway is the road inter-linkage to famous destination spots of Mustang region having the Jomsom domestic airport operating flights to Kathmandu, Bhairawa, Bharatpur and Manang (only seasonal).

Providing accessibility alone cannot provide improved transportation in a meaningful way if regular and reliable public transport facilities are not there in parallel. Again, riding quality and safety of road are also equally important. Without acceptable standards of comfort and safety, no road can provide reliable and enduring good services. In fact, transport connectivity is incomplete by road construction alone if functional transport facility with quality services inclusive of safe roads is not there for the general public. Pokhara has an extensive, privately-operated public transportation system running throughout the city, adjoining townships and nearby villages. The public transport mainly consists of local and city buses, micros, micro-buses and metered-taxis.

Nevertheless, PMC as the administrative center as well as capital of Province No. 4, internal mobility and accessibility to all adjoining local places, district units and local government bodies is crucial for overall administrative and strategic management of the region. The District Transport Master Plan (DTMP) of Kaski District was prepared in 2014 which contributes towards planned development of transport sector supporting the overall development of transport network and management of the municipality and the district as a whole. According to the DTMP, the planning and development of transportation sector has been carried out. In the current scenario, efforts have been made to follow and implement the transport development plan as stated in the DTMP. After the integration of the former Lekhnath Municipality into Pokhara Lekhnath Metropolitan City, forming a bigger Pokhara Metropolitan City, the planning of transportation sector is to be revisited and revised accordingly. Preparation of investment plans for road and transport development is necessary for a better financial planning and projection of resources. Proper roads network system preferably with metallic surface should be constructed joining all the wards to the municipal center for easy accessibility and mobility in a planned way. Construction of bus parks, bus stops, and bus lay-bys is another important step to be undertaken as soon as possible to avoid ever growing traffic congestions and traffic management problem within the core city area of metropolitan city.

### **Situation of existing Road and cross drainage structures inventory and alignment details**

The existing road is black topped. The pavement has severe distress like alligator cracks, patchwork, edge break, raveling, rutting and potholes. The road width varies from 3.7m to about 6.8m at some places. But the average road width is about 4.5m. The road passes through two major market areas i.e. Talchowk and Sisuwa.

### **2.3. Biological Environment**

The Tal Chowk-Begnas Road traverses through agriculture land. Neither private nor government forest areas is nearby or along the road alignment. The common tree species observed within the ROW of the road during the field visits are *Dalbergia Sissoo*, *Melia azedarach*, *Saraca indica*, *Ficus species*, *Cinnamomum camphora*, *Musa paradisiacal* and *Bamboosa vulgaris* which are mostly planted. During the FGDs, it was revealed that some agricultural activities are still prevalent in the RW in a seasonal level.

All vegetation including forests and agriculture within the ROW was assessed and inventoried and is presented in Appendix E

Table 2-7. List of birds found in the project district

SN	Local Name	English Name	Scientific Name
1	Jureli	Bulbul	Pycnonotus zeylanicus
2	Dhikur	Dove	Zenaidamacroua
3	Bhangera	Sparrow	Passer species
4	Rupi	Common myna	Acridotherestrictis
5	Cag	Crow	Corvus splendens
6	Bakulla/Cattle Egret	Egret	Bubulcus ibis
7	Gauthali	Swallow	Hirundo rustica

Table 2-8. List of fauna found in the project district

SN	Local Name	English Name	Scientific Name
2	Kharayo	Rabbit	Lepus nigricollis
3	Lokharke	Squirrel	Tamias maclellandii
5	Nyaurimuso	Mongoose	Herpestes edwardsii
6	Badar	Monkey	Macaca mulatta

Table 2-9. List of reptiles found in the project district

SN	Local Name	English Name	Scientific Name
1	Bhyaguto	Frog	Rana tigrina
2	Sirish	Bronzeback tree snake	Dendrelaphis tristis
3	Sarpa	Common cat snake	Boiga trigonata

Table 2-7, 2-8 and 2-9 illustrates presence of fauna and flora in the project district. Because the project area is predominately a residential and commercial settlement area, there is no natural habitat for flora and fauna listed in the table. These available species in the district are not specific to the project site and hence not directly impacted by the project.

In addition, once we include some data on fauna and avifauna in baseline, we need to describe about the project impact on them in Impact and mitigation chapter. If there are no impacts, we need to indicate that categorically.

## 2.4. Summary of Socio-economic environment

### 2.4.1. Socio-economic overview

A total of 175 households were surveyed in the project area during the field study. The project affected Wards 27, 30 and 31 of the Pokhara Metropolitan City have multi-ethnic composition. Brahmin, Chhetri, Janjati and Dalit are major castes and ethnicity of the area. Two-thirds of households of the surveyed area belongs to Hill-Brahman and followed by Chhetri (16.0%) and Gurung (12.0%). Average family size in the surveyed area is 4.5, with the family size in Damai and Newaris being higher than other

castes and ethnicities. The nuclear family is the dominant family structure in the sub-project area with only 15% household living in a joint family arrangement. The majority of respondents (90%) in the project area follow the Hindu religion, followed by Buddhist (8.6%). Further details of the social economic environment are provided in Appendix D.

Economically, the project area is well off, thus the living standards of most people in the sub-project area is good in comparison to national average. The sub-project area is one of the major tourist destinations of Pokhara because of the Begnas and Rupa Lakes. The land value of the project area is remarkably high. The economy of the area is supported mainly by tourism, trade and business. The tourism-related business and service sector hold significance share to the local economy which is growing day by day. Other livelihood activities in the project area are agriculture, service, local trade, overseas employment/remittance and daily labor. There is an increased inflow of domestic and foreign tourists in the project area due to the Begnas and Rupa lakes, which demands good road services in the area.

Unlike other parts of the country, about half of the households are headed by female in the study areas because of overseas migration of male members. A total of 67 single women-headed households are found in the study area. Among them 46 are widowed and 21 divorced/separated. Twenty to 50 percentage of total houses in the area have members who are overseas employment.

Health and education condition in the sub-project area appears to be better than the national average. All the households in the surveyed area have toilets, indicating that the local people are sensitive towards the health issues. The people of the sub-project area have good access to basic services such as education, health, police and other government services. It is reported that the majority of local people visit the hospital and medical doctor in case of illness. There are four schools and seven private health clinics in the vicinity of the sub-project area. Potable water supply is the main source of drinking water, accessed by 96% of households. All the households in the surveyed area connected with the national grid and use Liquid Petroleum Gas (LPG) as the main source of cooking energy. The sub-project area has a high literacy rate (89.1%), which is higher than the national average.

The trend of out-migration to other parts of the country and overseas for employment and high education is an increasing trend. Two thirds of households in the sub-project area are members of groups or organizations which indicate the local people are rich in social capital.

#### **2.4.2. Gender disparities and GBV**

Women's literacy rate (57.4%) is higher than the national average (44.5%). Women's exposure, access to property and participation in social affairs and development activities is an increasing trend. Women's access and ownership on fixed property such as land and house is in increasing trend because of 25 percent tax rebate incentive offered by the GoN. Women's participation and involvement in non-

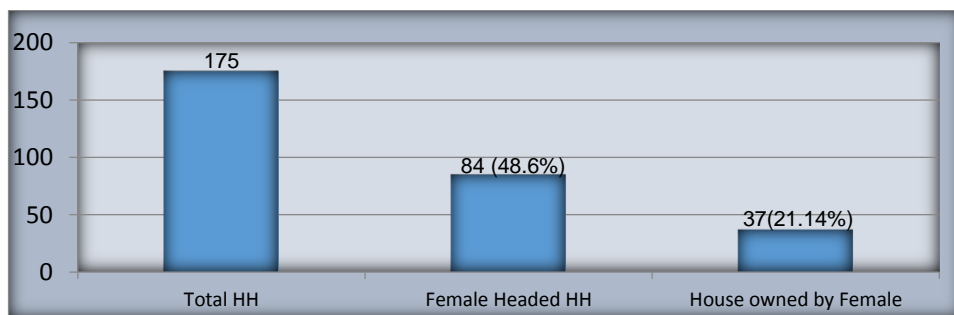
agriculture sectors has been gradually increasing. Both men and women are interested to work or participate in public works including road construction.

Even though the subproject is in an urban area, a significant gender gap is noticed in work force participation and higher education in the socioeconomic survey conducted as part of the ESIA. The ratio of Male: Female in project direct impact area is 1.05:1.

**Female-headed households**

The socioeconomic survey identified 175 households in which 84 (48.6%) are female-headed, which is higher than the national average of 31.3% (Source: World Bank org/indicator). Among the 84 female-headed households, 43 households (51%) were due to the male member being in overseas employment; 4 are single women. The other remaining causes of female-headed household are husband working outside of Pokhara, and Pawa (property gifted from girl’s family) and property owned by woman is not considered as family property.

Despite women comprising 51.5 percent of Nepal’s total population and around 75 per cent of women are engaged in agriculture as their primary occupation, women often do not have ownership of land that they have been tilling for years. Of the total surveyed households, 36 (20.6%) families are engaged in agriculture as a primary source of livelihood and amongst those 9 (25%) women own the land. In Nepal, about 20% women have ownership on land (CBS, 2012). Of the total surveyed population, 21.14% of women have land registered in their names, slightly higher than the national figure. Women’s access to ownership on fixed property such as land and houses has been increasing in the recent years. One of the reasons identified was the provision of tax exemption while registering land in a women’s name<sup>10</sup>.



Source: Socioeconomic survey 2019

Figure 2–7. Total Household, Female Headed Household and female Owned Household

<sup>10</sup> Financial Bill 2015/16 {25 per cent to 50 per cent tax exemption on registration when land is owned by a woman; a 35 per cent tax exemption for single women; and joint registration of land in the names of husbands and wives with a fee of NPR100 (If husband want to include his wife’s name in existing property paper)}

## Women Participation in Public Sphere

In Nepal women participation in public spheres is increasing over the last few decades. In the subproject impact area, participation of women in the public sphere is very high. Out of 175 surveyed HH, 112 HH reported as a member of different organization. Among them, women from 84 HH have membership in different community based organization (CBO). But only two women are in primary post in non-women group. It indicates the woman's positions are still marginalized and subordinated.

There is no visible discrimination and differentiation to access and utilizations of public space by caste, ethnicity, religion, sex, age, class in the project impact area as this is a scattered urban settlement. Alcoholism, gambling and drug abuse are present in the area. In project area, social deviances like concept of witch, discrimination of widow and untouchability are very rare. Social evils like Girl trafficking are not reported at the project impact area.

## Wage gaps

Gender wage gap is visible in same category of work. Women are generally paid less than men. In the project impact area, the general wages for man and woman are 1,200NPR and 800NPR per day correspondingly. This indicates the inequalities and discriminations for women in the labor market.

## FGDs

During the social study, 4 FGDs were carried out in which one with women group and three with mixed group. The total participants in the FGDs were 54 including (34 females and 20 males).

Table 2-10. FGD Participants

Location	No of Participants	Male	Female
Begnas 31, Ward Office	17	0	17
Mohariya, Pokhara Metropolitan city	15	7	8
Sisuwa, Pokhara Metropolitan city	11	6	5
Talchowk, Pokhara Metropolitan city	11	7	4
<b>Total</b>	<b>54</b>	<b>20</b>	<b>34</b>

The major social problems of the area are reported to be alcoholism, drug-taking and domestic violence against women. Cases of women and girl trafficking have not been formally reported. Many domestic violence cases against women are not reported formally.

### 2.4.3. Community perceptions of the subproject

Local people and community members are aware of the sub-project and its positive contribution towards the local economy and local development. Approximately 96% of the local people are found positive towards the project and expressed their willingness and commitment to provide every support for timely completion of the project. They urged for the timely commencement and completion of the project.



## CHAPTER 3: LEGAL AND REGULATORY REQUIREMENT

### 3.1. Key applicable national social laws and regulations

A summary of applicable rules and regulations is provided under the Chapter 2 of the NUGIP ESMF. The sectoral and cross-sectoral guidelines and standards promulgated by the GoN in various periods are adequate to mainstream the environmental and social safeguard dimensions in the project preparation and implementation phases. This ESIA has given due attention on the above guidelines and standards in the identification and prediction of the project’s impact and in the design of the mitigation actions and monitoring protocols.

In 2019 the PMC published a Gazette entitled “Infrastructure Development Management Act”. According to this Act, the PMC will prepare a master plan of roads, set up road standards, and categorize roads within the metropolitan area. The PMC will also develop the transport operation standards, emphasizing mass transport system. In addition, the Act has the mandate to bring all the roads RoW and ownership of roads in metropolitan in the name of PMC.

Under the Constitution of Nepal, local governments have the autonomy to enact new laws applicable to their municipality. Where the local government enacts new laws alongside federal, provincial laws, the law which provides stronger protection with regards to environmental and social risk management will apply and supersede the weaker law.

### 3.2. The World Bank Safeguard Policies

Table 3-1 represents the World Bank Safeguard policies that are triggered in the sub-project environmental and social assessment.

Table 3-1. World Bank Safeguard Policies relevant to Project

World Bank OP	Objective & Brief Description
Environmental Assessment (EA) OP/BP 4.01	An Environmental Assessment is conducted to ensure that Bank-financed projects are environmentally sound and sustainable, and that decision-making is improved through appropriate analysis of actions and of their likely environmental impacts. Any World Bank project that is likely to have potential adverse environmental risks and impacts in its area of influence requires an EA indicating the potential risks, mitigation measures and environmental management framework or plan.
Natural Habitats OP/BP 4.04	The Natural Habitats Policy is triggered by any project (including any subproject under a sector investment or financial intermediary loan) with the potential to cause significant conversion (loss) or degradation of natural habitats, whether directly (through construction) or indirectly (through human activities induced by the project). The policy has separate requirements for critical (either legally or proposed to be protected or high ecological value) and non-critical natural habitats. The Bank’s interpretation

World Bank OP	Objective & Brief Description
	of “significant conversion or degradation” is on a case-by-case basis for each project, based on the information obtained through the EA.
Forestry OP/BP 4.36	This policy is triggered by forest sector activities and other Bank sponsored interventions, which have the potential to impact significantly upon forested areas. The Bank does not finance commercial logging operations but aims to reduce deforestation, enhance the environmental contribution of forested areas, promote afforestation, reduce poverty and encourage economic development
Physical Cultural Resources OP/BP 4.11	The Bank seeks to assist countries to manage their physical cultural resources and to avoid or mitigate adverse impact of development projects on these resources. This policy is triggered for any project that requires an EA.
Involuntary Resettlement OP/BP 4.12	Key objectives of the World Bank’s policy on involuntary land acquisition are to avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs; assist displaced persons in improving their former living standards, income earning capacity, and production level, or at least in restoring them; encourage community participation in planning and implementing resettlement; and provide assistance to affected people regardless of the legality of land tenure. The policy covers not only physical relocation, but any loss of land or other assets resulting in relocation or loss of shelter; loss of assets or access to assets; loss of income sources or means of livelihood whether or not the affected people must move to another location. When the policy is triggered, a Resettlement Action Plan must be prepared. An abbreviated plan may be developed when less than 200 people are affected by the project. In situations, where all the precise impacts cannot be assessed during project preparation, provision is made for preparing a Resettlement Policy Framework. The Resettlement Action Plan / Resettlement Policy Framework must ensure that all the Bank’s policy provisions detailed in OP 4.12 are addressed particularly the payment of compensation for affected assets at their replacement cost

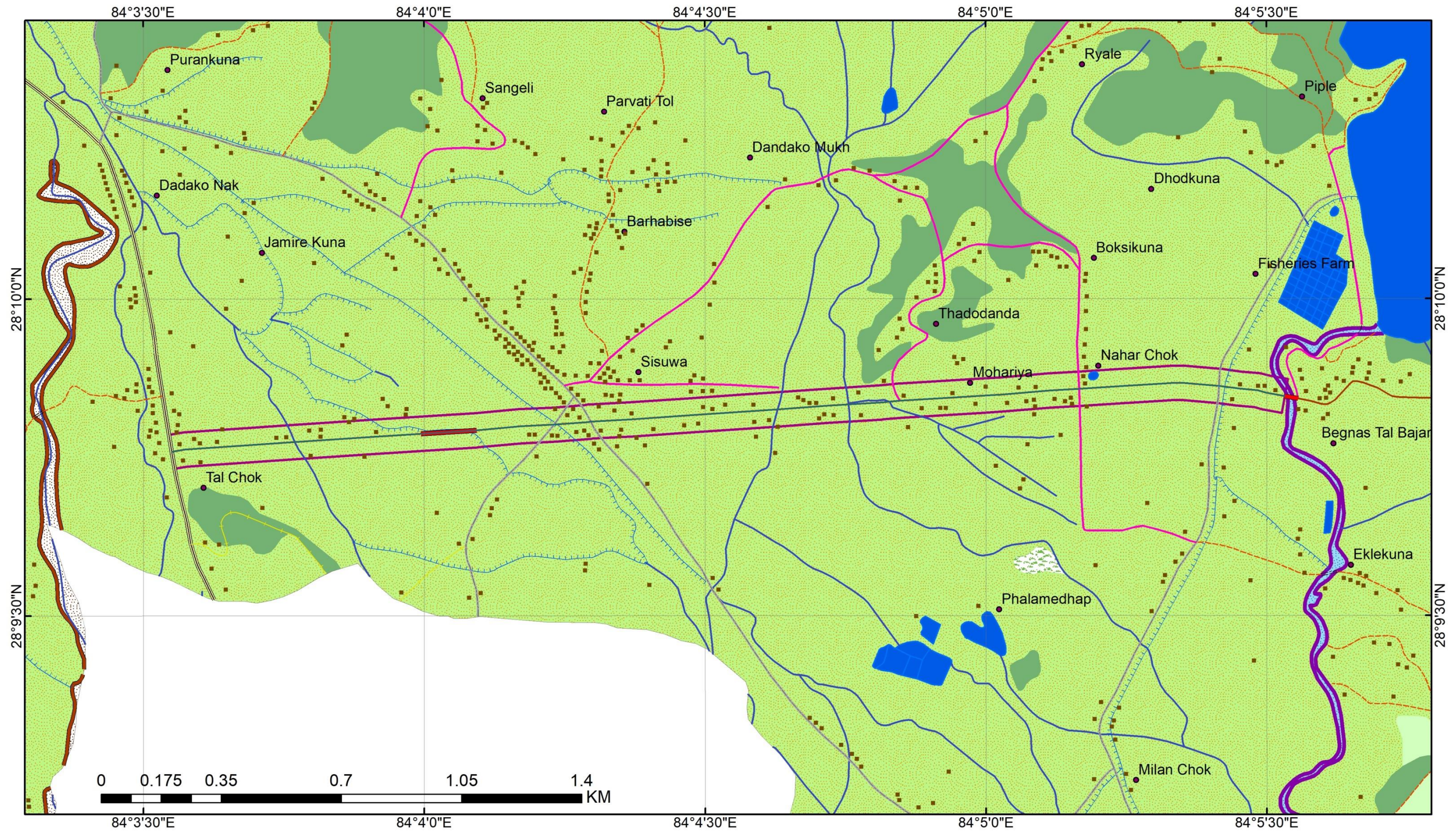
## **CHAPTER 4: ENVIRONMENTAL AND SOCIAL SCREENING, SCOPING, IMPACT IDENTIFICATION, PREDICTION AND MANAGEMENT**

### **4.1. Introduction**

This chapter is on environmental and social impacts in terms of magnitude, extent and duration likely to occur during construction and operation phases. The issues are separated as beneficial and adverse environmental impacts, including direct, indirect, and induced impacts in the project influence area. The impacts will be related to activities to be carried out during construction of the project and the operation stage of the project. The operational phase impacts of the project will be associated with the activities carried out within the premises. In addition, closure and decommissioning phase impacts of the project are also highlighted. The impacts of the project during each of its life cycle stages (construction, operation and decommissioning) can be categorized into impacts on the biophysical environment, health and safety impacts and socio-economic impacts. The Environmental and Social Management Plan (ESMP) will have measures to avoid, minimize, mitigate, and compensate the adverse impacts and measures to enhance the beneficial impacts. Based on the Safeguard Policies OP/BP 4.01 and OP/BP 4.12 are triggered

### **4.2. Zone of Influence of the Project**

Direct Impact area of the project is considered as RoW of the project. Similarly the Indirect impact is fall within 50 meter from the edge of the RoW and the impacted Wards are 27,30 and 31. Likewise, other areas that are directly affected by the project in an environmentally and socially adverse manner are considered part of the area of influence of the project.



**Legend**

- |                    |                  |               |            |              |           |             |              |               |
|--------------------|------------------|---------------|------------|--------------|-----------|-------------|--------------|---------------|
| 50m_RoW_Begnas_DIA | Bridge on Roads  | District Road | Highway    | Canal        | Stream    | Cliff       | Grass        | Structure     |
| ZoI Buildings      | Bridge on Trails | Foot path     | Main Trail | Pond or Lake | Waterbody | Cultivation | Pond or Lake | Waterbody     |
| ZoI Settlement     | Cart Track       | Ford          | Other Road | River Bank   | Bush      | Forest      | Sand         | Talchowk Road |

Figure 4-1. Direct Impact Area is RoW (30meters)

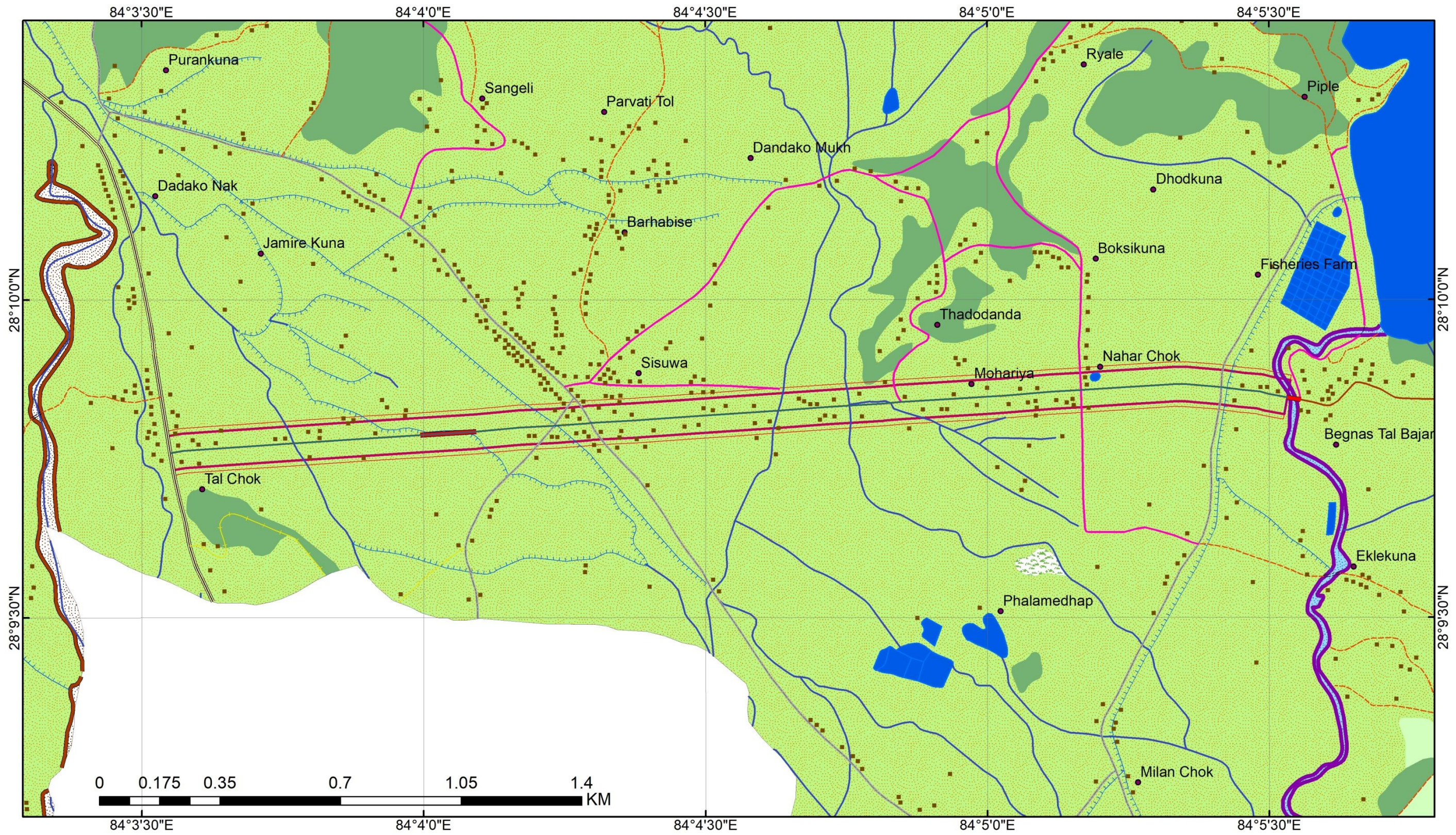


Figure 4-2. Indirect Impact Area with 50 for the Edge of the RoW showing landuse Pattern with Buildings

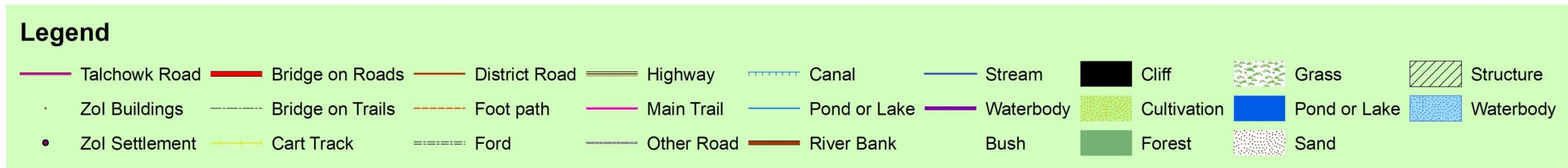
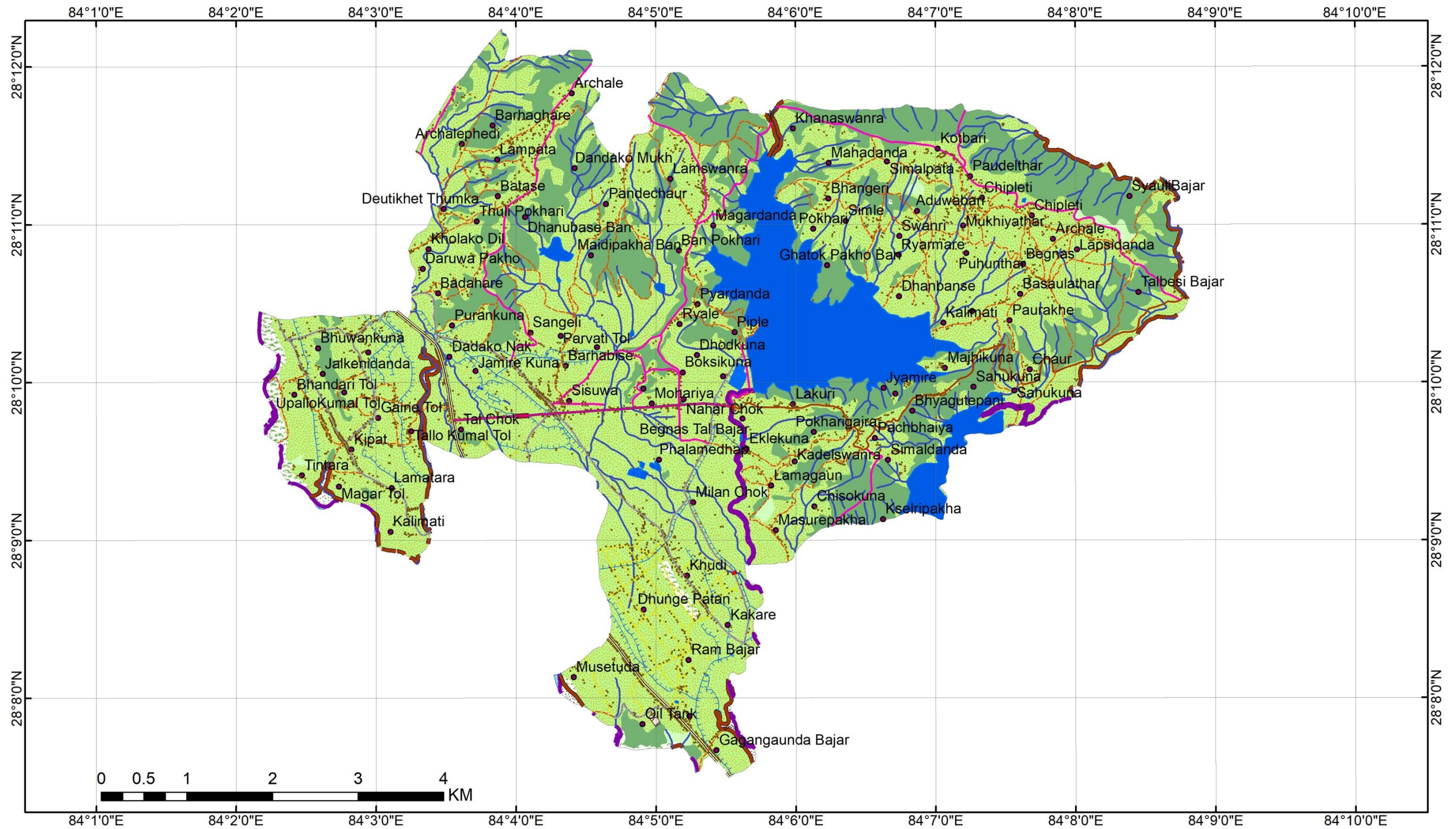


Figure 4-3. Zone of Influence Map

### 4.3. Environmental and Social Screening Checklist

Table 4-1. Checklist for Environment Screening

SN	Particulars	Yes	No	Can't Say	Remarks
	Is the site vulnerable to major natural or induced hazards such as landslides flooding storm surge, Severe wind damage, earthquakes, fire, explosion, others (specify)	Yes			Possibility of Earthquake Natural Disaster only
	Is the project area adjacent to or within any of the following environmentally sensitive areas? Cultural heritage site historical religious traditional or cultural significance Protected areas national parks wildlife reserves hunting reserve conservation areas buffer zone etc. Wetland/Ramsar site/Simsar Forest Special areas for protecting biodiversity Breeding/ nesting ground of wildlife occurrence of migratory species Migration route Wildlife Corridor Any site of national or International Importance	Yes			It is near the Begnas Lake which is a Ramsar Site which is approximately in 600 meter distance from the project site. This doesn't trigger the conservation area protection requirements by GoN and Ramsar Convention.
	Likely impacts on trees including Timber and fruit bearing and vegetable cover	Yes			It is in RoW belonging to PMC. 10 seedlings will be planted for every tree to be cut
	Possibility of degradation of land and ecosystem of surroundings		No		
	Is the project area densely populated?	Yes			Appropriate mitigating measures are in the ESMP to prevent environment and social impacts
	Heavyweight development activities big Industries nearby and Type		No		
	Alteration of surface water hydrology of waterways due to the project resulting in increased sediment in streams affected by increase soil erosion at construction site?	Yes			Appropriate mitigating measures in ESMP
	Chance of deterioration of surface water due to silt runoff and sanitary waste from worker base camps and chemicals used in construction	Yes			Appropriate mitigating measures in ESMP
	Does the sub project require significant extraction of surface or groundwater		No		
	Increased risk of water pollution from Oil grease fuel spills and other materials		No		

Impact on water quality due to release of sewage sludge	No	
Possibility of flooding due to sewage	No	
Possibility of increased air pollution during pre-construction and operation phase	Yes	Dust control as mitigating measure in ESMP
Other pollution concerns relating to the inconveniences in living conditions that may trigger cases of Upper respiratory problems?	Yes	During construction, appropriate mitigating measures are in the ESMP
Risk and Vulnerabilities related to occupational health and safety due to physical chemical biological hazards during project construction and operation	Yes	Physical and Chemical Hazards only, No Biological hazards
Noise and vibration due to Civil works	Yes	Appropriate mitigating measures in ESMP
Possibility of poor sanitation and solid waste disposal	Yes	Appropriate mitigating measures in ESMP
Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents	No	
Accident risk associated with pre construction and operation phases	Yes	Vehicle accidents, work related hazards etc.
Large population influx during project construction and operation that causes increased burden on social infrastructure and services such as water supply and sanitation systems	No	
Risks to community health and safety due to transport storage and use of construction materials such as gravel and sand and all other disposable Fuel and other chemicals during construction and operation	Yes	Fire hazard, occupational hazard, obstruction due to storage of materials etc.
Interference with other utilities and blocking of access to resource utility and households with entrances in the ROW	Yes	
Generation of solid waste and hazardous waste during construction and operation of project	No	

Table 4-2, Checklist for Social Screening

SN	Particulars	Details
	Proposed Site Location	
	Land Requirement for the Project	It is an up-gradation of existing road so not land required.
	Land ownership off the project area by the government or private Lanes	Government
	Does the project requires acquisition of government land structures?	No

	If please mentioned the area of land, number of affected structures households	
	Present use of government land that will be used for the project activities with persons households using	No
	Does the project required acquisition of private land and structure? If yes please mention the area of land number of effective structures houses	No
	Present use a government land that will be used for the project activities with persons households using for agriculture residential commercial and other purposes	The land will be used for the construction of the project only.
	Does the project require relocation of encroachers and squatters If yes please elaborate number of it and nature	No
	Does the project require relocation of community facilities government establishment or any objects that are out of religious and cultural and historical significance	Yes relocation of Temple (Small Durga Temple) of CH1+230 to the space between green zone and cycle area where 2.5m space is available in same chainage. Bus passenger waiting area of CH 1+220 has been shifted to CH 1+260 on both sides and waiting area of CH 2+630 has been shifted to CH 2+500 on both sides.
	Proposed project located in an area where residents are All mainstream Indigenous people Majority mainstream are non-indigenous people Majority indigenous people	Majority mainstream are non-indigenous people
Potential social impacts of the project		
	Involuntary resettlement of people? (physical displacement and economic displacement)	Resettlement is not required in this project
	Impacts on the poor, women and children, indigenous people or other for vulnerable groups	No such impact on poor women and children, indigenous people, and/or economic displacement.
	Will Community facilities require relocation?	Yes, watersupply pipes from the existing road section will be shifted to beneath the footpath of new road section
	Will the sub project disturb any traditional activity on adjoining or nearby	No
	Poor Sanitation and solid waste disposal in construction camps and work sites	Yes
	Possible transmission of communicable diseases such as STI and HIV AIDS from workers to local population	Yes, it is possible as large influx of labors will be in

		project site during construction phase
	Population influx during project construction and operation that causes increased burden on social infrastructure and services such as water supply and sanitation systems	Yes
	Social conflicts relating to inconveniences in the living condition while the construction interferes with preexisting roads	Yes
	Describe any other impacts that have not been covered in the screening	Gender-based violence; road stability and management; impact on Lekhnath Water Supply system and Electric poles; impact on existing infrastructure
	Describe alternatives if any to avoid or minimize displacement from private and public lands	No such displacement from private and public lands
	RAP /ARAP requirement	Yes RAP

#### 4.4. Impact Summary

##### Overall Impact Summary

Summary	Proposed Road
<p><b>What are the main potential environment and social issues/ risks /impacts/ concerns and/or potential positive impacts</b></p>	<p>The major positive aspects of road improvement project include easier transportation facility, decreased travel time, decreased travel cost, increased employment opportunities, increased land value, and fostering the community-based tourism industry. The sub project component will most likely create the opportunities for local contractors and suppliers of the construction materials therefore stimulating income generation opportunities for local and employment for the low-skilled local workers. The subproject provides accessibility to 5 schools, 1 temple and 2 hospitals. Similarly, 1 religious tree (Chautara) of CH 0+880(left side), 5 taps at left side of the road alignment and 2 bus waiting areas (CH1+220 right side and CH 2+630 right side ) including two major natural drainages (CH 0+880 and CH 3+260) along the alignment are likely to be affected during the time of construction. Of the number of tress affected, none of them are related to have livelihood harvesting use.</p> <p>The environmental impacts like air, water, noise pollution, obstruction to drainage, issues of waste, issues related to health and safety (accidents), obstruction of natural drainage, issues related to</p>

	management of traffic, labor camp, spoil disposal area (specific impacts are also spelled out in impact section of report)
<b>Expected positive impacts/benefits to the local communities</b>	The improved economic access to the areas will potentially make them more attractive for business and investments thus stimulating economic growth and employment opportunities. The proposed sub project will help to provide in easy road access, reduce travel time, provide travel and transportation cost saving, promote employment generation, provide easy access to social service facilities, promote market creation for local product, increase land values as beneficial impacts related with the road improvement project. These positive impacts have to be enhanced adopting appropriate benefit augmentation measures up to the KhudiKhola Bridge. Other positive impacts of this sub-project include socio-economic benefits, environmental benefits, disaster risk management, climate resilience.
<b>Options Analysis</b>	The road already exist and only upgrading work is required. The ROW is clear, minor issues can be mitigated and managed through proper mitigation measures outlined in ESMP. An alternative route will be used by the road users during the construction phase. ESIA team has identified DandaNakh to Sisuwa Chowk as one of the alternative route which could be used during the construction period. This is already in operation (black top road with clear RoW, with no environmental and social issues) Considering all the above, no alternative analysis of proposed project is required.

### Impacts as per the National EIA Guidelines Numerical Scale

Numerical Scale mentioned in National EIA Guidelines (1993) is used to analyze the impact of the proposed subproject. The numerical scale is presented in **Error! Reference source not found.** The combine score below 40 shall be termed as insignificant impact (IS). The scores ranging between 40 and 79 shall be termed as significant impact (S), scores ranging between 80 and 99 shall be termed as very significant (VS) and the scores above 100 shall be termed as highly significant impact (HS).

## 4.5. Adverse Impacts - Physical Environment (Pre-Construction and Construction Phases)

### 4.5.1. Land use

The land within RoW was acquired in 1977. The acquired land is permanently converted within the width of the proposed road. Hence, impact from construction will be direct in nature, low in magnitude, site-specific in extent and of long-term in duration. The indirect area of influence adjacent to RoW contains built structures and cultivated lands.

#### 4.5.2. Quarry operation

The construction of road will require boulders, sand and aggregates in activities like gravelling, construction of retaining walls and other structures. The quarry site will be from the government approve side. The contractor will obtain such materials from the licensed contractor (who has also obtained environmental clearance from the concerned entity) Those places if not restored properly, might lead to other environmental problems, such as river bank cutting leading to erosion of agricultural area. The other potential adverse impacts of quarrying are accelerated erosion, disturbance in natural drainage patterns, water logging and water pollution. The random excavation and collection of boulders from inside the Kotriver can even destroy the spawning ground of fishes. The proposed two quarry sites are at Kotre, 9.5 km from the project site, which is a government-approved site easily accessible from the highway (Figure 4–4). The Kotre site quarry site environmental clearance report must be provided by the supplier prior the supply of raw materials for the road rehabilitation. Anticipated impacts due to transporting construction materials will be direct in nature, medium in magnitude, local in extent and of short term in duration.

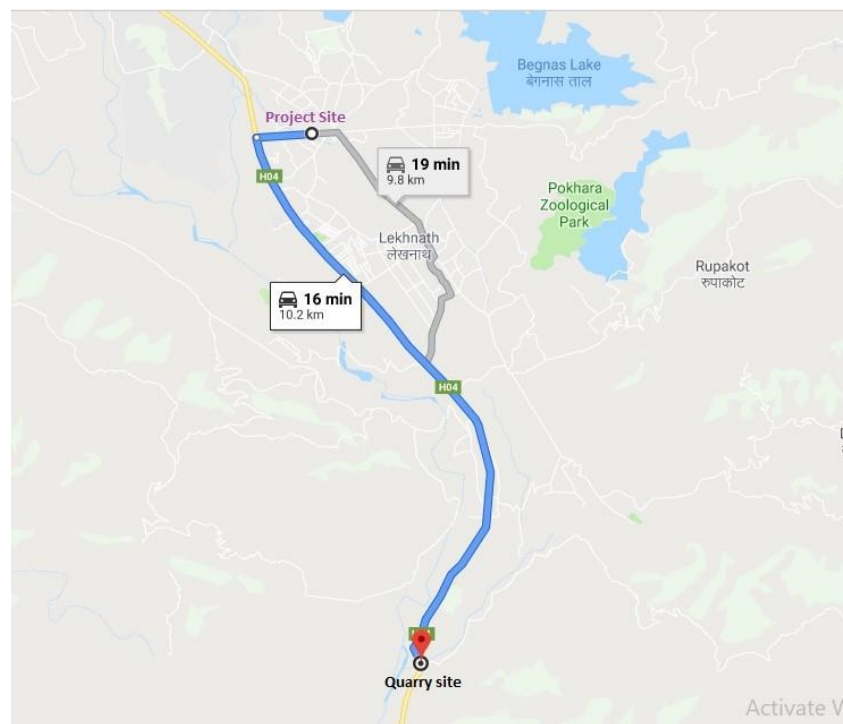


Figure 4–4. Distance between the Project and Quarry Sites

#### 4.5.3. Stockpiling area and construction material

The construction materials need to be stockpiled on the land near to its application site. Stockpile of material may change the landscape and land use for a certain period. The impact will be direct in nature, medium in

magnitude, site-specific in extent and of short term in duration. The site for the storage and stockpiling will be assessed upon the finalization of DPR.

#### 4.5.4. Noise, air and water pollution

The main construction activities that cause air pollution are earth works (excavation and dredging), asphalt plants etc. These activities generate dust and noise, which directly affect the air quality. In addition, vehicles and machinery emit smoke and fine particles. These substances will increase the local air pollution significantly during the construction stage. Burning of fossil fuels would result in far more environmental pollution due to emission of sulfur oxides (SO<sub>x</sub>), nitrogen oxide (NO<sub>x</sub>), carbon dioxide (CO<sub>2</sub>) and particulates.

Noise impacts will be significant during construction periods due to increase of vehicular movements and machinery equipment. The contaminated soil, oil or bitumen from construction activities if disposed near to river/stream affects aquatic fauna and flora. The construction debris, paints, oil and grease is likely to create water pollution both surface and subsurface. The dust and silt from the construction sites will also create water pollution of the receiving streams. The water pollution during the demolition of Khudi Bridge is also one of the major concern of the project. If workers living in tents/camps do not have access to toilet facilities, open defecation may be practiced, which may contaminate water sources, causing health problems.

The anticipated impacts on air, noise and water pollution will be direct in nature, low in magnitude, local in extent and of short-term in duration.

#### 4.5.5. Solid waste generation

Some quantities of solid waste will be generated as a result of clearances, excavations and the final construction of the selected roads. Such waste will consist of surplus materials, surplus soil and excavated materials among others. Such solid waste materials can cause negative impacts to the environment through blockage of drainage systems, choking of water bodies and negative impacts on human and animal health.

Table 4-3 Environmental Mitigation Plan for the use of construction equipment

Environmental feature	Project Activities	Material/equipment to be used	Impacts/Waste generated	Mitigation measures
LAND	Planning and Design Phase	No anticipated physical activities or processes		
	Site clearance	Caterpillars Power Saws	Cut vegetation Rock debris Noise by power saw	Top soil to be reused for tree, flower plantation, remaining soil to be used for backfilling. Wood to be used for multiple uses by local people

<b>AIR /LAND</b>	Excavation/earthworks including removal of top soil	Excavation equipment including caterpillars and haulers	Noise Roots Soil Vibration	Top soil to be used for agricultural field, plantation. The photographic and videographic evidences of structures prior the construction are recommended to find the status of the structures prior the construction. Less noisy and less vibrating equipment selection are recommended. The noise barriers in susceptible receptors like in schools are proposed (e.g.double glazed windows)
	Transportation of materials and maintenance of equipment	Trucks	Used oil, lubricants, air fumes etc.	Reuse, regular and periodic maintenance
<b>WATER</b>	Building materials/construction materials	Cement, soil, timber ,glass, bitumen, oil paper, piles, water and other wastes	Stone, timber broken glass, waste water, plastic, greases spills	Follow 3 R approach
<b>WASTE</b>	Human consumables	Stationeries, medicines, reagents, waste food and water	Used paper, thrown-away clothing, computers, photo	Sell waste paper to dealers. All obsolete materials should be carefully sorted, stored and sold to dealers. Waste from toilets of camps should be managed properly (septic tank)

**4.5.6. Road stability and management**

During the operation phase, heavily-loaded vehicles may frequently pass through this route to haul raw materials, which may result in the destabilization of the road. On top of that, natural erosion, inadequate or inappropriate drainage work, faulty construction may also damage the road. The impact will be direct in nature, medium in magnitude, site specific in extent and of long term in duration.

**4.5.7. Water pollution**

The inappropriate driver practices connected with car/truck washing in streams and rivers which can cause local water pollution by leakage of fuel, lubricants and hydrocarbons can cause hazardous to people, animals and crops. The impact will be indirect in nature, low in magnitude, site specific in extent and of long term in duration. Drainage management to for water clogging and regular cleaning.

## 4.6. Adverse Impacts - Biological environment (Pre-Construction and Construction Phases)

The TalChowk-BegnasRoad passes through agricultural land with residential houses and commercial establishments. Neither private nor government forest areas are nearby or along the road alignment. There are no houses or buildings on government land. The common tree species observed within the ROW of the road during the field visits are Sisau (*DalbergiaSissoo*), *Neem (Meliaazedarach)*, *Saracaindica*, *Pipal (Ficus species)*, *Kapur (Cinnamomumcamphora)*, *Musa paradisiacal* and *Bamboosa vulgaris* which are mostly planted. During the focus group discussions (FGDs), local people said that paddy and vegetable are grown within the ROW in some parts of the road section which are seasonal. All the vegetation including trees and agriculture within the ROW, and which need to be felled, were assessed and inventoried, and a summary is presented inTable 4-4. One religious Pipal tree in the RoW which is at chainage 880 meter will be protected and will not be removed. The impact will be direct in nature, medium in magnitude, site specific in extent and of long term duration.

Table 4-4. Summary of the vegetation and tree species found within the RoW of the road to be felled

Description	Total	Remarks
Number of trees	22	Including 3 fork stand (standalone trees are 19)
Volume of trees	836.79 cft	
Number of poles	135	Including 19 fork stand (standalone poles are 116)
Volume of poles	481.88 cft	
Total Sapling/Shrubs	237	
Total Seedlings/Herbs	131	When and where it will be plantedis in ESMP, including types of species and maintenance

## 4.7. Adverse Impacts- Socio-economic and Cultural (Pre-Construction and Construction phases)

### 4.7.1. Impact on Physical Resources

#### a) Effect of Change in Land Use

The widening and upgrading works of road formation and drainage construction will be within the existing ROW, therefore additional land will not be required. Site-specific major works, such as intersection improvement, bank stabilization and drainage improvement also will not require additional land. The major component of the sub-project is the earth-filling necessary for road widening, and borrows pits for earth and gravel need to be identified. The extraction of earth from nearby areas will cause depression in the ground surface will result in water logging problems.

b) **Obstruction to Structures:**

During the construction phases, there will be obstruction to structures along the RoW of the road. The obstruction is due to change in elevation of the road. As per the DPR, 89 structures will be impacted. Project specific details are included in appendix H.

c) **Loss of Standing Agricultural Crops due to Construction**

There is no encroachment of any standing agricultural crops in the ROW. Therefore there is no loss of agricultural crops due to construction and no consequential income loss.

d) **Impact on Personal Business/Enterprise, Trade Shop/Fishery**

There are no personal businesses (for example, general stores, small cold stores), group business, registered companies, and business in processing production and manufacturing (including protective works, clothing and fish farming) present within the ROW. There are no businesses expected to be directly affected by the sub-project.

e) **Relocation of Temple and Public Utilities**

A small Durga Temple (CH 1+230 right side) built by a women's group near to Sisuwa Chowk is within the RoW and requires reallocation. Stakeholders including the women's group are not against the relocation of the temple, and have provided written consent for the unconditional relocation of the temple. There are two bus passenger waiting areas, one in Sisuwa Chowk (CH 1+220 right side), and the other in Mohoriya (CH 2+630), and another 2 Bus Operation Committee Contact Booths are in front of new light Boarding School (CH 1+220), which lie within the RoW and need to be relocated prior to the construction phase.

f) **Disruption of Water Resources Related Infrastructure**

Despite the careful planning, five water taps and three small irrigation channels (CH 1+120, CH 1+760 and CH 3+070) for local use and a potable water supply (Lekhnath Water Supply Scheme) system will be affected by the construction activities. Those water taps will be shifted on the same chaingae in the area of green zone of 2.5m. Culverts are designed for those irrigation channels and the existing Lekhnath Water Supply Scheme will be relocated underneath the footpath of new road section.

## **4.7.2. Impact on Social Services and Cultural Resources**

a. **Education (School Buildings)**

The existing educational establishments are not located within the ROW but one Private Boarding School (New Diamond Boarding School) is located near to the ROW. Even though the project does not directly

cause inconvenience to the school, and only school buses are parking in the road edge, their access may be hindered and inconvenienced during construction work.

**b. Temporary Disturbances in House Owner's Mobility and Shop Consumer**

- c. 12 households and 6 shopkeepers may not be able to access their home or shop where construction will be carried during the construction period however it would be for very short time and temporary in nature. Some temporary structures during the construction would be made and permanent ramp is provided for those houses in the DPR (included in BOQ).

**Road Safety Concerns and Health and Sanitation in Community**

During the construction phase, an increased number of construction vehicles will be plying the road therefore accidents may be more likely to occur. Hence, more stringent traffic management measures and information signboards need to be placed with the precautionary measures. The haphazard disposal of construction waste will adversely affect the sanitation environment in the area and this problem needs to be minimized through regulatory measures and public awareness. However the road may pose some adverse impacts on the environment at the operational stage, such as increase in traffic accidents due to higher vehicles speed, which must be controlled by putting up speed limit signs and enforcing them. It is recommended that traffic signs are placed at appropriate locations for road safety purposes. The movement of trucks and other equipment in the project area during the works implementation will cause noise and dust if the works will be in dry weather. This noise and dust may also affect the businesses in the vicinity of the construction works.

**d. Occupational Health and Safety**

Because of the engineering and construction activities including minor excavations, concrete work, and sub-base stone lying among others, construction workers will be exposed to risks of accidents and injuries. Such injuries can result from the hand tools and construction equipment and risk of vehicular accidents to local residents.

**e. Social Disturbance / Risk of GBV and HIV AIDs**

The construction works may cause disturbance to the local population with interactions of non-local workers with residential communities. The trafficking of girls and women can arise during the construction phase. Further, it may lead to GBV at household level and afterwards because the frequency of visitors or tourists may increase. This project may lead to an influx of commercial sex workers into the township or lead to contractor workers and other personnel engage in risky sexual behavior that may lead to infections in HIV-AIDS or other sexually transmitted diseases.

#### **f. Traffic Management Issues**

The flow of traffic along or near the proposed area will be affected and diversions would require managing traffic. Safety barriers and warning signs need to be erected for safety. Half width working approach with signalized traffic control will be adopted to manage the traffic. During the construction phase the school going children might face problems in crossing the roads and walk in the side alignment of the road, especially in rainy season. Safety barriers and warnings signs will be erected where required to ensure safe movement of traffic. An alternative route will be identified to ease the flow of vehicles especially during the rush hour, peak travel periods to ease road congestion.

#### **4.8. Adverse Impacts – Socio-economic and cultural (Operational Stage)**

There are expected to be no adverse impacts on the local economy during the operational stage, and significant long-term benefits are expected to arise from the proposed sub-project. However, the market will be competitive and the urbanization and semi-urbanization effect may contribute to a higher cost of living. The scale and trend of plotting of agricultural land will increase and there are possibilities of converting the agriculture land into residential and commercial areas. Some industries that are located near the road may also have tendency to relocate to other places with the purpose of developing their properties as commercial areas.

#### **4.9. Beneficial Impacts - Social-economic and cultural (Pre-Construction, Construction Phases)**

##### **4.9.1. 4.6.1 Employment Generation and Increase in Income**

The sub-project will generate skilled and unskilled employment opportunities throughout the project life—from construction to operations. Priority will be given on sourcing labor requirements locally. In cases that skilled workers are not locally unavailable, they will be recruited from other parts of country. The labor requirements of the different stages vary, creating a cycle of recruitment and termination. Aside from the income generation resulting from employment, those who will be given the opportunity to work for the project will also benefit in terms of gaining experience and training. The enhanced qualifications will empower them to get other jobs if terminated or recruited by other companies. Their acquired skills, and earnings from their income received, may also be useful in setting up their own business or services. Those employed by the project and those who are gainfully earning from businesses induced by the operations of the project will be in a better position to send their children to school. Undoubtedly, project impacts can be considered significant, positive, long term, and cumulative people lives changed for the better. The residual impact is the up-lift of the quality of life of the sub-project beneficiaries.

#### **4.9.2. 4.6.2 Increase in Trade and Business**

Business opportunities are created during the construction and operation of the road for products and services such as basic building materials, construction equipment, laundry, clothing, food services, cleaning services, excavation, construction material supply, etc. Indirect economic impacts will also occur from increased demand for products and services due to the increased workforce in the area. Business opportunities are greatest during construction and will continue though at a reduced rate during operations. Business opportunities are a positive impact to host communities which has a multiplier effect. Other members of the households that are engaged in lucrative businesses also benefit from the income generated. It is significant since it affects a wider portion of the local population and has long term benefits such as when children and dependents get better education and health care. The improved road condition will welcome more tourists into the area, which can help women and persons with disabilities to start their own business.

#### **4.9.3. 4.6.3 Development of Social Services**

Increased employment opportunities, trade and business and other income opportunities will direct considerable amounts of money into the local economy in the area. This will logically increase the income level of the individual household and the local body of the area. In the situation when the increased amount of resources, as well as local bodies, this can help to improve social services such as education/school and health care services.

### **4.10. Beneficial Impacts – Social and cultural (Operation stage)**

The qualitative beneficial impacts that are likely to occur when the rehabilitated road is in operation are as follows:

#### **4.10.1. Improved Transportation Facilities and Decrease Congestion**

The rehabilitation and upgrading of the road will produce benefits through better access and mobility and effective transportation facility. The transportation of goods are expected to become cheaper, particularly vegetables and livestock. Importantly, the journey will be more comfortable, the wear and tear of the vehicles will be less, and fuel and maintenance cost of the vehicles also will be less, which will lead to an increase in private savings.

#### **4.10.2. Rise of Land Value**

Road upgradation often leads to increased land values along the road corridor and subsequently enhances local peoples/farmers' capability for borrowing loans on collateral. High value lands are acceptable to banks

and financial institutions to provide loans. This impact will be an indirect, high, significant, local and long-term in nature.

#### **4.10.3. 4.7.3 Improvement in Trade and Business**

The improved road surface will ensure continued and smooth flow of products and commodities. It is envisaged that trade and business activities will be further promoted not only in the area but also expanded into others areas having links to this road.

#### **4.10.4. 4.7.4 Increase in Tourism Sector**

Begnas Lake of PMC is a famous lake. Due to its recreational importance and natural beauty, the lake is a main attraction for international and national tourists. Hence the road improved transportation will help to promote this area as more easily accessible tourism areas also benefits the local economy.

#### **4.10.5. 4.7.5 Enhancement of the Social Services**

This sub-project will increase the availability of safe and quick access to social services, development of the economic center, and increase in economic levels, which will help to improve school education and promote higher education outside the sub-project area. Similarly, local people may spend more on health care, sanitary facilities, education facilities and other social services.

#### **4.10.6. 4.7.6 Enhancement of Mobility and Reduced workload**

The improved mobility will improve comfort for women, children and the elderly. School children, differently-able and elderly people will therefore benefit from this road after completion. The differently-able people will also benefit from improvement of this road as the road improvements include a cycle lane for wheelchair users and tactiles for the visually impaired and white-cane users. Different signs, lights and solar lights for the evening can make self-mobility easier. The improved road condition can help people walking along the foot paths, and using cycles and wheelchairs along the cycle lane. This can reduce the rate of accidents along this route. The workload of women may decrease after the construction of the road given that women may not have to wash clothes every day because of the reduced dust impacts from the upgraded road. Because of such changes, women will benefit from time saved.

### **4.11. Social Mitigation measures**

#### **4.11.1. Working conditions and management of worker relationship**

The Talchowk-Begnas road sub-project will provide reasonable working conditions and terms of employment, and will conform to requirements for working conditions established by national laws and WB safeguard policies. Nepali law requires equal employment opportunity. Based on experiences in similar

projects, it is estimated that 160 labor personnel is required for the sub-project. Talchowk-Begnas road project will give preference to the recruitment of qualified skilled and unskilled local villagers. Migrant workers will likely be engaged by the contractors during construction. The Talchowk-Begnas road project will contractually require the contractor to engage migrant workers on substantially equivalent terms and conditions to local workers carrying out similar construction work. During construction, temporary accommodations will be constructed by the contractor and in compliance with national and international standards for quality, security, safety, and professional competency and no forced labor will be used.

#### **4.11.2. Occupational Health and Safety (OHS)**

The policy applies to employees and contractors, including subcontractors. To protect the safety of workers, Talchowk-Begnas road project will provide safety equipment with reference to the provisions of Nepali Law and the World Bank Group Occupational Safety Guidelines. The Talchowk-Begnas road project is obligated to report on its occupational health and safety conditions to the PCO quarterly. In order to maintain a healthy environment for the labor force, the project management should put in place suitable measures to clean the environment associated with labor camps. This will include proper disposal of human waste. The contractor needs to put in place mechanisms for the collection of all wastes generated (solid wastes, organic wastes, food remains, garbage etc.), in the labor camps, segregate the various wastes and arrange for subsequent disposal through either efficient incineration or disposal in a sanitary landfill.

#### **4.11.3. Child and forced labor**

In conformance with Nepali law and the WB policies, Talchowk-Begnas Road project will not employ children under the age of 16. However, children above the age of 14 can perform some types of labour e.g. non-hazardous/non-harmful.

#### **4.11.4. Community health and safety and reduction of incidences of diseases**

As a precaution to prevent the spread of HIV/AIDS in the project area, the PMC and other stakeholders must organize and support education programs to create public awareness regarding HIV/AIDS and other sexually transmitted diseases (STDs). In order to protect the community members especially vulnerable groups such as women, children, infirmed and elderly from project workers, there will be a need for the project contractor to create awareness around STD prevention and contraception.

#### **4.11.5. Management of labor force**

The labor force engaged in the rehabilitation of the road and construction have the potential to degrade the environment of the project area as discussed in earlier sections of the ESIA. The project management should therefore put in place mechanisms to deter the work force from engaging in cutting of trees for fuel wood,

charcoal burning, and building material and for any other purposes. The contractor should use pre-fabricated material (which can later be retrieved at the end of the project) in building the labor camps. This will deter the labor force from unnecessary cutting and trampling of vegetation and enhance the protection of the scanty natural vegetation of the project area.

#### **4.11.6. Addressing Gender Issues in Construction, Operation and Monitoring**

During project construction and operation, the ESMP should be implemented and activities monitored via the project management system and in accordance with monitoring indicators. In the case of procurement of goods and services, the PCO should ensure that gender-related issues are addressed through terms of contracts and contractor management monitoring. Stakeholder engagement should be continued throughout the project lifecycle, together with any activities related to capacity-building. Receiving feedback from relevant stakeholders is a valuable monitoring tool and any grievance should be dealt with in a timely manner and efficiently. Progress of implementation of the ESMP including results of monitoring should be described in the annual report to the PCO on environmental and social matters. The PCO should also consider reporting gender-related issues as part of any public reporting.

#### **4.11.7. Limited access to elderly people and differently-able during construction**

Diversions and proper crossings should be in place along the road for elderly and differently-able people during the construction phase. Elderly people should have access to socialize and meet people and their families to nurture their mental needs and health. The design should incorporate disabled-people's needs and incorporate periodic maintenance of disabled-friendly designs. As the mobility of differently-able people will be impacted during construction, this should be addressed properly. After completion of the road improvement, training and using of such facilities should be arranged through the PMC.

#### **4.11.8. Safety to school children and pedestrians**

During the construction phase, other roads should be used or diversions established, and should be child, elderly and differently able person-friendly. Crossings near school areas should be safe, and the school area should be highlighted properly. An attendant from the school and/or from the contractor should be present at the school crossing during starting and closing times, or in peak traffic hours. Appropriate signage during construction and implementation should be displayed to enhance the awareness of potential safety hazards. After the completion of the road improvement, awareness should be created amongst school children, members from mother and women groups, and other pedestrians (people using the road everyday for work or business) of the road signs, and using the road safely through awareness-raising programs in schools, women groups, local media and FM radio.

## CHAPTER 5: RESETTLEMENT ACTION PLAN

### 5.1. Background and Objectives of the Resettlement Action Plan (RAP)

#### 5.1.1. Aims of the RAP

The aim of this Resettlement Action Plan (RAP) is to provide the policy and procedures of land acquisition, compensation and resettlement of affected persons, if required. It has been prepared based on the findings of a resettlement impact assessment undertaken during detail project design and from updated information collated between December, 2018 and September 2019. The assessment aimed to identify the impacts on property and income sources of affected persons with documentation of loss of land, houses, trees etc. within the construction width of the proposed road

This RAP identifies safeguard measures including compensation, resettlement and rehabilitation assistances to the affected persons, consistent with the provisions of Resettlement Policy Framework (RPF) provided in the NUGIP Environmental and Social Management Framework (ESMF). This RAP particularly addresses the following considerations associated with road improvement and upgrading works. Social considerations have been incorporated into the road design:

- Private and community resources affected by the project (e.g. houses and infrastructures, which require the provision of appropriate entitlements)
- Organizational and institutional requirements for the implementation of compensation, resettlement and rehabilitation activities
- Implementation schedules and monitoring mechanisms
- Compensation, resettlement and rehabilitation cost estimate

#### 5.1.2. Policy and Principles of the RAP

This RAP has been prepared based on the following policy and principles of the NUGIP ESMF and RPF, which are in harmony with GoN policies and the World Bank Policy on Involuntary Resettlement (OP 4.12). Both the WB policy and GoN legislation emphasize avoiding or minimizing involuntary resettlement. Where the acquisition of private property is unavoidable, involuntary resettlement should be an integral part of project design and preparation.

The acquisition of private assets and the displacement of people will be avoided or minimized to the extent possible, through the incorporation of social considerations into alignment selection and road design. Where asset acquisition and population displacement are unavoidable, the pre-project living standards of affected persons will be restored. Community consultation ensures people's views, concerns and suggestions are incorporated into implementation procedure.

An institutional framework will be developed as an integral part of the sub-project to ensure that appropriate social impact management mechanisms are set up and maintained during implementation. These mechanisms and arrangements will ensure that compensation, resettlement and rehabilitation are carried out timely and effectively.

## **5.2. Operational framework and Methodology of the RAP**

### **5.2.1. Operational Framework**

As the project authority, the PCO within the DUDBC will assume overall responsibility for the management procedures as mentioned in the RAP. Key activities to be undertaken to ensure effective implementation of resettlement, compensation and rehabilitation activities are:

- Implementation of procedures to (i) minimize adverse social impacts including acquisition of land and assets throughout the planning, design and implementation phases and (ii) accurately record all project-affected persons, by means of census and asset verification and quantification exercises, and the issuing of identification;
- Establishment of systems and procedures for the co-ordination of resettlement and compensation activities;
- Establishment or strengthening of grievance redress mechanisms at the Ward level or Metropolitan level where it is appropriate and practicable to address the social issues associated with the project. The objectives of this will be to: (a) ensure ongoing dissemination of project information to affected households, (b) structure, regulate and strengthen communication between roadside communities, (c) involve affected communities and local government structures in social impact management, grievance resolution and monitoring;
- Distribution of copies of the approved Entitlement Policy, and follow-up community meetings to ensure full comprehension of its contents;
  
- Capacity-building initiatives to create a supportive environment for the implementation of RAP activities, including training on accepted resettlement and rehabilitation practices, training in the establishment of compensation plans for affected household;
- Coordination with relevant government line agencies (as required)
- Collaboration with non-governmental agencies to provide grassroots expertise and resources in areas such as project information campaigns and impact monitoring.

### 5.2.2. Definitions

The following definition will be applied in the RAP:

- **Compensation:** The payment in cash or kind for private property acquired by the NUGIP/Metropolitan, based on replacement value as defined by the Compensation Determination Committee (CDC).
- **Compensation Determination Committee (CDC):** The district-level committee established under Section 13 (2) of the *Land Acquisition Act 2034 (1977)* to determine replacement value and compensation rates for property acquired under the Act.
- **Cut-off Date for Eligibility to Entitlement:** The cut-off date for eligibility to compensation and assistance will be the date of the joint census of affected households and affected assets. The cut-off date is August 20, 2019
- **Entitled Person:** Any person who is entitled to compensation due to the loss of privately owned assets and other rehabilitation assistance.
- **Project Affected Person (PAP):** Any person directly affected by the project through the acquisition of assets belonging to him/her of his/her household or community. This includes any person whose rights, standard of living, subsistence and income-generating capacity are adversely affected through the acquisition of assets, whether full/partial, or permanent/temporary.
- **Project Affected Family (PAF):** The group of people residing in one house and operating as a single economic unit, who are adversely affected by the project. Major children over the age of 18 years will be entitled to rehabilitation measures as outlined in the Entitlement Matrix but not to compensation for properties held by other members of the household.
- **Rehabilitation:** The measures taken to mitigate identified social impacts, including compensation, resettlement and rehabilitation and transition allowances where required.
- **Replacement Cost:** With regard to land and structures, “replacement cost” is defined as follows: For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes. For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors’ fees, plus the cost of any registration and transfer taxes.
- **Titleholder:** The person in whose name the project-affected land and/or building is registered and the person who is authorized by law to receive the compensation granted for the acquisition of land.

- **Tenant:** A person occupying/using land of a titleholder according to the stipulations of the Land Act, 2021 (1964).
- **Vulnerable Groups:** Social categories whose livelihoods may be particularly vulnerable to disturbances created by the project. These groups may include tribal groups, *Dalits* and landless persons who rely on access to local agricultural work and other support systems built up around the agricultural resources base.

### 5.2.3. Methodology

The methodology includes review of the sub-project DPR report to understand the project foot prints, visit of project sites by team of experts, and verification of physically and economically displaced households and structures.

A socioeconomic survey information of project affected wards 27, 30, and 31 were collected. In addition to it, 20% of the household survey were conducted from 50 meter each side from the edge of the RoW.

The cadastral maps and the list of land owners of the project alignment are included in Appendix J. Compensation for all land within the RoW was provided 40 years ago and now all land within the RoW is under the jurisdiction of PMC. Written evidence was provided by PMC confirming that all land within the RoW is under the ownership of PMC, and is included in Appendix O and P.

### 5.3. Assets inventory and relevant consultations

As noted above, the acquisition of all land within the 30 meter RoW was completed in 1977 and compensation for the land was provided in 1980 by the Government of Nepal. An asset inventory was carried out to determine structures which are still standing in the RoW. Consultations regarding the identified assets were organized with providing prior verbal notice to the concerned persons and institutions. Consultations were held during the period December 2018 to September 2019 including with the Lekhnath Water Supply Committee, the women’s group responsible for the Durga Temple, the Bus Operating Committee, and other affected persons. These structures and further details of the consultations are provided in the table below:

Table 5-1. Assets Inventory and relevant consultations

SN	Type of Asset within RoW	Details of Asset	Proposed Action	Consultations and Consent
1	Two bus passenger waiting huts, two ticket counters	One bus passenger waiting hut is located in Sisuwa	All structures will be relocated to the edge of the RoW before upgrading of the road commences.	Consultations were held with the Mohoriya Committee on 1 September 2019, and with the

SN	Type of Asset within RoW	Details of Asset	Proposed Action	Consultations and Consent
		Chowk, and the other is located at Mohoriya Chowk. Two Bus Operation Committee ticket booths are located in front of new light Boarding School.		Sisuwa Public Bus Shelter Committee on 2 September, 2019. The committees have provided “no objection”/consent for demolition and relocation of the bus passenger waiting areas. The project will allocate NPR450,000.00 for the construction of 1 bus shed, 2 ticket counter. Meeting was held with the ward and community representative and agreed to the project’s proposal. The consultation details and consent is enclosed in Appendix O.
2	Durga Temple	Newly constructed Durga temple. Women’s group, ChetansilMahilaSamuha, is responsible for management of the temple.	Propose to relocate the temple to an alternative location. Interacted with the women’s group, and ward and they have agreed to relocate temple to an appropriate place.	A consultation with the women’s group which established temple, ChetansilMahilaSamuha, was undertaken on 2 September, 2019. They are voluntarily willing to relocate and rebuild the temple in suitable place, and have provided consent that they do not wish to receive compensation. The consent letter and consultation details are enclosed in Appendix K. Relocation cost of NRs 250,000 is included in BoQ.
3.	145 electric and telephone poles	145 electrical poles are within the ROW	The poles require relocation. This is detailed under the physical impact and mitigation chapter.	Relocation of poles was discussed in a metropolitan level consultation meeting. Relocation costs of NRs 60,32,144.80 are provided in the ESMP and is included in BoQ..
4.	Main water supply pipe line of	The main water supply pipeline of	The pipeline will be relocated. Impacts and mitigation measures are	A meeting was held with the water supply committee and the

SN	Type of Asset within RoW	Details of Asset	Proposed Action	Consultations and Consent
	Lekhnath Water Supply System	the Lekhnath Water Supply System runs through the ROW and needs to be relocated prior to the commencement of upgrading.	addressed under physical environment impact and its mitigation chapter.	replacement cost estimate was provided by the committee, based on which replacement cost is calculated. Relocation costs of NRs 80,63,472.88 are provided in the ESMP and is included in BoQ.
5.	Relocation of 5 tap stands	Relocation cost of NPR25,000 per tap, for a total of NPR125,000.00	Needs to be removed in the pre-construction phase.	Discussions were held with users, ward and the funding agency (Nepal Red Cross). The users and ward has agreed to relocate in suitable places. Relocation cost is NRs1 50,000 and is included in BOQ.
6.	Structure of Mr Bastola	The structure falls within the RoW. The structures attached to a main house which is also by MrBastola and which lies outside the RoW. The structure is currently used as a small temporary shop.	The structure needs to be removed during the pre-construction phase.	A consultation with house owner was held and the owner has consented removing the structure within which falls in RoW. The owner will remove the structure prior commencement of construction. The owner has provided written consent/ commitment letter to relocate the structure, signed on 1 September 2019, which is provided at Appendix L.

#### 5.4. Grievance redress

As part of the implementation stage the PIU, PMC project engineers and Environment and Social staffs will directly interact and consult with the project affected persons. These would comprise of consultations towards relocation of the PAPs, relocation of cultural properties, and towards addressing the impacts on

common property resources (CPRs) such as places of religious importance, community buildings, trees, etc. With the implementation of the rehabilitation provisions in progress, consultations and information dissemination will be undertaken to let the affected persons informed of the progress. Implementation stage also involves redress of grievances in case of rehabilitation aspects as well as relocation of common property resources through the grievance redress mechanisms.

The affected persons and groups identified above will be able to raise any grievances related the relocation of the above assets with the subproject grievance redress mechanism (GRM), to help ensure the successful implementation of resettlement measures. At first instance, the project-affected grievant should raise their grievance with the information office of the project, and the information office will determine whether it can be resolved within the project, at the ward level, or whether another mechanism should be used. PAPs will be exempt from all administrative fees incurred, pursuant to the grievance redressed procedures except for cases filed in court. More details regarding the GRM are provided under Chapter 9 Grievance Redress Mechanism.

## 5.5. Entitlement Matrix

An Entitlement Matrix, as outlined in the ESMF, will be followed. Relevant sections of the entitlement matrix for the sub-project have been provided below:

Type of Loss	Entitlement Unit	Description of Entitlements	Implementation Measures
<b>1. House and other Structure</b>			
<b>Loss of structure</b>	Non-titleholder, Squatter on public land	Cash compensation for full or partial loss at replacement cost, according to building type.	Compensation for small temporary shop in RoW has already been received from the PMC, including relocation allowances, prior demolition of house.
<b>2. Community and Cultural Assets/ Facilities</b>			
<b>Loss of bus shelters</b>	Local Management Committee	Restoration of affected structures by the project leaving such facilities in a better condition than they were before; or cash compensation at full replacement cost.	NPR 150,000 has been calculated for the removal and reconstruction of bus shelter. Consent from bus operator has been obtained.
<b>Reconstruction of Lekhnath water supply system</b>	Concerned department	Restoration of affected structures by the project leaving such facilities in a better condition than they were before; or cash compensation at full replacement cost.	Calculation of cost for reconstruction of water supply system has been calculated and included in mitigation cost.

<b>Relocation of electric poles</b>	Concerned department	Restoration of affected structures by the project leaving such facilities in a better condition than they were before; or cash compensation at full replacement cost.	Compensation payment as per Nepal Electricity Norms for relocation of the poles should be completed prior construction. The cost for relocation is included in mitigation budget
<b>Relocation of five tap stands</b>	Local management committee/ user group	Restoration of affected structures by the project leaving such facilities in a better condition than they were before; or cash compensation at full replacement cost.	Cost for relocation has been provided. The relocation cost is included in budget
<b>3. Temples</b>			
<b>Demolition and relocation of temple</b>	Women's group	Restoration of affected structures by the project leaving such facilities in a better condition than they were before; or cash compensation at full replacement cost.	Unconditional, written consent has been obtained from women's group, secure funds for demolition and relocation.
<b>4. General Counseling</b>			
All project impacts	Persons within and adjacent to the road corridor	General counseling on project impacts; construction schedules and acquisition dates; valuation, compensation and grievance resolution mechanisms; construction employment procedures; and local development initiatives.	This will be achieved through the periodic distribution of information sheets and consultation with local officials. Cooperation with GoN ministries and departments such as Department of Agriculture, Forest Local Development to support effective resource utilization and community development.

## CHAPTER 6: SEA/SH PREVENTION AND RESPONSE ACTION PLAN

### 6.1. SEA/SH - National Scenario

Nepal ranks 118 out of 160 countries on the Gender Inequality Index<sup>11</sup>. In relation to that, most women face various kinds of violence throughout their lives. Violence against women is gender based where there is unequal distribution of power dynamic between men and women. The Nepal Demographic and Health Survey (NDHS) 2016 records that 23 percent of women experience physical violence, with significant differences across various social groups. The experience of violence is highest amongst Madhesi Dalit women at 44 percent, with the rate amongst Muslim women at 38 percent, and amongst hill Brahmin women at nine percent. By province, women's experience of physical violence varies from 12 percent in Province 4 up to 34 percent in Province 2. About 12 percent of women experience emotional violence with 17 percent to 19 percent amongst Madhesi Brahman Chhetri, hill Dalit and Newar women, respectively experiencing it. Seven percent of women age 15-49 have experienced sexual violence. Divorced, separated, or widowed women are much more likely to have experienced sexual violence (20 percent) compared with currently married women (8 percent) and never married women (2 percent). Women with only primary or no education are more vulnerable to sexual violence than educated women.

The current status of gender inequality and gender-based violence (GBV) in Nepal reveals the serious need to mainstream gender sensitivity and GBV risk mitigation measures, and more specifically, sexual exploitation and abuse, and sexual harassment (SEA/SH) risk mitigation measures at all organization levels and in all phases of project cycles. In Nepal, SEA/SH is prevalent due to unequal gender relations and discrimination towards women in both the public and private sphere. It has direct implications on the reproductive health status of women and on the physical, emotional, and mental health of their children.

Based on the SEA/SH Risk Assessment checklist and assessment carried out for NUGIP by the World Bank, the Project's SEA/SH risks are assessed to be "Low". An SEA/SH Risk Mitigation Action Plan has been developed for NUGIP based on this assessment and includes specific measures that aim to prevent and mitigate GBV, in particular SEA/SH risks that the project activities might trigger. The Plan has also addressed "Table – 1: Recommended actions to address SEA/SH Risks in IPF Projects" as per the "Good Practice Note" published by the World Bank in September 2018. The SEA/SH Risk Mitigation Action Plan

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<sup>11</sup>UNDP Human Development Report 2017

is included under Chapter 7 of the ESMF for NUGIP. The plan applies to all subproject under NUGIP and provides recommended actions for addressing and mitigating SEA/SH risks.

## **6.2. The Purpose of SEA/SH Risk Mitigation Action Plan**

The Pokhara subproject draws upon NUGIP SEA/SH Risk Mitigation Action Plan to address and mitigate against any SEA/SH risk during subproject implementation, and will make any adjustments as required to meet subproject specific SEA/SH risks that were identified during ESIA preparation. The purpose of the action plan is to identify the issues, stakeholders, possible service providers and assess their capacity and document the legal and institutional mechanisms that aid in accessing grievance redressal. The subproject will focus on sensitizing the communities and other stakeholders and strengthening institutional capacities. A survivor-centric approach is followed whereby all through the subproject, victim/survivors' care and providing access to different referral mechanisms are considered key aspects of this plan.

### ***SEA/SH Risk Mitigation Action Plan Principal and Approach***

The survivor-centric approach is a human-rights based approach which aims to create a supportive environment in which the survivor's rights are respected and in which she is treated with dignity and respect (UNICEF 2010). This approach helps to promote survivor's recovery and ability to identify and express needs and wishes, as well as to reinforce the survivor's capacity to make decisions about possible interventions (GPN – Addressing SEA/SH in civil works, World Bank 2020)

The key principals of this approach are:

- i) To treat victimized women and girls with dignity and respect instead of being exposed to victim blaming attitude.
- ii) Do not deal the issue through the feeling of powerlessness.
- iii) To maintain privacy confidentiality and safety instead of exposure.
- iv) Do not discriminate survivor based on gender, age, race/ethnicity, ability, sexual orientation, HIV status or any other characteristics.
- v) Enable timely access to quality services as required by the survivor
- vi) Ensure informed consent of the survivor since the survivor has the right to understand the options and decide whether to talk about the incidence or not

## **6.3. SEA/SH risk in the Talchowk-Begnas Road subproject area**

SEA/SH risks in the subproject were screened and assessed as part of the ESIA. During preparation of the ESIA, four FGDs which were conducted in the sub-project area, one of which was conducted with the only women group at Begnas Taal Ward 31 Office, and other three FGDs were conducted at Talchowk 27,

Sisuwa 30, Moeiya 31. Both FGDs undertaken at Ward 31 indicated that alcoholism and gambling were major social problems. Incidents of GBV were stated by the participants to be to occur on average between 3 to 6 times per month. In 1 to 2 cases, the survivor reached out to police office, and the remaining cases were resolved informally. As the area has some Dohori-Sanjha restaurants (night clubs) most of the incidents involve the refusal of customers to pay the service providers, and the consumption of alcohol. Participants of the FGD undertaken at Talchowk Ward no 27 indicated that a major social problem was also related to a Dhohori-Sanjha restaurant and the noise made by drug users. The FGD at Sisuwa Ward no 30 identified similar problems as in other FGDs. With Pokhara being a tourist spot, risk of child labour is also prevalent as well a commercial sex work leading to high risks of sexually transmitted disease.

#### **6.4. Additional SEA/SH Risks in relation to Labor Influx**

Amongst all required human resource needed for the subproject, skilled labour requirements will be less and unskilled labour will be high. All labour requirements cannot be met through hiring from the local community, for various reasons including worker unavailability and lack of skilled labour, therefore the contractor will hire labor externally according to need. In many cases, labor influx is compounded by influx of other people who appear in the project area along with the development of the project for various reasons including to seeking opportunities to sell goods, and services.

The social impacts resulting from labor influx are critical to address, as even a modest labor influx may lead to negative impacts on the host community. Pre-existing social issues in the host community, including those indicated above during the FGDs, can easily be exacerbated by the influx of labor. In the area of Talchowk-Begnas road project, a few cases of drug abuse and disputes after alcohol consumption in the night club has been observed which can increase with the influx of labor. Below are potential risks in the subproject area which are associated with labor influx:

- I. Risk of social conflict:** Conflicts may arise between the local community and laborers for various reasons. Tensions may also arise between different groups within the labor force, and pre-existing conflicts like high consumption of alcohol, drug abuse and dispute/fights in the local Dohori-Sanjha may be exacerbated.
- II. Increased risk of illicit behavior and crime:** The influx of workers and service providers into communities may increase the rate of crimes and/or a perception of insecurity by the local community. Such illicit behavior or crimes can include theft, physical assaults, substance abuse, prostitution and human trafficking. Local law enforcement may not be sufficiently equipped to deal with the temporary increase in local population.
- III. Influx of additional population followers:** Additional people who may move into the subproject area for a number of reasons. These can be people who expect to get a job with the project, family

members of workers, as well as traders, suppliers and other service providers. These people can also include sex workers who seek opportunities in new project area.

- IV. Burden on and competition for public service provision:** The presence of construction workers and service providers (and in some cases family members of either or both) can generate additional demand for the provision of public services, such as water, electricity, medical services, transport, education and social services. This is particularly the case when the influx of workers is not accommodated by additional or separate supply systems.
- V. Increased risk of communicable diseases and burden on local health services:** The influx of people may bring communicable diseases to the project area, including sexually transmitted diseases (STDs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health resources. Local health and rescue facilities may also be overwhelmed and/or ill-equipped to address the big accidents that can occur.
- VI. Child labor and school dropout:** Increased opportunities for the host community to sell goods and services to the incoming workers can lead to child labor to produce and deliver these goods and services, which in turn can lead to enhanced school dropout. Additionally, since the requirement for unskilled labor is high, child labor issues could potentially eventuate.
- VII. Increased pressure on accommodations and rents, traffic and inflation of price:** Depending on project worker income and form of accommodation provided, there may be increased demand for accommodations, which may lead to price increases and crowding out of local residents. Delivery of supplies for construction workers and the transportation of workers can lead to an increase in traffic, rise in accidents, as well as additional burden on the transportation infrastructure.
- VIII. Other SEA/SH related risk:** Construction workers are predominantly males of younger age. Those who are away from home for work and separated for long periods from their family may act outside their sphere of social control. This can lead to inappropriate and criminal behavior, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations with minors from the local community.

## 6.5. Mitigating against SEA/SH risks

Mitigation measures against the risk of SEA/SH in the subproject are outlined below:

- a. Reduce labor influx by using local manpower:** Use of locally available labor is an effective mitigation measure against labor influx. The contractor can recruit unskilled labor locally and for skilled labor, which is comparatively lower in number can recruit locally as well as borrowed as required. For skilled labor, training should be provided to local workers to help maintain the road in the long term. Such trained

staffs are needed afterwards for the operation and maintenance of the road on regular basis and by providing training for the locals is beneficial for both community and the contractor.

- b. Awareness programs:** Both the workers and the locals should receive awareness programs related to possible problems they might face during the project period. The risk of conflict between laborers and the community and conflict within labors, SEA/SH, women trafficking, sexually transmitted disease, HIV AIDS are the topics on which awareness should be raised amongst both the laborer and community. This could be achieved through programs in schools and communities, for women working in DohoriSanjha, messages through local FM radio, and placing hording boards with messages in appropriate places.
- c. School-Based Awareness Programs:** The road alignment has four schools, with almost half students being girls. School-based awareness programs should conducted to inform the students about the possible risks and harms they might face during construction of the road. These awareness programs can teach them about accepting gifts, ignoring verbal assaults and other labor-related issues, and reporting incidents to the authorities so that the authorities can assist in preventing further incidents.
- d. Management of Alcohol and drug abuse:** The open market of alcohol should be managed and monitored by local authorities. The Code of Conduct (COC)for laborers should clearly mention that consumption of alcohol and drug abuse in the host community is strictly prohibited and that their work can suspended where such rules are broken. This information should be provided to the host community through different means, which can help to prevent alcohol and drug abuse-related issues.
- e. Building Capacity for SEA/SH mitigation:** The host community may not be aware of the kinds problems they might face resulting from the influx of labor. Police, local government’s GRM unit and organizations like mothers group, local clubs, and teachers/counselors of the schools from alongside the RoW, social mobilizers and NGOs working in the area should provide proper training to address problems related to influx of labor. Trainings can be helpful to manage small problems locally and manage the situation properly as mother’s group is doing similar work at present regarding to the issues emerged in the community.
- f. Managing the influx of other people into the area:** Other individuals followers, along with labors who move into the area, should be monitored by the PIU, community and local authorities, as these individuals may get involved in situations of conflict with locals, as they both use the same communities/markets. Laborers and others who enter the area need to share the same health facilities, public transport, water and other necessary supplies and resources. To reduce potential conflicts arising from sharing these facilities, the subproject should arrange alternative mechanisms to address the needs of their labor and staff to the extent possible and if in case these two parties has to share the facilities, rules for sharing facilities should be implemented.

- g. Communicable diseases:** The influx of people may bring communicable diseases to the project area. For STDs and diseases to which locals may have low resistance, the nearby health authorities should be prepared for upcoming health issues.
- h. Child labor and school dropout:** Child labor and school dropouts should be monitored closely by community and local authorities. The contractor should be penalized if children are used in construction or any other job in relation to the subproject. Code of conduct
- i. Increased pressure on accommodations and rents, traffic and inflation of price:** If the contractor recruits local labor and/or labor accommodation is provided in the camp, it may not create much pressure on community resources. But if the labor remains in the community, or uses common resources during the construction phase then there may be increased pressure on resources.
- j. SEA/SH related to female workers:** In order to mitigate against SEA/SH related risks with respect to female laborers, female labor-centric facilities such as separate female toilets, separate female camps, separate family camps and mother's rooms should be provided in the labor camp and on the site.

## **6.6. SEA/SH Risk Mitigation Action Plan**

As noted above, the subproject will draw on the SEA/SH Risk Mitigation Action Plan developed for NUGIP, which is included in the NUGIP ESMF, to address and mitigate against SEA/SH risks in the Pokhara subproject. The NUGIP SEA/SH Risk Mitigation Action Plan is provided below and incorporates specific SEA/SH risk mitigation related activities for the Pokhara subproject.

Table 6-1. SEA/SHRisk Mitigation Action Plan

Objective	Indicator	Pokhara subproject measures	Timeline	Responsibility	Cost (NPR)
Include the assessment of SEA/SH risks (as low SEA/SH risk) as part of the social/gender assessment in project's Environmental and Social Impact Assessment (ESIA)	Low SEA/SH risks highlighted and preliminary mitigation measures identified	Consultations have been conducted and identified SEA/SH risks in project areas identified and include the main measure agreed to with the PCO	December 2018 to June 2019 (as part of ESIA)	PCO/PIU	Included in ESIA cost
	Mapping completed of available, quality services in the project affected area	Map out SEA/SH prevention and response services in project area of influence – reference to be made from the service mapping that already exists at the national level			
Reflect SEA/SH risks, and measures to address them, in the subproject ESMP and contractor ESMP including the costs	SEA/SH Risk Mitigation Action Plan included in the ESMP	SEA/SH Risk Mitigation Action Plan provided and SEA/SH related costs are included in the ESMP and contract documents to mitigate risks.	Year 1 (during preparation of ESMP)	PCO/PIU	SEA/SH costing is included in ESMP
	Procurement for SEA/SH-related activities and costs outlined in the contract.				
Develop plan for stakeholder engagements and inform communities in project areas of SEA/SH risks and options for response	Number of awareness and consultations held	The plans for stakeholder engagements during the subproject implementation include awareness raising activities (specialized service providers/contractors/NGOs identified and hired under contract) and awareness and consultations carried out. This plan will be implemented during the project construction.	During preparation of ESMP, beginning of construction, and during construction	PCO/PIU	ESIA covers stakeholder consultation costs; construction phase stakeholder engagements costs should be inbuilt into overall budget

Objective	Indicator	Pokhara subproject measures	Timeline	Responsibility	Cost (NPR)
Formulate and adopt code of conduct (CoC) including sections on safety of women and girls	CoC developed, included in all contracts, and staff, consultants, contractors trained.	Developed CoCs should be included in all contracts and also in the PIM. Training on the CoC should be provided to all.	Prior to contractor mobilization and during project period.	PIU/PCO/Contractor	The awareness and orientation program cost to be inbuilt in PIU and at individual contractor level in BoQ
Hiring a Gender Specialist expertise on SEA/SH to advise and monitor action plan during project implementation	Appointment of Gender Specialist with 5 years experience with SEA/SH expertise  Measure effectiveness of the SEA/SH Action plan over a certain number of months	Gender Specialist (hired for NUGIP at the project level) will provide support for subproject mitigation measures Coordinate, report to and work closely with the NUGIP gender specialist on the implementation and monitoring of SEA/SH action plan	Year 1	PCO / PIU	Included in Project Cost
<b>Project Construction</b>					
Codes of Conduct signed and understood	Number of people oriented and trained on CoC  Number of people who signed CoCs	Ensure CoCs are clearly understood by those signing it  CoCs must be signed by all those with a physical presence at the project site.  Train project-related staff on the behavior obligations under the CoCs.  Disseminate CoCs (including visual illustrations) and discuss with employees and surrounding communities.	During subproject implementation	Contractor, PIU	Built into overall project cost
Awareness on SEA/SH	Number of people made aware of SEA/SH issues	Raise awareness amongst women in the community, school children	During subproject implementation	PIU, Contractor, Gender	3 trainings, 2 times a year for 3 groups

Objective	Indicator	Pokhara subproject measures	Timeline	Responsibility	Cost (NPR)
	<p>Number of persons who participated in awareness</p> <p>IEC material on SEA/SH, CoC etc displayed in the work sites, labor camps, surrounding communities.</p>	<p>and students and female workers in Dohori-Sanjh (Night Clubs)</p> <p>Undertake stakeholder engagements and conduct community awareness raising programs and conduct training about SEA/SH risk mitigation measures for project workers and the local community, for example, CoC, GRM, how to report and provide multiple entry-points. Includes:</p> <ul style="list-style-type: none"> <li>- Community based-awareness program</li> <li>- School based awareness program</li> <li>- Awareness program for women working in Dohori-Sanjha (Night Clubs)</li> </ul> <p>The project should work with women's groups to support the awareness programs.</p>		Specialist, Ward office CBO/NGOs working in area	<p>@Rs 20,000 per training. Total: NPR3,600,00</p> <p>Additional costs: Rs. 2,000,00.00</p>
Establish and strengthen grievance redressal	<p>Availability of an effective GRM with multiple channels to initiate a complaint relating to / parallel SEA/SH</p> <p>Number of GRM members trained.</p> <p>Inclusive GRM system in place.</p>	<p>The GRM allows for the appropriate referral of sub project-related complainants.</p> <p>At the subproject level, select one women member as first point of contact for the survivors of SEA/SH and provide appropriate training to them.</p> <p>Undertake stakeholder engagements as outlined in the ESMP and conduct community awareness raising about SEA/SH risk mitigation measures, taking</p>	During subproject implementation	Gender specialist of the Project	Built into overall project cost and SEA/SH awareness raising outlined above

Objective	Indicator	Pokhara subproject measures	Timeline	Responsibility	Cost (NPR)
	Number of SEA/SH issues which have been referred to GBV Services Providers	<p>support from local women’s groups, for example, CoC, GRM, how to report and provide multiple entry-points</p> <p>Maintain proper documentation is maintained for complaint registration and management</p>			
Implement appropriate subproject-level activities to reduce SEA/SH risks prior to civil works commencing	Documentation of measures taken to reduce SEA/SH risks.	<p>Have separate, safe and easily accessible facilities for women and men working on the site.</p> <p>Establish locker rooms and/or latrines for workers and project staff, well-lit areas and include the ability to lock them from the inside.</p> <p>Visibly display signs around the project site (if applicable) that signal to workers and the community SEA/SH is prohibited.</p> <p>As appropriate, public spaces around the subproject grounds should be well-lit.</p>	During subproject implementation	PIU, Gender Specialist of the project.	Include in Project Cost
<b>Project Monitoring</b>					
Report in the quarterly progress report and review during Implementation Status Review (ISR) missions	Successful implementation of agreed SEA/SH Action Plan (Y/N)	Reports SEA/SH-related issues in the quarterly progress report review during ISR missions	Project period	PCO, PIU, Gender specialist	

Note: The requirements of the SEA/SH Risk Mitigation Action Plan must be included in contractor’s management plan.

## CHAPTER 7: ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

### 7.1. Background

This Environmental and Social Management Plan (ESMP) for the Improvement of Talchowk-Begnas Road identifies the principles, approach, procedures and methods that will be used to control and minimize the environmental and social impacts of all construction and operational activities associated with the project development. It is intended to ensure that commitments made to minimize project's related environmental and social impacts are upheld throughout all project phases. The ESMP, including the monitoring plan, has been identified as an important process in the protection of socio-cultural environment of the project area. This will reveal changes and trends brought about by the presence and operations of the construction of road and other infrastructures. The management and monitoring program will involve the following: a) collection and analysis of appropriate environmental social and cultural data; b) preparation of periodic reports including an annual environmental and social performance report to DUDBC and the WB and liaison with other relevant bodies (e.g. ministries, departments and relevant agencies); c) identification of unexpected environmental and social impacts; and d) formulation of mitigation measures for the unexpected negative impacts.

### 7.2. Institutional role

As per the Local Self-Governance Act, 2055 (LSGA) municipality is an autonomous and corporate body with perpetual succession. Its apex body is the Municipal Council, formed from the local election for the carrying out local governance. Municipality leads from the municipal board, which constitutes from mayor, deputy mayor, chairpersons of ward level and two nominated members. The Municipality is responsible for physical development, water resource, environment, sanitation, education, sports development, culture, transport, health service, social welfare, industry and tourism development related activities at municipality level. The Ward Committee is concentrated on keeping inventory, sanitation and cleanliness, look after of public places and properties, and assists in the operation & establishment of health services, schools, street lighting, control strayed quadrupeds, environment and culture conservation. In accordance with the LSGR, 2056 rule 117, the Municipal Council constitutes various committees and sub-committees to render necessary advice, with the support of various committees such as Advisory committee, Infrastructure & construction committee, Agriculture, forest and environment committee, Population & social development committee, Organization & administration committee, Water resource & land development committee.

For NUGIP, different institutions will support the municipality and will be involved in the ESMP implementation and roles of these institutions are given in Table 7-1 including the environmental management organizational structures (Figure 7-1)

Table 7-1. Institutional role

Institution	Role	Responsibility	Remarks
<b>Project Implementation Unit, NUGIP</b>	Execute project, provide backup support to PMC in technical matters	Overall coordination and supervision of the NUGIP at metropolitan level	Executing agency
<b>Supervision Engineer</b>	Design, monitoring and supervision of work and reports to PIU	Overall technical input (design, supervision)	Consultant
<b>Contractor</b>	Subproject road construction	Responsible for overall activities related to the construction of road	Construction Agency
<b>Environment and Social Safeguards Unit</b>	Support PIU, and Contractor for ensuring environment and social safeguards	Environment and Social Safety Monitoring during construction phase	Consultant
<b>Local Road Coordination Committee (LRCC)</b>	Local level Coordination committee	Coordinate infrastructure issues among beneficiaries and institutions a local level.	Local group

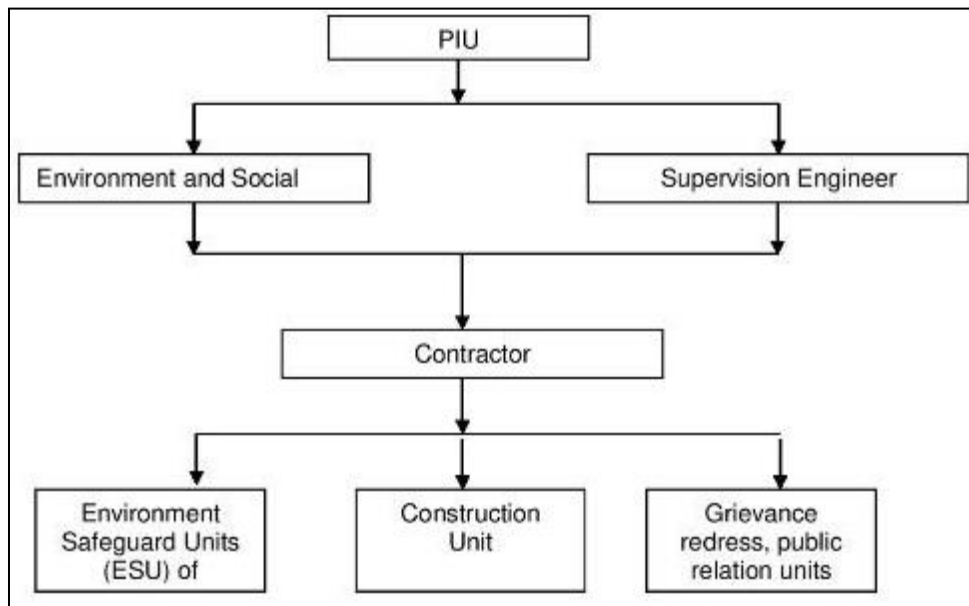


Figure 7–1. Environmental management organizational structure

### **7.3. Baseline Data Collection**

Environmental baseline monitoring involves the systematic collection of data to determine the actual environment effects of the project, compliance of the project with regulatory standards, and the degree of implementation and effectiveness of the environmental protection. It is the survey that documents detailed information on the pre-project conditions of physical, biological, socio-economic and cultural resources. Since the proposed sub-project implementation period is immediately after the approval of ESIA/ESMP, there will have no any significant changes in the baseline condition. Hence the baseline monitoring will not be carried out; rather the information in the ESIA report itself will be treated as baseline data of the project.

### **7.4. Implementation of mitigation measures**

The mitigation measures will be integrated into project design and the agreements/contract documents. The project bid documents will include the implementation and reporting of the ESMP. The contractor will abide with the contractual requirements, BOQ, and ESIA/ESMP and will ensure that all the environmental and social requirements are fulfilled. The impact of the construction on the environment will be kept to a minimum and appropriate measures as brought out to in the ESMP are taken to mitigate any adverse effects during the construction. The Environment, Health, and Safety requirements of the construction contractor will be clearly spelled out in the contract document and the necessary cost will be included in the BOQ. The contractor is required to submit the Contractor's Environment, Health, and Safety Management Plan within 45 days of the commencement of the work. The client/consultant will review the Contractor's EHS plan and provide approval along with necessary improvements. The regular monitoring will be followed by the PIU/Environmental and Social Monitoring team. It is in this context, the construction contractor is required to provide 1) a sound working environment to all employees involved in the design and construction of road as per national legislations, standards, and guidelines. 2) Must ensure HSE objectives are met during the entire construction, 3) Prepare and submit ESMP plan during construction period of the project. The EHSMP should include; policy statement, roles and responsibilities, site regulations, risk management and hazard identifications, HSE trainings, PPE, Inspection and auditing, site security, medical care and first aid , 4) The contractor must ensure Environmental Management and Mitigations addressing ESMP and mitigation management.

Using this approach, the mitigation measures will automatically become part of the project construction and operation phase. By including mitigation measures in the contract or in specific items in the Bill of Quantities (BOQ), monitoring and supervision of mitigation implementation could be covered under the normal engineering supervision provision of the contract.

## 7.5. Adverse impacts mitigation measures

**Table 7.2. Adverse impacts mitigation measures**

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
<b>Physical and chemical environmental - Pre-construction Stage</b>				
	Impact on property from vibrations due to the use of heavy machinery and other construction activities	Establish photographic and video graphic evidences of structures and properties in and alongside RoW.	Contractor	BoQ
	Demolition of bridge	Proper management of stockpiling of materials, health and safety and security of pedestrians, alternative route during demolition	Contractor, ward, PMC, traffic police	BoQ
	Obstruction due to 145 electric and telephone poles in the ROW	Relocate the electric poles along the alignment in coordination with the local electricity office and telecommunication authority. Should be completed prior the beginning of the road construction	PIU and Contractor	NRs 60,32,144.80 (Included in contract BOQ)
	Removal and re-construction of Water Supply Pipe lines of Lekhnath Water Supply Scheme)	The project must work in close coordination with Lekhnath Water Supply Management Committee regarding disruption of water supply system, alternative means of supply during the disruption, re-establishment of system. Reconstruct existing water supply in close coordination with Lekhnath Water Supply Management Committee. This must be completed prior the construction of road.	PIU with support of contractor	The Lekhnath Water Supply Committee has worked out the detail cost for removal and reconstruction of water supply scheme which is NRs 80,63,472.88(Included in BOQ)
<b>Physical and Chemical environmental -Construction Stage</b>				
	Land use change	Fertile topsoil will be removed before filling the agriculture land area for road. The sites will be stabilized with different technologies.	Contractor	Included in the project detail cost

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		The prior notification for plantation of crop should be given in advance.		
	Protection of water courses crossing the road and alongside the ROW	Construct silt traps and ripraps to maintain the river channels. Dredge the river bottom to ensure free flow of the water	Contractor	Included in the project detail cost
	Quarry Operation	Sand and aggregates will not be allowed to excavate from middle or inside of the Kotriver which will conserve the spawning ground of fishes. The materials will also not be allowed to be excavated from the bar of theKotre river. After completing it, the bank of the river will be recovered by protective structure. This will be done with prior approval from concerned agencies. If the materials are obtained from third party, the third party must have license for supply along with environmental clearance) of quarry. Protective structures will be constructed to protect the agricultural land along the ROW, the access road, and the quarry site, after the completion of the extraction; those sites will be closed and rehabilitated to suit the local landscape by providing necessary structures. At present the 2 quarry sites for material has been proposed at Kotre site	Contractor	Included in the project detail cost
	Issues associated with stockpiling	Only barren land will be used for stockpiling and proper insulator cover and proper drain will be managed to store the chemical to avoid the leakage of chemicals. Stock of sand will be set wet to prevent it from blowing with the wind; water sprinkler will be used for this purpose. The places used for the stockpiling of construction materials will be cleaned	Contractor	Included in the project detail cost

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		promptly after the completion of the project. The area could be leased or rented based on price not lower than the prevailing market price.		
	Construction Safety	RCC covered drain must be provided throughout the alignment in integration with footpath. Storm water collected should be disposed through the nearest culvert sections. The project will ensure that the construction site is not an immediate cause of danger to workers at the construction site and the public near the construction site. The contractor will assign a safety officer and the PIU's safeguard specialist will monitor the implementation of the occupational health and safety measures before, during and after construction. Hazards will be identified, and workers will correctly wear PPE, will properly use safety equipment, and will follow work safety arrangements. Safety signs and information will be provided. Workers and people at the construction site will be provided with proper training, and to help ensure that workers are trained on what to do in the event that an accident occurs on site.	Contractor	Included in the project BOQ
	Traffic Management	Vehicular movement may be restricted due to closure of road for reasons including construction, floods or other natural calamity. In such a situation, emergency work has to be executed by implementing traffic management procedures. The following are methods which can be employed for traffic management in emergency situations: 1) Inform the Pokhara city government of the scheduled road closure	PMST and Contractor	Included in BOQ

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		and the alternative routes identified to divert the normal traffic flow, 2) the contractor assigns a project worker to manage the traffic flow especially during peak working hours to ensure smooth traffic flow, 3)if the road is closed, or might be closed soon, inform road users about it as soon as possible; reduce pressure by effectively disseminating information, including on alternative routes, through the communication media; if the road is closed, indicator signs should be erected in adequate numbers to provide information about it; 4) provide advance notice to stop vehicles by erecting indicator signs at a necessary distance in order to reduce congestion at the site of work, thus enabling making of proper security arrangements,5) Provide information on use of alternative routes by providing adequate road signs as required with the help of traffic police. 6) Similarly, if it is possible to operate traffic only on one lane, do so even by taking the help of the traffic police and by making provision for adequate number of signs, lights and watchmen.7)Prior the construction, the alternative traffic route must be decided involving PMC, traffic, local wards, and local representatives.		
	Protection of Khudi River	Retaining wall to protect erosion	Contractor	Included inthe BoQ
	Air /Noise, vibration and Water pollution	Construction schedule maybe altered in such a way that the construction activities will be avoided around settlement areas in morning and evening hours, where progress of work is	Contractor	Costs for activities to control all pollution will be included in the BoQ

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		<p>not impacted. Horns will be avoided near settlements, schools etc. Install sanitary facilities for workers to avoid open defecation by construction of temporary toilet. Provide PPEs to construction workers and to use them whilst working or moving through active construction sites.</p> <p>Mitigation measures for air and noise pollution include sprinkling water on the construction site, restricting horns of vehicles being blown, speed control, reducing vibration effects of compacting equipment. Stockpiles of construction materials will be done away from roadways and from riverbanks, and careful steps of taking any necessary action to avoid pollution of water streams as a result of project activities will be regularly monitored.</p> <p>All potentially polluting activities will be avoided, mitigated and monitored by the contractor, the PIU and the Pokhara city government to minimize the pollution and to ensure activities comply with pollution-specific standards.</p> <p>In order to avoid pollution of air, noise, and vibrations from machinery in susceptible receptors like school areas, hospitals and health facilities. A noise barrier and a barricade will be designed and put in place in these areas for noise and vibration proofing. When necessary, a double panel window in such areas will be installed to be financed by the project. The PIU safeguard specialist will select whether barricade or double glazing</p>		<p>The national standards for water to be disposed in inland water will be met.</p> <p>Consultations with people residing close to RoW and in susceptible receptor areas will be held prior to finalizing design for noise and vibration proofing. The cost of Barricade is approximately Rs 800/sq ft, which will be included in the BoQ.</p>

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		window is applicable in discussion with relevant stakeholders. Waste water from camps should be properly treated, provision of septic tanks in camps and offices will be provided by the contractor.		
	Waste management	Solid waste including construction debris should be properly managed using 3 R principles	Contractor	Included in contract document
	Protection of Large religious trees: Pipal tree ( <i>Ficus religiosa</i> ) lying in ROW, Resting place (Chautara) within ROW	Chautarahaving a religious Pipal tree in chainage is proposed to be protected with the boundary wall. Installation of traffic signs showing the constricted carriageway due to the presence of Chautara is proposed in order to warn the motorists.	Contractor	Included in the BOQ
	Tree cutting	Replacement of cut trees with seedlings	Contractor	Cost is included in BoQ
	Obstruction of access to structures	Proper engineering measures to provide access to structures as per DPR, including the provision of constructing steps and ramps	Contractor	NRs 780,912.36 (Cost is included in BoQ)
<b>Physical and chemical environment - Operational Phase</b>				
	Road Stability and Drainage Management	<p>Road side tree plantation, construction of gabion wall and drainage system (Surface and sub-surface drainage works). 10 Culverts and 5 minor Bridges (CH 0+880, 1+760, 1+980, 3+070 and 3+260) 3 culverts are discarded because there are no natural water streams exist at these locations. Average drainage area of catchment draining through these structures is 12.8 square Km.</p> <p>The drainage system integrated to the road up-gradation project will include design not only to drain off the storm water from the road, but also to mitigate possible inundation along the</p>	Contractor	Included in DPR

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		settlements that exist along the project alignment, Ensure proper compaction as per design		
	Air pollution	There should be a consensus between metropolitan, District Transportation Office, Transportation Entrepreneur, and the local people regarding the operation of conditioned vehicles	DTO, transportation entrepreneur, local people	Costs to be included in BoQ
	Water pollution	The operation of proposed work doesn't pose serious threat on water bodies; however washing vehicles on fresh water streams will be avoided.	Drivers, Ward, local people	Costs to be included in BoQ
	Disaster Risk	Nepal lies in Seismic zone-V, hence all the design will be based on IS 1893 to withstand the earthquake. The road is provided with safety features, which likely reduce the chance of accidents in the road alignment.	PCO	The cost is inbuilt to project design and construction cost

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
	Road Safety	<p>Road safety components such as rumble strips, road humps, visibility improvement at intersections and branch roads, pedestrian crossings, barring significant trees like Pipal trees with boundary walls and installing proper signs, traffic signs and signals has been incorporated and recommended. Pedestrian crossings (zebra crossing) is proposed in intersections, major junctions, and branch roads and even in road alignment with major places such as schools and commercial establishments in order to cross the road safely across the flow of vehicular traffic. Signalized pedestrian crossings are proposed in order to separate when each type of traffic (pedestrians of road vehicles) can use the crossing. Road humps are proposed in cross road connections (branch roads) as a part of traffic calming devices that use vertical deflection to slow motor-vehicle traffic in order to improve safety conditions.</p> <p>The objective of the Road Safety Interventions is to assess it for potential shortfalls in safety and recommend corrective strategies to eliminate/reduce risks of crashes. Various road safety interventions are proposed to make the road safer and reduce traffic accidents. Improvement of intersections through provision of roundabouts, traffic signs installation and improving visibility Proper Traffic signs and signals and road markings throughout the alignment.</p>	PMC (Project) and Contractor	Costs to be included in BoQ

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		<p>Provision of guard rails, street lights, bollard lights, rumble strips, road humps, pedestrian crossings, parking area, covered drain throughout the alignment</p> <p>Provision of separate cycle lane and footpath</p> <p>Use of Reflective Pavement Marker (RPM) for lane marking and delineation for night-time visibility. Delineators and Object Markers Roadway delineators are intended to mark the edges of the roadway to guide drivers on the alignment ahead. Object markers are used to indicate hazards and obstructions within the vehicle flow path, for example, channelizing islands close to the intersections.</p>		
<b>Biological Environment– construction stage</b>				
	Vegetation clearing	<p>22 trees, 237 saplings/shrub, 131 seedlings/herbs need to be removed. The trees, saplings, hers will be replanted outside ROW as far as practicable</p> <p>Total plantation proposed is 1:10 (1 removal of RoW plants equivalent to 10 plantations), with these total plants to be planted in RoW will be (259 no X10) = 2590 no. The local plantsspecies will be selected.</p>	PIU	<p><b>500,000.00</b> for maintenance after plantation. The cost for road side plantation is included in DPR.</p>
<b>Biological environmental – Operational stage</b>				

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
	Impact on Vegetation and wildlife	Since the project doesn't pass through biologically critical areas, encouraging local people for protection of roadside vegetation by plantation.	Project/Contractor/ Local Bodies	No additional cost
<b>Social – Construction Stage</b>				
	Loss of houses/property	Compensation for loss of property as per the RAP	PCO	The government already completed the land acquisition and compensation in 1980. Compensation for one structure encroaching in the ROW has been provided by the PMC as detailed in the RAP
	Safety of pedestrians including children, elderly and general public	Diversions should be child and elderly friendly as well as to other general pedestrians. Crossings near school areas should be safe and the school area should be highlighted. An attendant from the school or/and from contractor should be present at the school starting and closing times. (or during peak hours). Appropriate signage will be displayed use during construction and implementation of the project to enhance awareness around the potential safety hazards of the construction.	Contractor	Safety signs, awareness raising programs: Rs. 300000.00
	Health and Sanitation	Proper awareness of using latrines, construction of latrine for worker, Piyus(a chlorine solution) will be provided to workers to purify drinking water.	Contractor	Included in the project design cost
	Protecting the workforce (No child and Forced labor	No child and forced labor will be employed in project.	Contractor	Responsibility should clearly spell out in BoQ

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
	Occupational Health and safety; provision of PPE to workers	Safety equipment will be provided to the workers. They will also be provided with insurance to cover physical damage to workers. For example, suitable overalls, safety footwear, dust masks, gas masks, respirators, gloves, ear protection equipment etc. should be made available to workers, and workers must receiving training to use the equipment. Workers will also be provided with insurance to cover physical damage to workers. Potable water and basic first aid kit will available. Proper OHS measures will be adopted through OHS plan by the contractor.	Contractor	Contractor ‘s responsibility: should be spelled out in contract document
	Traffic and Transport Management	<p>a) Mobilization of equipment of materials will occur at night(between 6PM-9 AM)</p> <p>b A detailed Traffic and Transportation Plan is to be contained in the Contractor Document</p> <p>b) Road Safety</p> <p>Traffic Safety such as street lights, traffic control devices and other features shall be covered through “<i>Traffic Signs Manuals Vol-I and Vol II</i>” and “<i>Road safety manual</i>” published by the DOR. This will be incorporated in detail during DPR phase using the same code. The feasibility study incorporates provision of guide rails in case of steep fall and sharp bends for safety. Similarly, provision of covered drains in settlement has been considered. The provision of proper road signage and markings, and street lights along the alignment will be added to the safety features. The horizontal and vertical control features will be designed based on the safe</p>	Project contractor	

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		<p>stopping distance and visibility criteria for safer road.</p> <p>It is, however, advisable to conduct road safety audit during the design phase to avoid any serious safety issues before the project is implemented. If, it is not done, road safety audit should be done after the construction of the road before it is opened to general public (official handover to the municipality).</p> <p>Bus bays are one of the most crucial factors to be considered in market areas as well as settlement areas. Bus bay has been incorporated in NRS Clause 13.5.</p> <p>c) Provision of alternative routes to ease decongestion and built up of traffic</p>		
	Community Health, Safety and Security	<p>a) Carry out site management practice such as the fencing around work area and road signage</p> <p>b) Increase public awareness of safety, health and environmental issues by providing information directly and indirectly through campaign</p> <p>c) Display appropriate signage for use during construction and implementation of the project to enhance awareness creation on the potential hazards of the project</p>	Project Contractor	Project contractor
	Limited Access for elderly and Differently-able People	<p>Diversions and proper crossings will be available for elderly and differently-able people in the construction phase to ensure their mobility is not impacted during construction. Elderly people should have access to socialize and meeting people and family to nurture their mental need/health.</p>	Contractor (engineer must ensure this in design)	Construction is contractor's responsibility

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		The design should incorporate the disabled-friendly measures and will incorporate periodic maintenance.		
	Working conditions and management of worker relationship	The contractor for the TalchowkBegnas road shall provide reasonable working conditions and terms of employment, and in conformance to working conditions established by National law. During construction, temporary accommodations will be constructed by the contractor and will comply with national and international standards for quality, security, safety, and professional competency. Workers will not be forced to use any of the services provided by TalchowkBegnas road project	Contractor	Responsibility should be clearly spell out in BoQ
	HIV-AIDS Management	a)Awareness creation and sensitization to workers and other persons post- project to reduce or eliminate chances of infections of HIV-AIDS and other sexually transmitted diseases b)Distribute HIV & AIDS awareness materials in collaboration local health related agencies	PIU, Contractor	NPR300,000.00
	GBV risks	GBV impact mitigation measures activities such as awareness raising program, skills training program. Specific measures: a) Hiring of gender expert for 18 month @150,000.00 as per GBV b) GBV related activities and trainings as stipulated in GBV action plan Cases of women and child abuse seem to be higher in other tourist areas elsewhere. As a precautionary measure, the ward in this alignment of 27, 30 and 31 should undertake awareness raising activities on this issue.	Project Office Project Contractor  PMC in close coordination with wards 27, 30 and 31 along with NGO/CBO/Local people	NPR 1,800,000 NPR 2,080,000

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
	Girls/Women Trafficking	Awareness program will be developed and implemented	PIU in close coordination with Women Development Office, PMC, NGO/Clubs working in this area and related fields	NPR250,000.00
	Workforce Impacts on Communities,-disease, cultural drain on local resource ,etc.	a) Conduct local cultural awareness orientation training for workforce. b) Implement Public Health Awareness Raising Plan to address communicable diseases prevention, hygiene and sanitation, safe sex practices and other community Health issues c) Impact Monitoring of Local resources, address gap, and problem as needed	Contractor	Contractor's responsibility
	Management of Complaints and/or Grievances	Employ a grievance redress mechanism incorporating a negotiation and/or mediation team or party	Project Contractor	Meeting allowances for project period NPR 300,000.00
	SEA/SH risks	SEA/SH risk mitigation related activities as stipulated in SEA/SH Risk Mitigation Action Plan. These include SEA/SH awareness raising activities, trainings and stakeholder engagements such as: - Community based-awareness program - School based awareness program - Awareness program for women working in Dohori-Sanjha(Night Clubs)  The project should work with women's groups to support the awareness programs.	Project Office Project Contractor, PIU, PMC in close coordination with wards 27, 30 and 31 along with PMC, NGO/CBO/Local people, Women Development Office,Clubs working in this area and related fields	Approx. NPR 5,600,00

Project stage	Impact	Mitigation Measure	Responsibility	Cost (Remarks if any)
		Gender Specialist for NUGIP will provide support in implementing subproject mitigation measures.		
<b>Social – Operational Stage</b>				
	Encroachment of ROW	The PMC through the ward and local GoNoffices will work with wards and local bazaar committees/groups to discourage encroachment into the ROW.	PMC	Cost will be borne by PMC
	Traffic accidents and associated risks (children, elderly, and general public)	Raise awareness amongst people to follow the traffic signs, encourage use of the pedestrian/cycle lanes and installation of speed bumps to control speed near designated pedestrian crossing areas will be arranged. After the completion of the road upgrading, school children, members from mothers and women group and frequent road users (people using the road every day for job or business) should be aware about the road signs, safety and road using method through awareness programs in schools, women group and local media and FM radio.	PMC	Required cost bear by PMC
	Limited access for elderly and differently-able people	Provide training on the use of facilities, maintain signboards, lights, instructions in strategic locations.	PMC	Regularly

### 7.3 Impact and Compliance monitoring

Impact monitoring involves the monitoring of environmental and social changes and estimates inherent variation within the environment, identifies long term trends in the natural system, and derives conclusions by making comparison against a standard or target. Compliance monitoring is carried out to understand the implementation status of environmental and social requirements as documented in the ESMP.

**Table 7.3. Compliance monitoring of project**

<b>Parameters</b>	<b>Responsible Implementing agency</b>	<b>Verifiable Indicators</b>	<b>Verification Methods</b>	<b>Schedule</b>	<b>Responsible Monitoring Agency</b>	<b>Reporting Schedule</b>	<b>Reporting Authority</b>
<b>Compliance with the benefit augmentation and impact mitigation measures listed above</b>	Contractor / Environmental Safeguard Unit	As relevant for the specific parameter	Visual observation, routine / regular supervision, record books, questionnaire survey from respective stakeholders etc.	During the construction phase	Environmental and Social Safeguard Unit	Trimester	PIU
<b>Compliance with the relevant legal measures as discussed in the ESMF/ESI A</b>	Contractor / Environmental Safeguard Unit	As relevant for the specific parameter	Visual observation, routine / regular supervision, record books, questionnaire survey from respective stakeholders etc.	During the construction phase	Environmental and Social Safeguard Unit	Trimester	PIU

Table 7-24. Selected monitoring indicators

Monitoring Sector	Parameters selected
<b>Slope, stream protection</b>	Effectiveness of slope protection, stream protection works
<b>Socio-economic development in road alignment and ZoI</b>	Number of employment opportunities created Number of workers received training on enhancement of technical skills Change in transportation costs and time Number and type of enterprises, cottage industries established Change in status of basic services and utilities in the ZoI for e.g. education institutions, access to health infrastructures, water supply, energy status, trade and commerce ventures, shift in livelihood strategies among the populace from the ZoI Condition of affected infrastructures Occupational health and safety measures provided to workers Increase in number of people receiving social service facilities (school, health post) Increase in land value No. of accidents related to road State of settlement condition (no. of houses, shops, sanitation condition) Number and status of porter's livelihood

#### 7.4 Monitoring activities and methods

The following table identifies the specific compliance monitoring activities. Phase-wise/chronological details are provided for the methods, schedules, responsible implementing agency and the responsible monitoring agency. Compliance monitoring refers primarily to the pre-construction and construction stage of the project. The following government standards will be taken as reference for monitoring.

Table 7.5. Impacts and monitoring of the project

Parameters	Verifiable Indicators	Verification methods	Monitoring locations	Schedule	Responsible monitoring agency	Cost
<b>Change in Land Use</b>	Changing Agricultural land, forest land, settlement area and barren land	Site observation, photos, discussion with communities	DIZ, IIZ and project affected wards	Continuously during construction (Yearly)	PIU	
<b>Quarrying of Construction Materials</b>	Initiated erosion, changes in river regime, erosion by river systems, degradation of	Site observation, photos Records from local health centres	Quarry site areas	During construction (Quarterly)	PIU	

	vegetation, water logging, waterborne diseases					
<b>Noise and dust pollution</b>	Total Suspended Solid, Particulates, noise level (national standards - appendixF)	Visual inspection, measurement, and comparison with baseline data,	At construction sites and at sensitive spots	During construction and operation (Quarterly)	PIU	
<b>Use of bitumen and their storage, heating, spreading</b>	Contamination of bitumen near water sources, land contamination and affected peoples	Visual inspection, measurement, and comparison with baseline data,	In and around the construction sites	During construction (Quarterly)	PIU	
<b>Road safety measures</b>	Speed controls, traffic signboards, ROWencroachment, Pedestrian/cycle laneand speed bumps	Observation, photos and interaction with local peoples	In and around the ROW	Throughout project, once in a year	PIU	
<b>Road accidents</b>	Type and number of accident occurred Adequacy of occupational safety measures provided	Observations, photos, spot checks, interview with local peoples	Road alignment	Throughout project, once in a year	PIU	
<b>Cultural, religious and historical sites</b>	Cultural and religious infrastructure, people	Records, observations, interview with local people	Project area	During operation (once a year for 2 years)	PIU, PMC, Wards	

	perception, practices					
<b>Occupational and safety hazard</b>	Safety equipment like helmets, globes, boots etc., insurance, potable water, basic first aid kit	Observation, records and interview with workers	Construction camp and working area	During construction (daily)	PIU, wards	
<b>Possible township/ribbon development along the road</b>	Congestions to road users Number of accidents, ROW encroachment	Records, observations	Project Area	During operation (once a year for 2 years)	PM, wards	

## 7.5 ESMP for beneficial and adverse impact

The measures and actions proposed for augmenting the identified beneficial aspects (Table 7-3) of the road development project, as well as proposing a set of mitigation and precautionary measures to minimize or set off the potential adverse impacts are outlined below.

Table 7-36. Beneficial impacts of the project

Impact	Enhancement/Mitigation Measure	Enhancement/Mitigation Mechanism/Responsibility	Cost (Remarks if any)
<b>Construction Stage</b>			
<b>Employment opportunities for local people</b>	Involve local people as per skills, qualifications (priority-based to the extent possible )	Contractor (Monitoring by PIU)	No additional cost
<b>Employment to the women and disadvantaged groups</b>	The contractor will coordinate with representative of disadvantaged and women group to employ those people, as many as possible	PIU, spelt out in contract, contractor will abide	No additional cost
<b>Skills enhancement</b>	Organize skills enhancement training targeting the local youths, women, vulnerable, disadvantaged and skills enhancement of project workers	PIU	Rs 400,000(for the people in the direct influence area)
<b>Operation Stage</b>			

<b>Improved access and reduced travel time /transport cost</b>	Fixing the minimum transportation cost in agreement with DTO, transport entrepreneurs and local people	PMC, Transport entrepreneurs and local people	No additional cost
<b>Environmentally friendly construction</b>	The upgraded road will have a cycle track which helps to promote the use of non-motorized vehicles and reduces carbon emissions	PMC	No additional cost
<b>Maintaining open and green areas</b>	A Green Utility Zone (Greenery) will be provided under the road upgrading, with various trees which will provide shelter from the heat, will create cool surroundings, and will improve the aesthetics of the road. A green area separating the footpath and cycle lane is proposed throughout the alignment. The green area will have tree plantations at certain intervals. In addition, tree plantations at dedicated locations between the cycle lane and carriageway has been proposed (approx. 92 locations).	PMC	Include in project cost
<b>Change in livelihood through the promotion of business and industry</b>	PMC will facilitate measures to promote the establishment of new businesses and enterprises  The PIU will create the suitable environment to promote business and industries based on local resources	PMC  PIU in coordination with local CBO/NGO/GoN offices	No additional cost
<b>Gender and social empowerment</b>	The subproject will serve to mainstream women, dalit, and other marginalized people by providing several income generating trainings and programs	PIU in collaboration with local organizations	NRs. 500,000

**7.6 Costs of executing the Environmental and Social Management Plan (ESMP)**

All proposed mitigation measures will be integrated in the project design so that these measures may automatically form part of the construction and operational phases of the project. The cost of executing the ESMP includes cost of suggested mitigation measures such as of slope stabilization, awareness, waste management, bioengineering measures and tree plantation, etc. under the mitigation measures of the project.

The total cost for the ESMP is outlined below in Table 7.7.

Table 7.7. Cost of ESMP

Activities/Measure	Total Cost (NPR)	Remark
Environment Mitigation (Pre construction phase)	10,884,489.22	Include compensation cost for Lekhnath water supply scheme and shifting electric poles
Construction phase mitigation including GBV	6,430,000.00	
Environment Monitoring and Management Unit	12,900,000.00	
Capacity Building Trainings	1,500,000.00	
<b>Total</b>	<b>31,714,489.22</b>	

### 7.7 Monitoring Cost

Environment and Social Unit of the PIU is responsible for monitoring the impact of proposal implementation. The monitoring cost of the project provided the table below.

Table 7.8. Environmental monitoring cost PMC

Particulars of Activities	Months	Unit Cost (NPR)	Total Cost (NPR)
<b>Establishment of Environmental and Social Unit</b>			
Remuneration of expert			
Environment Expert	18	150,000.00	
Social Expert	18	150,000.00	5,400,000.00
Office operation cost including vehicle	18	300,000.00	5,400,000.00
Stationery and reports	18	50,000	900,000.00
Laboratory analysis of water, noise monitoring	LS		120,000.00
<b>Total</b>			<b>12,900,000.00</b>

### 7.8 Institutional arrangements

#### Existing capacity of PMC in environmental and social issues

PMC has an environmental and social department. The activities of the Social department include registration of vital events (births, deaths), targeted group development (women, children, indigenous groups, elderly citizens), needs-based skill development programs (including vegetable farming, cattle/poultry farming, handicrafts). The Environmental department is mostly engaged in plantation, greenery promotion and landscaping, pond conservation, and solidwaste management. As indicated by the departments, they were not engaged by the PMC in the subproject planning process. The capacity of the department in the preparation, implementation and monitoring of environmental and social safeguard issues is limited. Further details assessing the institutional capacity is provided under Appendix H of the NUGIP ESMF.

#### Sub-project institutional arrangements

The MoUD has set up a PCO under DUDBC in Kathmandu for NUGIP. A Project Implementation Unit (PIU) will be established in the PMC for the implementation of the Improvement of Talchowk-Begnas Road sub-project. To ensure that the sub-project is efficiently implemented and completed in accordance with environmental and social safeguards requirements, technical assistance will be delivered through a Design and Supervision Consultancy (DSC). The role of the PIU/DSC will include the conduct of public consultations and implementation of the RAP and ESMP provided in this document. The MoUD will have an environmental and social safeguard specialist who will facilitate and oversee implementation and compliance monitoring of PMC.

### **Reporting and documentation**

As part of the ESMP, reports need to be produced at regular time intervals by the PIU. The trimester ESMP compliance reports will be prepared and submitted by the contractor to the PMC. The agreement/contract document will categorically include provision of environmental protection, health and safety, waste management and other environmental mitigation measures identified during the ESIA. It will spell out clearly that measures that will be taken in case of non-compliance to help ensure compliance with the provisions. The ULL will monitor implementation and compliance on a day-to-day basis. A supervision team in the DSC will regularly monitor the construction activities. The MoUD will conduct independent monitoring. This ESMP also makes the provision for a set of monitoring activities that are designed to ensure the effectiveness of the proposed management. The monitoring activities will also help to improve/maintain an environmentally and socially sound and acceptable level once the subproject is complete.

## 8. STAKEHOLDER ENGAGEMENT AND CONSULTATIONS

### 8.1 Stakeholder engagement overview

Regular stakeholder engagement and consultations are necessary to ensure widespread and meaningful participation of key stakeholders with focus on the project affected people. Successful implementation of the subproject requires coordinated efforts of various stakeholders at different levels. Hence, communication and consultations at different levels were used as a tool to inform and educate stakeholders about the proposed project intervention.

There are two key objectives of effective stakeholder engagement and consultations. First, it is to keep all stakeholders informed of the project activities, and any potential beneficial and adverse impacts. Second, it is to ensure that stakeholders actively participate at all levels of the project cycle, to enable sharing of valuable local knowledge involvement in the development of mitigation plans to minimize the potential negative impacts of the project, and so are well equipped to take over the responsibilities of operation and management once the project phases out. These will ultimately contribute towards narrowing down the gaps between the project officials and beneficiaries, and to help create a conducive environment to mitigate against the adverse social and environmental issues through optimal cooperation from the project beneficiaries themselves.

Community participation can be effective if local people are empowered. The method of community participation needs to be planned to reflect the community profile and nature of the project. Different communication methods are integrated together communicates the community as focus group discussions, meetings, and workshop. The plan ensures the following:

- Ensure local ownership
- Include different types of stakeholder's group in participation process
- Generate and respond to feedback

Public consultation and community participation helps to remove such uncertainty and at the same time help the project implementation with its methodology as well as work plan. It is assisted in the identification of the problems associated with the project, as well as the needs of the population likely to be impacted. This participatory process helps in reducing the public resistance to change and enabling the participation of the local people in the decision-making process. The involvement of the various stakeholders ensures that the affected population and other stakeholders are informed consulted and are allowed to participate at

various stages of project preparation. Different strategies have been adopted for communication/consultation during implementation stages.

Stakeholder engagement strategy outlines engagement through the project development phases and recommends a set of stakeholders’ engagement activities to be carried out throughout the project development phases. This chapter also outlines the disclosure to be made and other communications to be made during the project cycle.

## 8.2 Stakeholder Engagement Procedures and process

The subproject will draw on existing mechanisms and procedures established at the local level to carry out stakeholder engagements. PMC forums will be the primary mechanism for engaging with stakeholders and community participation, to ensure that projects identified reflect local needs and priorities. Other mechanisms for community engagement and consultations include community-based user committees in construction supervision and operations and maintenance, as a social accountability and safeguard mechanism. The stakeholder consultations will draw on mechanisms already established at the local level. Where mechanisms for stakeholder engagement do not already exist, a mechanism elaborated below will be followed:

### Stakeholder Mapping

The primary objective of stakeholder analysis is to map the stakeholders, their role, operational network, representation requirements and impact on type of activity in the project to strategically prioritize consultations with them. The stakeholder interactions will be through:

- Focused group discussions (FGD)
- Public consultations
- Key informant interview (KII)
- Indigenous and women groups discussion
- Consultation with institutional stakeholders

The stakeholder mapping is undertaken through formal and informal consultations and their interests concerned with the project activities should be identified throughout the project cycle. The stakeholders identified for the subproject are presented in table below:

Table 8-1. Stakeholder roles and responsibilities

Government Level	Stakeholder	Primary/ Secondary	Roles and Responsibilities
Federal Level	MoUD DUDBC	Primary	Facilitate the implementation of the subproject, coordinate with

<b>Government Level</b>	<b>Stakeholder</b>	<b>Primary/ Secondary</b>	<b>Roles and Responsibilities</b>
			agencies, undertake monitoring and reporting to the WB
	Department of Roads Ministry of Forest & Environment Department of National Parks & Wildlife Conservation Ministry of Women, Children and Senior Citizen	Secondary	Support coordination, and sectoral policy implementation
<b>Local Level</b>	PMC Ward Offices Tole Development Committees	Primary	Support the process of subproject selection, identify beneficiary and their needs, support coordination, support grievance and dispute resolution
	Electricity authority Forest authority Land Survey Land Revenue Office Irrigation department Water supply & sanitation office Traffic Police District Coordination Committee	Secondary	Provide specialized inputs on local conditions, permissions, technical input limitations and needs of the public, provide compensation estimation, provide required assistance during project implementation, and support monitoring
<b>Subproject Level</b>	Ward representative Associations (Business) and user groups such as road, water, irrigation, forest Women/Mothers groups Shopkeepers and vendors Farmers group Households	Primary	Engage and participate in consultations, support in project implementation
	Extended users of the project	Secondary	

### 8.3 Mechanism for Consultation

The consultation process envisages involvement of all the stakeholders' at each stage of subproject planning and implementation. Involvement of the community is not limited to interactions with the community but also disclosing relevant information pertaining to the project tasks. Community participation is and will be ensured at all stages. Dissemination of project information to the community and relevant stakeholders will be carried out by the PIU. The community will be made aware of the project alternatives and necessary feedback will be obtained, other stakeholders will be involved in the decision making to the extent possible.

The outcome of consultations is incorporated as appropriate into the design and ESMP. As part of such consultations, the draft ESMP will be presented and explained to the people on the content and process of the implementation of the plans. Consultations with project affected persons and their profiling are conducted as per the requirements of ESIA, and preparation of the RAP.

#### 7.5.1. Public/Community Consultation Plan

All consultations on social and environmental issues will be carried out during implementation of the project will be done in an inclusive manner, including vulnerable social groups (such poor household, caste, persons with disabilities, among others) and women. Details of Talchowk-Begnass Road Project Consultation Plan are presented below.

Table 8-2. Talchowk Begnass Road Project Consultation Plan

Objective and Target Goal	Method	Frequency/Timeline	Responsibility
<b>I) Build Local Ownership</b>			
<b>Introduce Project DPR Report and its components</b>	Group Meeting/Workshops	End of June 2019	DPR Consultant/PCO/Metropolitan
<b>Maintain efforts for two-way communication with relevant stakeholders through the project</b>	Face to face meeting with concerned stakeholders	Minimum bi-monthly throughout the project	PCO, Design Supervision Consultant, Ward Level Authority
<b>II) Start Consultation Process with Potentially Affected Communities</b>			
<b>Identify communities to be potential affected by project</b>	Electronic and face to face communication with relevant stakeholders and implementing agencies	Jan-July 2019	PCO, DPR Consultant Metropolitan Ward Authority
<b>Consult with community representatives and ensure that their concerns with the</b>	Face to face meeting with community representative (includes social officer of	Jan-July 2019	PCO, DPR Consultant Metropolitan Ward Authority

<b>Objective and Target Goal</b>	<b>Method</b>	<b>Frequency/Timeline</b>	<b>Responsibility</b>
<b>proposed project are addressed</b>	metropolitan, women's representative etc.)		
<b>Ensure that the views and needs of vulnerable segment(if required) of communities, including but not limited to poor, women, elderly, and are addressed by the subproject</b>	Face to face meeting with affected communities' representative (including social officer of metropolitan, women's representative etc.)	July-December 2019	PCO, Design and Supervision Consultant Metropolitan Ward Authority
<b>III) Implementation Phase</b>			
<b>Maintain effective communication with PIU</b>	Electronic and face to face communication with representative of relevant agency /organization	Throughout the project, as required	PCO, Design and Supervision Consultant Metropolitan Ward Authority
<b>Raise awareness of project activities among potential beneficiaries</b>	Media advertisements and targeted campaign	Throughout the project, as required	PCO, Consultant/ Metropolitan
<b>Maintain consultation process with a potential affected communities and beneficiaries</b>	Face to face meeting with affected communities' representative (including social officer of metropolitan, women's representative etc.)	Minimum bi-annually with affected communities	PCO, Design and Supervision Consultant Metropolitan Ward Authority
<b>Monitoring and evaluation community involvement</b>	Face to face meeting with affected communities' representative	Annually through the project	PCO, Design and Supervision Consultant Metropolitan Ward Authority
<b>Reports outlining progress of activities related to engagement and communication</b>	Collation of progress report, self-evaluation by PCO	Annually through the project	PCO
<b>Agreement on operation and maintenance system</b>	Electronic or face to face communication with relevant stakeholder Face to face meeting with local authority	Minimum annually	PCO, Design and Supervision Consultant Metropolitan Ward Authority

## 8.4 Information Disclosure

For the success of the project, all information about the proposed activities and their expected results will be publicly shared with the affected people and interested stakeholder. In collaboration with the relevant local authorities, NGOs and other community groups, the project will disclose all the relevant information in the various stages of project cycle. Agencies working for environmental and social aspects will also be informed about the ongoing and planned activities, to identify jointly appropriate protective or corrective measures. The following approaches will be adopted to make information accessible to all the concerned stakeholders throughout the project cycle.

- Mass Media: Use local media like newspaper, radio and TV.
- Meeting/Workshops
- Distribution of project documents: Certain project documents will be disclosed in Nepali (or other relevant local language) .Project-related information materials will be distributed prior to each construction work to local officials, PAPs and other concerned offices like PMC, Ward, Tole Committee etc.

An Information Centre will be established at PMC Office during implementation to disseminate all the documents related to the project activities. Based on the public information disclosure policy, PCO and PMC will unveil the information through its website. The information dissemination plan for Talchowk-Begnas Road project is presented in table below.

Table 8-3. Information dissemination plan

Means of Communication	Timeline & Frequency	Responsibility	Resources
<b>PMC Website (project details, grievance mechanism)</b>	At the start of the project which will be maintained throughout the project	PIU/ Information Officer	Information Officer
<b>Newspaper and local Radio (project salient features, dates, grievance mechanism etc.)</b>	Project implementation phase Weekly basis	PIU, PMC Information Officer	Radio-program/Talk show (30 min.) FM Radio Clip
<b>Project leaflets and Fact Sheet</b>	Project details, Implementing agencies, project period - 2 times	PIU, Information Officer	Doubled sided color A4 500 copy @ 500 per copy
<b>Face to face engagements - meetings, focus group discussion with relevant stakeholders</b>	Project Main Activities, Financial Assistance, Implementing agencies, project period etc. 2 time in year	PIU, Information Officer	

## 8.5 Stakeholder Consultations during ESIA Preparation

Several stakeholder consultations were undertaken in order to prepare the ESIA, comprising a metropolitan town hall meeting, group consultations and key information interviews (KIIs). Details of these consultations, including key concerns and issues raised, are detailed below:

### a) Metropolitan meeting

Table 8-4. PMC stakeholder Consultation Meeting

Place	Date	No. of Participant	Type of Participants/ Informants	Issued Raised
<b>Pokhara Metropolitan Meeting Hall</b>	9 December	27	Mayor, Officials From Pokhara Metropolitan, Representative from Mother's Group, Representative from Electricity Authority Pokhara, Representative from NEST Pvt.Ltd, Forest officer (DFO), Representative From L.W.S.C., Ward Chairperson of ward no: 30, Representative from ward no 31,32,29 and 28, Representative of Traffic Police, Representative from Drinking Water Cooperation, Representative from Naubise Tole, Representative of D.M.C, Project Director (UGIIP-2), Officials from (UGIIP-2), Officials from PCO, PCO Consultants, PWC Consultants	<p>Efforts will be made to start project as soon as possible</p> <p>Suggestions of local people will be appreciated and incorporated</p> <p>Efforts will be made to avoid or minimize public resources assets( Water resources, Electricity Pole etc.) disturbance</p> <p>Local people will be consulted at the road upgrading time</p>

### b) Group consultations

Settlement /Ward	Participants	Issues Raised	Measures	Responsible Agencies
<b>Talchowk/ 27</b>	26	<p>Compensation was received 40 years ago.</p> <p>Road construction should be robust and for the long-term.</p> <p>Road safety measures should be applied to prevent accidents</p> <p>Locals will help during construction if needed.</p>	<p>DPR provides the safety measures required during and after construction.</p> <p>Safety measures will be applied to control road accidents.</p> <p>Locals will be encouraged to engage.</p>	<b>Metropolitan Project Office /Contractor</b>

		Feedback should be incorporated		
<b>Sisuwa, 30</b>	14	Affected household offered their consent Participation of local stakeholders is inevitable to construct road better Road construction should begin as soon as possible Community assets should be compensated if affected	Affected parties (household and shopkeeper) provide consent Efforts will be made to start project soon Affected community structure will be compensated	<b>Project Office/Metropolitan</b>
<b>Khudi Bridge, 31</b>	12	Efforts should be made to start project immediately Disturbance of assets should be avoided as far as possible Consultation with local people should be done at the time of construction Suggestions of local people should be incorporated	Efforts will be made to start the project soon Efforts will be made to avoid or minimize assets disturbance Local people will be consulted at the road upgrading time. Suggestions of local people will be appreciated	<b>Project Office /Ward Level Authority</b>
<b>New Diamond School, 28</b>	12	Parking provision for New Diamond School and protection of public toilet wall at the roadside of New Diamond School should be managed Road construction works should be started immediately Suggestion of local people should be incorporated in road construction	Efforts will be made to construct compound wall of Public Toilet and bus parking space during the construction to School Efforts will be made to start the project as soon as possible Suggestions of local people will be appreciated and incorporated	<b>Project Office/Metropolitan</b>
<b>Consultation with impacted households whose access is obstructed</b>	<b>89</b>	<b>PMC will inform the individual houses that will be impacted along with mitigations proposed in DPR</b>	<b>Consultations are ongoing</b>	<b>PMC/PCO</b>

### c) Key Informant Interviews (KII)

Three KIIs were conducted during completion of the ESIA. The details of KIIs are provided in Table 8-5 below:

Table 8-5. Details of Key Informant Interview (KII)

Place	Date	Details of Key Informant	Issues Discussed during the Interview
<b>Talchowk</b>	9 December 2018	50 years Male Ethnic Group: Chhetri Ex-Chairperson of Chamber of Commerce, Lekhnath Municipality	<p>Due to the small black top now in this road is one of the major cause of the accidents, as everyone wants to drive from there</p> <p>The proposed cycle lane can attract more tourists to come to this area by using cycle or we promote that way but safety measures are must.</p> <p>From the business point of view if the road condition improves the traders will come and we can target more tourist oriented businesses to this area</p> <p>The environment of the area will be better for the new investors and Talchowk is the major trade centre.</p> <p>Generate more employment opportunities from the new business this road is going to create.</p> <p>This is no one left behind getting the compensation.</p> <p>This is one of the first road project in Nepal where the land owners compensate by the Government.</p>
<b>Sisuwa Chowk</b>	9 December, 2018	72 Years, Elderly Man Physical Disable (wheel Chair User)	<p>It is very difficult for him to use his wheelchair by his own hand in the narrow road as he cannot move from the gravel area by the road side and it is very risky.</p> <p>During in rainy season this becomes more difficult. He enquired whether the road has a separate lane for people like him. He is concerned about the road safety for the people with different abilities and kids from this area.</p> <p>To address concerns, the project will obtain a schedule of disabled and children and provide transportation through alternative routes for such differently able people. The contractor will maintain the roster of such people including their phone number and facilitate them in travel in areas under construction through alternative arrangements.</p>
<b>Tal Chowk</b>	9 December	Women Group/mothers group	<p>The road condition is worse during the rainy season compared with the dry season as the whole road is covered by the runoff water and new drivers are unaware where the big puddles are so they have accidents there.</p> <p>Mothers are worried about their kids as they prefer to walk from the blacktopped area and this might lead them to an accident.</p>

			<p>Road safety measures are needed after the construction of the road and there needs to be an alternative route during the construction phase.</p> <p>Regarding the Durga temple, the mothers group acknowledged that the temple needs to be relocated for upgrading the road. They express their willingness to relocate the temple to appropriate place prior to the construction of road.</p>
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## **9. GRIEVANCE REDRESS MECHANISM (GRM)**

### **9.1 Grievance Redress Mechanism overview**

A grievance redress mechanism is established to allow stakeholders including PAPs to raise any concerns or complaints, or to appeal any disagreeable decisions, practices and activities arising from the project including compensation for land and assets. Stakeholders will be made fully aware of their rights and the procedures.

### **9.2 Current Grievance Redress Processes**

Currently all grievances including environmental and social issues are directly submitted to PMC's judicial committee (NyayikSamiti). NyayikSamiti is a three-member committee comprising the deputy mayor and two people from the executive committee or ward. The views of Environmental and Social Development Unit are taken in decision making process, if the judicial committee determines that is required. Grievances can also be submitted to District Administrative Officer (DAO) at District level or to Ward Chairman at Ward Level. Beside judicial committee, PMC also has a separate kiosk to register gender-based grievances/cases. These mechanisms and procedures are not fully operational so need to be strengthened further to perform its role more effectively.

### **9.3 Proposed Grievance Redress Mechanism**

Existing mechanisms for grievance redress at the local level will be drawn upon under the project to enable grievant to lodge issues, complaints and requests for information, to help support and build the capacity of local governments.

#### **9.3.1 Structure of the GRM**

The project will follow the existing Grievance Redress procedures. Since existing grievance procedures are not fully operational, the following Grievance Redress Mechanism is proposed

The grievant should first raise any project-related grievances with the information office of the subproject, which will decide whether the grievance can be resolved by the ward or other mechanism. A dedicated person will be placed as a grievance officer to look after grievances issues. The person will refer the cases according to the nature of grievances to the concerned entities. The records shall be kept properly.

At the Ward level, the staffing of the grievance redress committee (GRC) will include Ward Chairman, Environmental and Social Officers from respective Municipality.

The second level will be at the municipality level, and will comprise the NyayikSamiti. The Nyayik Samiti will discuss the environmental and social concern with E&S section/department of municipality to redress grievance pertaining to gender, vulnerable community, and other social and environmental issues in transparent and effective manner.

The third level will be at the PCO level, comprising members from the PCO. Those engaged as the monitoring unit for ESMP, RAP implementation can be the part of the committee.

Special project grievance mechanisms such as on site provision of complain hearings allows project affected persons to get fair treatment on time. The subproject will also handle issues regarding the compensation damages done during construction.

### **9.3.2 Processes of the GRM**

Grievances shall be submitted through various mediums, including in person, in written form to a noted address, through a toll-free phone line or through direct calls to concerned officials, and emails. The PCO will appoint a person (Operator) at PCO- Kathmandu to receive such calls and online messages. The person (Operator) based on nature of complaint, will forward the same to the information office or ward committee. A ticket or a unique number will be generated for all such call, messages and letters. The complainant will follow up based that unique number with Operator at PCO-Kathmandu. All complaints will be responded within two weeks at any level. In case response is not received from 1<sup>st</sup> level within 15 days, the complaint will be escalated to next level. If complaint remains unaddressed at 1<sup>st</sup> and 2<sup>nd</sup> within maximum 30 days after registering the complaint, it will be elevated to 3<sup>rd</sup> level at PCO level. The PCO within 7 days of time should instruct the concerned person at PMC level to arrange for a hearing within maximum 5 days of time. Effort will be given by all levels of GRCs to conduct hearing and resolve the concern at their level up to the satisfaction of complainant within the stipulated timeframe. In case 1<sup>st</sup> and 2<sup>nd</sup> level GRCs are unable to resolve the concern up to the satisfaction of complainant, these GRCs' or Complainant may approach to 3<sup>rd</sup> level of GRC at PCO Level. After conducting hearing at any level of GRC, the decision will be communicated to complainant within maximum 30 Days of time.

All local contact information and options for complaint submission will be available on site, on Toles, Wards, PMC Office, PCO on information boards and PMC websites. A half yearly report on Grievance Redress by the subproject project will be prepared and will be sent to PMC's GRCs by Wards' GRCs and ultimately to GRC of PCO. The PCO will forward the same to the World Bank.

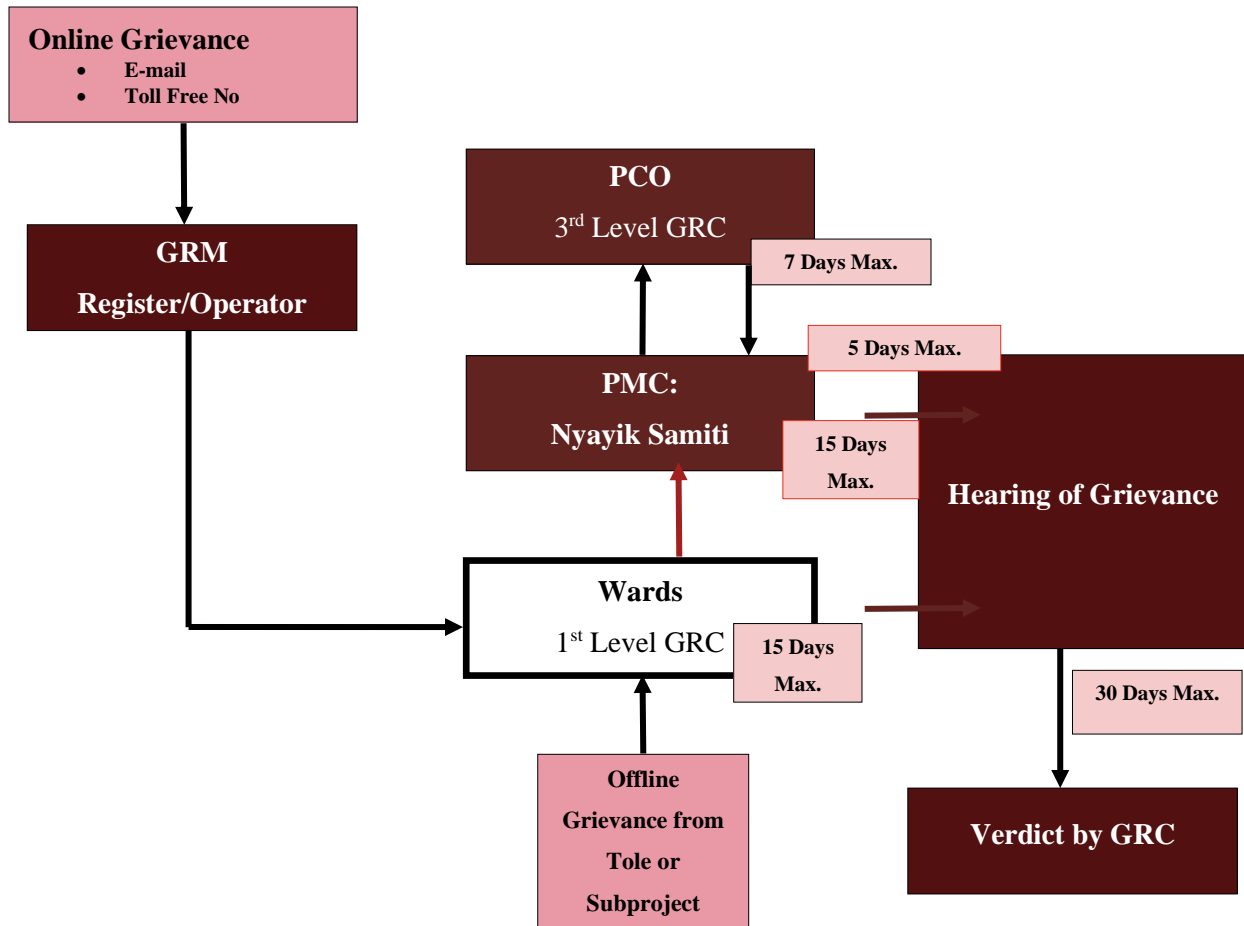


Figure 9–1. Grievance Redress Process

### 9.3.3 Further details of the GRM

The functions of grievance mechanism include redressing grievances of community / beneficiaries /project affected persons in all project respects, providing rehabilitation and resettlement assistance and related activities, and hearing grievances from workers involved in the project at any level or phase. The system should be established to report back to the concerned community or persons regarding the decision on the complaint. The grievances related to women should be dealt by women officer. As required, the social mobilizers will be recruited. GRC will deal/hear the issues related to Environment, R&R and individual grievances and will give its decision/verdict within 30 days after hearing the aggrieved person. The final verdict of the GRC will be given by the Head of GRC in consultation with other members of the GRCs and will be binding to all other members.

Potential grievance which may need to be addressed are listed below:

- i. Rehabilitation & Resettlement and Compensation issue

- ii. Loss of livelihood
- iii. Access to resource /utility/facility
- iv. Ambient air and noise Quality
- v. Impact on water quality/resource
- vi. Grievance from vulnerable community
- vii. Gender related issues
- viii. Grievances from workers
- ix. Safety and risk repeated to project development

#### **9.4 Other Mechanisms for Grievance Redress**

All complainants have the option to approach court/judiciary or the World Bank's Grievance Redress Service in case he or she is not satisfied with the verdict provided.

## Appendix

### Appendix A: Meteorological Parameters

Time, (Hr)	Air Temperature, (°C)	Wind Speed, (m/s)	Wind Direction, (Bearing)
12:30	26	0.4	120
13:30	26	0.8	190
14:30	25	2	260
15:30	25	1.4	292
16:30	25	1	172
17:30	24	0.6	300
18:30	24	0.2	200
19:30	24	0.6	92
20:30	24	0.2	120
21:30	24	0.6	108
22:30	24	1.2	112
23:30	24	1	132
0:30	24	1.4	220
1:30	24	0.8	200
2:30	21	1.4	150
3:30	21	2.6	320
4:30	21	0.8	240
5:30	22	1.4	132
6:30	22	0.8	106
7:30	23	1.2	112
8:30	23	0.4	290
9:30	23	1.6	180
10:30	23	2	180
11:30	24	1	210

Appendix B:Ratings and Summary of Beneficial and Adverse Impact

Magnitude	Extend		Duration		
High (H)	60	Regional (R)	60	Long term(LT)	20
Medium (M)	20	Local (L)	20	Medium Term (MT)	10
Low (L)	10	Site Specific (SS)	10	Short Term (ST)	5

Summary of Beneficial Impacts					
Impact	Nature	Magnitude	Extent	Duration	Rating
<b>Socio Economic (Construction Stage)</b>					
Employment opportunity of locals	Direct	M 20	L 20	ST 05	S 45
Increase income and local business	Indirect	M 20	L 20	M 10	S 50
Women/disadvantage group employment	Direct	M 20	L 20	ST 05	S 45
Local labors technical skill enhancement	Direct	M20	L20	LT20	S 60
<b>Socio Economic (Operation Stage)</b>					
Improved access, reduced travel/transportation Cost	Direct	H 60	R 60	LT 20	HS 140
Increase in Employment Opportunities	Indirect	H 20	L 20	LT 20	S 60
Increase land value	Indirect	M 20	L 20	LT 20	S 60
Agriculture/livestock production improvement	Indirect	H 60	R 60	LT 20	HS 140
Gender and Social Empowerment	Indirect	M 20	L 60	LT 20	HS 100
Livelihood enhancement by business/industry	Indirect	M 20	L 20	LT 20	S 60
<b>Summary of the adverse impacts</b>					
<b>Physical and Chemical Environment (Pre Construction and Construction stage)</b>					
Change in land use Pattern	Direct	L 10	SS 10	LT 20	S 40
Site clearance (Pre construction)	Direct	L 10	SS 10	LT 20	S 40
Removing electrical lines and Lekhnath water supply schemes (Pre construction)	Direct	M20	SS 10	LT 20	S 50
Requirement for construction materials (Quarry Operation, extraction of soil)	Direct	M 20	L 20	ST 5	S 45
Impacts associated with Development of Construction staging and storage area	Direct	L 10	SS 10	LT 20	S 40
Increased traffic, Traffic congestion , accidents	Direct	L 10	SS 10	LT 20	S 40
Stockpiling of Construction Materials	Direct	M 20	SS 10	ST 5	IS 35
Noise /Air/ Pollution	Direct	L 10	L 20	ST5	S 40
<b>Operational stage</b>					
Road stability and Management	Direct	M 20	SS 10	LT 20	S 50
Air/Noise pollution	Indirect	L 10	SS10	LT 20	S 40
Water pollution	Indirect	L 10	SS 10	LT 20	S 40
<b>Biological Environment (Construction stage)</b>					
Vegetation clearing	Direct	M 20	SS 10	LT 20	S 50
Impact on wildlife	Direct	L 10	SS 10	LT 20	IS 40
<b>Socio-Economic Environment (Construction stage)</b>					
Loss of Agriculture land	Direct	M 20	SS 10	LT 20	S 50

<b>Loss of Built up Structure</b>	Direct	M 20	SS 10	LT 20	S 50
<b>Occupational health and safety of workers</b>	Direct	M 20	L 20	ST 5	S 45
<b>Health and Sanitation</b>	Indirect	M 20	L 20	ST 5	S 45
<b>Operational stage</b>					
<b>Encroachment on ROW</b>	Indirect	M 20	SS 10	LT 20	S 50
<b>Possibility of Road accident</b>	Indirect	L 10	L 20	LT 20	S 50
<b>Population Pressure on social services and facilities</b>	Indirect	M 20	L 20	LT 20	S 60

NESS/Lab, M-03/R1.1

**QS Test Report / Certificate****NS Accreditation No. Pra. 01/053-54**

Entry No. : NCL - 726 (W) (2) - 06 - 2019      Date Received : 24 - 06 - 2019  
 Sample : Drinking Water (Red Cross Tap)      Date Completed : 27 - 06 - 2019  
 Client : DUBBC      Sampling Date : 23 - 06 - 2019  
 Sampled By : Jit Bahadur Khatri      Location : Pokhara Mahanagar  
 Palika-27, Taulchowk

S. N.	Parameters	Test Methods	Observed Values	NDWQS, Nepal
1.	pH at 23°C	Electromeric, 4500 - H <sup>+</sup> B, APHA	7.3	6.5 - 8.5
2.	Electrical Conductivity, (µS/cm)	Conductivity Meter, 2510 B, APHA	153.3	1500
3.	Turbidity, (NTU)	Nephelometric, 2130 B, APHA	4	5
4.	Total Hardness as CaCO <sub>3</sub> , (mg/L)	EDTA Titrimetric, 2340 C, APHA	82	500
5.	Total Alkalinity as CaCO <sub>3</sub> , (mg/L)	Titrimetric, 2320 B, APHA	109.25	-
6.	Chloride, (mg/L)	Argentometric Titration, 4500 - Cl <sup>-</sup> B, APHA	N. D. (<1)	250
7.	Ammonia, (mg/L)	Direct Nesslerization, 4500 - NH <sub>3</sub> C APHA	0.15	1.5
8.	Nitrate, (mg/L)	UV Spectrophotometric Screening, 4500 - NO <sub>3</sub> <sup>-</sup> B, APHA	1.70	50
9.	Nitrite, (mg/L)	NEDA, Colorimetric, 4500 - NO <sub>2</sub> <sup>-</sup> B, APHA	0.04	-
10.	Calcium, (mg/L)	EDTA Titrimetric, 3500 - Ca B &	25.65	200
11.	Magnesium, (mg/L)	3500 - Mg B APHA	15.55	-
12.	Iron, (mg/L)	Direct Air - Acetylene AAS, 3111 B, APHA	1.11	0.3
13.	Manganese, (mg/L)	APHA	0.04	0.2
14.	Arsenic, (mg/L)	SDDC, 3114 B, APHA	N. D. (<0.01)	0.05

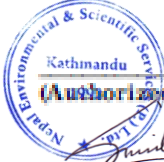
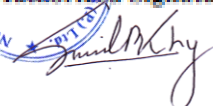
N. D.: Not Detected

**Note:**

NDWQS: National Drinking Water Quality Standard - 2063; AAS: Atomic Absorption Spectrophotometer; UV: Ultraviolet; EDTA: Ethylenediaminetetraacetic acid; NTU: Nephelometric turbidity unit; NEDA: N-1-Naphthylethylenediamine dihydrochloride; APHA: American Public Health Association.

**Remarks:** Except iron, all observed values complied the prescribed NDWQS for drinking water.

\_\_\_\_\_  
(Analyzed By)\_\_\_\_\_  
(Checked By)

  
 (Authorized Signature)  


**Note:**

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NESS/Lab, M-03/R1.1

## ✓ QS Test Report / Certificate

NS Accreditation No. Pra. 01/053-54

Entry No. : NCL - 726 (W) (2) - 06 - 2019      Date Received : 24 - 06 - 2019  
 Sample : River Water (Khudi Khola)      Date Completed : 27 - 06 - 2019  
 Client : DUBBC      Sampling Date : 23 - 06 - 2019  
 Sampled By : Jit Bahadur Khatri      Location : Pokhara Mahanagar  
Palika-27, Taulchowk

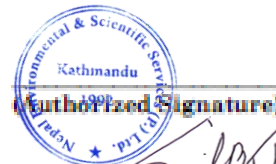
S. N.	Parameters	Test Methods	Observed Values
1.	pH at 23°C	Electrometric, 4500 - H <sup>+</sup> B, APHA	6.9
2.	Electrical Conductivity, (µS/cm)	Conductivity Meter, 2510 B, APHA	180.3
3.	Turbidity, (NTU)	Nephelometric, 2130 B, APHA	18
4.	Total Dissolved Solids, (mg/L)	Oven Drying Method, 180°C, 2540 C, APHA	310
5.	Total Hardness as CaCO <sub>3</sub> , (mg/L)	EDTA Titrimetric, 2340 C, APHA	86
6.	Total Alkalinity as CaCO <sub>3</sub> , (mg/L)	Titrimetric, 2320 B, APHA	109.25
7.	Chloride, (mg/L)	Argentometric Titration, 4500 - Cl B, APHA	N. D. (<1)
8.	Nitrate, (mg/L)	UV Spectrophotometric Screening, 4500 - NO <sub>3</sub> <sup>-</sup> B, APHA	0.89
9.	Total Phosphorous, (mg/L)	Ascorbic Acid, 4500 - P E, APHA	0.29
10.	Chemical Oxygen Demand, (mg/L)	Potassium Dichromate Reflux, 5220 B, APHA	13
11.	Arsenic, (mg/L)	SDDC, 3114 B, APHA	N. D. (<0.01)
12.	Iron, (mg/L)	Direct Air - Acetylene AAS, 3111 B, APHA	1.11
13.	Manganese, (mg/L)		0.12
14.	Lead, (mg/L)		<0.01
15.	Zinc, (mg/L)		0.05

N. D.: Not Detected

**Note:**

NDWQS: National Drinking Water Quality Standard - 2063; AAS: Atomic Absorption Spectrophotometer; UV: Ultraviolet; EDTA: Ethylenediaminetetraacetic acid; NTU: Nephelometric turbidity unit; NEDA: N-Naphthylethylenediamine dihydrochloride; APHA: American Public Health Association.

**Remarks:** The water was found turbid in nature due to presence of iron. The eutrophication is probable at observed total phosphorous level.

\_\_\_\_\_  
(Analyzed By)\_\_\_\_\_  
(Checked By)**Notes:**

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## QS Test Report / Certificate

### NS Accreditation No. Pra. 01/053-54

Entry No. : NQL - 728(A) (I) - 06 - 2019  
 Sample : Air  
 Client : DUDBC  
 Location : Taalchowk, Pokhara Municipality - 27

Date Received : 24 - 06 - 2019  
 Date Completed : 28 - 06 - 2019  
 Monitored By : NESS (Jit)

#### Ambient Air Quality

Sampling Point : Taalchowk, Pokhara Municipality - 27  
 Latitude : 28°547.8'N  
 Longitude : 84°343.5'E  
 Altitude : 706m  
 Starting Monitoring Date : 22 - 06 - 2019  
 Ending Monitoring Date : 23 - 06 - 2019  
 Monitored By : Jit Bahadur Khatri  
 Monitoring Duration : 1440 minutes  
 Monitoring Instrument : Low Volume Air Sampler (Anderson Type)  
 Flow Rate : 28.3L/min  
 Total Air Volume : 40.752m<sup>3</sup>

Particulate Size, (µm)	Weight of Dust, (mg)	Percentage Weight Fraction	Cumulative Weight Percentage
PM <sub>10</sub> > 10 µm	0.1	10	100
7.0 µm to 10 µm	0.1	10	90
3.3 µm to 4.7 µm	0.1	10	80
2.1 µm to 3.3 µm	0.2	20	70
4.7 µm to 7.0 µm	0.1	10	50
<0.43 µm	0.1	10	40
0.43 µm to 0.65 µm	0.1	10	30
1.1 µm to 2.1 µm	0.1	10	20
0.65 µm to 1.1 µm	0.1	10	10
<b>Total</b>	<b>1</b>	<b>100.0</b>	<b>0</b>

Notes: Continuous raining was observed during monitoring duration. The air pollutants were probably washed away due to rain.



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**QS Test Report / Certificate**

Total Suspended Particles : 24.54 $\mu\text{g}/\text{m}^3$   
 Respirable Particulate Matter (PM<sub>10</sub>) : 90% of TSP = 22.08 $\mu\text{g}/\text{m}^3$   
 Respirable Fine Particle (PM<sub>2.5</sub>) : 70% of TSP = 17.17 $\mu\text{g}/\text{m}^3$

Indicators →	Total Suspended Particulates (TSP)	Particulate Matter of Aerodynamic Size 10 micron (PM <sub>10</sub> )	Particulate Matter of Aerodynamic Size 2.5 micron (PM <sub>2.5</sub> )
NAAQS Limits for 24 hour averaging time, 2012 (GoN)	230 $\mu\text{g}/\text{m}^3$	120 $\mu\text{g}/\text{m}^3$	40 $\mu\text{g}/\text{m}^3$

Remarks: The observed concentrations of TSP, PM<sub>10</sub> and PM<sub>2.5</sub> complied the prescribed national ambient NAAQS 2012. The ratio of PM<sub>10</sub>:TSP and PM<sub>2.5</sub>:PM<sub>10</sub> were about 0.89 and 0.78 respectively.

\_\_\_\_\_  
(Monitored By)\_\_\_\_\_  
(Checked By)

  
 (Authorized Signature)  


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**QS Test Report / Certificate****Gaseous Pollutants**

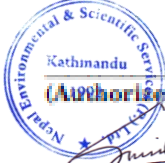
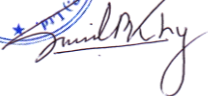
Sampling Point : Tashchowk, Pokhara Municipality - 27  
 Latitude : 28°9'47.8"N  
 Longitude : 84°3'43.5"E  
 Altitude : 706m  
 Starting Monitoring Date : 22 - 06 - 2019  
 Method : Gas Detector Tube

Gases	n	Volume of Air Drawn per Stroke, (ml)	No. of Draws	Calculated Concentration, (ppm)
SO <sub>2</sub>	2	100	5	<0.08
NO <sub>2</sub>	2	100	5	<0.08
CO	1	100	5	<1

Remarks: All the monitored gases were not detected.

\_\_\_\_\_  
(Monitored By)

\_\_\_\_\_  
(Checked By)

  
 (Authorized Signature)  


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**QS Test Report / Certificate****Metrological Parameters**

Sampling Point : Tasichowit, Pokhara Municipality - 27  
 Latitude : 28°3'47.8"N  
 Longitude : 84°3'43.5"E  
 Altitude : 706m  
 Starting Monitoring Date : 22 - 06 - 2019  
 Ending Monitoring Date : 23 - 06 - 2019

Time, (Hr)	Air Temperature, (°C)	Wind Speed, (m/c)	Wind Direction, (Bearing)
12:30	26	0.4	120
13:30	26	0.6	190
14:30	25	2	260
15:30	25	1.4	292
16:30	25	1	172
17:30	24	0.6	300
18:30	24	0.2	200
19:30	24	0.6	92
20:30	24	0.2	120
21:30	24	0.6	108
22:30	24	1.2	112
23:30	24	1	132
0:30	24	1.4	220
1:30	24	0.8	200
2:30	21	1.4	150
3:30	21	2.6	320
4:30	21	0.8	240
5:30	22	1.4	132
6:30	22	0.8	106
7:30	23	1.2	112
8:30	23	0.4	290
9:30	23	1.6	180
10:30	23	2	180
11:30	24	1	210

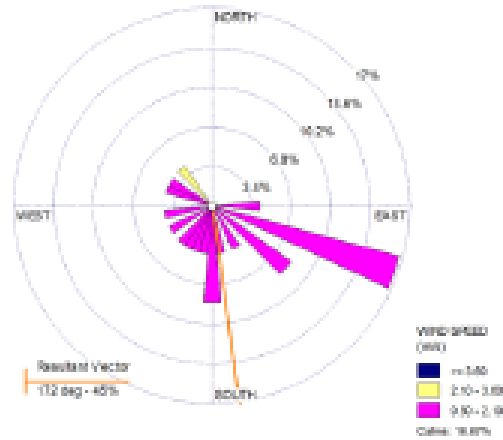
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(Checked By)


Environmental & Scientific Services  
 Kathmandu  
 1992  
 Nepal  
 Authorized Signature  
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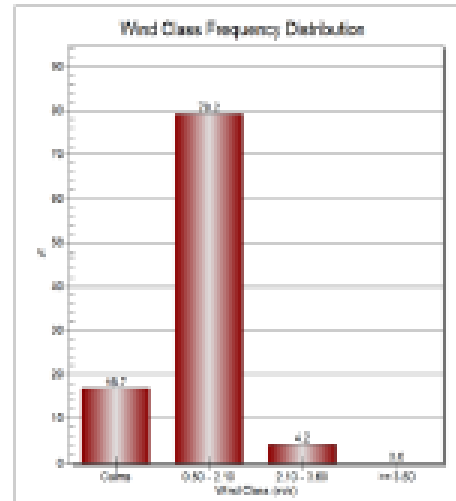
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## QS Test Report / Certificate



Windrose (Based on Air Blowing From Site)



Frequency Classification

**Remarks:** The average air temperature during the monitoring duration was 24 degree Celsius. The average wind speed was 1.08m/s. The resultant wind was blown at 172 degree for 45% of the monitoring duration with 16.7% calm hours. The dominant wind was lightair (about 79.2%) as per Beaufort wind scale. The air pollutants directed along the observed average wind direction.

\_\_\_\_\_  
(Monitored By)

\_\_\_\_\_  
(Checked By)



*Smil Khy*

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Appendix D: Social Baseline Information

**a. Population and Demography**

The Pokhara Metropolitan City has 81,456 households and 413,934 populations (CBS 2011). The sex ratio (Male: Female) is 85.3 (men per 100 women), with Male 201,107 males (48.6%) and 212,827 females (51.4%). PMC is divided into 33 wards. Population, gender and density in the three project-affected wards are presented in the Table below:

**Population Size, Growth and Distribution as per Census 2011**

Affected Wards	Total Household	Total Population	Male	Female	Area in sq. KM.	Average house hold size	Sex ratio (M:F)	Population Density
27,28,31	14,858	59,498	27,394	32,104	77.45	3.98	85.3	768

**b. Ethnicity**

The project- affected wards of 27, 30 and 31 have multi-ethnic compositions. Brahmin, Chhetri, Janjati and Dalit are major castes and ethnic groups of the area. The socioeconomic survey found that the area is heterogeneous in terms of caste and ethnic composition. However, two third of the household belongs to Hill-Brahmin and followed by Chhetri (16.0%) and Gurung (12.0%). The other caste and ethnic groups like Damai, Newar, Magar and Tamang are very nominal in figures consisting about 8% of the total population. The survey data shows that the average family size is 4.5. However, the family size is higher in Damai and Newar than other caste and ethnic groups as shown in table below.

**Caste and Ethnic Diversity in the Project Area. Source: Field survey, 2019**

Caste & Ethnic Group	Household		Population		Average family size
	No.	%	No.	%	
<b>Brahmin</b>	113	64.6	513	65.60	4.5
<b>Chhetri</b>	28	16.0	123	15.73	4.4
<b>Gurung</b>	21	12.0	85	10.87	4.0
<b>Damai</b>	5	2.9	26	3.32	5.2
<b>Newar</b>	4	2.3	21	2.69	5.3
<b>Magar</b>	3	1.7	11	1.41	3.7
<b>Tamang</b>	1	0.6	3	0.38	3.0
<b>Total</b>	175	100.0	782	100.0	4.5

### **c. Female headed households**

The socio-economic survey identified 175 household in which 51.4% household head is male and the rest are female. As compare to national figures, female-headed households in the proposed project area is higher, particularly because of overseas migration of male members. The survey data shows that 36% were male absentee households among the 175 households.

#### **Household Distribution by Gender Source: Field survey, 2019**

<b>Sex</b>	<b>No. of House Owner</b>	<b>Percentage</b>
<b>Female</b>	85	48.6
<b>Male</b>	90	51.4
<b>Total</b>	175	100.0

### **d. Status of Woman Headed Household**

In the project area there are 67single women-headed households. Amongst them 46 are widowed and 21are divorced/separated. Twenty to 50 percent of total houses in the area are in overseas employment and women are staying with their kids and elders at home. The women whose husbands are overseas are generally settled in urban areas where there areeducation, health facilities and other opportunities for kids and elderly in the family from nearby areas. (Source: Field Survey, 2019).

### **e. Status of Women's Ownership**

Women's access to ownership on fixed property such as land and house is in increasing trend because of 25 percent tax rebate incentive offered by the government if the land and property is registered in the name of women. The male to female ratio in the area is 1:1(Source: Field Survey, 2019)

### **f. Women Participation**

Women's participation and involvement in non-agriculture sectors have been gradually increasing. Both men and women contribute in agriculture activities. Both men and women are interested to work or participate in public works including road construction.

### **g. Social Group and Activities**

In the project area five different social groups are active and functional. About 21% females are involved as member of those user groups. Males are commonly more active in the users groups. After the local election women have also become members in the Wards. Apart from this, some women and mother groups are also functional in the area.

## h. Religion

The survey shows that about 90% of households follow the Hindu religion, 8.6% are Buddhist and a small number of households are Christians.

**Various Religions Practiced in the Area. Source: Field survey, 2019**

Religion	Number of Household	Percentage
Hindu	157	89.7
Buddha	15	8.6
Christian	2	1.1
Not stated	1	0.6
<b>Total</b>	<b>175</b>	<b>100.0</b>

## i. Age and Sex composition

Sex ratio is almost equal. However, the male and female populations vary in different age groups, as provided in the table below. Female population in the age group 15-59 is higher in comparison to the male population in the same age group, given outmigration of men, and large in the age groups 0-14 and 60 plus. The larger male population in age group 0-14 reflects higher fertility rate of male population due to patriarchal value system. Likewise, the large male population in age group 60 plus can reflect higher life expectancy rate of male as compared to female.

**Distribution of Population by Age and Sex Structure. Source: Field survey, 2019**

Age Group	Female		Male		Total	
	No	%	No	%	No	%
0-14	57	14.6	75	19.2	132	16.9
15-59	284	72.6	250	63.9	534	68.3
60+	50	12.8	66	16.9	116	14.8
<b>Total</b>	<b>391</b>	<b>100.0</b>	<b>391</b>	<b>100.0</b>	<b>782</b>	<b>100.0</b>

## j. Family structure

The nuclear is the dominant family structure in the project area. However, about 15% households live in joint family.

**Distribution of Household by Family Structure. Source: Field survey, 2019**

Family structure	Household	
	Number	%
Joint	26	14.9
Nuclear	149	85.1

<b>Total</b>	175	100.0
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### k. Migration

The trend of migration to city centers within the country or overseas for higher education and job opportunities is found to be medium in the project area. Temporary migration for the education and better opportunities are the common trend in the project area. The main causes of in-migration from nearby districts are due to the opportunities available in the PMC.

### l. Absentee Household and Population

The survey shows that 40% absentee households in the project area and absentee population is 12.5%. The largest proportion reported to migrate overseas destinations whereas a small proportion reported in country migration

**Absentee Household and Population Distribution. Source: Field survey, 2019**

Absentee	Total	Absentee	%	Within country		Aboard	
<b>Household</b>	175	70	40.0	7	10.0	63	90.0
<b>Population</b>	782	98	12.5%	8	1.0	99	11.5

**Distribution of Destination of Absentee Household and Population. Source: Field Survey, 2019.**

Destination place	Absentee Household		Absentee Population	
	No	%	No	%
<b>Arabian Countries</b>	23	25.6	22	34.9
<b>Developed countries</b>	51	56.7	30	47.6
<b>India</b>	16	17.8	11	17.5
<b>Total</b>	90	100	63	36.0

### m. Settlement and Housing Patterns

Settlement patterns in the project area generally reflect the distribution of arable land and the development of market areas in the road routes. Accordingly, most of the areas exhibit a stratified settlement pattern. The settlement in the business areas, like Talchowk and Sisuwa are clustered.

### n. Occupation and Livelihood

Mixed type of economic activities can be seen along the road alignment. The people residing in the main and lateral roads are within business areas comprising of retail stores catering for food and daily

commodities. Mostly, the businesses are run by the house owner themselves and are sometimes rented out. Along the road side, a number of petrol stations and restaurants are available.

Main business seasons for hotel and restaurant business nearby Lake is in the month of September to January, when all other activities become secondary. Major livelihood activities in project area are farming, trader, civil worker, army, police, private company employee, retired, entrepreneur (shop, restaurant) and medical practice.

The Project Affected Family (PAF) are involved in different occupations like study, business, job, agriculture, foreign employment, pension and so on. The table below shows that a slightly more than one fourth population reported student as their occupation. The data also illustrated that there is no wider variations in proportion of populations in various occupations. Likewise, 11.5% population reported unemployed whereas about 5% population involved in foreign employment. About 5% are physically disabled population are inactive in the workforce. Similarly, gender differences and gap can be seen in occupation especially in employment. In these occupations, men's involvement is comparatively higher than women.

#### **Distribution of population by Occupation**

Source: Field survey, 2019

<b>Occupation</b>	<b>Female</b>		<b>Male</b>		<b>Total</b>	
	No	%	No	%	No	%
<b>Student</b>	109	27.88	113	28.90	218	27.88
<b>Business</b>	53	13.55	64	16.37	109	13.94
<b>Other</b>	65	16.62	33	8.44	101	12.92
<b>Job</b>	32	8.18	63	16.11	95	12.15
<b>Unemployed</b>	50	12.79	18	4.60	90	11.51
<b>Agriculture</b>	42	10.74	37	9.46	80	10.23
<b>Foreign employment</b>	10	2.56	29	7.42	39	4.99
<b>Unable to work</b>	13	3.32	14	3.58	37	4.73
<b>Pension</b>	0	0.00	4	1.02	4	0.51
<b>Total</b>	374	100.0	375	100.00	749	100.0

#### **A. Disparity in Wages**

There is no equal wage rate for the men and women. Women receive only half of wages what the men receive especially in agricultural sector<sup>12</sup>. It is also reported that the practice of working women who come

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<sup>12</sup>The qualitative data indicates that construction related work women receive 25 percent less.

from outside to work in the project area with their small child is very rare. Student do not come with their mother for wage labor.

## B. Land

Land is the main source of livelihood, power and prestige in Nepal (Regmi, 1999). All the households surveyed reported owning a parcel of land. Total land is 455,118.22 sq.m. An average landholding is 2600.68 sq.m

**Landholdings in the Area. Source: Field survey, 2019**

Number of Own landholding households	Total land holding m <sup>2</sup>	Average landholding <sup>2</sup>
175	455,118.22	2,600.68

## C. Livestock

Table below indicates slightly more than one third households owning livestock suggesting livestock is not the dominating way of living for the people in the project area.

**Distribution of Household with Livestock and Without Livestock. Source: field survey, 2019**

Livestock at House	No.	%
No	111	63.4
Yes	64	36.6
<b>Total</b>	175	100

For 167 livestock in 64 households, average livestock is 2.6 heads per household. The dominant livestock is buffalo, cow, goat and pig. Dairy production is the key aspect of the livestock rearing. The poultry farming is another prominent agriculture activity in the project area. Both local and improved varieties of livestock are available in the project.

**Distribution of Livestock (Source: Field survey, 2019)**

Livestock	Local		Improved		Total	
	No	%	No	%	No	%
<b>Buffalo</b>	59	85.5	10	14.5	69	39.9
<b>Cow</b>	11	26.8	30	73.2	41	23.7
<b>Goat</b>	23	100.0	0	0.0	23	13.3
<b>Small Buffalo</b>	15	100.0	0	0.0	15	8.7
<b>Pig</b>	12	100.0	0	0.0	12	6.9
<b>Calf</b>	5	71.4	2	28.6	7	4.0
<b>Total</b>	125	74.9	42	25.1	167	100.0

<b>Fowl</b>	141	0.7	21333	99.3	21474
<b>Honey bee</b>	6	100.0	0	0	6
<b>Yes</b>	58			90.6	
<b>No</b>	6			9.4	
<b>Total</b>	64			100.0	

#### D. Standing Plants

The field survey reports that 25 (14.3%) households have standing plants in their own land. Out of 25 households, 14 households reported fodder, timber, religious valuable trees whereas 15 households reported fruit trees. The higher numbers of standing trees are fruit trees followed by fodder, timber and religious trees (e.g.Pipal and Parijat).

**Distribution of Household with Standing Plants on Land. Source: Field Survey, 2019**

<b>Plants</b>	<b>Household</b>	<b>%</b>
<b>No</b>	150	85.71
<b>Yes</b>	25	14.29
<b>Total</b>	175	100.00

**Household Distribution with Standing Plants. Source: Field Survey, 2019**

<b>Tree species</b>	<b>No of Household</b>	<b>No of plants</b>
<b>Fodder &amp; timber</b>	10	23
<b>Religious valuable trees</b>	4	5
<b>Fruit trees</b>	15	61
<b>Flower plant</b>	1	1
<b>Maize field</b>	1	-

#### E. Cooking Energy

Table below shows use of cooking energy at household level. All households use Liquid Petroleum Gas (LPG) for cooking purpose.

**Table below Distribution of Household by Cooking Energy at Household. Source: Field survey, 2019**

<b>Cooking energy</b>	<b>Household</b>	
	<b>No</b>	<b>%</b>
<b>LP Gas</b>	175	100.0
<b>Others</b>	0	0.0
<b>Total</b>	175	100.0

## F. Lighting Energy

All the households in the project area use electricity for lighting purpose.

**Distribution of household by lighting energy at household. Source: Field survey, 2019**

Cooking energy	Household	
	No	%
Electricity	175	100.0
Others	0	0.0
<b>Total</b>	175	100.0

## G. Education

80% and 66 % people of Talchowk and Sisuwa attained high school respectively whereas 65% of Talchowk and 51% of Sisuwa have obtained Bachelor's degrees. For Talchowk communities, the highest educational attainment is Master Degree. The education facilities in the area offer sufficient High School level of education. For advance degree, local people go to Pokhara (Pokhara University is within 2Km distance from Talchowk), Chitwan and Kathmandu. There are four Schools namely Shree Shanti Basic High School (community), Diamond Higher Secondary School (Private), New Light English Boarding High School (Private), Shree NabaJyotiSanatanDurga Secondary School (Community).

**Schools in RoW and Nearby Project Vicinity (Source: ESIA Study December, 2018)**

Schools	Name and Type of School	Number of students
Talchowk	Shree Shanti Basic High School (Community School)	200, Girl=120Boys=80
Talchowk	Diamond Higher Secondary School (Private)	1200, Boys = 660, Girls = 540
Sisuwa	New Light English Boarding High School (Private)	960, Girls= 432, Boys= 528
Sisuwa	Shree NabaJyotiSanatanDurga Secondary School (Community School)	320, Girls=184, Boys=136

## H. Literacy Status

89.1% population is literate in the project area. Women literacy rate in the project is 57.4% (Table 2-27).

**Distribution of Population by Literacy Status. Source: Survey 2019**

Literacy Status	Male	%	Female	%	Total	%
Illiterate	25	6.5	59	15.2	84	10.9
Literate	358	93.5	328	84.8	686	89.1

## I. Local Education Status

The table below shows education status of people living in the project area. The number of students pulation attending secondary school is higher compared to other levels. About the same proportion of population in basic and higher level education. However, gender gap can be seen in higher level but not in basic and school level education.

**Education Levels above the Age of 5 (Source: Field survey, 2019)**

Educational status	Male		Female		Total	
	No	%	No	%	No	%
<b>Basic</b>	86	23.1	79	21.0	165	22.0
<b>Secondary</b>	159	42.7	157	41.6	316	42.2
<b>higher education</b>	89	23.9	65	17.2	154	20.6
<b>Literate</b>	19	5.11	22	5.8	41	5.5
<b>Illiterate</b>	19	5.11	54	14.3	73	9.7
<b>Total</b>	372	100	377	100.0	749	100.0

**J. Training**

Only 5% individuals reported to receive training from various organizations mostly related to non-agriculture such as tailoring and driving. In the ESMP there is training component. This information flags the context for that scenario.

**Distribution of individuals by received training. Source: Field survey, 2019**

Trainings	Nature of Training received	No of individual
<b>Agriculture &amp; livestock</b>	Scientific farming & livestock management	4
	Dairy production	1
	Poultry farming	1
<b>Non-agriculture</b>	Child rights	1
	Driving	6
	Electrician	2
	Hotel	1
	Tailoring	13
<b>Others</b>		10

**K. Health Status**

Local people of the project area mainly rely on government health posts and private clinic. As per the field survey there are 1 Health Post and 1 Hospital, 7 private clinic and 1 Ayurveda Center in the project affected wards.

**L. Toilet**

All households in the project area have permanent toilet

**Distribution of household by access of toilet facility at household Source (Field survey, 2019)**

Toilet	Household	
	No	%
Yes	175	100.0
No	0	0.0
<b>Total</b>	175	100.0

**M. Water Supply and Sanitation**

96% population in the project area relies on the public water supply system as the main source of drinking water. The remaining households use groundwater for drinking.

**N. Membership in organization**

More than two third households are involved in various organizations such as TolBikasSastha (Tol Development Committee), Mother or Women groups, Youth groups, Cooperatives, Farmer’s cooperative, Saving groups etc.

**Distribution of Household with affiliation in organization. Source: Field survey, 2019**

Membership	No of household	%
Yes	119	68.0
No	56	32.0
<b>Total</b>	175	100.0

The key suggestions are not to delay in road construction, construct drainage, reinstallation of uprooted electricity poles standing on the side of the road, expansion of road in double-lane, installation of street light, no damage or harm to standing structure and provide compensation to the project affected individual and household for the loss.

**O. Directly Affected Land and Infrastructures**

The Land acquisition started in 1974 and completed in 1977 and compensation was distributed from 1977. All the land owners received compensation. No new land acquisition is required. All the parcels in theRoW have been transferred to departments of road. During the field visit no cropping were noted. The legal document is received from the PMC

**(i) Structures to be affected**

Only one temporary structure with shop is situated in the RoW and already has received compensation and is mentioned under the RAP Chapter.

Table 9-1 Details of House Owner

Details of Heir of the Property	Total family members	House	Other income source	Contact
<b>Eldest, Mr. Buddhi Narayan Bastola</b>	5 Husband-1, wife-1, son-2, daughter-1	1 <i>pakki</i> modern house near the affected old house	Owner of 2 Buses	9846026400
<b>Middle Son, (38 year)</b>	4 Husband-1, wife-1, son-2	1 pakki modern house near the affected old house	Worked at hospital as ambulance driver	
<b>Youngest Son (35 years)</b>	4 Husband-1, wife-1, son-2	1 pakki modern house near the affected old house	Worked as driver in public bus, wife also own fruit and vegetable shops	

#### (ii) Bus Shelters

There are 3 bus-shelters (1 small temporary Shed for bus waiting in Sisuwa Chowk and another 2 Bus Operation Committee Contact Booths are in front of new light Boarding School) which lie within the RoW need to be relocated during the construction phase.

#### (iii) Temple and Shrines

A small Durga Temple is built by local women group near to Sisuwa Chowk which falls within the RoW and needs relocation. During the consultation, the group is willing to move the temple to different place.

#### Information of Income Loss, Affected Indigenous Peoples and Women Headed Household

The project activities will not have direct impact to income loss. No permanent structure lies within the ROW of indigenous people and the road expansion will neither directly or indirectly effect adversely to the indigenous group in the living and cultural practices . There is no adverse impact to woman headed households in their livelihood prospect by the project construction. During the consultation, women explained their drudgery will be reduced because of the dust impact in to their household because of as it is road condition. The dust leads to extra work for them in cleaning house and washing clothes. It also reduced their anxiety of children's safety issues from road traffic as it is.

#### P. Gender Issue in Talchowk-Begnas Road Project

It is reported that women are discriminated and exploited by their own family member. Due to seasonal absence of migration of males, women carry out both household and outside work. Male and female literacy is found nearly similarly in the project area communities. Women responsibilities mainly include the household works, care for the children education and elderly peoples in house. While in general, men are responsible for outside works. If there is no male in the household, women perform all those work. In this situation women work load is very high. The main issues where there trends to be a gender perspective involve safety and travel patterns.

### **Q. Safety Issues**

Women not only tend to be the majority users of public buses in the project area usually have higher safety concerns in relation to existing road condition than men. Women respondents express their views that women prefer not to travel late in the evening and night when lighting is poor, for fear of aggressions. Similarly, overcrowded public transport in office time can increase the risk of sexual harassment. Female scooter/cycle riders reveals different safety perception to man, with preference for clear, wider and they are at higher risk situations they tend to prioritize observance of traffic rules over personal safety. Female pedestrians often express fear of road accidents linked to speeding.

The major problems related to road safety are roads and other required safety features, poor shoulders, inadequate safety barriers at steep vehicle drops, poor road condition, and lack of awareness of traffic rules to all stakeholders, random road side parking and narrow section at built-up areas. Most of the accidents having any human injury are reported to the police office. Accidents with minor injury and small damage to the vehicle are settled at the accident site with mutual understanding. According to the local police officer fairly large number of accident are never reported to the police. Generally, only those accidents with high injury or property damage or with dispute are reported and recorded in the police office.

### **R. Proposed solutions have included for safety issues**

- Traffic calming measure such as speed humps
- Drop kerbs for pedestrians, pram and disabled road crossing
- Provision of better and stronger lighting in key spots
- Proper road safety crossing and safety signing at major places like hospital and school area
- Violence against Women (VAW) Status of Project Area

At the inner area of project ZOI there are a few cases of women violence events which resolve by formal and non-formal way. However, majority of the disputes are solve by locally. The key causes for women violence are caused by men drinking alcohol and economic instabilities. At the inner settlement of project area vicinity, social deviances like concept of witch, discrimination of widow and untouchability are is

found very few. Women and girl trafficking case is not reported. The major social problems of the area are making noise and dispute/fighting by drinking alcohol. Only half of the violent events are reported to the police by women in the project.

Domestic violence is estimated to occur in the majority of households in Nepal, though it is rarely reported to the police or the court. In the road alignment alcohol and drug taking is considered as one of the major problems in the area. The public consultation also revealed the presence of gender based violence (GBV) to women in the project area. Beating to wife is the most common violence within household. Some women were still being victim of physical and psychological abuse directly and indirectly or knowingly or unknowingly. Women are generally not inclined to disclose such facts. The consultation with women also illustrates the priority for male child and otherwise bears physical violence. The social stigma such as 80% women suggested discrimination in division of labor and 90% are undermined in decision making.

Most of the women have known about the legal provision of GBV and known towards the organization working for women and GBV issues. Shakti Nepal (NGO), Sathi and Women and Children Development Office is working in the project to create awareness women's right and reducing the GBV at household or community level. The local women expressed views during the consultation as the project can lead to an influx of sex workers into the township. Such changes lead to contract workers and other personnel engage in unwanted sexual behavior that may resulting to HIV-AIDS infection or other Sexually Transmitted Diseases (STDs).

#### **S. Status of Women Land Ownership**

Women ownership of land is 47.43 % and male is 52% Women's has access to ownership on fixed property like land and house due to government's policy of 25 percent tax rebate on the sell and purchase of land and house.

#### *Women Participation*

Women's participation and involvement in non-agriculture sectors have been gradually increasing. Both men and women contribute in agriculture sector. Both men and women are interested to work or participate in public works including road construction. There is no equal wage rate for the women and men. Women receive half of the men as agriculture labor.

#### *Gender Based Violence (GBV) Risk Mitigation Action Plan Gender Analysis*

The socio economic survey of project directly impact households reveal that people living in RoWdoing similar kind of business which is oriented towards the visitors of Begnas Tal as this is one of the popular tourist area of Pokhara. Most of the house owners are staying in the area from few generations. The

beginning of the road Talchowkis connected with the Prithvi Highway and end is connected with Begnas Tal area. In spite of being urban area, significant gender gap is noticed in work force participation and higher education in survey. The community type is scattered but Hindu hill Brahmans are in majority (64.5%), followed by Chhetri (16%), Gurung (12%) and other caste. The ratio of Male: Female in project direct impact area is 1.05:1.

#### *T. Female Headed Household and Ownership on Fixed Property*

The socio-economic survey 2019 identified 175 household in which 84 (48.6%) household head is female. As compare to national figure 31.3%, female headed household in the proposed project area is higher. (Source: data.worldbank.org/indicator). Among them 43 HH (51%) was found due to overseas employment and 4 are single women. The other remaining causes of female headed household are husband working out of Pokhara, Pawa (property gifted from girl's family) and property owned by woman doesn't consider as family property.

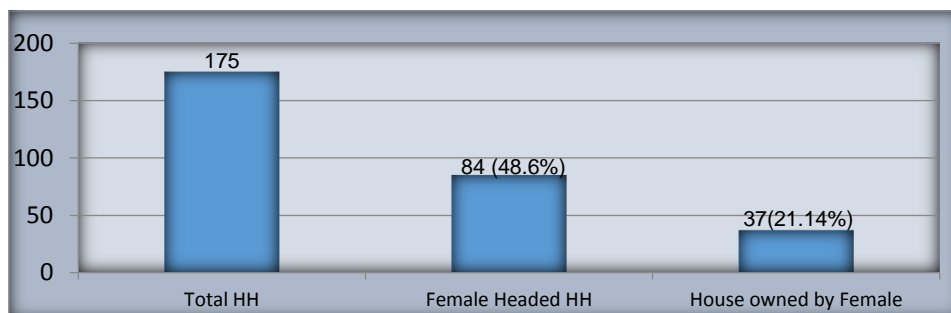
Considering that women constitute 51.5 percent of Nepal's total population and around 75 per cent of women are engaged in agriculture as their primary occupation, it is ironic to find that women often don't have ownership of land that they have been tilling for years. Of the total surveyed households, 36 (20.6%) families are engage in agriculture as a primary source of livelihood and among them 9 (25%) women owned the land.

In Nepal, about 20% women have ownership on land and the rest lag behind to it (CBS, 2012). Of the total surveyed population, 21.14% of women have land registered in their names. This is slightly higher than the national figure. Women's access to ownership on fixed property such as land and house has been increasing in the recent years. One of the reasons identified was the provision of tax exemption while registering land in a women's name<sup>13</sup>.

#### **Total Household, Female Headed Household and female Owned Household**

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<sup>13</sup> Financial Bill 2015/16 {25 per cent to 50 per cent tax exemption on registration when land is owned by a woman; a 35 per cent tax exemption for single women; and joint registration of land in the names of husbands and wives with a fee of Rs.100 (If husband want to include his wife's name in existing property paper)}



Source: survey 2019

#### U. Women Participation in Public Sphere

In Nepal women participation in public spheres is increasing over the last few decades. In the project impact area women participation in public sphere is very high. Out of 175 surveyed HH, 112 HH reported as a member of different organization. Among them, women from 84 HH have membership in different community based organization (CBO). But only 2 women are in primary post in non-women group. It indicates the woman's positions are still marginalized and subordinated.

There is no visible discrimination and differentiation to access and utilizations of public space by caste, ethnicity, religion, sex, age, class in the project impact area as this is a scattered urban settlement. Alcoholism, gambling and drug abuse are present in the area. In project area, social deviances like concept of witch, discrimination of widow and untouchability are very rare. Social evils like Girl trafficking are not reported at the project impact area.

#### V. Wages

Gender wage gap is visible in same category of work. Women are generally paid less than men. In the project impact area, the general wages for man and woman are 1200 and 800 per day correspondingly. This indicates the inequalities and discriminations for women in labour market.

#### W. Focused Group Discussions

During the social study, 4 FGDs were carried out in which one with women group and three with mixed group. The total participants in the FGDs were 54 including (34 females and 20 males).

Location	No of Participants	Male	Female
Begnas 31, Ward Office	17	0	17
Mohariya, Pokhara Metropolitan city	15	7	8
Sisuwa, Pokhara Metropolitan city	11	6	5
Talchowk, Pokhara Metropolitan city	11	7	4
<b>Total</b>	<b>54</b>	<b>20</b>	<b>34</b>

Appendix E: Vegetation in RoW in Tal Chowk to SisuwaChowk (Four Lane)

	Species name	DBH (Centimeter)	Height (meter)
Tree	Peepal, <i>Ficus religiosa</i>	95.5	14
	Kapur, <i>Cinnamomumcamphora</i>	39	11
	Litchi, <i>Litchi chinensis</i>	26.4	10
	Pakhuri (Tri-forked), <i>Ficusglaberima</i>	46, 54, 45.1	11.5
	Lapsi, <i>Choerospondiasaxillaris</i>	32	11
	Peepal (Bi-forked), <i>Ficus religiosa</i>	65.7, 70	13
	Sisso, <i>Dalbergia sissoo</i>	30.5	10.3
	Sisso, <i>Dalbergia sissoo</i>	44	12
	B. Pole	Ashoka, <i>Saracaindica</i>	14.7
Ashoka, <i>Saracaindica</i>		13.2	7.2
Seemal, <i>Bombvx ceiba</i>		10.2	6
Paheliful,		14.5	3.5
Kapur, <i>Cinnamomumcamphora</i>		29.2	11
Gul mohar (Tri-forked), <i>Delones regia</i>		18, 13.6, 11	6
Sisso, <i>Dalbergia sissoo</i>		22.8	7
Bakaino (Bi-forked), <i>Melia azedarach</i>		18.2, 28	8
Swami (Bi-forked), <i>Ficusbeniamina</i>		11.5, 18.6	8.1
Aaru, <i>Prunus persica</i>		16	7.5
Sisso, <i>Dalbergia sissoo</i>		17.1	6.7
Bakaino (Bi-forked), <i>Melia azedarach</i>		12.9, 15.8	8
Bakaino, <i>Melia azedarach</i>		15	7
Bakaino, <i>Melia azedarach</i>		20.8	7
Kapur, <i>Cinnamomumcamphora</i>		12, 19.9	6
Litchi, <i>Litchi chinensis</i>		14	9
Kapur (Bi-forked), <i>Cinnamomumcamphora</i>		13.7, 12.5	6
Katahar, <i>Artocarpusheterophyllus</i>		21.5	7
Aap, <i>Magniferaindica</i>		11	6
Sisso, <i>Dalbergia sissoo</i>		13.5	6.5
Sisso, <i>Dalbergia sissoo</i>		12.3	7
Sisso, <i>Dalbergia sissoo</i>		14.2	6
Sisso (Bi-forked), <i>Dalbergia sissoo</i>		18.6, 16.1	8
Sisso, <i>Dalbergia sissoo</i>		15	6
Sisso, <i>Dalbergia sissoo</i>		11.5	6
Bakaino, <i>Melia azedarach</i>		14.5	6.3
Sisso (Tri-forked), <i>Dalbergiasissoo</i>		12, 11.7, 10.3	8
Sisso, <i>Dalbergia sissoo</i>		15	7
Sisso, <i>Dalbergia sissoo</i>		17	7
Sisso, <i>Dalbergia sissoo</i>		11	6
Peepal, <i>Ficus religiosa</i>		13	4
Mewa, <i>Carica papava</i>		16.8	4.2
Bar, <i>Ficus bengalensis</i>		22	7
Peepal, <i>Ficusreigiosa</i>		13.5	6.7
Pakhuri, <i>Ficusglaberima</i>		16	6.5
Sisso, <i>Dalbergia sissoo</i>		23.5	10
Khanvu (Tri-forked), <i>Ficussemicordata</i>		16, 13, 10.2	7
Supari, <i>Areca catechu</i>		14	9
Peepal, <i>Ficusreigiosa</i>		11.7	6
Mewa, <i>Carica papava</i>		12	5.7
Ashoka, <i>Saracaindica</i>		11.4	6
Saplin gs		Ashoka, <i>Saracaindica</i>	30
	Parijat, <i>Nyctanthes arbor-tristis</i>	4	
	Amba, <i>Psidium guaiava</i>	2	

	Aap, Magnifera indica	4	
	Paheleful	1	
	Mewa, Carica papaya	4	
	Raatoful, Bougainvillea spectabilis	1	
	Sisso, Dalbergia sissoo	19	
	Bakaino, Melia azedarach	3	
	Bamboo, Bamboosa vulgaris	Patch <30	
	Banana, Musa paradisiaca	Patch <10	
	Amriso, Thysanolaena latifolia	Patch	
	Banana, Musa paradisiaca	Patch <20	
	Bar, Ficus bengalensis	1	
	Peepal, Ficus religiosa	1	
	Unknown	1	
	Aaru, Prunus persica	3 (Small patches)	
	Amala, Phyllanthus emblica	1	
	Kafal, Morus alba	1	
	Khanvu, Ficus semicordata	3	
	Kapri	2	
	Banana, Musa paradisiaca	Patch <10	
	Banana, Musa paradisiaca	Patch <15-20	
	Banana, Musa paradisiaca	Patch <10	
	Banana, Musa paradisiaca	Patch <15	
	Banana, Musa paradisiaca	Patch <15	
	Banana, Musa paradisiaca	Small patch	
	Parijat, Nyctanthes arbor-tristis	1	
	Kapur, Cinnamomum camphora	1	
	Dhupi, Juniperus indica	1	
	Dalchini, Cinnamomum tamala	1	
Seedlings	Aap, Magnifera indica	4	
	Amba, Psidium guajava	15	
	Tulsi, Ocimum sanctum	2	
	Kapur, Cinnamomum camphora	1	
	Flowers,	Patch <20	
	Lemon, Citrus limon	1	
	Aiambari,	4	
	Bakaino, Melia azedarach	1	
	Tulsi, Ocimum sanctum	1	
	Tulsi, Ocimum sanctum	3	
	Tulsi, Ocimum sanctum	22	
	Aank, Calotropis gigantea	1	
	Gulab, Rosa sps.	2	
	Mewa, Carica papaya	1	
	Antareful	Patch <10	
	Khursaniful	4	
	Nilkanda, Duranta erecta	1	
	Bavar, Ziziphus juba	Long patch	
	Dudhilo, Ficus nemoralis	1	
	Swami, Ficus benjamina	1	
	Parijat, Nyctanthes arbor-tristis	2	

List of vegetation in RoW from Sishuwa Chowk to Khudi Bridge (Two Lane Section)

	Local name	Botanical name	DBH (Centimeter)	Height (Meter)
A. Tree	Sisoo	<i>Dalbergia sissoo</i>	39.8	9
	Swami	<i>Ficusbenjamina</i>	31.8	3.2
	Pakhuri	<i>Ficusglaberima</i>	48.6	14.3
	Bar	<i>Ficus bengalensis</i>	44	11
	Peepal	<i>Ficus religiosa</i>	34.1	14
	Pakhuri	<i>Ficusglaberima</i>	30.6	6
	Rudraksha	<i>Elaeocarpus ganitrus</i>	33.3	15.1
	Peepal	<i>Ficus religiosa</i>	46.6	4
	Peepal	<i>Ficus religiosa</i>	38	11
	Sisoo	<i>Dalbergia sissoo</i>	46	17
	Dumri	<i>Ficusracemosa</i>	49	15
	Kapur	<i>Cinnamomumcamphora</i>	13.3	5
	Amba	<i>Psidium guajava</i>	10.6	4.9
	Sisoo (biforked)	<i>Dalbergia sissoo</i>	13 15	6.7
	Painyu	<i>Prunus cerasoides</i>	112	4.2
	Aap	<i>Magniferaindica</i>	14.3	4
	Neem	<i>Azadirachtaindica</i>	20	8.1
	Supari	<i>Areca catechu</i>	13.1	6.3
	Neem	<i>Azadirachtaindica</i>	27.3	7.6
	Sisoo	<i>Dalbergia sissoo</i>	28.3	11
	Painyu	<i>Prunus cerasoides</i>	13	5
	Parijat	<i>Nyctanthesarbor-tristis</i>	20.5	10
	Aap	<i>Magniferaindica</i>	27.5	10
	Parijat	<i>Nyctanthesarbor-tristis</i>	12	3.7
	Sisoo	<i>Dalbergia sissoo</i>	14	4.2
	Sisoo	<i>Dalbergia sissoo</i>	21.1	8
	Khaniyu	<i>Ficussemicordata</i>	23.1	4
	Kaphal	<i>Morus alba</i>	13.2	5.1
	Bar	<i>Ficus bengalensis</i>	17	7.2
	Swami (forked)	<i>Ficusbenjamina</i>	13.2, 15.8	6.1
	Katahar	<i>Artocarpus heterophyllus</i>	21.2	9
	Aap	<i>Magniferaindica</i>	18.3	7
	Pakhuri	<i>Ficusglaberima</i>	24	12
	Khaniyu	<i>Ficussemicordata</i>	10.5	4.2
	Khaniyu	<i>Ficussemicordata</i>	12.5, 12, 13	4
	Sisoo	<i>Dalbergia sissoo</i>	22	7
Sisoo	<i>Dalbergia sissoo</i>	15.1	6.8	

Local name	Botanical name	DBH (Centimeter)	Height (Meter)
Kalkiphool	Callistemon citrinus	15	5.6
Tejpatta	Cinnamomum tamal	28	5
Bar	Ficus bengalensis	17	8.3
Peepal	Ficus religiosa	25	8.5
Sisoo	Dalbergia sissoo	21	8.3
Pakhuri	Ficusglaberima	22	7.8
Sisoo	Dalbergia sissoo	21	8.3
Champ	Mitcheliachampaca	11.7	7
Khaniyu	Ficussemicordata	22.3	9
Kalkiphool	Callistemon citrinus	17.5	3
Khaniyu	Ficussemicordata	18	7
Kabro (forked)	Ficuslacor	18, 24.8	7
Tejpatta	Cinnamomumtamala	23.3	7.2
Chiuri	Aesandrabutyracea	16.9	8
Ashoka	Saracaindica	13	6
Ashoka	Saracaindica	12.8	6
Kalkiphool (forked)	Callistemon citrinus	14.8, 15.7	7
Ashoka	Saracaindica	17.3	5.6
Ashoka	Saracaindica	17.5	5.2
Ashoka	Saracaindica	17.8	5
Ashoka	Saracaindica	16.8	5.1
Ashoka	Saracaindica	17.5	5
Ashoka	Saracaindica	17.3	5
Khaniyu	Ficussemicordata	13.3	5
Nibaro	Citrus sps.	12.6	5
Sisoo	Dalbergia sissoo	12.3	8
Sisoo	Dalbergia sissoo	14.7	7
Kapur	Cinnamomumcamphora	19	8
Pakhuri (Forked)	Ficusglaberima	14, 15.5, 15.1	6
Pakhuri	Ficusglaberima	22	6
Pakhuri	Ficusglaberima	13	6
Pakhuri	Ficusglaberima	16.9	4
Sisoo	Dalbergia sissoo	11.8	4
Khaniyu	Ficussemicordata	15	5
Sisoo	Dalbergia sissoo	14.9	7.1
Tejpatta	Cinnamomumtamala	20.4	6
Kapur	Cinnamomumcamphora	23.5	7
Pakhuri (Forked)	Ficusglaberima	27.3, 29.9	9
Ashoka	Saracaindica	21	9

	Local name	Botanical name	DBH (Centimeter)	Height (Meter)
	Peepal	Ficus religiosa	19	8
	Aap	Magnifera indica	12.2	4
	Kapur	Cinnamomum camphora	17.4	7
	Neem	Azadirachta indica	19.8	7.3
	Parijat	Nyctanthes arbor-tristis	15	4
	Amba	Psidium guajava	12.1	4.3
	Sisoo	Dalbergia sissoo	21.7	8.3
	Sisoo	Dalbergia sissoo	29.9	12
	Bakaino	Melia azedarach	13.4	3
C. Seedlings	Banana	Musa paradisiacal	53 patches	
	Sisoo	Dalbergia sissoo	16	
	Khanyu	Ficus semicordata	7	
	Litchi	Litchi chinensis	1	
	Pakhuri	Ficus glaberima	2	
	Khursaniphool		6	
	Ashoka	Saraca indica	6	
	Amba	Psidium guajava	24	
	Parijat	Nyctanthes arbor-tristis	24	
	Maltatro		4	
	Kagati	Citrus limon	2	
	Bello	Ficus chincha	6	
	Kutmero	Litsea monopetala	6	
	Suntala	Citrus aurantium	1	
	Aap	Magnifera indica	5	
	Mewa	Carica papaya	5	
	Amilo	Citrus sps.	2	
	Teak	Tectona grandis	1	
	Kabro	Ficus lacor	1	
	Kalkiphool	Callistemon citrinus	7	
	Nibharo	Citrus sps.	2	
	Bamboo	Bambusa vulgaris	2 patches	
	Kadipatta	Murrayako enigii	1	
	Aakhapakuwa		1	
	Bamboo (small)	Bambusa vulgaris	2 patches	
	Tejpatta	Cinnamomum tamala	2	
	Bahramaasephool		4	
Supaari	Areca catechu	1		

	Local name	Botanical name	DBH (Centimeter)	Height (Meter)
	Amriso	Thysanolaenalatifolia	1 patch	
	Kapur	Cinnamomumcamphora	3	
	Monkey puzzle	Araucaria araucana	1	
	Ghantiphool	Abutilon ranadei	2	
	Antarephool		Patch of 5-15	
	Kapash	Gossypium hirsutum	2	
	Ipil Ipil	Leucanealeucocephala	1	
	RaatoGucchephool	Bougainvillea spectabilis	3	
	Aaru	Prunus persica	1	
	Taanki	Bauhinia variegata	1	
	Gulab	Rosa sps.	3	
	Peepal	Ficus religiosa	1	
<b>D. Samplings</b>	Local name	Botanical name	Total number	
	Amba	Psidium guajava	1	
	Dhupi	Juniperusindia	4	
	Tulsi	Oscimum sanctum	27	
	Lalupate	Euphorbia pulcherima	7	
	Aap	Magniferaindica	1	
	Amriso	Thysanolaenalatifolia	11	
	Nilkanda	Durantaerecta	2	
	Bayar	Zizipusjuba	4	
	Bakaino	Melia azedarach	1	
	Parijat	Nyctanthesarbor-tristis	1	
	Tulsi	Oscimum sanctum	5	

Appendix F: Government of Nepal Standard

A. Inland surface waters from combined wastewater treatment plant discharged into inland surface water

Characteristics	Tolerance Limits
Total Suspended solids, mg/l, <i>max</i>	50
pH	5.5 to 9.0
Biochemical oxygen demand (BOD) for 5 days at 20 degree C, mg/l, <i>max</i>	50
Oils and grease, mg/l, <i>max</i>	10
Phenolic compounds, mg/l, <i>max</i>	1
Mercury (as Hg), mg/l, <i>max</i>	0.01
Zinc (as Zn), mg/l, <i>max</i>	5
Ammonical nitrogen, mg/l, <i>max</i>	50
Chemical Oxygen Demand, mg/l, <i>max</i>	250

B. National Drinking Water Quality Guidelines

Categories	Parameters	Maximum Concentration Limits, (MCLs)	Remarks
<b>Physical</b>	Turbidity, (NTU)	5(10)	-
	pH	6.5 ~ 8.5*	-
	Color, (TCU)	5(15)	-
	Taste &Odor	Unobjectionable	-
	Total Dissolved Solid, (mg/l)	1000	-
	Electrical Conductivity, (micromhos/cm)	1500	-
<b>Chemical</b>	Iron, (mg/l)	0.3(3)	-
	Manganese, (mg/l)	0.2	-
	Arsenic, (mg/l)	0.05	-
	Cadmium, (mg/l)	0.003	-
	Chromium, (mg/l)	0.05	-
	Cyanide, (mg/l)	0.07	-
	Fluoride, (mg/l)	0.5 ~ 1.5*	-
	Lead, (mg/l)	0.01	-
	Ammonia, (mg/l)	1.5	-
	Chloride, (mg/l)	250	-
	Sulphate, (mg/l)	250	-
	Nitrate, (mg/l)	50	-
	Copper, (mg/l)	1	-
	Total Hardness, (mg/l)	500	-
	Calcium, (mg/l)	200	-
	Zinc, (mg/l)	3	-
	Mercury, (mg/l)	0.001	-
	Aluminium, (mg/l)	0.2	-
	Residual Chlorine, (mg/l)	0.1 ~ 0.2*	<b>Only for chlorinated systems</b>
<b>Micro-Biology</b>	E-Coli, (MPN Index / 100ml)	0	-
	<b>Total Coliform, (MPN Index / 100ml)</b>	<b>0(95)%</b>	-

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### C. National Ambient Air Quality Standards for Nepal

Parameters	Units	Averaging Time	Concentration in Ambient Air, Maximum
TSP	µg/m <sup>3</sup>	24 - hours	230
PM <sub>10</sub>	µg/m <sup>3</sup>	24 - hours	120
PM <sub>2.5</sub>	µg/m <sup>3</sup>	24 - hours	40
Sulfur Dioxide	µg/m <sup>3</sup>	Annual	50
		24-hours	70
Nitrogen Dioxide	µg/m <sup>3</sup>	Annual	40
		24-hours	80
Carbon Monoxide	µg/m <sup>3</sup>	8hours	10000
Lead	µg/m <sup>3</sup>	Annual	0.5
Benzene	µg/m <sup>3</sup>	Annual	5
Ozone	µg/m <sup>3</sup>	8-hours	157

Ref.: Section 62, Number 19, Nepal Gazette, Part 5, 2069/04/29, Notice 2

### D. National Sound Pressure Level, Nepal

Microenvironment	Sound Pressure Level, L <sub>eq</sub> dB(A)	
	Daytime	Nighttime
<b>Industrial Area</b>	75	70
<b>Commercial Area</b>	65	55
<b>Rural Settlement Area</b>	45	40
<b>Urban Settlement Area</b>	55	50
<b>Mixed Settlement Area</b>	63	55
<b>Pristine Area</b>	50	40

Ref.: Section 62, Number 30, Nepal Gazette Part 5, 2069/7/13

### E. Diesel Powered Generator Emission Limits (g/kWh)

Category, (kW)	CO	HC	NO <sub>x</sub>	PM
<b>kW &lt; 8</b>	8	1.3	9.2	1
<b>8 = kW &lt; 19</b>	6.6	1.3	9.2	0.85
<b>19 = kW &lt; 37</b>	6.5	1.3	9.2	0.85
<b>37 = kW &lt; 75</b>	6.5	1.3	9.2	0.85
<b>75 = kW &lt; 130</b>	5	1.3	9.2	0.7
<b>130 = kW &lt; 560</b>	5	1.3	9.2	0.54

Ref.: Section 62, Number 30, Nepal Gazette Part 5, 2069/7/13

The minimum height of the chimney should be maintained not less than 11m for the industrial boiler utilizing solid or liquid fuel.

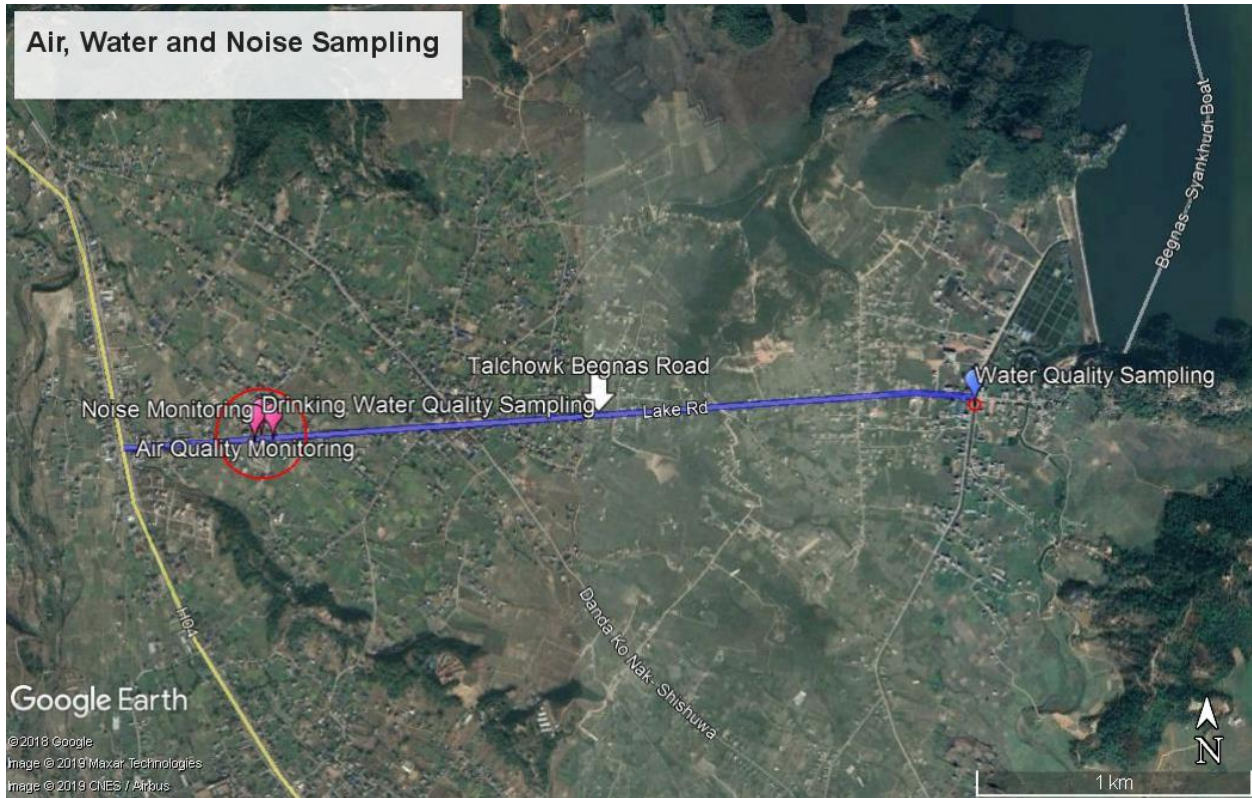
Appendix G: List of People Consulted for ESIA/ESMP

<b>Name</b>	<b>Address/organization</b>	<b>Mobile</b>
<b>Man Bahadur G.C</b>	Mayor, Pokhara Metropolitan	9850030612
<b>Babu Ram Giri</b>	Chairperson of Chamber of Commerce Lekhnath Municipality	9850021690
<b>KalpanaAdhikari</b>	Chairperson, Navajyoti Mother group	9846198075
<b>Buddhi Maya</b>	LalupateAmaSamuha	9846296579
<b>SreeramPokharel</b>	Ward Chairperson , Ward No. 30	9846030869
<b>Purna Kumar Gurung</b>	Ward Chairperson, Ward No. 27	9851030242
<b>Murli Mishra</b>	Traffic Police	9851077507
<b>BalaramBaral</b>	Retired Civil Servant, Talchowk Town Management Committee	984645349 0
<b>DamoderTiwari</b>	Retired Civil Servant, Entrepreneur Talchowk	9856020174
<b>Laxmi Prasad Tripathi</b>	Previous WardChairperson	9858022067
<b>Shiva Giri</b>	TolBikashSamiti Chair	98560616904
<b>HariBastakoti</b>	Entrepreneur, Owner Shivam Party Palace	9856060857

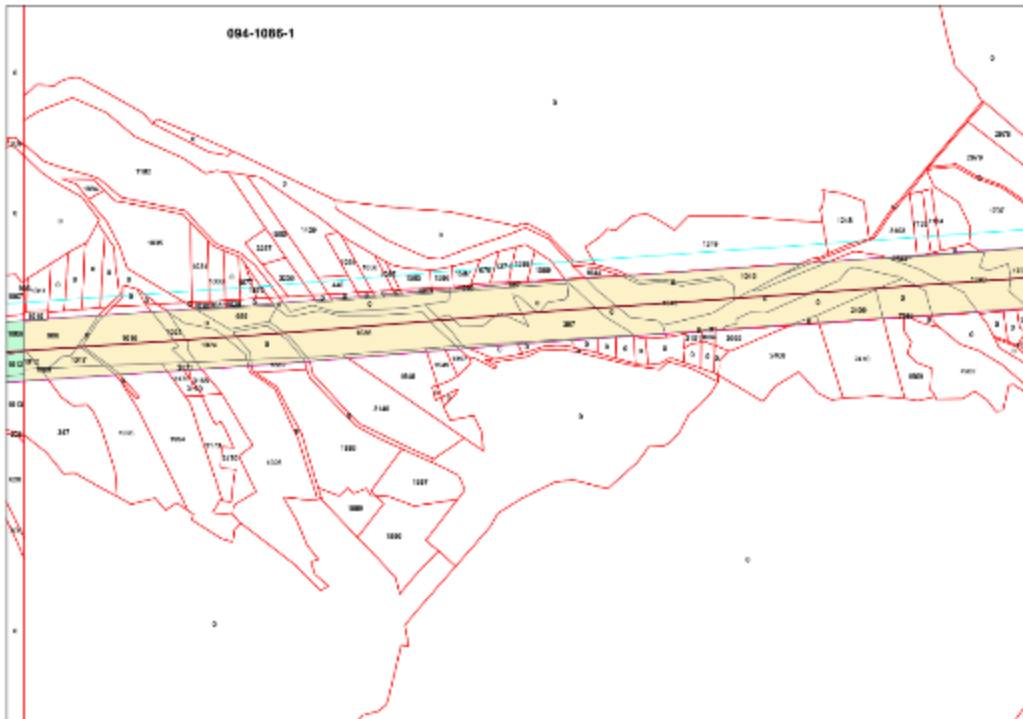
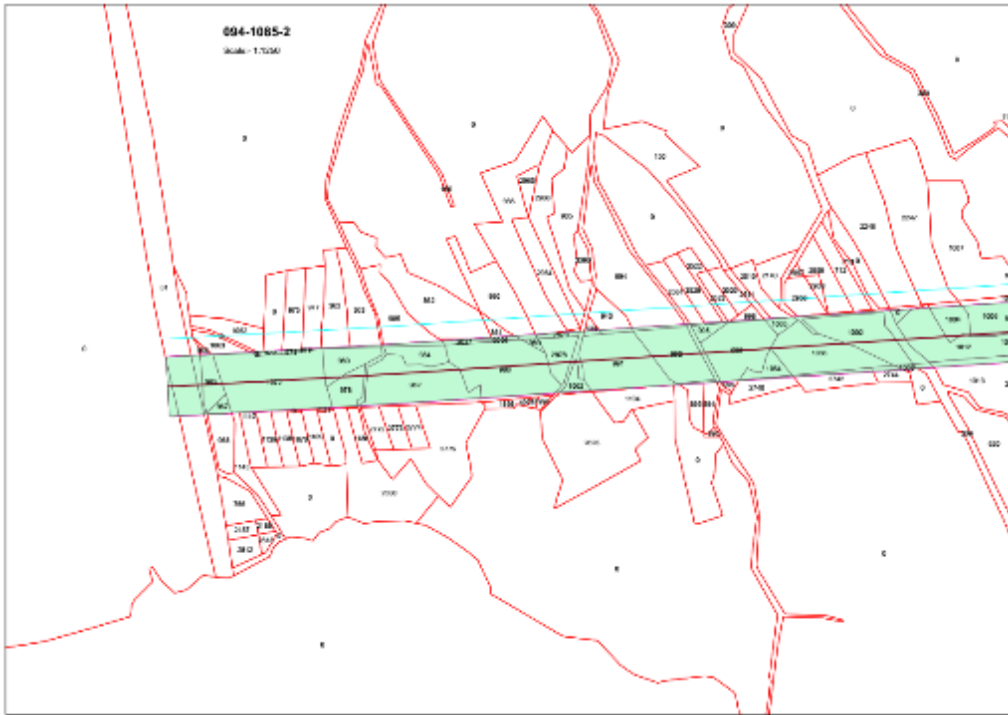
Appendix H: Project Specific Details

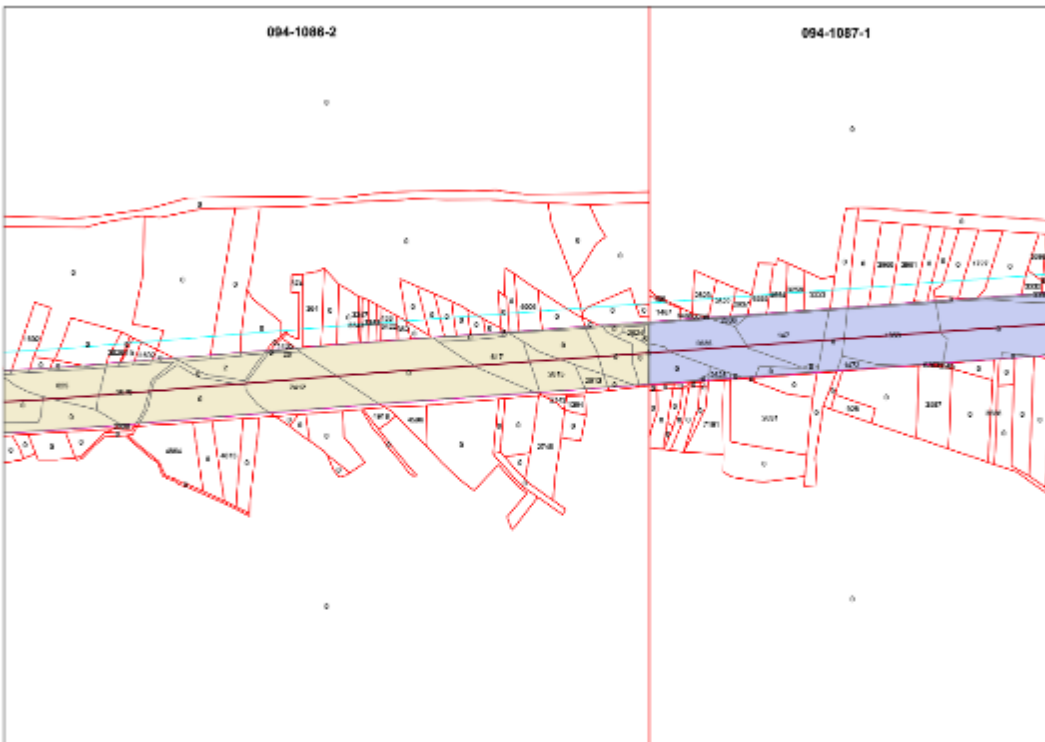
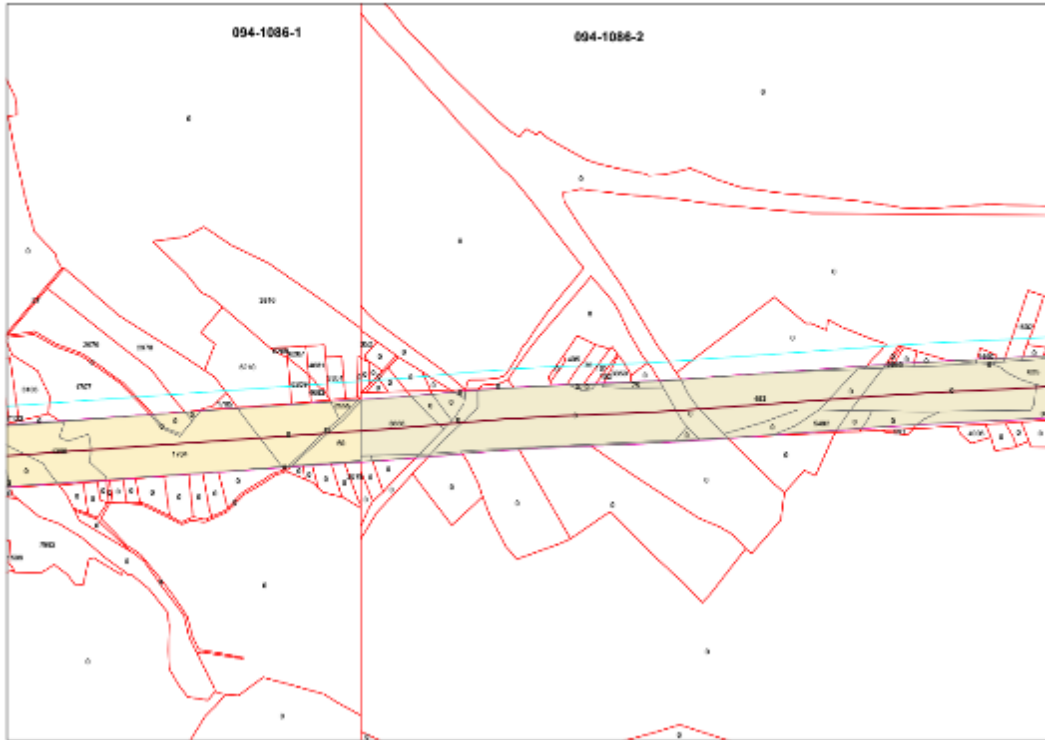
<b>Sub Project Title</b>	<b>ESIA of Talchowk-Begnas Road (P23i)</b>
<b>Nature of the project (New/Expansion Redevelopment/Up-gradation)</b>	Up-gradation
<b>Brief about project components</b>	<p>Length of Road: 3.6km            Right of Way: 30 m            Traffic: 5885 PCU (traffic count in 2019 at CH 0+400)            Carriageway: 14 m (4 lanes divided carriageway)            (Resurfacing the existing carriageway            Parking: I. Dedicated place for parking on the edge of carriageway at suitable location from Ch 0+00 to 3+284, ensuring no obstruction to traffic movement            Cycle Track: Provided from Ch 0+00 to 3+284 on both side of road.</p>
<b>Project municipality</b>	Pokhara Metropolitan City
<b>Project wards</b>	Ward 4
<b>Terrain-flat Ridge, undulating, Hilly, Valley</b>	Terrain-Flat
<b>Current land use agriculture grazing Barren forest etc</b>	The project area consists of different settlements like commercial, residential, agriculture and open / barren land. Some of the major areas are Talchowk, Sisuwa and Begnas. The area also consists of about 50% of cultivated lands. Trees can be seen along the alignment at some places.
<b>Type quantity of construction materials resources needed</b>	Construction materials such as sand, gravel, pebbles and boulders can be obtained in abundant from Kotrekhol and adjacent Seti River quarry site, which is at a distance of about 9.5 km from the project site. For other major construction materials such as cement, gabion wire and bituminous materials can be purchased from nearby market of Lekhnath and from major market of Pokhara and abroad.
<b>Quantity of debris that needs to be disposed</b>	Substantial Spoil will be generated
<b>Any hazardous materials mixed with debris</b>	No

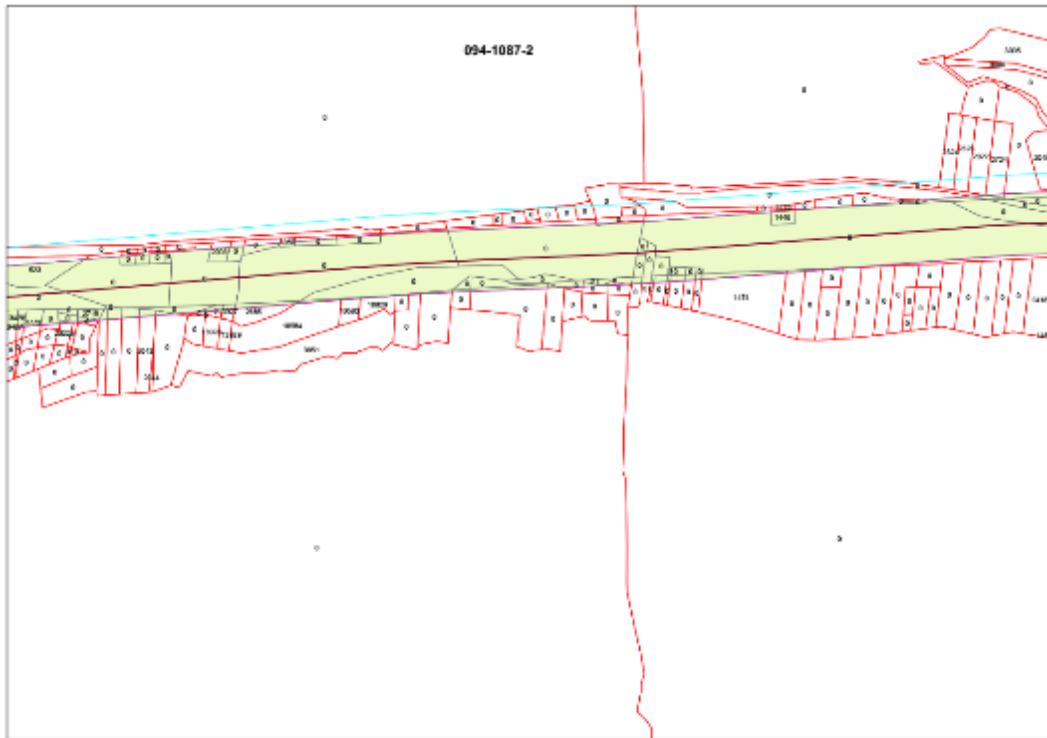
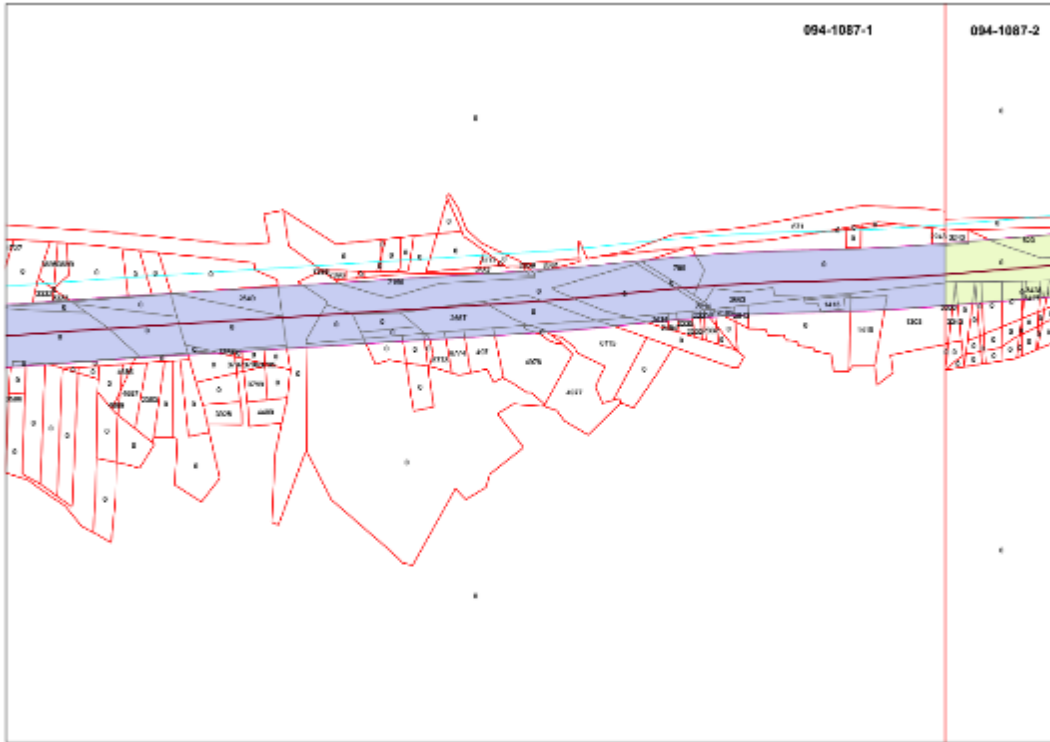
Appendix I: Sampling Points



Appendix J: Cadastral Map









S.N.	Parcel	VDC	Ward	Sheet No.	Total Area (m2)	Clip Area (m2)	Remaining Area (m2)
1	0	Arghau	1	9410852	87653.06	68.15	87584.91
2	51	Arghau	9	9410852	5513.67	386.70	5126.96
3	0	Arghau	9	9410852	480.41	76.11	404.30
4	1012	Arghau	9	9410852	828.53	820.51	8.02
5	968	Arghau	9	9410852	315.20	0.22	314.99
6	1145	Arghau	9	9410852	322.81	0.03	322.78
7	1194	Arghau	9	9410852	429.98	0.09	429.89
8	0	Arghau	9	9410852	917.57	0.64	916.93
9	895	Arghau	9	9410852	185.12	9.09	176.03
10	894	Arghau	9	9410852	166.40	7.18	159.23
11	999	Arghau	9	9410852	29.33	0.22	29.10
12	2742	Arghau	9	9410852	326.12	54.26	271.85
13	2744	Arghau	9	9410852	137.74	28.15	109.59
14	1003	Arghau	9	9410852	23.36	18.34	5.02
15	0	Arghau	9	9410852	170.29	0.41	169.88
16	1013	Arghau	9	9410852	781.75	119.21	662.54
17	966	Arghau	9	9410852	24.10	1.72	22.38
18	0	Arghau	9	9410852	53.59	0.49	53.11
19	1063	Arghau	9	9410852	178.42	4.39	174.03
20	1062	Arghau	9	9410852	332.01	0.47	331.54
21	975	Arghau	9	9410852	398.61	1.79	396.82
22	0	Arghau	9	9410852	400.12	1.57	398.55
23	977	Arghau	9	9410852	406.35	2.01	404.34
24	362	Arghau	9	9410852	534.70	5.51	529.18
25	363	Arghau	9	9410852	570.25	12.21	558.03
26	985	Arghau	9	9410852	694.00	49.41	644.58
27	2027	Arghau	9	9410852	55.66	49.49	6.17
28	2006	Arghau	9	9410852	6.83	6.83	0.00
29	861	Arghau	9	9410852	98.66	21.41	77.25
30	990	Arghau	9	9410852	790.41	19.31	771.11
31	2879	Arghau	9	9410852	58.61	46.73	11.88
32	994	Arghau	9	9410852	1547.84	37.73	1510.11
33	998	Arghau	9	9410852	74.32	7.08	67.24
34	2564	Arghau	9	9410852	285.98	6.71	279.27
35	3529	Arghau	9	9410852	321.96	6.09	315.87
36	3522	Arghau	9	9410852	167.27	1.34	165.93
37	3523	Arghau	9	9410852	164.47	0.14	164.33
38	2511	Arghau	9	9410852	99.17	0.98	98.20

39	2510	Arghau	9	9410852	263.55	1.68	261.87
40	967	Arghau	9	9410852	65.91	65.91	0.00
41	965	Arghau	9	9410852	229.35	229.35	0.00
42	972	Arghau	9	9410852	19.71	19.71	0.00
43	974	Arghau	9	9410852	13.91	13.91	0.00
44	979	Arghau	9	9410852	3.15	3.15	0.00
45	1072	Arghau	9	9410852	1541.63	1525.14	16.49
46	980	Arghau	9	9410852	342.11	342.11	0.00
47	978	Arghau	9	9410852	281.91	271.71	10.20
48	984	Arghau	9	9410852	251.28	251.28	0.00
49	982	Arghau	9	9410852	1124.25	1029.89	94.36
50	986	Arghau	9	9410852	1300.67	1234.92	65.75
51	989	Arghau	9	9410852	30.02	30.02	0.00
52	2878	Arghau	9	9410852	275.94	275.94	0.00
53	1062	Arghau	9	9410852	118.70	102.02	16.68
54	991	Arghau	9	9410852	1030.10	1014.23	15.87
55	993	Arghau	9	9410852	682.83	682.83	0.00
56	995	Arghau	9	9410852	84.94	84.94	0.00
57	996	Arghau	9	9410852	811.24	811.00	0.24
58	1065	Arghau	9	9410852	77.83	77.71	0.12
59	1064	Arghau	9	9410852	164.11	164.11	0.00
60	1002	Arghau	9	9410852	713.55	713.55	0.00
61	1066	Arghau	9	9410852	867.97	867.97	0.00
62	0	Arghau	9	9410852	62.82	37.37	25.45
63	1004	Arghau	9	9410852	278.13	243.46	34.67
64	1006	Arghau	9	9410852	420.80	347.46	73.34
65	939	Arghau	9	9410852	48.41	18.97	29.44
66	940	Arghau	9	9410852	280.97	29.36	251.61
67	309	Arghau	9	9410852	2235.02	212.05	2022.97
68	0	Arghau	9	9410852	3.98	3.98	0.00
69	150	Arghau	9	9410852	3954.79	219.11	3735.68
70	862	Arghau	9	9410852	1356.53	5.38	1351.15
71	936	Arghau	9	9410852	1635.68	1.75	1633.92
72	2740	Arghau	9	9410852	267.79	10.93	256.86
73	309	Arghau	9	9410852	488.32	20.75	467.57
74	0	Sisawa	1	9410861	1591.22	1493.31	97.91
75	1010	Arghau	9	9410861	55.91	4.66	51.26
76	1043	Arghau	9	9410861	1131.59	1122.86	8.74
77	57	Sisawa	3	9410861	144.82	14.30	130.52
78	0	Sisawa	3	9410861	71.87	14.41	57.46
79	2544	Sisawa	3	9410861	10.42	10.42	0.00

80	7133	Sisawa	3	9410861	209.90	0.66	209.25
81	3103	Sisawa	3	9410861	1092.72	92.82	999.90
82	1707	Sisawa	3	9410861	1413.03	7.38	1405.66
83	0	Sisawa	3	9410861	19.79	17.05	2.74
84	0	Sisawa	3	9410861	2.53	0.67	1.86
85	0	Sisawa	3	9410861	904.51	875.21	29.29
86	1704	Sisawa	3	9410861	2437.74	2410.24	27.50
87	51	Sisawa	3	9410861	64.86	64.08	0.78
88	2555	Sisawa	3	9410861	74.47	57.63	16.83
89	50	Sisawa	3	9410861	473.78	473.78	0.00
90	0	Sisawa	3	9410861	19.33	19.19	0.14
91	0	Sisawa	3	9410861	125.28	122.11	3.18
92	0	Sisawa	1	9410861	842.18	825.50	16.68
93	0	Sisawa	1	9410861	407.66	396.78	10.88
94	0	Sisawa	1	9410861	31.10	24.19	6.91
95	0	Arghau	9	9410861	62.87	50.35	12.52
96	0	Arghau	9	9410861	351.69	351.69	0.00
97	0	Arghau	9	9410861	355.00	304.04	50.96
98	1028	Arghau	9	9410861	30.65	5.39	25.26
99	0	Arghau	9	9410861	63.33	15.28	48.05
100	0	Arghau	9	9410861	12.08	8.76	3.32
101	0	Arghau	9	9410861	471.64	425.67	45.97
102	0	Arghau	9	9410861	10.60	4.14	6.46
103	0	Arghau	9	9410861	22.18	7.21	14.96
104	0	Arghau	9	9410861	28.28	7.83	20.45
105	0	Arghau	9	9410861	31.39	11.23	20.16
106	0	Arghau	9	9410861	48.18	14.94	33.24
107	1059	Arghau	9	9410861	64.89	28.01	36.88
108	0	Arghau	9	9410861	306.70	290.70	16.00
109	0	Arghau	9	9410861	852.81	852.81	0.00
110	0	Arghau	9	9410861	405.82	374.36	31.46
111	0	Arghau	9	9410861	73.17	71.95	1.22
112	0	Sisawa	3	9410861	99.06	0.47	98.59
113	0	Sisawa	3	9410861	263.04	2.37	260.67
114	2679	Sisawa	3	9410861	91.10	3.59	87.50
115	0	Sisawa	3	9410861	138.58	2.68	135.90
116	0	Sisawa	3	9410861	145.40	3.52	141.88
117	0	Sisawa	3	9410861	37.19	1.66	35.53
118	0	Sisawa	3	9410861	42.35	1.43	40.93
119	0	Arghau	9	9410861	37.74	11.60	26.14
120	0	Sisawa	1	9410861	0.78	0.19	0.59

121	0	Sisawa	1	9410861	7.82	5.03	2.79
122	0	Arghau	9	9410861	278.14	5.56	272.57
123	0	Arghau	9	9410861	81.99	0.03	81.96
124	0	Arghau	9	9410861	119.13	3.77	115.36
125	0	Arghau	9	9410861	89.00	3.28	85.72
126	0	Arghau	9	9410861	74.12	5.09	69.04
127	0	Arghau	9	9410861	100.73	18.80	81.93
128	0	Arghau	9	9410861	151.57	31.26	120.32
129	0	Arghau	9	9410861	152.57	5.50	147.07
130	0	Arghau	9	9410861	177.18	4.76	172.42
131	1397	Arghau	9	9410861	103.13	9.59	93.55
132	1882	Arghau	9	9410861	169.63	65.18	104.45
133	3168	Arghau	9	9410861	135.12	19.74	115.38
134	1024	Arghau	9	9410861	412.63	412.63	0.00
135	3171	Arghau	9	9410861	20.33	13.22	7.11
136	3172	Arghau	9	9410861	141.84	33.30	108.54
137	1994	Arghau	9	9410861	1943.77	110.93	1832.84
138	1995	Arghau	9	9410861	1941.48	169.35	1772.13
139	347	Arghau	9	9410861	1542.59	57.96	1484.63
140	1012	Arghau	9	9410861	40.98	40.98	0.00
141	1009	Arghau	9	9410861	3.95	3.95	0.00
142	1017	Arghau	9	9410861	141.58	141.58	0.00
143	906	Arghau	9	9410861	714.23	614.81	99.42
144	1016	Arghau	9	9410861	1045.25	967.11	78.14
145	1021	Arghau	9	9410861	191.94	166.89	25.06
146	1025	Arghau	9	9410861	2729.10	80.54	2648.56
147	3140	Arghau	9	9410861	1586.19	33.09	1553.10
148	1549	Arghau	9	9410861	178.15	14.28	163.88
149	1548	Arghau	9	9410861	994.99	66.61	928.38
150	397	Arghau	9	9410861	1265.19	1265.19	0.00
151	1045	Arghau	9	9410861	497.61	474.54	23.07
152	2409	Sisawa	1	9410861	306.33	292.66	13.67
153	7981	Sisawa	1	9410861	2.75	1.33	1.42
154	1390	Sisawa	3	9410861	919.84	899.01	20.82
155	667	Arghau	9	9410861	128.81	79.30	49.51
156	1060	Arghau	9	9410861	9.80	4.02	5.78
157	1030	Arghau	9	9410861	33.68	4.17	29.51
158	1032	Arghau	9	9410861	33.09	5.43	27.66
159	659	Arghau	9	9410861	279.95	279.95	0.00
160	1036	Arghau	9	9410861	1489.28	1489.28	0.00
161	0	Sisawa	3	9410862	208.67	46.71	161.96

162	0	Sisawa	3	9410862	193.02	188.54	4.47
163	0	Sisawa	3	9410862	215.77	8.39	207.37
164	3666	Sisawa	3	9410862	1003.37	932.30	71.07
165	0	Sisawa	3	9410862	159.58	136.66	22.92
166	0	Sisawa	3	9410862	15.97	9.18	6.79
167	0	Sisawa	3	9410862	133.51	117.11	16.40
168	405	Sisawa	3	9410862	218.47	0.85	217.62
169	75	Sisawa	3	9410862	156.10	1.56	154.54
170	101	Sisawa	3	9410862	96.10	1.50	94.59
171	102	Sisawa	3	9410862	32.26	1.25	31.02
172	3350	Sisawa	3	9410862	107.65	4.21	103.44
173	0	Sisawa	3	9410862	81.79	2.60	79.19
174	0	Sisawa	3	9410862	40.05	0.45	39.60
175	0	Sisawa	3	9410862	1404.00	1.78	1402.21
176	0	Sisawa	3	9410862	2109.23	32.88	2076.35
177	0	Sisawa	3	9410862	101.76	51.97	49.79
178	0	Sisawa	3	9410862	13.76	1.25	12.51
179	3565	Sisawa	3	9410862	21.72	4.84	16.88
180	0	Sisawa	3	9410862	78.91	18.28	60.63
181	0	Sisawa	3	9410862	4.76	4.76	0.00
182	1460	Sisawa	3	9410862	49.53	15.88	33.65
183	0	Sisawa	3	9410862	281.36	281.36	0.00
184	0	Sisawa	3	9410862	1711.76	1711.76	0.00
185	0	Sisawa	3	9410862	2966.22	2962.96	3.27
186	0	Sisawa	3	9410862	348.81	348.81	0.00
187	0	Sisawa	3	9410862	247.76	243.22	4.54
188	483	Sisawa	3	9410862	1553.01	1552.79	0.22
189	5482	Sisawa	3	9410862	242.94	217.15	25.79
190	0	Sisawa	3	9410862	118.73	102.11	16.62
191	0	Sisawa	3	9410862	398.42	397.05	1.37
192	0	Sisawa	3	9410862	23.74	6.94	16.80
193	0	Sisawa	3	9410862	172.73	168.06	4.68
194	0	Sisawa	3	9410862	41.44	41.44	0.00
195	2624	Sisawa	3	9410862	49.80	49.80	0.00
196	0	Sisawa	3	9410862	16.63	16.25	0.37
197	0	Sisawa	3	9410862	18.23	18.23	0.00
198	0	Sisawa	3	9410862	4.44	1.02	3.42
199	0	Sisawa	3	9410862	39.22	1.84	37.39
200	0	Sisawa	3	9410862	72.33	1.64	70.69
201	0	Sisawa	3	9410862	106.25	1.39	104.86
202	0	Sisawa	3	9410862	127.54	1.00	126.54

203	0	Sisawa	3	9410862	168.26	0.51	167.76
204	0	Sisawa	3	9410862	45.67	0.00	45.67
205	0	Sisawa	3	9410862	254.16	206.70	47.47
206	625	Sisawa	3	9410862	612.39	612.40	0.00
207	0	Sisawa	3	9410862	797.83	639.54	158.29
208	2670	Sisawa	3	9410862	674.62	658.35	16.28
209	0	Sisawa	3	9410862	1128.67	1010.47	118.20
210	2	Sisawa	3	9410862	287.60	287.60	0.00
211	0	Sisawa	3	9410862	154.25	151.83	2.42
212	0	Sisawa	3	9410862	2263.95	2078.78	185.16
213	0	Sisawa	3	9410862	1.05	1.05	0.00
214	26	Sisawa	3	9410862	18.18	18.13	0.05
215	0	Sisawa	3	9410862	17.22	1.96	15.27
216	1435	Sisawa	3	9410862	39.22	4.12	35.11
217	0	Sisawa	3	9410862	15941.15	29.03	15912.12
218	0	Sisawa	3	9410862	135.11	13.96	121.15
219	1602	Sisawa	3	9410862	288.27	13.70	274.57
220	0	Sisawa	3	9410862	66.34	14.84	51.50
221	0	Sisawa	3	9410862	62.88	30.10	32.78
222	0	Sisawa	3	9410862	505.51	13.52	491.99
223	30264	Sisawa	3	9410862	95.60	10.83	84.77
224	0	Sisawa	3	9410862	14.31	0.45	13.86
225	0	Sisawa	3	9410862	71.87	11.71	60.16
226	11692	Sisawa	3	9410862	79.32	14.72	64.60
227	0	Sisawa	3	9410862	45.76	20.08	25.68
228	0	Sisawa	3	9410862	2678.07	30.17	2647.90
229	0	Sisawa	3	9410862	931.67	23.27	908.39
230	0	Sisawa	3	9410862	397.27	15.37	381.89
231	0	Sisawa	3	9410862	500.51	500.51	0.00
232	0	Sisawa	3	9410862	67.44	67.44	0.00
233	2412	Sisawa	3	9410862	1274.14	1160.64	113.50
234	617	Sisawa	3	9410862	657.02	655.22	1.81
235	2615	Sisawa	3	9410862	422.41	374.75	47.66
236	0	Sisawa	3	9410862	61.33	40.63	20.69
237	2613	Sisawa	3	9410862	125.14	102.76	22.38
238	0	Sisawa	3	9410862	73.34	0.26	73.08
239	0	Sisawa	3	9410862	140.87	1.90	138.97
240	4006	Sisawa	3	9410862	266.90	6.47	260.43
241	0	Sisawa	3	9410862	256.69	17.35	239.34
242	0	Sisawa	3	9410862	6759.68	2.08	6757.60
243	0	Sisawa	3	9410862	7.16	7.16	0.00

244	0	Sisawa	3	9410862	14.61	14.61	0.00
245	75	Sisawa	3	9410862	67.38	67.38	0.00
246	0	Sisawa	3	9410862	35.22	35.22	0.00
247	0	Sisawa	3	9410862	354.53	21.86	332.67
248	0	Sisawa	3	9410862	724.33	18.13	706.20
249	0	Sisawa	3	9410862	1521.56	22.24	1499.32
250	0	Sisawa	3	9410862	822.65	0.10	822.55
251	0	Sisawa	3	9410862	2602.71	39.39	2563.32
252	0	Sisawa	3	9410862	3244.99	20.17	3224.81
253	0	Sisawa	3	9410871	329.08	329.08	0.00
254	0	Sisawa	3	9410871	100.82	100.82	0.00
255	0	Sisawa	3	9410871	205.55	205.55	0.00
256	0	Sisawa	3	9410871	407.88	407.88	0.00
257	2667	Sisawa	3	9410871	562.81	562.81	0.00
258	2211	Sisawa	3	9410871	9.20	9.20	0.00
259	2243	Sisawa	3	9410871	50.05	3.06	47.00
260	2663	Sisawa	3	9410871	274.40	274.39	0.00
261	785	Sisawa	3	9410871	353.09	298.19	54.90
262	0	Sisawa	3	9410871	1047.06	1047.06	0.00
263	0	Sisawa	3	9410871	3250.33	2421.66	828.67
264	0	Sisawa	3	9410871	1891.56	1599.57	292.00
265	7156	Sisawa	3	9410871	505.45	388.63	116.81
266	2657	Sisawa	3	9410871	135.41	17.10	118.31
267	2661	Sisawa	3	9410871	83.15	4.76	78.39
268	0	Sisawa	3	9410871	171.20	5.02	166.17
269	0	Sisawa	3	9410871	11.95	6.71	5.24
270	0	Sisawa	3	9410871	14.04	8.10	5.94
271	2628	Sisawa	3	9410871	55.00	45.72	9.28
272	0	Sisawa	3	9410871	395.52	377.98	17.54
273	2635	Sisawa	3	9410871	1032.31	1027.95	4.35
274	0	Sisawa	3	9410871	109.29	87.51	21.78
275	0	Sisawa	3	9410871	13.52	13.52	0.00
276	147	Sisawa	3	9410871	879.87	879.87	0.00
277	0	Sisawa	3	9410871	298.52	291.95	6.56
278	1472	Sisawa	3	9410871	106.10	88.75	17.35
279	1359	Sisawa	3	9410871	1319.44	1310.00	9.44
280	0	Sisawa	3	9410871	23.86	22.55	1.31
281	0	Sisawa	3	9410871	294.99	294.99	0.00
282	0	Sisawa	3	9410871	726.65	726.65	0.00
283	0	Sisawa	3	9410871	22.38	22.38	0.00
284	2649	Sisawa	3	9410871	384.83	369.07	15.76

285	0	Sisawa	3	9410871	1064.96	1064.96	0.00
286	1467	Sisawa	3	9410871	148.00	11.12	136.88
287	6466	Sisawa	3	9410871	30.97	4.18	26.79
288	2738	Sisawa	3	9410871	16.55	6.30	10.25
289	2822	Sisawa	3	9410871	174.38	7.43	166.95
290	2637	Sisawa	3	9410871	102.38	5.76	96.62
291	4555	Sisawa	3	9410871	210.75	6.14	204.61
292	3259	Sisawa	3	9410871	194.83	5.92	188.91
293	4554	Sisawa	3	9410871	200.19	6.11	194.07
294	3223	Sisawa	3	9410871	234.34	8.47	225.87
295	0	Sisawa	3	9410871	359.51	6.29	353.22
296	2823	Sisawa	3	9410871	190.43	0.06	190.38
297	0	Sisawa	3	9410871	473.88	7.66	466.22
298	3960	Sisawa	3	9410871	434.60	7.19	427.41
299	3961	Sisawa	3	9410871	490.59	16.65	473.94
300	0	Sisawa	3	9410871	193.00	0.83	192.17
301	0	Sisawa	3	9410871	37.73	17.39	20.34
302	1727	Sisawa	3	9410871	389.24	0.76	388.48
303	0	Sisawa	3	9410871	581.68	18.17	563.51
304	3333	Sisawa	3	9410871	30.77	6.08	24.68
305	3332	Sisawa	3	9410871	90.66	7.85	82.81
306	0	Sisawa	3	9410871	775.54	16.72	758.82
307	0	Sisawa	3	9410871	227.48	4.75	222.73
308	0	Sisawa	3	9410871	192.21	2.24	189.97
309	0	Sisawa	3	9410871	757.96	0.54	757.42
310	0	Sisawa	3	9410871	114.55	114.55	0.00
311	0	Sisawa	3	9410871	2075.92	2064.96	10.96
312	1303	Sisawa	3	9410871	1119.30	370.36	748.94
313	1413	Sisawa	3	9410871	93.09	93.08	0.00
314	1415	Sisawa	3	9410871	503.04	108.89	394.15
315	0	Sisawa	3	9410871	1013.23	209.86	803.37
316	2843	Sisawa	3	9410871	59.81	28.11	31.70
317	2635	Sisawa	3	9410871	70.74	48.05	22.69
318	2484	Sisawa	3	9410871	39.66	13.53	26.12
319	2335	Sisawa	3	9410871	80.21	23.99	56.22
320	2333	Sisawa	3	9410871	51.12	14.16	36.95
321	0	Sisawa	3	9410871	21.23	14.61	6.62
322	0	Sisawa	3	9410871	99.61	5.16	94.44
323	2331	Sisawa	3	9410871	27.43	6.88	20.55
324	2332	Sisawa	3	9410871	67.05	3.40	63.65
325	2107	Sisawa	3	9410871	1.20	1.20	0.00

326	2106	Sisawa	3	9410871	40.66	32.21	8.45
327	0	Sisawa	3	9410871	14.25	3.69	10.56
328	3764	Sisawa	3	9410871	20.41	10.16	10.25
329	0	Sisawa	3	9410871	68.54	12.43	56.10
330	0	Sisawa	3	9410871	115.68	14.88	100.80
331	0	Sisawa	3	9410871	266.09	12.71	253.38
332	0	Sisawa	3	9410871	507.78	0.00	507.78
333	0	Sisawa	3	9410871	111.19	3.40	107.79
334	0	Sisawa	3	9410871	509.50	0.01	509.49
335	0	Sisawa	3	9410871	3263.14	477.63	2785.51
336	0	Sisawa	3	9410871	208.70	45.94	162.76
337	0	Sisawa	3	9410871	152.12	29.08	123.04
338	0	Sisawa	3	9410871	38.25	5.83	32.41
339	6773	Sisawa	3	9410871	153.09	25.20	127.89
340	0	Sisawa	3	9410871	47.65	21.44	26.20
341	6774	Sisawa	3	9410871	191.45	28.84	162.60
342	4978	Sisawa	3	9410871	884.07	59.01	825.06
343	497	Sisawa	3	9410871	332.60	48.92	283.68
344	0	Sisawa	3	9410871	495.87	53.64	442.23
345	6115	Sisawa	3	9410871	879.10	116.73	762.37
346	0	Sisawa	3	9410871	7198.75	55.94	7142.80
347	0	Sisawa	3	9410871	75.71	75.71	0.00
348	2636	Sisawa	3	9410871	38.95	38.95	0.00
349	0	Sisawa	3	9410871	84.53	13.17	71.36
350	0	Sisawa	5	9410872	32218.26	1.74	32216.52
351	0	Sisawa	3	9410872	32.30	32.30	0.00
352	0	Sisawa	3	9410872	2257.55	2109.31	148.24
353	0	Sisawa	3	9410872	87.45	87.45	0.00
354	0	Sisawa	3	9410872	57.82	41.22	16.61
355	0	Sisawa	3	9410872	59.20	11.72	47.47
356	0	Sisawa	3	9410872	62.17	8.10	54.08
357	0	Sisawa	3	9410872	12.64	12.64	0.00
358	0	Sisawa	3	9410872	45.57	44.59	0.98
359	0	Sisawa	6	9410872	29.01	17.63	11.39
360	0	Sisawa	6	9410872	810.61	810.61	0.00
361	0	Sisawa	6	9410872	18.78	18.78	0.00
362	0	Sisawa	6	9410872	41.51	41.51	0.00
363	0	Sisawa	6	9410872	9.06	7.53	1.53
364	0	Sisawa	6	9410872	23.33	9.25	14.08
365	0	Sisawa	6	9410872	89.83	1.14	88.69
366	0	Sisawa	6	9410872	94.03	9.92	84.11

367	0	Sisawa	6	9410872	1144.34	42.74	1101.60
368	1446	Sisawa	6	9410872	82.76	74.11	8.65
369	0	Sisawa	6	9410872	30.93	30.93	0.00
370	0	Sisawa	6	9410872	48.44	48.44	0.00
371	0	Sisawa	6	9410872	72.26	72.25	0.00
372	0	Sisawa	6	9410872	70.84	70.84	0.00
373	0	Sisawa	6	9410872	7.60	7.60	0.00
374	0	Sisawa	6	9410872	9.60	9.60	0.00
375	0	Sisawa	6	9410872	17.52	17.52	0.00
376	0	Sisawa	6	9410872	27.33	27.33	0.00
377	0	Sisawa	6	9410872	5964.41	5674.78	289.63
378	1450	Sisawa	6	9410872	24.07	14.19	9.88
379	0	Sisawa	6	9410872	75.43	60.59	14.84
380	1463	Sisawa	6	9410872	37.78	31.15	6.63
381	1468	Sisawa	6	9410872	43.99	33.44	10.55
382	1460	Sisawa	6	9410872	50.39	37.66	12.73
383	0	Sisawa	6	9410872	41.02	33.10	7.92
384	1464	Sisawa	6	9410872	40.46	32.12	8.35
385	1462	Sisawa	6	9410872	48.70	37.15	11.55
386	0	Sisawa	5	9410872	284.98	259.17	25.81
387	0	Sisawa	5	9410872	56.53	56.53	0.00
388	2047	Sisawa	5	9410872	172.59	172.59	0.00
389	0	Sisawa	5	9410872	15.96	15.96	0.00
390	0	Sisawa	5	9410872	155.57	155.58	0.00
391	0	Sisawa	5	9410872	237.71	2.01	235.69
392	0	Sisawa	5	9410872	385.84	18.50	367.34
393	2048	Sisawa	5	9410872	650.03	33.38	616.65
394	0	Sisawa	5	9410872	785.06	57.20	727.86
395	2724	Sisawa	5	9410872	332.61	8.44	324.18
396	0	Sisawa	5	9410872	1536.48	7.08	1529.40
397	0	Sisawa	5	9410872	1291.55	8.28	1283.27
398	0	Sisawa	5	9410872	214.47	11.32	203.15
399	0	Sisawa	5	9410872	198.43	7.99	190.44
400	3243	Sisawa	3	9410872	80.65	10.93	69.72
401	0	Sisawa	3	9410872	1177.42	1149.58	27.83
402	523	Sisawa	3	9410872	624.70	389.64	235.06
403	0	Sisawa	3	9410872	1133.02	1099.77	33.25
404	0	Sisawa	3	9410872	39.96	31.52	8.44
405	0	Sisawa	3	9410872	38.41	30.96	7.44
406	0	Sisawa	3	9410872	41.47	34.81	6.66
407	0	Sisawa	3	9410872	21.50	18.56	2.94

408	2003	Sisawa	3	9410872	89.26	61.31	27.96
409	0	Sisawa	3	9410872	847.68	811.89	35.79
410	0	Sisawa	3	9410872	97.90	50.97	46.92
411	1957	Sisawa	3	9410872	30.01	14.49	15.51
412	0	Sisawa	3	9410872	89.48	53.22	36.25
413	0	Sisawa	3	9410872	94.79	72.23	22.57
414	0	Sisawa	3	9410872	863.76	863.75	0.01
415	0	Sisawa	3	9410872	2234.23	2204.06	30.17
416	0	Sisawa	6	9410872	75.74	15.83	59.90
417	0	Sisawa	6	9410872	18.89	4.89	14.00
418	0	Sisawa	6	9410872	83.69	18.63	65.06
419	0	Sisawa	6	9410872	26.90	4.90	22.00
420	0	Sisawa	6	9410872	59.48	8.13	51.35
421	0	Sisawa	6	9410872	88.49	2.78	85.71
422	0	Sisawa	6	9410872	88.53	13.69	74.85
423	0	Sisawa	6	9410872	106.25	19.04	87.21
424	0	Sisawa	6	9410872	297.39	4.97	292.42
425	0	Sisawa	6	9410872	304.46	8.09	296.37
426	0	Sisawa	6	9410872	325.18	0.25	324.93
427	1474	Sisawa	6	9410872	1000.41	74.10	926.32
428	0	Sisawa	3	9410872	12.67	1.44	11.23
429	0	Sisawa	3	9410872	40.71	16.76	23.95
430	13927	Sisawa	3	9410872	45.85	14.10	31.75
431	0	Sisawa	3	9410872	92.21	82.66	9.54
432	2685	Sisawa	3	9410872	225.77	49.26	176.52
433	0	Sisawa	3	9410872	20.60	15.87	4.72
434	3428	Sisawa	3	9410872	51.24	31.71	19.52
435	0	Sisawa	3	9410872	66.72	29.38	37.34
436	0	Sisawa	3	9410872	77.11	10.18	66.93
437	0	Sisawa	3	9410872	77.77	55.27	22.49
438	3343	Sisawa	3	9410872	93.99	14.07	79.93
439	3300	Sisawa	3	9410872	97.43	49.07	48.37
440	2773	Sisawa	3	9410872	100.68	62.66	38.01
441	3427	Sisawa	3	9410872	125.07	61.05	64.03
442	0	Sisawa	3	9410872	190.93	85.11	105.83
443	0	Sisawa	3	9410872	199.33	88.39	110.94
444	0	Sisawa	3	9410872	227.96	95.94	132.02
445	0	Sisawa	3	9410872	21.70	21.70	0.00
446	2719	Sisawa	3	9410872	53.27	53.26	0.01
447	0	Sisawa	3	9410872	30.71	13.93	16.78
448	0	Sisawa	3	9410872	32.63	31.96	0.67

449	2022	Sisawa	3	9410872	76.68	5.22	71.47
450	0	Sisawa	3	9410872	170.26	14.87	155.38
451	0	Sisawa	3	9410872	296.44	35.77	260.67
452	0	Sisawa	3	9410872	351.44	38.29	313.15
453	2043	Sisawa	3	9410872	296.03	24.38	271.65
454	0	Sisawa	3	9410872	477.32	10.74	466.58
455	0	Sisawa	3	9410872	276.29	6.29	270.01
456	0	Sisawa	3	9410872	698.13	59.54	638.60
457	0	Sisawa	3	9410872	89.22	10.66	78.56
458	0	Sisawa	3	9410872	379.91	11.67	368.24
459	0	Sisawa	3	9410872	262.20	1.97	260.23
460	0	Sisawa	3	9410872	47.42	1.02	46.40
461	10584	Sisawa	3	9410872	833.65	16.60	817.06
462	10583	Sisawa	3	9410872	115.24	3.89	111.35
463	10829	Sisawa	3	9410872	148.22	2.13	146.09
464	0	Sisawa	6	9410872	53.64	14.77	38.87
465	0	Sisawa	3	9410872	5.74	5.74	0.00
466	0	Sisawa	3	9410872	92.01	92.01	0.00
467	0	Sisawa	3	9410872	68.84	49.34	19.49
468	0	Sisawa	3	9410872	61.10	1.90	59.20
469	0	Sisawa	6	9410881	316684.00	25.03	316658.96
470	0	Sisawa	6	9410881	804.82	767.39	37.43
471	0	Sisawa	6	9410881	44.40	25.15	19.25
472	0	Sisawa	6	9410881	79.19	50.50	28.69
473	0	Sisawa	6	9410881	23.40	14.04	9.36
474	0	Sisawa	6	9410881	9.48	4.65	4.83
475	0	Sisawa	6	9410881	111.22	103.12	8.10
476	0	Sisawa	6	9410881	103.40	92.37	11.02
477	0	Sisawa	6	9410881	114.03	72.30	41.72
478	1592	Sisawa	6	9410881	655.13	655.13	0.00
479	0	Sisawa	6	9410881	19.21	0.05	19.16
480	0	Sisawa	6	9410881	43.38	0.78	42.60
481	0	Sisawa	6	9410881	30.18	1.36	28.83
482	0	Sisawa	6	9410881	124.33	4.40	119.92
483	838	Sisawa	6	9410881	307.52	10.93	296.59
484	0	Sisawa	6	9410881	149.06	6.84	142.23
485	0	Sisawa	6	9410881	323.41	23.86	299.55
486	0	Sisawa	6	9410881	163.29	6.67	156.62
487	0	Sisawa	6	9410881	13.97	8.77	5.21
488	0	Sisawa	6	9410881	112.34	19.05	93.29
489	0	Sisawa	6	9410881	156.00	21.24	134.76

490	0	Sisawa	6	9410881	501.05	22.08	478.96
491	0	Sisawa	6	9410881	267.65	20.59	247.05
492	0	Sisawa	6	9410881	127.62	16.28	111.34
493	0	Sisawa	6	9410881	455.78	21.91	433.87
494	3628	Sisawa	6	9410881	689.64	13.26	676.38
495	0	Sisawa	6	9410881	313.28	9.32	303.96
496	0	Sisawa	6	9410881	333.09	5.42	327.67
497	0	Sisawa	6	9410881	319.12	8.27	310.85
498	1487	Sisawa	6	9410881	75.72	1.48	74.23
499	1486	Sisawa	6	9410881	106.27	1.72	104.56
500	1485	Sisawa	6	9410881	100.79	0.42	100.37
501	0	Sisawa	6	9410881	35.98	0.03	35.95
502	0	Sisawa	6	9410881	19.49	0.25	19.24
503	0	Sisawa	6	9410881	51.11	2.14	48.97
504	0	Sisawa	6	9410881	84.18	19.14	65.04
505	0	Sisawa	6	9410881	76.34	6.22	70.12
506	0	Sisawa	6	9410881	170.14	10.91	159.24
507	0	Sisawa	6	9410881	92.66	6.03	86.63
508	1589	Sisawa	6	9410881	91.05	7.25	83.80
509	1586	Sisawa	6	9410881	4.68	3.35	1.33
510	1587	Sisawa	6	9410881	21.79	6.42	15.36
511	1588	Sisawa	6	9410881	33.74	2.88	30.86
512	0	Sisawa	6	9410881	500.30	18.30	482.00
513	2016	Sisawa	6	9410881	761.61	26.51	735.10
514	1699	Sisawa	6	9410881	150.30	7.86	142.44
515	1413	Sisawa	6	9410881	18.28	11.04	7.24
516	1411	Sisawa	6	9410881	329.23	258.99	70.24
517	0	Sisawa	6	9410881	630.13	607.03	23.10
518	0	Sisawa	6	9410881	39.28	28.71	10.58
519	0	Sisawa	6	9410881	22.77	16.41	6.36
520	0	Sisawa	6	9410881	22.49	15.32	7.16
521	0	Sisawa	6	9410881	13.94	10.18	3.76
522	0	Sisawa	6	9410881	45.76	37.90	7.85
523	0	Sisawa	6	9410881	149.07	132.71	16.36
524	866	Sisawa	6	9410881	130.76	130.76	0.00
525	0	Sisawa	6	9410881	125.78	114.01	11.77
526	0	Sisawa	6	9410881	38.43	28.84	9.59
527	0	Sisawa	6	9410881	446.24	446.24	0.00
528	0	Sisawa	6	9410881	50.17	50.17	0.00
529	1590	Sisawa	6	9410881	58.07	58.07	0.00
530	0	Sisawa	6	9410881	117.87	117.87	0.00

531	0	Sisawa	6	9410881	41.78	28.77	13.01
532	1542	Sisawa	6	9410881	56.97	45.49	11.48
533	1540	Sisawa	6	9410881	124.84	89.86	34.98
534	888	Sisawa	6	9410881	60.66	48.80	11.86
535	1546	Sisawa	6	9410881	54.62	44.15	10.47
536	0	Sisawa	6	9410881	111.03	102.29	8.74
537	0	Sisawa	6	9410881	40.04	0.30	39.74
538	0	Sisawa	6	9410881	15.69	15.68	0.01
539	0	Sisawa	6	9410881	20.51	19.44	1.06
540	0	Sisawa	6	9410881	54.05	54.05	0.00
541	0	Sisawa	6	9410881	17.98	17.98	0.00
542	153	Sisawa	6	9410881	21.01	21.01	0.00
543	0	Sisawa	6	9410881	32.79	32.79	0.00
544	0	Sisawa	6	9410881	38.70	38.70	0.00
545	0	Sisawa	6	9410881	3.19	3.19	0.00
546	0	Sisawa	6	9410881	50.41	50.41	0.00
547	0	Sisawa	6	9410881	4.16	4.16	0.00
548	0	Sisawa	6	9410881	6.39	6.39	0.00
549	0	Sisawa	6	9410881	21.39	20.10	1.29
550	0	Sisawa	6	9410881	1584.52	1584.52	0.00
551	0	Sisawa	6	9410881	34.00	25.50	8.49
552	0	Sisawa	6	9410881	35.26	35.26	0.00
553	1475	Sisawa	6	9410881	85.65	59.92	25.73
554	1476	Sisawa	6	9410881	16.69	11.33	5.36
555	1479	Sisawa	6	9410881	4.94	3.06	1.88
556	1482	Sisawa	6	9410881	348.64	343.55	5.09
557	0	Sisawa	6	9410881	35.12	35.12	0.00
558	1481	Sisawa	6	9410881	16.03	15.87	0.17
559	1483	Sisawa	6	9410881	1227.56	1226.06	1.50
560	1489	Sisawa	6	9410881	271.67	271.67	0.00
561	0	Sisawa	6	9410881	350.01	337.14	12.87
562	0	Sisawa	6	9410881	91.92	82.51	9.42
563	1491	Sisawa	6	9410881	316.35	308.77	7.58
564	1496	Sisawa	6	9410881	117.80	117.80	0.00
565	1495	Sisawa	6	9410881	31.64	31.64	0.00
566	0	Sisawa	6	9410881	478.48	453.17	25.31
567	0	Sisawa	6	9410881	691.97	691.97	0.00
568	0	Sisawa	6	9410881	64.56	14.41	50.15
569	0	Sisawa	6	9410881	7.67	7.67	0.00
				<b>Total</b>	<b>669895.24</b>	<b>98541.87</b>	<b>571353.37</b>

## Appendix K: Public Consultation

Field Survey

Environmental and Social Safeguards

NUGIP

Pokhara Metropolitan City

Attendance Sheet

Date: \_\_\_\_\_ Venue: \_\_\_\_\_

S.N	Name	Organization/title	Telephone	Signature
1	वि. वि. २१७ (अ. वि. ११)		९८५०३२४२	[Signature]
	वि. वि. २१७		९८६६०४४६९	[Signature]
	Bijay Neupane		९८५९०२२०९९	[Signature]
	वि. वि. २१७		९८६९०९६०९	[Signature]
	वि. वि. २१७	आवासीय	९८९९९६६५	[Signature]
	वि. वि. २१७	आवासीय	९८५६०७७४९	[Signature]
	वि. वि. २१७		९८५६७२९६९८	[Signature]
	वि. वि. २१७	उ. वि. वि. वि. वि. वि. वि.		
	वि. वि. २१७			
	वि. वि. २१७	वि. वि. वि. वि. वि. वि.	९८५०३०२४२	[Signature]
	वि. वि. २१७	वि. वि. वि. वि. वि. वि.	९८६०३८३२२	26 ab
	वि. वि. २१७	वि. वि. वि. वि. वि. वि.	९८५६५९९५०	[Signature]

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Field Survey  
Environmental and Social Safeguards

NUGIP

Pokhara Metropolitan City

Attendance Sheet

Date: 8/12/2018 Venue: Tal chowk, Shuvra Party P.

S.N	Name	Organization/Title	Telephone	Signature
1	Babu Kari Lim	L.C.C.E. Past-President	9856021690	[Signature]
2	Chandra Tiwari		9846286510	[Signature]
3	Balaram Bernal	Bazar Bazar, Pokhara	9846453420	[Signature]
4	Kharic Bahadur Gurung	Talchowk	9846169279	[Signature]
5	Hari Shekandra Baidya	"	9856021570	[Signature]
6	Damodar Tiwari	"	9856020174	[Signature]
7	Pabitra Baidya	anna Samara	9856022821	[Signature]
8	Shubgram Finance		9846080535	[Signature]
9	Salil Desai	Env Specialist, NUGIP	9851065103	[Signature]
10	Gita Baral	Member/Advisor of WG	98460420746	[Signature]
11	Hansu Bastola	Shuvra Party, Pokhara	9852060812	[Signature]
12	Chiranjeev Singh	Chairman WG	9846198075	[Signature]
13	Nira Tiwari	Secretary WG		[Signature]
14	BISHWA NATH USTA	Pokhara	9846149258	[Signature]
15	[Name]	Asst. Secy. - RLI	9856010058	[Signature]
16	Santosh B. Singh	Health and Env. NUGIP	9841259353	[Signature]
17	[Name]	Asst. Secy, NUGIP	9841379726	[Signature]
18	[Name]	Asst. Secy, NUGIP	9856021570	[Signature]
19	[Name]	[Title]		[Signature]
20	Shweta Chaudhary	POC	8130867932	[Signature]
21	S.P. Kattel, PhD	PIO	9867206566	[Signature]
22	Ramji Subedi	Social Dev Expert	9851034720	[Signature]
23				
24				
25				
26				
27				
28	Gita Adhikari	Social Development Env	9851187850	[Signature]

Field Survey  
Environmental and Social Safeguards

NUGIP  
Pokhara Metropolitan City

Attendance Sheet

Date: 9 Dec. 2018 Venue: Sishaha Chowek, Karki, Ward No-30

S.N	Name	Organization/Title	Telephone	Signature
1	Bhaskar Raj Haurane	POK-30	9846024904	
2	Mahadev Thapa	P-30	9841615361	
3	Som Lal Kandel	P-30	9846214406	
4	Anand Thapa	P-30	984144892	
5	Bhramadul Janyal	Pokhara-30	9856009673	
6	Ramesh Thapa	"-30	9824113886	
7	Surya Thapa	"-30	9856014008	
8	Rajendra Oliha	"-30	9856022088	
9	Pankaj LAL BARAI	"-30	9814159715	
10	Bakaram Thapa	"-30	9804199220	
11	Arjun Kumar Janyal	"-30	9846023065	
12	Kul Prasad Karki	"-30	9856098067	
13	Karuna Bahadur	"-30	9856099067	
14	Laxmi Basud Janyal	Pokhara-30	9858082869	
15	Smriti Chandra	Pokhara-80	9846940451	
16	Ganesh Prasad Shrestha	Social Safety and Health Dept	9851181509	
17	Gita Adhikari	Sequiper	915113896	
18	Dipendra Pokharel	CRS, NUGIP	984329772	

Stakeholders Consultation Workshop

NUGIP

Pokhara Metropolitan City

Attendance Sheet

Date: 9 Dec 2018 Venue: Pokhara Municipality Meeting Hall

Purpose: Dissemination of project related information, environmental and social safeguard requirements of project, screening of EnS issues, collection of comments and suggestions

S.N	Name	Organization/Title	Telephone	Signature
1	Buddhi Mulya	मन्त्रिपरिषद्	994622321	[Signature]
2	Sandip Awasthi	NEST Pvt. Ltd	9846383444	[Signature]
3	Sanjeev Dhimesana	NEST Pvt. Ltd.	9804198710	[Signature]
4	Mahesh Singh	कालिका टारनर्स	9846024632	[Signature]
5	Birat Sharma	Engineer, Nepal Electricity Authority	9846819797	[Signature]
6	Ananda Sapkota	Engineer	9856078233	[Signature]
7	Sanjesh Pokharel	Forest Officer, DFO Karki	9856073972	[Signature]
8	Shivasee Lamichhane	Pokhara - 32	9846031348	[Signature]
9	Norjyami Bhattacharya	Water supply I.W.S.C	9846045944	[Signature]
10	B. Ram Tiwari		985608847	[Signature]
11	Surendra Bhanu Aryal	PCO, Karki	9841259953	[Signature]
12	Babu Ram Giri	L.C.C.I. Past President	9856021690	[Signature]
13	Kanu Subedi	Social Dev. Expert	9851094221	[Signature]
14	Roshan Shrestha	PROJECT DIRECTOR	9851167210	[Signature]
15	Laxman Timilsina	M.P.S, Pokhara Metropolitan City	9856036733	[Signature]
16	Er. Sarada M. Kalle	Pokhara Metropolitan City	9856023291	[Signature]
17	Er. Raju Regmi	Pokhara Metropolitan City	9856032484	[Signature]
18	Sangita Baral	UGIP-II, Engineer	9846001131	[Signature]
19	Bishnu Prasad Baral	Drinking Water Company	9856061919	[Signature]
20	Kamal Thapa	World No 31	9856003031	[Signature]
21	Bishnu P. Tiwari	World 28	9846640307	[Signature]
22	Dr. Naveesh Kumar	Consultant	9643151047	[Signature]
23	Raviram Pokharel	Env. Expert / PCO	9841659999	[Signature]
24	Shiva Kumari Giri	presiden Naachiseki	98560618704	[Signature]
25	MURARI Mishra	Traffic Police	9851077957	[Signature]
26	Dr. S.P. Pattel	PWC	9851206566	[Signature]
27	Shweta Chauhan	PWC	8130867932	[Signature]
28	Raj B. Mathara	PWC	980671779	[Signature]
29	Rajmani Adhikari	D.M.C.	9846029105	[Signature]

Stakeholders Consultation Workshop

NUGIP

Pokhara Metropolitan City

Attendance Sheet

Date: Venue:

Purpose: Dissemination of project related information, environmental and social safeguard requirements of project, screening of EnS issues, collection of comments and suggestions

S.N	Name	Organization/title	Telephone	Signature
20	Chet Bahadur	Pokhara metrop	985605029	[Signature]
21	Mohan Gurung	"	984552385	[Signature]
22	Govil Raj Poudel	"	30 985606106	[Signature]
23	Ashok Dware	PMC office	9846000940	[Signature]
24	Krishna Devi Acharya	L.C.I	9856024699	[Signature]
25	Arjun Kumar	PMU	984613806	[Signature]
26	Milendra Bhandari	P.M.N	9856022067	[Signature]
27			9856030112	[Signature]
28				
29				

Field Survey

Environmental and Social Safeguards

NUGIP

Pokhara Metropolitan City

Attendance Sheet

Date: 9/12/2018 Venue: Begnatal, (Khudi Moham)

S.N	Name	Organization/title	Telephone	Signature
1	Deepak Koirala	Big Mill (John)	9808508712	
2	Sahel Beral Koirala	"	9846650285	
3	Bhuvan Kandel	Business, Sulav Home	9846118301	
4	Sajadish Tiwari	Moria	984602840	
5	Basanta Dhakal	PMU	9846025448	
6	Krishna Gurung	Mukta Kirana Parcel	9846035268	
7	Bans Dev Koirala	Miraj shop wine Home	9824156728	
8	Samar Bdr. Pringer	Tailor (Moria)		
9	Uma Devi Gurung			
10	Eye Bdr Gurung	561-56036	Ayo Medical firm	

राष्ट्रीय शांतिपूर्ण प्रक्रिया तथा पुर्नवास आयोगको अर्न्तगत कोषिय बँडोको प्राविण  
साहायता (Financial Assistance) र राष्ट्रिय विपत्तय मन्त्रालय (DPO/DR) को  
अर्ज मिति २०६४/०८/२३ गते पोखरा महानगरपालिका को सहायतामा  
(१०८६/२०६४)

तालकोट - वैगनास सडको सन्शुद्धी आयोगको वातवरणीय तथा सामाजिक प्रभाव लेखाजोखा (Environmental and Social Impact Assessment) गर्ने शिष्टाचरणमा आयोगका हंग स्वतन्त्र विभिन्न समूहहरू (Stakeholders) जनकार्यक्रम, विद्युत प्राधिकरण, हाफिड कार्यालय, वडा अध्यक्ष (स्थानिय निकाय) आमा समुहको प्रतिनिधित्व मा योजना कार्यन्वयन निकाय (पोखरा-नगरपालिका) को आयोगमा परामर्शदाता एडवोकेटसमूह सहितको समन्वय निकायको कोषिय बैठक (Stakeholders Consultation Meeting) मा निम्न विषयहरूमा छलफल (Discussion) गरियो र निम्न कमीजोका को निष्कर्षमा पुगीयो।

बैठको रिजल्ट :

- १) \*आयोगको वरिमा प्राविण, सामाजिक, आर्थिक तथा वातवरणीय प्रभावको बारेमा जानकारी।
- २) \* आयोगको पूर्वतयारीको सन्दर्भमा आन्तरिक र प्रतिपक्षी लक्ष्य, कानुनी कानून ( कानूनकार) को दस्तावेज र अन्वयन लेखी लक्ष्य उपलब्ध गर्ने गराउनेको।
- ३) \* आन्तरिक प्रतिवेदन (Required Report ESMP) तयारी मा आयोगको उत्तीर्ण लक्ष्य अगाडी कानून पनि को।
- ४) \* स्वतन्त्र निकाय (विद्युत प्राधिकरण आमा कार्यलय), वडा अध्यक्ष र महानगरपालिका, विद्युत र उपायमा समन्वय गर्ने गराउनेको।

## FGD in Women Group 2076/02/21, Begnasn Lake in 31 Ward Office, Pokhara Metropolitan City

### Key issues of FGD

1. The major social problems of the area are making noise and dispute/fighting by drinking alcohol. Average women violence events at the village is 3 to 6 in which 1 to 2 is go to police office and the rest resolve at village socially. The key causes for women violence are drinking alcohol and economic transition.
2. Women participation in public sphere is very low. It is due to lack of sufficient time to participate in public sphere, busy at household chores and no or neglect by the concerned organization.
3. At the village, social deviances like concept of witch, discrimination of widow and untouchability are very rare.
4. There is no equal wage rate for the women and men. Women receive half of the men get. Sometime manual working women who come from outside come to work with their small child, but it is very rare. However, they do not being the school age going children with them while working for wage labour.
5. Women's participation and involvement in non-agriculture sectors have been gradually increasing. Girl trafficking is not at the village.
6. There is no discrimination and differentiation to access to public property by caste, ethnicity, religion, sex, age, class in the village.
7. Local people are interested to work or participate in public works including road construction. There is no women's violence due to outsider workers.
8. Women's has access to ownership on fixed property like land and house due to government's policy on tax.

Name of participant	Sex	Location
Shanti Ranabhat	Female	Begnas 31, Ward Office
SudhaBaral	Female	Begnas 31, Ward Office
ShobhaAdhikari	Female	Begnas 31, Ward Office
RanjuBaral	Female	Begnas 31, Ward Office
SarmilaTimsina	Female	Begnas 31, Ward Office
Rita Gautam	Female	Begnas 31, Ward Office
Amrita Ranabhat	Female	Begnas 31, Ward Office
RadhaShrestha	Female	Begnas 31, Ward Office
Maya Shrestha	Female	Begnas 31, Ward Office
ManjuShrestha	Female	Begnas 31, Ward Office
Rita Subedi	Female	Begnas 31, Ward Office
SunitaTimsina	Female	Begnas 31, Ward Office
Mina Ranabhat	Female	Begnas 31, Ward Office
BhadrikaRanabhat	Female	Begnas 31, Ward Office
SubadraKoirala	Female	Begnas 31, Ward Office
ShantaBanjara	Female	Begnas 31, Ward Office
Amrita Ranabhat	Female	Begnas 31, Ward Office

## FGD with Mixed Groups 2076/02/19, Talchowk, Ward No 31, Pokhara Metropolitan City

### Key issues of FGD

1. The main social problem of the village is making noise by Dhohori-Sanjha restaurant. Average 4 women's violence events occur every month in the village due to drinking alcohol and economic transition.
2. It was reported that about 5 road accidents occur at the proposed road. The main accidental zones are Talchowk, Hamalchowk, Bijulichok.
3. For women's capacity enhancement, skill development training is needed.
4. The main sources of earning livelihood to the people reside in the proposed project road are service, business and foreign employment.
5. There are several local organizations working in the proposed project road area. They are Women Group, Saving cooperative, Tol Sudhar Committee, Agriculture cooperative. In the area, there is drinking water user group is functional, although international organization is not working.
6. There is lack of working force in the village.
7. The main health problems are asthma, blood pressure, diabetes, cough and fever.
8. There is no historical and cultural valuable site or place.
9. The main way of grievance mechanism is dialogue, police office and ward committee.

Name of participants	Sex	Location
Chandra Tiwari	Male	Talchowk, Pokhara Metropolitan City
DamodarTiwari	Male	Talchowk, Pokhara Metropolitan City
BhanubhaktaPoudel	Male	Talchowk, Pokhara Metropolitan City
SaradaTiwari	Female	Talchowk, Pokhara Metropolitan City
Kamal ThapaMagar	Male	Talchowk, Pokhara Metropolitan City
SunitaTiwariAdhikari	Female	Talchowk, Pokhara Metropolitan City
TilKumariThapaMagar	Female	Talchowk, Pokhara Metropolitan City
NagendraAdhikari	Male	Talchowk, Pokhara Metropolitan City
NiraSubedi	Female	Talchowk, Pokhara Metropolitan City
SalikramTiwari	Male	Talchowk, Pokhara Metropolitan City
Jaya Narayan Bastola	Male	Talchowk, Pokhara Metropolitan City

## FGD with Mixed Groups, Date: 2076/02/25, Sisuwa, Ward No 30, Pokhara Metropolitan City

### Key issues of FGD

:

1. The main social problem of the village is making noise by drinking alcohol. Average 4 to 5 women's violence events occur every month in the village due to drinking alcohol.
2. It was reported that about 5 road accidents occur at the proposed road. The main accidental zone are Sisuwachowk, Trikada, Moriya and Talchowk.
3. For women's capacity enhancement, skill development training and women's development training are essential.
4. The main sources of earning livelihood to the people reside in the proposed project road are business and foreign employment.
5. Several local organization working in the proposed project road area. They are Himchuli Women Group, Himchuli Youth Club, Gurung Upliftment Organization. In the area, there is drinking water user group is functional, although international organization is not working.
6. There is lack of working force in the village.
7. The main health problems are thyroid, blood pressure, diabetes, cough and fever.
8. There is no historical and cultural valuable site or place.
9. There are two private schools on the side of the road. They are Diamond and Gyankunja. In addition, there is a community hospital, known as Lion Community Hospital, on the side of the proposed road.
10. The main way of grievance mechanism is dialogue and ward committee.

Name of the participants	Sex	Location
TaratKurmariGhale	Female	Sisuwa, Pokhara Metropolitan City
Krishna Maya Gurung	Female	Sisuwa, Pokhara Metropolitan City
Man KumariGurung	Female	Sisuwa, Pokhara Metropolitan City
Ganesh BahadurGurung	Male	Sisuwa, Pokhara Metropolitan City
Om BahadurGurung	Male	Sisuwa, Pokhara Metropolitan City
SagarShingGurung	Male	Sisuwa, Pokhara Metropolitan City
SomBahadurGurung	Male	Sisuwa, Pokhara Metropolitan City
BimalaGurung	Female	Sisuwa, Pokhara Metropolitan City
SudipGurung	Male	Sisuwa, Pokhara Metropolitan City
SaradaGurung	Female	Sisuwa, Pokhara Metropolitan City
ChitraBahadurGurung	Male	Sisuwa, Pokhara Metropolitan City

## FGD with Mixed Groups, 2076/02/27, Mohariya, Ward No 31, Pokhara Metropolitan City

### Key issues of FGD

1. The main social problem of the village is gambling. Average 2 to 4 women's violence events occur every month in the village due to drinking alcohol and economic.
2. It was reported that about 5 road accidents occur at the proposed road. The main accidental zone is Moriya Chowk.
3. For women's capacity enhancement, skill development training and women's development training are essential.
4. The main sources of earning livelihood to the people reside in the proposed project road are service, business, farming and foreign employment.

5. There are several local organization working in the proposed project road area. They are tolBikas samiti, Women Development, Dairy Cooperative. In the area, there is drinking water user group is functional, although international organization is not working.
6. There is lack of working force in the village.
7. The main health problems are thyroind, blood pressure, diabetes, Uric-acid.
8. There is no historical and cultural valuable site or place. However, there a rest place on the roadside known as Madan-Aashrit.
9. There are two private schools on the side of the road. They are Diamond and Gyankunja. In addition, there is a community hospital, known as Lekhnath Community Hospital, on the side of the proposed road.
10. The main way of grievance mechanism is dialogue and ward committee and Pokhara Nagar Bikash Samiti.

Name of the participants	Sex	Location
Buddhiraj Banjara	Male	Mohariya, Pokhara Metropolitan City
PatrirajSubedi	Male	Mohariya, Pokhara Metropolitan City
Khim Kumari Kandel	Female	Mohariya, Pokhara Metropolitan City
Anuja Banjara	Female	Mohariya, Pokhara Metropolitan City
Rita Lamichhane	Female	Mohariya, Pokhara Metropolitan City
Prem Kumari Kandel	Female	Mohariya, Pokhara Metropolitan City
Tika Devi Banjara	Female	Mohariya, Pokhara Metropolitan City
Santosh Tiwari	Male	Mohariya, Pokhara Metropolitan City
Babita Karki	Female	Mohariya, Pokhara Metropolitan City
Laxmi Tiwari	Female	Mohariya, Pokhara Metropolitan City
Kalpana Tiwari	Female	Mohariya, Pokhara Metropolitan City
Ramjibi Banjara	Male	Mohariya, Pokhara Metropolitan City
Chirinjibi Banjara	Male	Mohariya, Pokhara Metropolitan City
Surya Tamang	Male	Mohariya, Pokhara Metropolitan City
Madhab Sapkota	Male	Mohariya, Pokhara Metropolitan City


Appendix L: Road Inventory and Conditions

From (km)	To	Terrain (P-Plain/R-Rolling/M-Hilly)	Landuse (Built-up/agro/forest/Industry/Barren)	Name of village/town	Formation width	Carriage way			Shoulder+			Embankment Height (m)	Detail of cross roads		Remarks
						Type (BT/CC/ER/GR)	Width (m)	Condition (G/F/P/VP)	Type (BT/CC/ER/GR)	Width (m)	Condition (G/F/P/VP)		Location (Km)	Carriage way width (m)	
0+00	0+050	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0			
0+050	0+100	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0			
0+100	0+150	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0			
0+150	0+200	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0			
0+200	0+250	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0			
0+250	0+300	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0	0+290	5.10	To residences
0+300	0+350	P	Agro	Talchowk	7	BT	4.50	P	E	1	P	0	0+360	6.50	To residences
0+350	0+400	P	Agro	Talchowk	7	BT	4.50	P	E	1	P	1			
0+400	0+450	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	1			
0+450	0+500	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0.5	0+535	3.00	Diamond School
0+500	0+550	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	0.5			
0+550	0+600	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	1			
0+600	0+650	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	1			
0+650	0+700	P	Built-up, Agro	Talchowk	7	BT	4.50	P	E	1	P	1.5	0+700	4.00	To residences
0+700	0+750	P	Agro	Talchowk	7	BT	4.50	P	E	1	P	2			
0+750	0+800	P	Agro	Talchowk	7	BT	4.50	P	E	1	P	2			
0+800	0+850	P	Agro	Talchowk	7	BT	4.50	P	E	1	P	1.5			
0+850	0+900	P	Built-up	Talchowk	7	BT	4.50	P	E	1	P	1.5			
0+900	0+950	P	Built-up	Sisuwara	7	BT	4.50	P	E	1	P	1			
0+950	1+000	P	Built-up	Sisuwara	7	BT	4.50	P	E	1	P	1.5	1+000	3.50	Holy Mount School
1+000	1+050	P	Built-up	Sisuwara	7	BT	4.50	P	E	1	P	0			
1+050	1+100	P	Built-up	Sisuwara	7	BT	4.50	P	E	1	P	0	1+120	11.20	(LHS)Budi Bazar,
1+100	1+150	P	Built-up	Sisuwara	7	BT	6.50	P	E	0.25	P	0.2			(RHS)Raja Chautara
1+150	1+200	P	Built-up	Sisuwara	7	BT	6.50	P	E	0.25	P	0.2			
1+200	1+250	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.2			
1+250	1+300	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.2			

From (km)	To	Terrain (P-Plain/R-Rolling/M-Hilly)	Landuse (Built-up/agro/forest/Industry/Barren)	Name of village/town	Formation width	Carriage way			Shoulder+			Embankment Height (m)	Detail of cross roads		Remarks
						Type (BT/CC/ER/GR)	Width (m)	Condition (G/F/P/VP)	Type (BT/CC/GR/ER)	Width (m)	Condition (G/F/P/VP)		Location (Km)	Carriage way width (m)	
1+300	1+350	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.2			
1+350	1+400	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.2			
1+400	1+450	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.2			
1+450	1+500	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.5			
1+500	1+550	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.5			
1+550	1+600	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0			
1+600	1+650	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0			
1+650	1+700	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	1	1+720	4.00	To residences
1+700	1+750	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	1			
1+750	1+800	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	1			
1+800	1+850	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.5			
1+850	1+900	P	Built-up	Sisuwara	7	BT	5.00	P	E	1	P	0.5			
1+900	1+950	P	Built-up	Sisuwara	7	BT	4.00	P	E	1	P	0			
1+950	2+000	P	Built-up	Sisuwara	7	BT	4.00	P	E	1	P	0	2+080	7.00	(RHS)To Good luck resort
2+000	2+050	P	Built-up	Begna	7	BT	4.00	P	E	1	P	1.5			
2+050	2+100	P	Built-up	Begna	7	BT	4.00	P	E	1	P	1			
2+100	2+150	P	Built-up	Begna	7	BT	4.00	P	E	1	P	1			
2+150	2+200	P	Built-up	Begna	7	BT	4.00	P	E	1	P	2			
2+200	2+250	P	Built-up	Begna	7	BT	4.00	P	E	1	P	2	2+250	3.00	Shree Navajyoti School
2+250	2+300	P	Built-up	Begna	7	BT	4.50	P	E	1	P	0.5			

From (km)	To	Terrain (P-Plain/R-Rolling/M-Hilly)	Landuse (Built-up/agro/forest/Industry/Barren)	Name of village/town	Formation width	Carriage way			Shoulder+			Embankment Height (m)	Detail of cross roads		Remarks
						Type (BT/CC/ER/GR)	Width (m)	Condition (G/F/P/VP)	Type (BT/CC/GR/ER)	Width (m)	Condition (G/F/P/VP)		Location (Km)	Carriage way width (m)	
2+300	2+350	P	Built-up	Begnas	7	BT	4.50	P	E	1	P	1.5			
2+350	2+400	P	Built-up	Begnas	7	BT	4.50	P	E	1	P	2			
2+400	2+450	P	Built-up	Begnas	7	BT	4.50	P	E	1	P	2			
2+450	2+500	P	Built-up	Begnas	7	BT	4.50	P	E	1	P	2			
2+500	2+550	P	Built-up	Begnas	7	BT	4.50	P	E	1	P	2			
2+550	2+600	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	2	2+590	7.20	(RHS)Khudi
2+600	2+650	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	1.5			(LHS)Majhthana
2+650	2+700	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	0.5			
2+700	2+750	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	2			
2+750	2+800	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	0.5	2+780	3.00	To Residences
2+800	2+850	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	1.5	2+880	3.00	To Residences
2+850	2+900	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	1.5			
2+900	2+950	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	1			
2+950	3+000	P	Built-up	Begnas	7	BT	6.00	P	E	0.5	P	1.5	3+000	4.00	(RHS) To PuranaBato
3+000	3+050	P	Built-up	Begnas	7	BT	5.50	P	E	0.75	P	1.5			

From (km)	To	Terrain (P-Plain/R-Rolling/M-Hilly)	Landuse (Built-up/agro/forest/Industry/Barren)	Name of village/town	Formation width	Carriage way			Shoulder+			Embankment Height (m)	Detail of cross roads		Remarks
						Type (BT/CC/ER/GR)	Width (m)	Condition (G/F/P/VP)	Type (BT/CC/GR/ER)	Width (m)	Condition (G/F/P/VP)		Location (Km)	Carriage way width (m)	
3+050	3+100	P	Built-up	Begnas	7	BT	5.50	P	E	0.75	P	0.3			
3+100	3+150	P	Built-up	Begnas	7	BT	5.50	P	E	0.75	P	1.5			
3+150	3+200	P	Built-up	Begnas	7	BT	5.50	P	E	0.75	P	1.5			
3+200	3+250	M	Built-up	Begnas	6	BT	5.50	P	E	0.25	P	1.5			
3+250	3+300	M	Built-up	Begnas	5.5	BT	3.70	P	E	0.9	P	0			
3+300	3+350	M	Forest	Begnas	5.5	BT	4.50	P	E	0.5	P	0			
3+350	3+400	M	Forest	Begnas	5.5	BT	4.50	P	E	0.5	P	0			
3+400	3+450	M	Lake	Begnas	5.5	ER	4.50	P	E	0.5	P	0	3+460	6.00	To Residences
3+450	3+500	P	Lake	Begnas	5.5	ER	4.50	P	E	0.5	P	0			
3+500	3+550	P	Lake	Begnas	5.5	ER	4.50	P	E	0.5	P	0			



# पोखरा महानगरपालिका

नगर कार्यपालिकाको कार्यालय  
गण्डकी प्रदेश, नेपाल  
च्यारेड, कास्की  
गण्डकी प्रदेश, नेपाल

फोन नं.: ०६१-५२०३९२, ५२११०५  
फ्याक्स: ०६१-५२०६००  
E-mail: info@pokharamun.gov.np

मिति: २०७६/०२/२३

प.सं.:  
च.नं.: ११०५४

श्री विश्व बैंक  
नेपाल च्याप्टर, काठमाडौं

**विषय : जानकारी सम्बन्धमा**

उपरोक्त सम्बन्धमा पोखरा महानगरपालिका वडा नम्बर २७ को तालचोकदेखि वडा नम्बर ३१ को बेगनासताल बसपार्क सम्मको प्रस्तावित सहरी शासकीय क्षमता तथा पूर्वाधार सुधार आयोजनामा पर्ने सडकको मापदण्ड भित्र परेको (right of way ) को जग्गा पूर्णतः खाली गरिसकिएको र उक्त सडकको क्षेत्राधिकार भित्र कुनै पनि विवाद नरहेको र मापदण्ड भित्र रहेको सम्पूर्ण जमिन महानगर मातहत आइसकेको व्यहोरा जानकारी गराउँदछौं । यदि काम गर्ने शिलशिलामा कहीं कतै विवाद सिर्जना भएमा त्यसलाई महानगरपालिकाले सहजीकरण वा समन्वय गरी समाधान गरिने व्यहोरा जानकारी गराइन्छ ।

मानबहादुर जिंसी  
प्रमुख, प्रमुख  
पोखरा महानगरपालिका

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Website: pokharamun.gov.np

श्री पोखरा महानगरपालिका कार्यालय  
पोखरा ।

क्रि. - ०६३/०८/१६८

विषय :- सहमति प्रदान गरेको बारे ।

प्रस्तुत विषयमा पोखरा महानगरपालिका वडा नं. २७ को तालचोक देखि वडा नं. ३१ को बेगनासताल वसपार्क सम्मको विद्यमान मोटरबाटोलाई शहरी शासकीय क्षमता तथा पूर्वाधार सुधार आयोजनाको सहयोगमा विस्तार तथा स्तरोन्नति गर्नको लागि उक्त सडकको मापदण्ड (ROW) अनुसारको जग्गा पोखरा महानगरपालिकाको क्षेत्रधिकार भित्र आइसकेको र त्यस सडकको प्रस्तावित मापदण्ड भित्र पोखरा महानगरपालिका वडा नं. ३० वस्ने म बुद्धिनाथ वास्तोलाको घर पर्ने भएकोले उक्त उक्त मापदण्ड भित्र पर्ने मेरो घर नियमानुसार भक्तकाई सडक स्तरोन्नति गर्ने कार्यमा सहयोग गर्ने प्रतिबद्धता व्यक्त गराउदछु ।

महानगर प्रमुख श्री भाग वहादुर जि.पी.सू.  
वडा नं. ३० का वडाध्यक्ष श्री श्रीराम पोखरेलसू.  
सहित श्री रोहदाता महानगर (प्रमुख)सू.  
कार्यालयमा रहेर सहमति ।

(बुद्धिनाथ वास्तोला)  
पोखरा महानगरपालिका -३०

९८५६०२६५००-

०६३/१६८  
(क्रि.प्र.सू.अ.)

"नतिजामुखी प्रशासन: समृद्धि र सुशासन"



# पोखरा महानगरपालिका

नगरकार्यपालिकाको कार्यालय

पोखरा महानगरपालिकाको कार्यालय  
न्यूरोड, कास्की  
गण्डकी प्रदेश नेपाल



फोन नं. ५२११०५, ५०२

फ्याक्स: ५२०६००

मिति : २०७६/०५/१५

पत्र संख्या: ०७६/७७

चलानी नं.: ११९५

श्री शहरी शासकीय क्षमता तथा पूर्वाधार सुधार आयोजना II  
ववरमहल काठमाण्डौ

विषय: सिफारिस सम्बन्धमा ।

प्रस्तुत विषयमा पोखरा महागरपालिका वडा नं. २७ को तालचोक देखि वडा नं. ३१ को बेगनासताल बसपार्क सम्मको विद्यमान मोटरबाटोलाई तहाँ आयोजनाको सहयोगमा विस्तार तथा स्तरोन्नती गर्नको लागि उक्त सडकको मापदण्ड (ROW) अनुसारको पोखरा महानगरपालिकाको क्षेत्र अधिकार भित्र आईसकेको र त्यस वडाको प्रस्तावित मापदण्ड भित्र यस महानगरपालिका अर्न्तगत वडा नं. ३० बस्ने बुद्धिनाथ वास्तोलाको घर पर्ने भएको र उक्त घर स्वयंले भत्काई निर्माण कार्यमा सहयोग गर्न भनि निजले मिति २०७६/०५/१५ गते को मन्जुरीनामा दिएको आधारमा उक्त सडकको निर्माण कार्य अघि बढाउन सिफारिस साथ अनुरोध छ ।

(गंगालाल सुवेदी)

नि. प्रमुख प्रशासकीय अधिकृत

नि. प्रमुख प्रशासकीय अधिकृत

वेबसाइट : pokharamun.gov.np

इमेल: info@pokharamun.gov.np

“नतिजामुखी प्रशासन: सम्बृद्धि र सुशासन”

Date: Sept 1, 2019

**Subject : Understanding Made.**

Regarding the above subject, the existing motorable road from Talchowk, ward no 27 to Begnas Buspark, ward no 31 of PMC going to be improved and extend with the support of UGIP. The ROW has been brought in to the jurisdiction of PMC and the waiting hut lies inside the above ROW, ward 30. We express our unconditional and with pleasure commitment to demolish the above said waiting hut as per regulation to support the road construction.

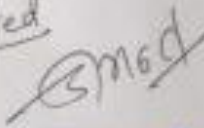
Management Committee of Waiting Hut: Shisuwa Passenger Waiting Hut

Members of management committee: Coordinator-Buddhinath Bastola, Signed

Members:

Rajkumar Shrestha, Signed  
Laxman Bastola, Signed  
Kul Prasad Gautam, Signed  
Rabindranath Bhattarai, Signed  
Dhurba Gautam, Signed



*Certified*  
*for* 

**Roohan Shrestha**  
Act. Project Director

Date: Sept 1, 2019

Subject : Understanding Made.

Regarding the above subject, the existing motorable road from Talchowk, ward no 27 to Begnas Buspark, ward no 31 of PMC going to be improved and extend with the support of UGIIP. The ROW has been brought in to the jurisdiction of PMC and the Mohoriya waiting hut lies inside the above ROW, ward 30. We express our unconditional and with pleasure commitment to demolish the above said waiting hut as per regulation to support the road construction.

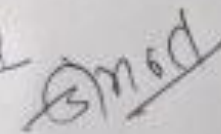
Management Committee of Waiting Hut: Mohoriya Passenger Waiting Hut

Members of management committee: Coordinator-Sukra Bahadur Timelsina, Signed

Members:

Krishna Prasad Adhikari, Signed  
Nanda Prasad Adhikari, Signed  
Dhakaram Kadel, Signed  
Gangaram Ranabhat, Signed  
Ram Prasad Bastola, Signed  
Rajendra Lamichhane, Signed



Certified 

for

**Roshan Shrestha**  
Act. Project Director

Date: Sept 1, 2019

To,  
The Pokhara Metropolitan City Office,  
Pokhara

Subject : Understanding Made.

Regarding the above subject, the existing motorable route from Talchowk, ward no. - 27 to Begnas Buspark, ward no 31 of PMC going to be improved and extend with the support of UGIIP. The ROW has been brought in to the jurisdiction of PMC and the house of mine, Buddhinath Bastola residing in PMC ward no. 30 lies inside the above ROW & I express my commitment to demolish the above said my house as per regulation to support the road construction.

Signed By:  
Buddhinath Bastola  
Pokhara Metropolitan City

Note:

This is the understanding made in presence of also PMC mayor Mr. Man Bahadur GC, and ward chairman of ward no. -30, Mr. Shreeram Pokharel.

signed by  
Officiating Chief Administrative Officer.



Certified

*[Signature]*

for:

Roshan Shrestha  
Act. Project Director

Date: Sept 1, 2019

Subject: Understanding Made

Regarding the above subject, the existing motorable route from Talchowk, ward no 27 to Begnas Buspark, ward no 31 of PMC going to be improved and extend with the support of UGIP. The ROW has been brought in to the jurisdiction of PMC and the Durga Temple lies inside the above ROW. We express our unconditional and with pleasure commitment to demolish the above said temple and reconstruct in appropriate place as per regulation to support the road construction.

Name of the management committee:- Chetansil women Group

Members of the management committee.

President: Rabati Sharma, signed

Members:- Gita Jamarkattel, signed

Kamala Poudel, signed

Bishnumaya Adhikari, signed

Anuradha Gurug, signed



*Certified*

*for*

*Roshan*

**Roshan Shrestha**  
Act. Project Director

Date: Sept 1, 2019

Urban Governance and Infrastructure  
Improvement Project-II  
Babarmahal, Kathmandu

**Subject: Recommendation**

With reference to the above mentioned subject, the existing motor able road of Pokhara Municipality from talchowk, ward no 27 to begnas lake buspark ward no 31 being upgraded by your Project where the ROW of this road is already under the jurisdiction of Pokhara Municipality. A house of Buddhinath Bastola, resident of ward no 30 falls within the ROW, so attaching the written consent letter dated Sept 1, 2019 to support the project by demolishing himself his house. So, request to proceed the necessary process ahead for the construction of this road.

Signed by  
Gangalal Subedi  
Officiating Chief Administrative Officer

*Certified*  
*Emod*  
for **Roshan Shrestha**  
Act. Project Director



दिनांक :- 20/08/99

विषय :- सहजीव प्रदान करने बारे ।

इससे अधिक विषयमा पोखरा महानगरपालिका वडा नं. २३ को कार्यालय देखि वडा नं. १९ को  
समानविकास समितिको सम्झौता विद्यमान पोखराकोलाई सहजीव सहजीव समित तथा एकाधार मध्ये  
सहजीवको सहयोगमा विस्तार तथा समन्वयित गर्नेको लागि एक सहजीव मापदण्ड (SOP)  
सहजीवको जसमा पोखरा महानगरपालिकाको असाधारण नियम सहजीवको २ यस सहजीवको  
मापदण्ड नियम पोखरा महानगरपालिका वडा नं. १९ मापदण्ड, १९९९ मापदण्डको पत्र मापदण्ड  
मापदण्ड नियम पत्रे एक साथ प्रतिधारण विगत गर्ने सुचीको अन्तर्गत एक सहजीवको समन्वयित  
कार्यको आवश्यक सहजीव, प्रतिबद्धता तथा साभालि प्राप्त गर्नुको ।

सहजीव प्रदान गर्ने बाबु प्रतिधारण समन्वयित समितिको नाम  
बाबु प्रतिधारण समन्वयित समितिको सदस्यको नाम

मोहरीक पात्रु प्रतिधारण  
संस्था लामोली

- संस्थापक :- सुकु वराधु ति थिलुवा
- अध्यक्ष :- कृष्ण प्रसाद मोदी
- सहायक अध्यक्ष :- नन्दु प्रसाद थिलुवा
- सचिव :- डा. रमेश कर्ण
- सदस्य :- राजेश्वर शर्मा
- सदस्य :- राज प्रसाद शर्मा
- सदस्य :- राजेश्वर शर्मा

दिनांक: 2006/02/19

विषय - सहयोग प्रदान गरिको बारे ।

उपरोक्त विषयमा पोखरा महानगरपालिका वडा नं. २० को कारचोक स्थित वडा नं. २१ को निवासस्थान परापाक सामाजिक विद्यालय मोटरबाटोलाई सहरी सामुदायिक क्षमता तथा पुनर्बाह्र मण्डल कार्यकर्ताहरूको सहयोगमा विस्तार तथा स्तरोन्नति गर्नेको लागि उक्त मण्डलको मापदण्ड (२०५५) अनुसारको कक्षा पोखरा महानगरपालिकाको लेखाधिकार भित्र बाइसकेको र यस मण्डलको इस्तेमाल अर्थात् विद्यार्थीहरूको महानगरपालिका वडा नं. २०मा यानु प्रतिष्ठानले गर्ने प्रयत्नमा उक्त मण्डलले विद्यार्थीहरूको साथै पुनर्बाह्र मण्डलको विद्यालयको लागि सुधील बनाइ उक्त मण्डलको स्तरोन्नति गर्न सहयोग प्रदान गर्न सहयोग, प्रतिबद्धता तथा सहयोग व्यक्त गर्दछौं ।

यसको प्रतिकार गर्ने यानु प्रतिष्ठानले व्यवस्थापन समितिको नाम शिक्षाका ज्ञान प्रतिष्ठान र विद्यालय समिति

- सहयोगकर्ता - श्री बुद्धि नाथ कास्तीला
- सहयोगकर्ता - श्री राज कुमार श्रेष्ठ
- सहयोगकर्ता - श्री लक्ष्मण कास्तीला
- सहयोगकर्ता - श्री कुल प्रताप श्रेष्ठ
- सहयोगकर्ता - श्री रविन्द्र नाथ महराज
- सहयोगकर्ता - श्री युवक श्रेष्ठ

विषय - मातृमणि प्रदान करने की स्त्री ।

इस प्रकार प्रथम महापुरुषाभिषेक पदा न १२ को जलपौत्र देवि वहा न ३१ को  
सहायकपदा वसुधाई नामकी विद्यमान मातृमणिको प्राप्त करने कागकीय प्रथम तथा पुरोधन नामक  
कवीरजन्मे महापौरका विस्तार तथा स्मरान्वित करने भागि इस महकमी मातृमणि (न ३१),  
सहायकी जन्म पौत्रा महापुरुषाभिषेकको प्रोत्साहित मित जलपौत्रको र यम महकमी प्रोत्साहित  
महापौर जय पौत्र महापुरुषाभिषेक, इहा न ३० का पुत्री मन्दिर को भरणमे एक महापौर  
जय न ३१ का मातृ मणिको पुत्री मन्दिरे भरण, प्रथम उपयुक्त हाइ र महकमी पुत्र मणिको को  
एक महापौरको स्मरान्वित करने कायमा आवश्यक महकमी प्रोत्साहित तथा मातृमणि प्रदान करने

मातृमणि प्रदान करने मन्दिरे महकमीपदा मन्दिरे नाम: **दीनसिंह महिला स्कूल**  
महकमी महकमीपदा मन्दिरेपदा मन्दिरे नाम: **१०१**

- अधिकाजी श्री रेवती शर्मा रेवती**
- लक्ष्मी - श्री गीता जगन्मोहन शर्मा**
- " - श्री कमला पौडेल शर्मा**
- " - श्री विष्णु गोपाल शर्मा शर्मा**
- " - श्री अशु राधा शर्मा शर्मा**

**रेवती**  
**दीनसिंह महिला स्कूल**  
**१०१**  
**महकमी-१, महकमी**

UnIIP-0 '33'  
२०६६/०४/१६



# पोखरा महानगरपालिका

## नगरकार्यपालिकाको कार्यालय



फोन नं. ५२२१०५,४०२

फ्याक्स: ५२०६००

मिति : २०७६/०४/१५

पत्र संख्या: ०७६/७७

क्यास नं.: ११९५

श्री शहरी शासकीय क्षमता तथा पूर्वाधार सुधार कार्यक्रममा ।  
नगरमहल काठमाडौं

श्री. डी. ए. आर. आर.  
ESIA नो. ०१६  
प्रशासकीय अधिकारी  
१५/०४/२०७६

विषय: सिफारिस सम्बन्धमा ।

प्रस्तुत विषयमा पोखरा महानगरपालिका वडा नं. २७ को तासपोक रोड वडा नं. २१ को बेगनासताल बसपार्क सम्मको विद्यमान मोटरबाटोलाई तार्त आयोगको सहयोगमा विस्तार तथा स्तरोन्नती गर्नको लागि उक्त सडकको मापदण्ड (ROW) अनुसूचीको पोखरा महानगरपालिकामा क्षेत्र अधिकार प्राप्त गर्नुको र स्वयं वडाको प्रस्तावित मापदण्ड भित्र यस महानगरपालिका अन्तर्गत वडा नं. ३० वस्ने बुद्धिनाथ बास्तोलाको घर पर्ने भएको र उक्त घर स्वयंने भत्काई निर्माण कार्यमा सहयोग गर्न तार्त विनये मिति २०७६/०४/१५ गते को मन्जुरीनामा दिइएको आधारमा उक्त सडकको निर्माण कार्य अघि बढाउन सिफारिस साथ अनुरोध छ ।

  
(गंगानाथ सुवेदी)  
नि. प्रमुख प्रशासकीय अधिकृत

नि. प्रमुख प्रशासकीय अधिकृत

श्री पोखरा महानगरपालिका कार्यालय  
पोखरा ।

दिनांक - ०६/०८/१९

विषय :- सहमति पत्रको बारे ।

प्रस्तुत विषयमा पोखरा महानगरपालिका वडा नं. २७ को तानचोक डेलि वडा नं. ३१ को बेगनासताल बसपार्क सम्मको विद्यमान मोटरबाटोलाई गहरी शासकीय अमता तथा पूर्वाधार सुधार आयोजनाको सहयोगमा विस्तार तथा स्तरोन्नति गर्नेको लागि उक्त सडकको मापदण्ड (ROW) अनुसारको जग्गा पोखरा महानगरपालिकाको क्षेत्रिकार भित्र आइसकेको र त्यस सडकको प्रस्तावित मापदण्ड भित्र पोखरा महानगरपालिका वडा नं. ३० वस्ने म सुदिसाँस बोस्तोनाको घर पर्ने भएकोले उक्त उक्त मापदण्ड भित्र पर्ने घरो घर नियमानुसार भत्काई सडक स्तरोन्नति गर्ने कार्यमा सहयोग गर्ने प्रतिबद्धता व्यक्त गराउनुहु ।

महाराज सुदिसाँस मीमान वडा नं. ३० का वडा अध्यक्ष श्री पोखरा पोखरा

सुदिसाँस रोडका मीमान (उत्तर)को  
कार्यका लागि सहमत ।

माप  
००५/१६६  
(दि. ०८/१९)



सुदिसाँस बोस्तोना  
पोखरा महानगरपालिका -३०

९६५६०२६५००-

Appendix N: Photographs of field engagement



**Entry Point of Talchowk-Begnas Road Project, Pokhara Metropolitan.**



**Meeting with the local people at the Talchowk, gathering information on ROW of this road**



Schools in road alignment



Public toilet near school



School in road alignment



School in road alignment



School in road alignment



School near road alignment



**Public consultation Meeting with the local people at Talchowk**



K



**Field observation and discussion about the ROW**

**KII with differently-able elderly people**



**Affected structures (Small temple and waiting place in ROW at Sisuwa Chowk)**



**Public consultation meeting with the local people at SisuwaChowk**



**Consulting local women group**



**Collecting water sample**



**Measuring noise**



**Public places (school, community hospital, cow farm near roadalignment)**



Affected house and shops, SisuwaChowk



House owned by 3 brothers of affected house

Stakeholder consultation, 9 December 2018



Stakeholder participants



**Tripatriate meeting of NUGIP, PCO and PWC at Pokhara**



**Water quality sampling (Redcross water supply and Khudi River)**



**Air and noise monitoring**



**FGD with local residents at Moriya**



**House Hold Survey at Tri kang**



**Road affected house at Sisuwachok**



**House Hold survey at Mohariya**



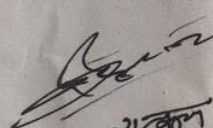
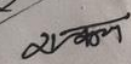
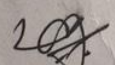
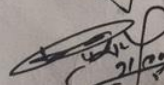
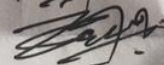
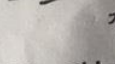
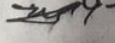
**House Hold Survey at NaharChowk**

दिती: २००६/०२/१६

विषय: - सहमति प्रदान गरेको बारे ।

उपरोक्त विषयमा पोखरा महानगरपालिका वडा नं. २७ को तालचोक देखि वडा नं. ३१ को ब्रेगनासताल बसपार्क सम्मको विद्यमान मोटरबाटोलाई शहरी शासकीय क्षमता तथा पूर्वाधार सुधार आयोजनाको सहयोगमा विस्तार तथा स्तरोन्नति गर्नको लागि उक्त सडकको मापदण्ड (RoW) अनुसारको जग्गा पोखरा महानगरपालिकाको क्षेत्राधिकार भित्र आइसकेको र यस सडकको प्रस्तावित मापदण्ड भित्र पोखरा महानगरपालिका वडा नं. ३० मा ..... यात्रु प्रतिक्षालय पर्ने भएकोले उक्त मापदण्ड भित्र पर्ने उक्त यात्रु प्रतिक्षालय निशर्त राजी खुशीले भत्काई उक्त सडकको स्तरोन्नती गर्ने कार्यमा आवश्यक सहयोग, प्रतिवद्धता तथा सहमति व्यक्त गर्दछौ ।

सहमति प्रदान गर्ने यात्रु प्रतिक्षालय व्यवस्थापन समितिको नाम: शिव्याबा यात्रु प्रतिक्षालय  
यात्रु प्रतिक्षालय व्यवस्थापन समितिका पदाधिकारीको सही: सुरेन्द्रा खात्री

	संयोजक	-	श्री लक्ष्मी नारायण खत्री
	सदस्य		श्री राज कुमारी खत्री
	"		श्री लक्ष्मी नारायण खत्री
	"		श्री लक्ष्मी नारायण खत्री
	"		श्री लक्ष्मी नारायण खत्री
	"		श्री लक्ष्मी नारायण खत्री
	"		श्री लक्ष्मी नारायण खत्री

Appendix P: Letter of Approval 2

दिती : २००५/०२/१६

विषय : - सहमति प्रदान गरेको बारे ।

उपरोक्त विषयमा पोखरा महानगरपालिका वडा नं. २७ को तालचोक देखि वडा नं. ३१ को बेगनासनाल बसपार्क सम्मको विद्यमान मोटरवाटोलाई शहरी शासकीय क्षमता तथा पूर्वाधार सुधार आयोजनाको सहयोगमा विस्तार तथा स्तरोन्नति गर्नको लागि उक्त सडकको मापदण्ड (RoW) अनुसारको जग्गा पोखरा महानगरपालिकाको क्षेत्राधिकार भित्र आइसकेको र यस सडकको प्रस्तावित मापदण्ड भित्र पोखरा महानगरपालिका वडा नं. ३० मा जग्गा मन्दिर पर्ने भएकोले उक्त मापदण्ड भित्र पर्ने उक्त मन्दिर निशत राजी खुशीले भत्काई अन्यत्र उपयुक्त ठाउँ र समयमा पुन निर्माण गरि उक्त सडकको स्तरोन्नति गर्ने कार्यमा आवश्यक सहयोग प्रतिबद्धता तथा सहमति व्यक्त गर्दछौं ।

सहमति प्रदान गर्ने मन्दिर व्यवस्थापन समितिको नाम: दीनारसिंह महिला क्लब  
मन्दिर व्यवस्थापन समितिका पदाधिकारीको सही

अध्यक्ष जी रेवती शर्मा रेवती

सदस्य जी गीता ज्ञानकेही

" जी कान्ता

" जी विष्णु

" जी अशु राधा

२०५१  
पोखरा-१, काठमाडौं

Appendix Q:Estimation of Ramp

S.N	Description	Unit	Nos	Length	Breadth	Height	Quantity	Rate	Amount
1	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter for all leads and lifts, dressing of sides and bottom and backfilling with approved material	Cum	2	0.3	0.3	0.6	0.11	95.51	10.31
2	Providing and laying of hand pack stone soling with 150 to 200 mm thick stones and packing with smaller stone on prepared surface as per Drawing and Technical Specification).	Cum	2	0.3	0.3	0.1	0.02	6375.60	2.07
3	Providing and placing cement concrete M10/40 including compaction, curing, testing etc., all complete (SS/SP- 2000)	Cum	2	0.3	0.3	0.1	0.02	9752.33	175.54
4	Providing and placing M10 concrete including compaction, curing and testing, all complete	Cum	2	0.3	0.3	0.4	0.07	9752.33	702.17
5	<b>Metal works</b>	<b>Unit</b>	<b>Nos</b>	<b>Length</b>	<b>Total length</b>	<b>Weight per m (kg/m)</b>	<b>Total weight (kg)</b>	<b>Rate</b>	<b>Amount</b>
	Supplying and fabrication and installation of MS work at any height including cutting,placing,welding,bolting and one coat of primer as per drawing specification and instruction of Consultant. (Considering 5 number of stairs)								
a	3 mm thick MS Flat plate for landing 20X4	Rm	5	3	15	0.79	11.85	170	2014.5
b	ISA50X50X4	Rm	2	1.56	3.12	3.044	9.49728	170	1614.538
c	ISMC 100	Rm	2	1.4	2.8	6.8	19.04	170	3236.8
d	Square steel hollow section (25X25X3)	Rm	2	1.56	3.12	2.04	6.3648	160	1018.368
	<b>Total for one set of staircase (5 stairs)</b>								<b>8774.30</b>
<b>S.N</b>	<b>Description</b>		<b>Nos</b>	<b>Rate</b>	<b>Amount</b>				

<b>A</b>	<b>Total amount for ramp throughout the section</b>	<b>89</b>	<b>.877</b>	<b>780,912</b>					
			<b>4.30</b>	<b>.36</b>					

S.N.	Description	Unit	Rate
1	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter for all leads and lifts, dressing of sides and bottom and backfilling with approved material	Cum	94.61
2	Formation of embankment from borrow site including compaction in layers not exceeding 150mm compaction depth, watering and necessary haulage etc. as per specification, all complete work.	Cum	1064.57
3	Providing and laying of hand pack stone soling with 150 to 200 mm thick stones and packing with smaller stone on prepared surface as per Drawing and Technical Specification).	Cum	5934
4	Providing and placing cement concrete M10/40 including compaction, curing, testing etc., all complete (SS/SP- 2000)	Cum	9865.37

S.N	CHAINAGE	SIDE	HOUSE RL	ROAD RL		Difference (m) (Proposed RL-House RL)	OFFSET (m) from the edge of the road	REMARKS
				EXISTING	PROPOSED			
1	0+025	L	674.851	674.851	674.675	-0.176	0	ok
2	0+035	L	675.235	674.609	674.626	-0.609	0.8	ok
3	0+048	L	674.466	674.498	674.561	0.095	1.5	ok
4	0+053	L	674.496	674.306	674.537	0.041	0	ok
5	0+063	L	674.858	674.305	674.487	-0.371	0	ok
6	0+086	L	674.674	674.203	674.374	-0.3	2.67	ok
7	0+098	L	674.872	674.161	674.314	-0.558	3.38	ok
8	0+128	L	674.683	673.881	674.166	-0.517	4.06	ok
9	0+145	L	673.984	673.881	674.082	0.098	0.85	ok
10	0+155	L	674.906	673.961	674.033	-0.873	2.45	ok
11	0+175	L	674.261	673.881	673.929	-0.332	1	ok
12	0+202	L	674.006	673.877	673.729	-0.277	1	ok
13	0+263	L	673.248	673.388	673.314	0.066	3.45	ok
14	0+280	L	672.586	673.062	673.199	0.613	0	4 steps
15	0+293	L	672.896	673.062	673.127	0.231	3.75	1 steps
16	0+308	L	672.83	672.67	673.008	0.178	2.25	1steps
17	0+340	L	672.173	672.28	672.291	0.118	1.75	1 steps
18	0+428	L	672.482	671.791	672.193	-0.289	2.65	2 steps
19	0+435	L	672.478	671.791	672.145	-0.333	2.15	2 steps
20	0+446	L	672.329	671.791	672.07	-0.259	1.9	2 steps
21	0+463	L	672.143	671.859	671.955	-0.188	9.5	ok
22	0+473	L	671.535	671.782	671.887	0.352	4.05	ok
23	0+492	L	671.851	671.677	671.758	-0.093	11	ok
24	0+517	L	671.711	671.262	671.584	-0.127	1.2	ok
25	0+523	L	671.251	671.262	671.531	0.28	0	2 steps
26	0+532	L	671.313	671.262	671.435	0.122	1	ok

<b>27</b>	0+568	L	670.376	670.667	670.851	0.475	0	3 steps
<b>28</b>	0+572	L	671.066	670.667	670.579	-0.487	0	3 steps
<b>29</b>	0+592	L	669.841	670.421	670.385	0.544	3.5	ok
<b>30</b>	0+602	L	668.554	670.222	670.192	1.638	2.45	9 steps
<b>31</b>	0+610	L	669.738	670.222	670.037	0.299	0	2 steps
<b>32</b>	0+655	L	670.113	669.273	669.164	-0.949	1.05	5 steps
<b>33</b>	0+673	L	666.646	668.967	668.815	2.169	2	12 steps
<b>34</b>	1+012	L	662.79	662.17	662.671	-0.119	1	ok
<b>35</b>	1+021	L	662.427	662.17	662.552	0.125	0.5	ok
<b>36</b>	1+032	L	662.571	661.864	662.406	-0.165	1.5	ok
<b>37</b>	1+040	L	662.497	661.864	662.3	-0.197	1.5	ok
<b>38</b>	1+048	L	662.318	661.864	662.193	-0.125	0	ok
<b>39</b>	1+053	L	662.193	661.533	662.127	-0.066	0	ok
<b>40</b>	1+062	L	662.565	661.533	662.004	-0.561	0	ok
<b>41</b>	1+112	L	661.581	661.009	661.343	-0.238	1.5	ok
<b>42</b>	1+128	L	662.206	660.84	661.131	-1.075	1.5	ok
<b>43</b>	1+150	L	661.306	660.241	660.839	-0.467	0	ok
<b>44</b>	1+167	L	660.098	660.241	660.613	0.515	0	3 steps
<b>45</b>	1+216	L	659.75	659.378	659.962	0.212	0	1 steps
<b>46</b>	1+222	L	659.709	659.378	659.89	0.181	0.5	ok
<b>47</b>	1+234	L	659.715	659.312	659.748	0.033	2	ok
<b>48</b>	1+256	L	659.691	659.155	659.486	-0.205	1	ok
<b>49</b>	1+290	L	658.785	658.871	659.083	0.298	0	2 steps
<b>50</b>	1+332	L	658.8	658.497	658.584	-0.216	0	1 step
<b>51</b>	1+408	L	657.644	657.572	657.681	0.037	0	ok
<b>52</b>	1+422	L	656.994	657.218	657.515	0.521	0	3 steps
<b>53</b>	1+484	L	655.646	656.452	656.778	1.132	1	6 steps
<b>54</b>	1+495	L	656.64	656.267	656.647	0.007	0	ok
<b>55</b>	1+503	L	656.38	656.019	656.552	0.172	1	ok
<b>56</b>	1+512	L	656.269	656.019	656.445	0.176	1.5	ok

<b>57</b>	1+554	L	655.575	655.523	655.947	0.372	0	2 steps
<b>58</b>	1+563	L	655.543	655.366	655.84	0.297	0	2 steps
<b>59</b>	1+572	L	655.288	655.366	655.733	0.445	0	3 steps
<b>60</b>	1+579	L	655.092	655.24	655.65	0.558	0	3 steps
<b>61</b>	1+586	L	655.092	655.24	655.567	0.475	0	3 steps
<b>62</b>	1+610	L	654.347	654.855	655.326	0.979	3	6 steps
<b>63</b>	1+688	L	653.564	653.632	654.787	1.223	1	7 steps
<b>64</b>	1+782	L	652.615	652.15	654.132	1.517	1	9 steps
<b>65</b>	1+825	L	651.537	651.64	653.527	1.99	0.5	12 steps
<b>66</b>	1+837	L	651.681	651.071	653.292	1.611	2.5	ok
<b>67</b>	1+862	L	651.073	651.071	652.801	1.728	5.7	ok
<b>68</b>	1+869	L	651.107	650.689	652.664	1.557	0	9 steps
<b>69</b>	1+915	L	650.217	650.065	651.762	1.545	0	9 steps
<b>70</b>	2+015	L	648.207	648.79	649.806	1.599	0	9 steps
<b>71</b>	2+020	L	649.025	648.79	649.715	0.69	1.5	4 steps
<b>72</b>	2+030	L	649.062	648.56	649.542	0.48	1.5	3 steps
<b>73</b>	2+093	L	647.633	648.262	648.617	0.984	2.5	ok
<b>74</b>	2+101	L	646.851	648.011	648.503	1.652	3	ok
<b>75</b>	2+126	L	647.17	647.635	648.149	0.979	0.5	6 steps
<b>76</b>	2+245	L	646.604	645.937	646.328	-0.276	0	ok
<b>77</b>	2+257	L	646.604	645.937	646.13	-0.474	0	ok
<b>78</b>	2+269	L	646.576	645.439	645.932	-0.644	0	ok
<b>79</b>	2+368	L	643.029	643.973	644.299	1.27	0	8 steps
<b>80</b>	2+398	L	642.776	643.778	643.804	1.028	0	6 steps
<b>81</b>	2+407	L	642.776	643.778	643.656	0.88	0.5	5 steps
<b>82</b>	2+414	L	643.248	643.425	643.541	0.293	0	2 steps
<b>83</b>	2+452	L	642.583	642.959	642.914	0.331	1	2 steps
<b>84</b>	2+463	L	642.086	642.636	642.732	0.646	2	4 steps
<b>85</b>	2+510	L	640.382	642.003	641.957	1.575	2	9 steps
<b>86</b>	2+585	L	639.58	640.653	640.72	1.14	-4.65	7 steps

<b>87</b>	2+601	L	639.38	640.12	640.456	1.076	0	6 steps
<b>88</b>	2+610	L	639.205	640.12	640.308	1.103	0.5	6 steps
<b>89</b>	2+628	L	639.009	639.965	640.011	1.002	4.5	ok
<b>90</b>	2+639	L	639.009	639.965	639.829	0.82	0	5 steps
<b>91</b>	2+656	L	638.608	639.492	639.549	0.941	-3.75	6 steps
<b>92</b>	2+664	L	639.856	639.492	639.417	-0.439	0	ok
<b>93</b>	2+672	L	639.087	638.921	639.285	0.198	0	ok
<b>94</b>	2+710	L	638.218	638.503	638.662	0.444	1.5	3 steps
<b>95</b>	2+760	L	637.974	637.488	638.062	0.088	4.7	ok
<b>96</b>	2+803	L	637.554	637.453	637.663	0.109	0	ok
<b>97</b>	2+809	L	638.07	637.453	637.607	-0.463	2.5	ok
<b>98</b>	2+815	L	638.082	637.161	637.552	-0.53	0.5	ok
<b>99</b>	2+835	L	637.09	637.161	637.366	0.276	0.5	2 steps
<b>100</b>	2+960	L	637.817	636.143	636.207	-1.61	0.5	ok
<b>101</b>	2+973	L	637.531	636.143	636.086	-1.445	0.5	ok
<b>102</b>	2+980	L	637.721	636.079	636.022	-1.699	0	ok
<b>103</b>	2+991	L	635.193	635.923	635.919	0.726	1.5	4 steps
<b>104</b>	3+000	L	636.994	635.923	635.836	-1.158	0	ok
<b>105</b>	3+030	L	636.895	635.51	635.558	-1.337	0	ok
<b>106</b>	3+036	L	636.864	635.51	635.504	-1.36	0.5	ok
<b>107</b>	3+045	L	636.703	635.51	635.434	-1.269	0	ok
<b>108</b>	3+080	L	636.27	634.711	635.3	-0.97	0	ok
<b>109</b>	3+095	L	634.265	635.134	635.291	1.026	1	6 steps
<b>110</b>	3+100	L	635.988	635.134	635.289	-0.699	0.5	ok
<b>111</b>	3+163	L	635.694	634.834	635.254	-0.44	1.2	ok
<b>112</b>	3+178	L	635.546	634.857	635.246	-0.3	0.5	ok
<b>113</b>	3+220	L	636.011	634.79	635.223	-0.788	2	ok
<b>114</b>	3+228	L	635.755	634.88	635.218	-0.537	1	ok
<b>115</b>	0+032	R	674.938	674.709	674.64	-0.298	-1.35	ok
<b>116</b>	0+035	R	674.782	674.609	674.626	-0.156	2	ok

<b>117</b>	0+045	R	675.112	674.313	674.576	-0.536	1	ok
<b>118</b>	0+053	R	674.385	674.232	674.537	0.152	0.5	ok
<b>119</b>	0+070	R	674.185	674.232	674.453	0.268	1	2 steps
<b>120</b>	0+080	R	674.185	674.232	674.404	0.219	1.5	ok
<b>121</b>	0+123	R	674.32	674.128	674.191	-0.129	1.5	ok
<b>122</b>	0+140	R	674.289	673.969	674.108	-0.181	1	ok
<b>123</b>	0+153	R	675.004	673.828	673.926	-1.078	2	ok
<b>124</b>	0+188	R	672.982	673.905	673.808	0.826	1	5 steps
<b>125</b>	0+211	R	675.078	673.926	673.668	-1.41	1	ok
<b>126</b>	0+223	R	675.032	673.64	673.586	-1.446	1.5	ok
<b>127</b>	0+260	R	674.637	673.289	673.355	-1.282	3	ok
<b>128</b>	0+314	R	672.876	672.615	672.967	0.091	1	ok
<b>129</b>	0+353	R	671.102	672.171	672.702	1.6	2	9 steps
<b>130</b>	0+540	R	669.79	671.38	671.333	1.543	1	9 steps
<b>131</b>	0+655	R	669.716	669.237	669.164	-0.552	0	ok
<b>132</b>	0+668	R	669.38	668.903	668.912	-0.468	2	ok
<b>133</b>	0+906	R	664.293	663.744	664.297	0.004	0.5	ok
<b>134</b>	0+925	R	663.468	663.687	663.933	0.465	1	3 steps
<b>135</b>	0+943	R	663.473	663.408	663.622	0.149	0.5	ok
<b>136</b>	0+970	R	663.124	663.019	663.229	0.105	1.5	ok
<b>137</b>	0+998	R	662.547	662.446	662.857	0.31	5	2 steps
<b>138</b>	1+012	R	661.378	662.052	662.671	1.293	4	ok
<b>139</b>	1+035	R	660.872	661.808	662.366	1.494	0.5	9 steps
<b>140</b>	1+040	R	660.8	661.808	662.3	1.5	1	9 steps
<b>141</b>	1+050	R	662.11	661.656	662.167	0.057	0.75	ok
<b>142</b>	1+105	R	662.285	660.037	661.436	-0.849	2	ok
<b>143</b>	1+113	R	662.867	661.109	662.658	-0.209	1	ok
<b>144</b>	1+125	R	660.833	660.84	661.171	0.338	2	2 steps
<b>145</b>	1+167	R	660.606	660.338	660.613	0.007	1	ok
<b>146</b>	1+175	R	660.643	660.048	660.507	-0.136	0	ok

<b>147</b>	1+195	R	660.534	659.709	660.241	-0.293	0	ok
<b>148</b>	1+212	R	659.017	659.709	660.015	0.998	-6	6 steps
<b>149</b>	1+232	R	659.509	659.252	659.771	0.262	0	2 steps
<b>150</b>	1+248	R	659.251	659.252	659.581	0.33	1	2 steps
<b>151</b>	1+300	R	659.392	658.788	658.964	-0.428	0	ok
<b>152</b>	1+309	R	659.769	658.788	658.857	-0.912	1	ok
<b>153</b>	1+318	R	658.791	658.788	658.75	-0.041	0	ok
<b>154</b>	1+363	R	658.498	658.071	658.215	-0.283	0	ok
<b>155</b>	1+408	R	657.891	657.556	657.681	-0.21	0	ok
<b>156</b>	1+483	R	655.807	656.529	656.79	0.983	1.5	6 steps
<b>157</b>	1+558	R	654.109	655.468	655.899	1.79	2	11 steps
<b>158</b>	1+588	R	655.015	654.981	655.543	0.528	2	3 steps
<b>159</b>	1+620	R	654.655	654.769	655.257	0.602	2	4 steps
<b>160</b>	1+632	R	654.655	654.541	655.174	0.519	0.5	3 steps
<b>161</b>	1+642	R	654.322	654.204	655.105	0.783	2.5	5 steps
<b>162</b>	1+740	R	652.633	652.837	654.429	1.796	1	11 steps
<b>163</b>	1+852	R	651.311	651.079	653	1.689	1.5	9 steps
<b>164</b>	1+885	R	649.172	650.445	652.35	3.178	2.5	19 steps
<b>165</b>	1+920	R	650.064	650.035	651.664	1.6	0	9 steps
<b>166</b>	2+040	R	648.899	648.667	649.379	0.48	0.5	3 steps
<b>167</b>	2+180	R	647.239	647.247	647.385	0.146	0.5	ok
<b>168</b>	2+198	R	646.231	646.848	647.104	0.873	5	5 steps
<b>169</b>	2+238	R	644.946	646.12	646.444	1.498	0	9 steps
<b>170</b>	2+245	R	646.012	646.12	646.328	0.316	0	2 steps
<b>171</b>	2+255	R	647.468	645.858	646.163	-1.305	1.5	ok
<b>172</b>	2+304	R	645.311	645.09	645.355	0.044	0.5	ok
<b>173</b>	2+342	R	644.021	644.589	644.728	0.707	1	4 steps
<b>174</b>	2+356	R	645.821	644.375	644.497	-1.324	0	ok
<b>175</b>	2+364	R	645.541	644.375	644.365	-1.176	0	ok
<b>176</b>	2+391	R	642.365	643.71	643.92	1.555	1.5	9 steps

<b>177</b>	2+432	R	642.086	643.003	643.244	1.158	1	7 steps
<b>178</b>	2+445	R	642.672	642.939	643.029	0.357	2.5	2 steps
<b>179</b>	2+490	R	642.136	642.423	642.287	0.151	2	ok
<b>180</b>	2+504	R	640.613	641.945	642.056	1.443	2.5	ok
<b>181</b>	2+583	R	641.32	640.585	640.753	-0.567	0.5	ok
<b>182</b>	2+593	R	640.391	640.585	640.588	0.197	0.5	ok
<b>183</b>	2+613	R	641.168	640.227	640.258	-0.91	0	ok
<b>184</b>	2+623	R	640.768	639.879	640.092	-0.676	0	ok
<b>185</b>	2+630	R	640.272	639.879	639.978	-0.294	-1.92	ok
<b>186</b>	2+635	R	640.246	639.879	639.895	-0.351	0	ok
<b>187</b>	2+680	R	638.944	639	639.153	0.209	2.5	ok
<b>188</b>	2+738	R	638.296	638.138	638.283	-0.013	1	ok
<b>189</b>	2+878	R	636.38	636.67	636.967	0.587	5	ok
<b>190</b>	2+913	R	638.827	636.242	636.643	-2.184	4	ok
<b>191</b>	2+970	R	635.14	636.029	636.114	0.974	0	6 steps
<b>192</b>	2+991	R	637.144	635.782	635.87	-1.274	5	ok
<b>193</b>	3+025	R	635.36	635.558	635.604	0.244	5	ok
<b>194</b>	3+042	R	634.945	635.392	635.456	0.511	1	3 steps
<b>195</b>	3+087	R	634.603	635.06	635.295	0.692	1	4 steps
<b>196</b>	3+092	R	634.549	634.981	635.293	0.744	1	4 steps
<b>197</b>	3+100	R	636.097	634.981	635.289	-0.808	1	ok
<b>198</b>	3+128	R	634.804	634.714	635.273	0.469	2.3	3 steps
<b>199</b>	3+142	R	633.733	634.698	635.265	1.532	5	ok
<b>200</b>	3+150	R	633.669	634.698	635.262	1.593	1.5	9 steps
<b>201</b>	3+160	R	635.006	634.843	635.256	0.25	0.5	1 steps
<b>202</b>	3+168	R	633.707	634.843	635.251	1.544	0.5	9 steps
<b>203</b>	3+175	R	636.919	634.707	635.247	-1.672	3	ok
<b>204</b>	3+212	R	636.478	634.907	635.227	-1.251	0.5	ok
<b>205</b>	3+220	R	635.335	634.985	635.234	-0.101	0	ok
<b>206</b>	3+232	R	635.36	634.985	635.216	-0.144	0	ok



# **Environmental and Social Management Plan (ESMP)**

Credit No. IDA-6778-NP

## **Nepal Urban Governance and Infrastructure Project (NUGIP)**

### **Upgradation of Dobilla - Bagmara - Tiklang - Badarkot - Lamgadi - Chaplang - Upallo Puditar - Tallo Puditar - Jhigate (Janajagriti Ma Vi) Tagaregauda Road**

Pokhara Metropolitan City  
Kaski District, Gandaki Province

April 2024

## Acronym

BoQ	: Bill of Quantity
CESMP	: Contractor’s Environment and Social Management Plan
CoC	: Code of Conduct
DPR	: Detailed Project Report
DSC	: Design and Supervision Consultant
DUDBC	: Department of Urban Development & Building Construction
EA	: Environmental Assessment
EHS	: Environment, Health and Safety
EPR	: Environmental Protection Rule
ESMP	: Environmental and Social Management Plan
FGD	: Focus Group Discussion
GBV	: Gender Based Violence
GRC	: Grievance Redress Committee
GRM	: Grievance Redress Mechanism
ILO	: International Labor Organization
NSO	: National Statistics Office
NUGIP	: Nepal Urban Governance and Infrastructure Project
OHS	: Occupational Health & Safety
OP/BP	: Operational Policy/Bank Policy
PCO	: Project Coordination Office
PIM	: Project Implementation Manual
PIU	: Project Implementation Unit
PPE	: Personal Protective Equipment
RoW	: Right of Way
SEA/SH	: Sexual Exploitation and Abuse/Sexual Harassment
STD	: Sexually Transmitted Disease
TMO	: Transport Management Office
WASH	: Water, Sanitation and Hygiene
WB	: World Bank

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# Executive Summary

## Introduction

This updated Environmental and Social Management Plan (ESMP) document covers the road upgradation of two (2) road sections. Section I is *Kalikaasthan to Upallo Pudi (Janajagriti School)* of ward 33 covering 9.627 km, and Section II starts from Lamgadi chowk at Ch.4+980 of the Road Section I and ends at Lameaahal (Prithvi Highway) ward 32 covering 2.813 km long within Pokhara Metropolitan City, Kaski district. The project is intended to improve quality of life and livelihood of the local people along the settlements along and near the road alignment. The starting point coordinates of Section I are 28°8'39"N, 84°2'38"E and end point coordinates are 28°6'5"N, 84°3'52"E. The starting point coordinates of Section II is 28°7'26"N, 84°4'52.28"E and end point is 28°6'38.45"N, 84°5'30"E.

RoW of the proposed road is declared as 20 m. Available width ranging from at least 9.7 m to 11.5 m is available for road upgradation works, and is currently in public use. Since all the design components are within the existing available road width, the proposed road width is itself the Corridor of Impact or the actual footprint required for construction. Hence, there is no additional land required. There is no any outstanding issues within the proposed road width.

## Baseline Information

Within the proposed road alignments there are 42 electric poles in Section I and 24 electric poles in Section II. There is 1.91 km of drinking water supply pipelines including both sides of the road to be reinstated only in Section I. The road alignment passes through 2 Community Forests namely Jhakrikhola Community Forest at Lamgadi (Ch. 5+440 to 5+800 km), and Shree Shanti Community Forest at Thulo Pakha (Ch. 7+900 to 8+160 km). However, the upgradation works will be carried out on the existing road only, and there is already minimum required road width available for the road upgradation works. No tree needs to be cut in the sections within community forest. There are 19 trees within the construction width, and 6 are private trees for which the consultation has been carried out with the private tree owners who agreed for the compensation rate proposed by the PMC representatives.

The ambient air quality of the project area doesn't show critical state. The air quality index of Pokhara shows that the AQI is 124, with PM<sub>2.5</sub> level of 44.8 µg/m<sup>3</sup> (*Source: <https://www.iqair.com/nepal/eastern-region/pokhara>*). However, the project area is relatively less urbanized, hence air quality is even better. The average noise levels ranged from 63.8 dBA to 65.2 dBA. The water quality of the drinking water supply system is satisfactory and the parameters are within the threshold limits of NDWQS 2022.

The total population of project wards - ward 32 and 33, is 26,353 and the total number of households is 7,022. The average household size of the project wards is 3.75. Total male population of the project wards is 12,459 and total female population of the project wards is 13,894. The sex ratio of the project wards 0.89 (*Source: NPHC, NSO - 2021*). Based on the field study and public consultation meetings, there are around 316 households with total population 1182 having 579 male population and 603 female population (*Source: Field study, March, 2024*).

The major settlements existed along the alignment are Kalikaasthan, Betyani, Khaireni, Lamgadi, Tiklang, Rusetari, Upallo Pudi, Lameaahal (near Prithivi Highway). The project area has people of Brahman, Chhetri, Newar, Gurung, Magar and some Dalit communities. There are 150 households

of janajati families. This includes total population of 565 with 277 male and female 288 of janajati families. The indigeneous people are living in a mixed community. Separate consultation was carried out with the indigeneous people of the project area. (Source: Field study, September, 2023).

### **Legal and Regulatory Requirements**

The sectoral and cross-sectoral guidelines and standards promulgated by the GoN in various periods are adequate to mainstream the environmental and social safeguard dimensions in the project preparation and implementation phases. The report has included the applicable GoN plan, policies, act, regulations, guidelines, and standards. Similarly, the report has also included the environmental and social safeguards standards of the World Bank.

### **Screening, Scoping, Impact identification, Prediction and Management**

Direct Impact area of the project is considered as Road Width of 9.7 m to 11.5 m of the road alignment. Similarly, the project's influence area falls within 500 meters from both edges of the road. Environmental and Social Screening checklists were used for screening and summarizing the overall impacts. The site-specific impacts in construction and operation phases are included in the ESIA report. Some of the impacts include;

#### **Physical Impacts**

- *Slope instability*
- *Use of Quarry materials*
- *Stockpiling and construction campsite*
- *Ambient air pollution, Noise nuisance and water pollution*
- *Solid waste & spoil generation*
- *Road stability & management*

#### **Biological Impacts**

- *Vegetation loss*
- *Risk of degradation of water resources*

#### **Socio-economic and Cultural Impacts**

- *Change in land use*
- *Damage to public and private utilities*  
*This includes 66 electric poles, and 1.91 km of water supply pipelines along road alignment*
- *Difficulty in access & mobility to private properties and premises*
- *Community Health & Safety*
- *Occupational Health and Safety*
- *Social disturbances/risk of GBV- SEA/SH, and Human trafficking,*
- *Risk of communicable diseases like HIV AIDS and CoVID*
- *Child labour, forced labour and wage discrimination*
- *Traffic management issues, etc*

The mitigation measures corresponding to the impacts have been suggested in the report. Some of the mitigation measures are;

#### **Measures for Physical Impacts**

- *Use of construction materials only from the legally operating crusher industries*
- *Suitable selection of site for stockpiling*
- *Vehicles and equipment meeting GoN emission standard to be used*
- *Regular maintenance of vehicles and equipment*

- *Follow 3R approach of waste management*
- *Waste segregation at source, prohibition of waste burning*
- *Prohibition of spoil disposal into rivers, water bodies and public places*
- *Awareness activities to reduce the incidences of disposal of waste into road-side drains*

### **Measures for Biological Impacts**

- *Prohibition in use of fuel wood from local community by the workers,*
- *Prohibition of disposal of any waste or waste water into water bodies*

### **Measures for Socio-economic & Cultural Impacts**

- *Pokhara Metropolitan City office will accomplish the process of transfer of deeds of the land parcels that are within road width of the road alignment*
- *Electrical poles and private hand pumps will be reinstated without delay*
- *Metal/wooden planks, and earthen ramps will be provisioned to ease access to shops, courtyards and public passages; Traffic Management Plan will be prepared*
- *Sign boards/messages in local languages, safety barricades will be provided*
- *Provision of PPEs and first aid kits*
- *Provision of safe, clean and hygienic workplace and adequate WASH facilities at campsite*
- *The project will restrict child labor*
- *Public awareness raising events (safety, environmental conservation)*
- *Employment opportunity & priority for the locals*
- *Code of Conduct to be implied for the workforce*
- *Construction works to consider elderly, women, child & differently able people (EWCD) requirements*
- *Awareness on GBV, SEA/SH, communicable diseases/CoVID, and human trafficking*

### **Resettlement Action Plan**

The impact on private structures along the proposed road up-gradation project have been avoided to the possible extent. Since RoW of the road was already declared on 2072/05/27 BS (September, 2015), and the required Road Width is already in public use, there are no issues of land acquisition. The Resettlement Action Plan (RAP) aims to provide policy and procedures of land acquisition, compensation and resettlement of affected persons if design changes. However, RAP is not required for this project.

### **Sexual Exploitation & Abuse, and Sexual Harassment Prevention and Response Action Plan**

Based on the Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) Risk Assessment checklist and assessment carried out for NUGIP by the World Bank, the Project's SEA/SH risks are assessed to be "Low". An SEA/SH Prevention and Response Action Plan has been developed for NUGIP based on this assessment and includes specific measures that aim to prevent and mitigate SEA/SH risks that the project activities might trigger. The Plan has also addressed "Table - 1: Recommended actions to address SEA/SH Risks in IPF Projects" as per the "Good Practice Note" published by the World Bank in September 2018.

### **Environmental and Social Management Plan**

Environmental and Social Management Plan (ESMP) has been proposed including potential impacts and required mitigation measures. A total cost of NPR 2,371,000 has been allocated for mitigation and management of the environmental and social impacts of the project activities. In addition, agencies responsible for executing environmental mitigation measures and monitoring have been identified in the ESMP. The project also includes a Grievance Redress Mechanism (GRM) for timely update and resolution of stakeholders' concerns and grievances.

### **Grievance Redress Committee (GRC)**

1<sup>st</sup> Level and 2<sup>nd</sup> Level Grievance Redress Committees have been established in the project area to allow stakeholders to raise any concerns or complaints, or to appeal any disagreeable decisions, practices and activities arising from the project including compensation for land and assets (if applicable). The committees can be provided with grievances through any of the mediums like written, verbal, telephone, letter, etc. and the committee will process it following the procedures of ESMF document of the project, and if not solvable, it will be forwarded to the higher level of GRM.

### **Institutional arrangements**

The Ministry of Urban Development (MoUD) has set up a Project Coordination Office (PCO) under the Department of Urban Development and Building Construction (DUDBC) to implement NUGIP. The PCO is responsible for overall project compliance including compliance with environmental and social measures. The PCO will be supported by a Project Management Support Team (PMST). A Project Implementation Unit (PIU) has been established in Pokhara Metropolitan City for implementation of the subproject project at the local level and will be responsible for implementation of the ESMP and other environmental and social instruments. Technical Assistance will be provided through a Design and Supervision Consultancy (DSC) which includes environmental and social safeguards specialists.

## कार्यकारी शाराम्श

यस वातावरणीय तथा सामाजिक व्यवस्थापन योजना प्रतिवेदनले कास्की जिल्ला, पोखरा महानगरपालिकाको दुईवटा सडक खण्डहरू - पहिलो सडक खण्ड कालिकास्थान देखि उपल्लो पुडीसम्मको ९.६२७ कि.मि. (वडा नं. ३३) र दोस्रो खण्डमा लाम्गादी चोकदेखि लामेआहालसम्मको २.८१३ कि.मि. (वडा नं. ३३ र ३२) । यस आयोजनाको उद्देश्य बाटोको वरिपरिका बस्तीका स्थानीयहरूको जीवनस्तर र जीविकोपार्जनमा सुधार ल्याउने रहेको छ । यस उपआयोजनाको भौगोलिक स्थितिमा पहिलो सडक खण्डको शुरुवात विन्दु २८°२'३९" उत्तर, ८४°२'३६" पूर्व र अन्तिम विन्दु २८°६'५" उत्तर, ८४°३'५२" पूर्व हुन् भने दोस्रो सडक खण्ड को शुरुवात विन्दु २८°७'२६" उत्तर, ८४°४'५२.२८" पूर्व र अन्तिम विन्दु २८°६'३८.४५" उत्तर, ८४°५'३०" पूर्व हुन् ।

प्रस्तावितको सडकको क्षेत्राधिकार (Right of Way) २० मिटर रहेको छ । हाल सडक स्तरोन्नतीका लागि न्यूनतम ९.७ मि. देखि ११.५ मि. बाटो खुल्ला रहेको छ जुन अहिले सार्वजनिक प्रयोगमा रहेको छ । सडकका सम्पूर्ण संरचनाहरू यही उपलब्ध चौडाईभित्रै डिजाइन गरिएको कारण यहीनै सडक स्तरोन्नती आयोजनाका लागि करिडोर अफ इम्प्याक्ट (Corridor of Impact) हुनेछ, र थप जग्गाको आवश्यकता पर्नेछैन । प्रस्तावित सडक खण्डमा कसैको गुनासो आदी जस्ता कुनै किसिमका समस्या छैन ।

### विद्यमान अवस्था:

प्रस्तावित सडक किनारामा पहिलो सडक खण्डमा ४२ वटा र दोस्रो सडक खण्डमा २४ वटा विद्युतका पोलहरू, र जम्मा १.९१ कि.मि. खोनपानीको पाईपलाईन रहेका छन् । पहिलो सडक खण्ड भाक्रीखोला सामुदायिक वन (चेनेज ५+४४० देखि ५+८०० कि.मि., लामगादी) र श्री शान्ति सामुदायिक वन (चेनेज ७+९०० देखि ८+१६० कि.मि., ठूलो पाखा) भएर जान्छ । यद्यपी सडक स्तरन्नतीको कार्य हाल चलनचल्तीमा रहेको सार्वजनिक प्रयोजनमा रहेको उपलब्ध जमीनमा मात्रै गरिनेछ । त्यसैगरी सामुदायिक वनको क्षेत्रभित्र कुनै रुख काटनुपर्ने देखिएको छैन । यस आयोजना अन्तर्गत जम्मा १९ वटा रुखहरू हटाउनुपर्ने छन् जसअन्तर्गत ६ वटा निजी रुखहरू पर्दछन् । प्रस्तावित आयोजना क्षेत्रमा तुलनात्मक रूपमा कम शहरीकरण भएकोले वायु र ध्वनी प्रदुषण पनि कमै रहेको छ । आयोजना क्षेत्रमा खानेपानीको गुणस्तर पिउन योग्य रहेको छ ।

प्रस्तावित आयोजना क्षेत्र - वडा नं. ३२ र ३३ मा कुल जनसंख्या २६,३५३ रहेको र कुल घरधुरी संख्या ७,०२२ रहेको छ । आयोजना क्षेत्रको औसत परिवारको आकार ३.७५ रहेको छ । त्यसैगरी आयोजना क्षेत्रको महिला संख्या १३,८९४ र र पुरुष संख्या १२,४५९ रहेको र लैङ्गिक अनुपात ०.८९ रहेको छ (श्रोत: NPHC, NSO - 2021) । स्थलगत अध्ययन र सार्वजनिक परामर्श बैठकको आधारमा सडक क्षेत्रमा करिब ३१६ घरपरिवार रहेका छन् भने जम्मा जनसंख्या ५०६ रहेको छ । जसमा २४३ जना पुरुष र २६३ जना महिलाको संख्या रहेको छ (स्रोत: Field study, March, 2024) ।

यस उपआयोजना क्षेत्रका प्रमुख बस्तीहरूमा कालिकास्थान, बेल्यानी, खैरेनी, लाम्गादी, तिक्लाङ्ग, रुसेटार, उपल्लो पुदी, लामेआहाल (पृथ्वी राजमार्ग नजिक) जस्ता बस्तीहरू पर्दछन् भने यस क्षेत्रमा ब्राम्हण/क्षेत्री, नेवार, गुरुङ्ग, मगर, र दलित समुदायको बसोबास रहेको छ । यहाँ १५० घरपरिवार जनजाति समुदायको रहेको छ, जसमा जम्मा जनसंख्या ४५५ रहेको जसमा २७७ पुरुष र २८८ महिला गरी जम्मा ५६५ जनसंख्या रहेको छ । आदिवासी/जनजाति बहुसंख्यक रहेको यस आयोजनाका क्षेत्रमा मिश्रित समुदायको बसोबास

रहेको छ (स्रोत: *Field study, March, 2024*)। आयोजना क्षेत्रमा रहेको आदिवासीहरूसंग छुट्टै छलफल गरिएको थियो ।

### ऐन तथा नीति, नियमको आवश्यकता:

नेपाल सरकारले विभिन्न समयमा जारी गरेका विषयगत तथा बहुविषयगत निर्देशिका तथा मापदण्डहरू आयोजना तयार गर्न तथा कार्यान्वयन चरणहरूमा वातावरणीय एवं सामाजिक सुरक्षण आयामहरू मूल प्रवाहीकरण गर्न यथेष्ट छन् । यस प्रतिवेदनले सम्बन्धित नेपाल सरकारका योजना, नीति, ऐन, नियम, निर्देशिका एवम् मापदण्डहरू समेटेको छ । त्यसैगरी यस प्रतिवेदनले विश्व बैङ्कको वातावरणीय तथा सामाजिक मापदण्डहरू पनि समेटेको छ ।

### स्कीनिङ्ग, क्षेत्र निर्धारण, प्रभाव पहिचान, पुर्वानुमान तथा व्यवस्थापन:

आयोजनाको प्रत्यक्ष प्रभावित क्षेत्र यस उपआयोजनाको सडकको चौडाई ९.७ मिटर देखि ११.५ मिटरसम्म रहेको छ । त्यसैगरी आयोजनाको प्रभाव क्षेत्र सडकको किनारको दुबै तर्फ ५०० मिटरसम्मको क्षेत्रलाई लिइएको छ । प्रभावहरूको वर्गीकरण तथा संक्षेपीकरण गर्न वातावरणीय तथा सामाजिक चेकलिष्ट प्रयोग गरिएको छ । स्थान विशेषको प्रभावहरू वातावरणीय तथा सामाजिक प्रभाव मूल्याङ्कनमा समावेश गरिएका छन् । केही प्रभावहरू निम्नानुसार छन् ।

### भौतिक प्रभावहरू:

- भूक्षयको अवस्था
- उत्खनन् सामाग्रीको प्रयोग
- भण्डारण र निर्माण शिविर स्थल
- ध्वनी, वायु र जल प्रदुषण
- फोहरमैला तथा ढुङ्गा-माटो व्यवस्थापन
- सडकको स्थाइत्व र व्यवस्थापन

### जैविक प्रभावहरू:

- बोटबिरुवाको क्षति ।
- जलश्रोत प्रदुषणको जोखिम ।

### सामाजिक-आर्थिक तथा सांस्कृतिक प्रभावहरू:

- भूमि उपयोगमा परिवर्तन
- सार्वजनिक तथा नीजि संरचनाहरूमा क्षती (जम्मा ६६ वटा विजुलीको खम्बा, १.९१ कि.मि. खानेपानीको पाईपलाईन)
- घर-आँगन, पसल तथा नीजि सम्पतिमा पहुँच र आवतजावतमा कठिनाइ
- सामुदायको स्वास्थ्य र सुरक्षा
- व्यवसायजन्य स्वास्थ्य र सुरक्षा
- सामाजिक सद्भावमा अवरोध, गुनासो व्यवस्थापन

- यौन जन्य हिंसा तथा मानव बेचबिखन जस्ता विषय सँग सम्बन्धित जोखिम
- HIV AIDS तथा CoVID) जस्ता सरुवा रोग सँग सम्बन्धित जोखिम
- बाल श्रम, जबरजस्ती काममा लगाउने तथा ज्यालामा असमानता जस्ता समस्या
- ट्राफिक व्यवस्थापन

यी असरहरु न्यूनीकरणका लागि विभिन्न उपायहरु यस प्रतिवेदनको वातावरण तथा सामाजिक व्यवस्थापन योजना (ESMP) मा उल्लेख गरिएका छन् । ती मध्ये केही प्रमुख उपायहरु निम्नानुसार रहेका छन् :

#### भौतिक प्रभावहरु न्यूनीकरण गर्ने केही उपायहरु:

- ग्यावियन वालको प्रयोग तथा वायोईन्जिनियरिङ्ग उपायहरुको अवलम्बन गरी भूक्षय रोकथाम गर्ने
- स्वीकृत गिट्टी वालुवा प्लान्टबाट मात्रै गिट्टी वालुवा प्रयोग गर्ने
- निर्माण सामग्री भण्डारण स्थल व्यवस्थापन
- नेपाल सरकारले तोकेको मापदण्ड अनुकूल सवारी साधन तथा यन्त्रहरु प्रयोग गर्ने
- सवारी साधन तथा यन्त्रहरु को नियमित मर्मत संभार गर्ने
- फोहोर व्यवस्थापनमा 3R अवधारण अवलम्बन गर्ने
- श्रोतमा नै कुहिने र नकुहिने फोहोर वर्गीकरण, तथा प्लाष्टिक जन्य फोहोर जलाउनमा प्रतिबन्ध
- सार्वजनिक स्थल तथा खोलामा निर्माणजन्य फोहोर फाल्न प्रतिबन्ध

#### जैविक वातवारणमा पर्ने प्रभावहरु न्यूनीकरण गर्ने केही उपायहरु:

- कामदारहले वन जङ्गलबाट काठ दाउरा लिन ल्याउनमा प्रतिबन्ध
- कामदारहले खोलामा माछा मार्न प्रतिबन्ध तथा खोलामा निर्माणजन्य फोहोर फाल्न प्रतिबन्ध

#### सामाजिक-आर्थिक तथा सांस्कृतिक प्रभावहरु न्यूनीकरणका उपायहरु :

- सडकको क्षेत्राधिकार भित्र रहेका जग्गाहरुको कित्ताकाट र स्वमित्व हस्तान्तरणको प्रक्रिया पोखरा महानगरपालिकाले पुरा गर्नेछ ।
- खानेपानी पाईप लाईन तथा विजुलीका पोलहरु पुनःस्थापना तथा व्यवस्थापन गर्ने
- घर-आँगन, पसल तथा नीजि क्षेत्रमा आवागमनमा सहजताका लागि आवश्यक स्थानहरुमा काठको वा फलामको फड्के वा earthen ramp को व्यवस्था गरिदिने, साथै ट्राफिक व्यवस्थापन योजना तयार गरिनेछ
- नेपाली भाषामा *Sign board* तथा सूचनाहरु राख्ने, तथा सुरक्षाका लागि *barricade* राखिनेछ
- कामदारहरुलाई सुरक्षाका उपकरणहरु तथा प्राथमिक उपचार सामग्री उपलब्ध गराइनेछ
- कामदारहरुलाई सुरक्षित तथा सफा आवासगृहको व्यवस्था, तथा उपयुक्त WASH सुविधाहरु उपलब्ध गराइनेछ
- परियोजनामा बालबालिकालाई काम लगाउन निषेध गरिनेछ
- स्थानीयलाई रोजगारीको अवसर तथा प्राथमिकता

- कामदारहरूलाई आचार संहिता (CoC) लागू गरिनेछ
- निर्माण चरणका डाइभर्जनहरूको डिजाइनले बृद्ध-वृद्धा, महिला, बालबालिका तथा फरक क्षमताका भएका व्यक्तिहरूका लागि उपयुक्त उपायहरूको व्यवस्था गर्नु पर्दछ ।
- वातावरणीय संरक्षण र सामाजिक सुरक्षण सम्बन्धी जनचेतनामूलक कार्यक्रम संचालन गरिने ।
- यौन जन्य हिंसा (यौन दुराचार), मानव बेचबिखन, HIV AIDS and CoVID सम्बन्धी जनचेतनामूलक कार्यक्रमहरू संचालन गरिनेछ ।

### पुनःवास कार्ययोजना:

प्रस्तावित सडक स्तरोन्नति उपआयोजनाको सडकको क्षेत्राधिकार भित्रको नीजि संरचनामा पर्ने असरलाई सकेसम्म जोगाइएको छ । महानगरपालिकाले उपलब्ध गराएको निर्णय प्रतिलिपिमा उल्लेख भए बमोजिम बि.सं. २०७२ साल भदौ २७ गते स्थानिय राजपत्रमा प्रकाशित सुचनाले बाटोको क्षेत्राधिकार स्पष्ट छ र हाल डिजाइन गरिए अनुसारको बाटोको चौडाइका लागि चलनचल्तीमा रहेको बाटोको चौडाइ पर्याप्त भएको कारण जग्गा अधिग्रहणको आवश्यकता छैन । पुनर्वास कार्य योजनाले डिजाइन परिवर्तन भएमा प्रभावित व्यक्तिहरूको जग्गा अधिग्रहण, क्षतिपूर्ति र पुनर्वासको नीति र प्रकृयाहरू प्रदान गर्ने लक्ष्य राखेको छ । तर यस परियोजनाको लागि पुनर्वास कार्य योजना आवश्यक छैन ।

### यौन शोषण तथा दुर्व्यवहार रोकथाम तथा सम्बोधन कार्य योजना:

विश्व बैङ्कले नेपाल शहरी शासकीय तथा पूर्वाधार आयोजना (NUGIP) को लागि गरिएको यौनिक शोषण, दुर्व्यवहार एवम् यौन दुर्व्यवहार जोखिम मूल्याङ्कनका आधारमा यस आयोजनाको SEA/SH जोखिमको “न्यून” मूल्याङ्कन गरिएको छ । यस मूल्याङ्कनमा आधारित भई आयोजनाको लागि SEA/SH निरोध तथा सम्बोधन कार्ययोजना आयोजनाको लागि SEA/SH रोकथाम तथा सम्बोधन कार्ययोजना बनाइएको छ । यसमा उपआयोजनाको कार्यक्रमले सिर्जना गर्न सक्ने SEA/SH जोखिमहरू निषेध एवं रोकथाम तथा न्यूनीकरण गर्ने उद्देश्यका निश्चित व्यवस्थाहरू समावेश गरिएका छन् । यस योजनाले तालिका- १. विश्व बैङ्कले सेप्टेम्बर २०१८ मा प्रकाशित “असल अभ्यास नोट” अनुसार IPF परियोजनाहरूमा SEA/SH जोखिमहरूलाई सम्बोधन गर्न सुझाएका कार्यहरूलाई पनि समावेश गरेको छ ।

सामान्यतया नेपाली समाजमा लैङ्गिक हिंसासम्बन्धी घटनाहरू घटिरहन्छन् । समुदाय स्तरका महिलाहरूसँग भएका छलफल अनुसार, आयोजना क्षेत्रमा केही साना-तीना घरेलु हिंसाका घटनाहरू घटे तापनि सामाजिक प्रतिस्थाका कारण आपसी मेलमिलाप गर्नेगरेको छ ।

### वातावरण तथा सामाजिक व्यवस्थापन योजना :

पहिचान गरिएका सवालहरू, सम्भाव्य असर एवं प्रभावहरू, तिनीहरूको न्यूनीकरण गर्ने विधिहरू र अनुगमन विधिहरू समावेश गरी यस प्रतिवेदनले वातावरणीय तथा सामाजिक व्यवस्थापन रूपरेखा (ESMF) मा उल्लेख भए बमोजिम प्रस्ताव गरेको छ । निर्माण तथा सञ्चालन चरणमा हुने वातावरणीय तथा सामाजिक प्रभाव न्यूनीकरण गर्ने लागत खर्च वातावरणीय तथा सामाजिक प्रभाव मूल्याङ्कन प्रतिवेदनमा संलग्न छ । अझ वातावरणीय प्रभाव न्यूनीकरण व्यवस्था तथा अनुगमन गर्ने जिम्मेवार निकायहरू वातावरणीय तथा सामाजिक व्यवस्थापन रूपरेखा तोकिएको छ । वातावरण तथा सामाजिक व्यवस्थापन योजना कार्यान्वयनका लागि कूल रु. २,३७१,००० को बजेट प्रस्ताव गरिएको छ । यस उपआयोजनामा सरोकारवालाहरूको जिज्ञासा एवं

गुनासोहरुको बारे अद्यावधिक सूची राख्न र उपयुक्त समयमै समाधान गर्न एवं गुनासो सम्बोधन विधि ( GRM) समेत समेटिएको छ ।

#### **गुनासो व्यवस्थापन समिति (GRC) को व्यवस्था:**

उपआयोजना निर्वाध रूपमा कार्यान्वयन गर्न र समयमा नै उपआयोजना सम्पन्न गर्नका लागि निर्माण चरणमा आउने गुनासाहरुको सुनुवाई गर्ने र त्यस्ता गुनासाहरुलाई तत्कालै स्थानिय स्तरमा नै समाधान गर्ने उद्देश्यले आयोजना स्तरमा र नगरपालिका स्तरमा एक/एक गुनासो व्यवस्थापन समितिको गठन गरिएकोछ । उक्त गुनासो समितिलाई कुनै पनि प्रकारका संचारका माध्यम, चिट्ठिपत्र वा भौतिक रूपमा उपस्थित भएर टिपाउने गुनासाहरुको सुनुवाई ESMF मा उल्लेख भए बमोजिमको नियम र परिधिमा रहि समाधान गर्ने र आफुले समाधान गर्न नसकिने गुनासाहरुलाई उपल्लो निकायमा पठाउन एक गुनासो व्यवस्थान समितिको गठन गरिनेछ ।

#### **संस्थागत व्यवस्था :**

आयोजना कार्यान्वयन गर्न शहरी विकास मन्त्रालयले शहरी विकास तथा भवन निर्माण विभाग अन्तर्गत नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना (NUGIP) को कार्यालय स्थापना गरेको छ । वातावरणीय तथा सामाजिक विधिको साथै सम्पूर्ण विधिहरु पालना सम्बन्धी जिम्मेवारीको जवाफदेहिता आयोजना समन्वय कार्यालय (PCO) मा रहने छ । आयोजना समन्वय कार्यालयलाई एउटा आयोजना व्यवस्थापन सहयोग टोलीले (PMST) सहयोग गर्नेछ । उपआयोजनाहरुको वातावरणीय तथा सामाजिक व्यवस्थापन योजना कार्यान्वयन स्थानीय तहमा गर्न र अन्य वातावरणीय एवं सामाजिक संयन्त्रहरुको कार्यान्वयनमा जिम्मेवार हुने गरी पोखरा महानगरपालिकामा एक आयोजना कार्यान्वयन इकाइ (PIU) स्थापना गरिएकोछ । सुरक्षण विशेषज्ञहरु सहितको डिजाइन तथा सुपरिवेक्षक परामर्शदाता (DSC) मार्फत प्राविधिक साहायाता प्रदान गरिनेछ ।

## 1. PROJECT INTRODUCTION

The Department of Urban Development and Building Construction (DUDBC) under Ministry of Urban Development (MoUD) of Government of Nepal has been executing the Nepal Urban Governance and Infrastructure Project (NUGIP) within the strategic framework for urban development envisaged in National Urban Development Strategy since the fiscal year 2077/78 B.S.

The DPR of *Upgradation Works of Dobilla - Bagmara - Tiklang - Badarkot - Lamgadi - Chaplang - Upallo Puditar - Tallo Puditar - Jhigate (Janajagriti Ma VI) Tagaregauda Road* of Pokhara Metropolitan City has been prepared as per the Contract between the Office of the Municipal Executive of Pokhara Metropolitan City; Nepal Urban Governance and Infrastructure Project (NUGIP) (Client) and BN Consultancy Pvt. Ltd (BN) - Plush Engineers and Architects (P) Ltd (PEA) which have entered into the agreement, for performing work REF No: NP-DUDBC-215991-CS-QCBS, into effect from 9<sup>th</sup> April 2023 to provide services on Detailed Engineering Design and Construction Supervision (DSC) covering the upgradation works. The project is expected to contribute towards the municipal capacity for urban development planning, infrastructure development and institutional development of the municipality together with the improvement of livelihood of the local people along the settlement.

The study for Environmental and Social Management Plan of *Upgradation Works of Dobilla - Bagmara - Tiklang - Badarkot - Lamgadi - Chaplang - Upallo Puditar - Tallo Puditar - Jhigate (Janajagriti Ma VI) Tagaregauda Road* in Pokhara Metropolitan City was conducted in September 2023. The study and preparation of the this ESMP is guided by the Environmental and Social Management Framework (ESMF) for NUGIP.

Estimated Cost:	NPR. 1,315,310,722.99 (including VAT and contingency)
Start/Completion Date:	April 2024 - July 2025

## 2. DESCRIPTION OF THE PROJECT SITE

Pokhara Metropolitan City lies in the Kaski District of Gandaki Province. It is located 200 km west of the capital Kathmandu. The city is the headquarters of Kaski district and the capital of Gandaki province. There are 33 wards in the metropolitan city covering an area of 464.24 square kilometer. Pokhara has an estimated city population of 513,504 living in 140,459 households as per 2021 Nepal census.

### 2.1 Location of the project

The project is located in wards 33 and 32 of Pokhara Metropolitan City. The project has two road sections. Section I is Kalikasthan to Upallo Pudi road with length of 9.627 km. It lies totally in ward number 33. Its starting point coordinates are 28°8'39"N, 84°2'38"E and end point coordinates are 28°6'5"N, 84°3'52"E. Section II is Lamgadi to Lameaahal (Prithvi Highway) road with length of 2.813 km. It lies in wards 32 and 33. The starting point of Section II is 28° 7'26"N, 84° 4'52.28"E and end point is 28°6'38.45"N, 84°5'30"E.

### 2.2 Topography and Hydrology

Main settlement in the metropolitan city lies in the plain areas surrounded by the hilly ranges overlooking the entire valley. The altitude of the city varies from 827 m (amsl) in the southern part to 1740 m (amsl) in the northern part whereas elevation of the project area ranges from 540 m to 694 m from sea level. The project area is a hilly terrain that passes through some undulations. Seti River flows along left side of Section I. Section II crosses Seti River at Ch. 0+600 km. Khahare kholsi, Dhaph kholsi, Muhan kholsi, Chilise kholsi and some of the local streams of the project area.

### 2.3 Climate and Vegetation

The climate here is considered warm and temperate. The summers here have a good deal of rainfall, while the winters have very little. As per the Köppen-Geiger classification, the prevailing weather conditions in this region are categorized under Cwa. The mean yearly temperature recorded in Pokhara is 18.3 °C, as per the available data. The rainfall here is around 4851 mm per year. The balmy days of summer commence at the end of June and conclude in September. This period encompasses the months: June, July, August, and September. In December, the precipitation level plummets to a mere 109 mm. This month holds the title for being exceptionally arid. Most of the precipitation here falls in July, averaging 1114 mm.

The road alignment as tropical to subtropical vegetation types with dominance of deciduous trees. Trees like Ficus species, Sissoo (*Dalbergia Sissoo*), Bakaino (*Melia azedarach*), Simal (*Bombax ceiba*), Kapur (*Cinnamomum camphora*), Sal (*Shorea robusta*), Khirro (*Sapium insigne*), Ipil (*Leucaena leucocephala*), and bamboo species are found in the project area. The road alignment passes through 2 Community Forests namely Jhakrikhola Community Forest at Lamgadi (Ch. 5+440 to 5+800 km), and Shree Shanti Community Forest at Thulo Pakha (Ch. 7+900 to 8+160 km). However, the upgradation works will be carried out on the existing road only, and there is already minimum required road width available for the road upgradation works. Letter from the Community forest user groups regarding existing road of 10 m road width has been provided in Annex 2. No tree needs to be cut in the sections within community forest. There are 19 trees within the construction width, and 6 are private trees for which the consultation has been carried out with the private tree owners who agreed for the compensation rate proposed by the PMC representatives. The details of trees to be cut, the list of private trees & the owners - are all provided in Annex 6.

Air Quality, Water Quality, and Noise level-?

#### **2.4 Air Quality, Water Quality, and Noise level**

The ambient air quality of the project area doesn't show critical state. The air quality index of Pokhara shows that the AQI is 124, with PM<sub>2.5</sub> level of 44.8 µg/m<sup>3</sup> (*Source: <https://www.iqair.com/nepal/eastern-region/pokhara>*). However, the project area is relatively less urbanized, hence air quality is even better. The primary source of ambient air pollution is due to dust from vehicles plying on earthen roads. Noise levels were measured using an android application, and a continuous measurement was conducted along the road alignment. The average noise levels ranged from 63.8 dBA to 65.2 dBA.

The drinking water source of the project area are primarily surface water sources. The water quality of the drinking water supply system is satisfactory and the parameters are within the threshold limits of NDWQS 2022 (*Annex 3*). The report shows that there is no turbidity, foul taste, or odour. The pH range was 8.01; TDS 76 mg/L; EC 165 µS/cm; and Calcium value of 25 mg/L in the drinking water sample of distribution system sampled and tested by *Nirmal Pokhari Baghmara Pudi Water Supply Sanstha*. The laboratory report of Total Coliform tested for the same source shows Nil *E. Coli* count and Nil *Totali Coliform* count as tested on 17<sup>th</sup> August 2023.

#### **2.5 Demography of the project area**

The total population of Pokhara Metropolitan City is 513,504 and total household is 140,459. The average household size of the municipality is 4.39 which is greater than that of district household size of 3.66. Male population is 247,495, and female population is 266,009. The sex ratio is 0.93.

The total population of project wards - ward 32 and 33, is 26,353 and the total number of households is 7,022. The average household size of the project wards is 3.75. Total male population of the project wards is 12,459 and total female population of the project wards is 13,894. The sex ratio of the project wards 0.89. (*Source: NSO, 2021*)

The total households along the road alignment is 316 with total population 1182 having 579 male population and 603 female population. (*Source: Field study, September, 2023*)

#### **2.6 Settlements**

The major settlements existed along the alignment are Kalikasthan, Betyani, Khaireni, Lamgadi, Tiklang, Rusetari, Upallo Pudi, Lameaahal (near Prithivi Highway).

#### **2.7 Land availability**

The land required for road construction is already available and is in public use. The RoW was declared on 2072/05/27 BS (September, 2015), however, ownership of private land strips are yet to be transferred to Pokhara Metropolitan City. PMC will conduct the process of transfer of deeds of these land parcels. The proposed road width is within the existing road width and there are no any outstanding issues or grievances related to the land that is in public use at the moment. Letter of Pokhara Metropolitan City (PMC) regarding RoW and availability of land for road upgradation has been provided in Annex 2.

#### **2.8 Existing Status, Structures and Utilities along Road Alignment**

The field study shows that the following public structures or utilities at present near the proposed road alignment;

**Table 2-1: Existing Public structures near road alignment**

SN	Structures	Description	Remarks
1	Chautaris	1 Bar-Peepal Chautari at Raktakali Chowk 1 Bar-Peepal Chautari (Majhako Chautara) at Lamgadi	These structures will not be affected
2	Public Tap/Kuwa	1 public tap at Raktakali chowk 1 public tap at Namuna tole 1 spout at Mathillo Khaireni 1 public tap at Chhalyang	
3	Public Rest Place	Public Rest Place (Pati) at Mathillo Khaireni	
4	School	Shree Janajagriti Basic School, Upallo Pudi	
5	Temples	Raktakali Temple; Bhimsen Temple; Radheshyam Temple	
6.	Police Post	1 Police Chauki at Upallo Pudi (Bharat Pokhari)	

Source: DPR - Dobilla-Bagmara-Tiklang-Badarkot-Lamgadhi-Chaplang-Upallo Puditara-Tallo Puditara-Jhigate (Janajagriti Ma Vi) Tagaregauda Road Upgradation, 2023

The field study shows that the project needs relocation of following public structures or utilities;

**Table 2-2: Existing Utilities along the Road Width**

SN	Structures	Description	Remarks
1	Electric poles	42 in Section I; 24 in Section II	Will be relocated and new ones installed; included in BoQ Abstract of Cost - A1 & A2
2	Water supply pipeline	1,910 m in Section I	

Source: DPR, 2023

It has been discussed with the stakeholders that there will be need of installation of new electric poles. Likewise, consultation was carried out also with members of water supply user committees (Annex 2).

## 2.9 Ethnicity

The project area have people of Brahman, Chhetri, Newar, Gurung, Magar and some Dalit communities. There are 150 households of janajati families. This includes total population of 565 with 277 male and female 288 of janajati families. The indigeneous people are living in a mixed community. Separate consultation was carried out with the indigeneous people of the project area. (Source: Field study, September, 2023)

## 2.10 GBV, SEA / SH

Community consultations carried out for the ESMP preparation showed there are some instances of family disputes. During the consultation, it was discussed that some minor cases of family disputes, like dispute between husband-wife, take place in the project area - reflecting gender violence. As per the consultation carried out with the local women, there are no significant cases related to GBV, and if any such cases happen, then those cases are settled under facilitation of the local elite and social figures. In case, if such cases are not resolved even under facilitation of the local elite and social figures, then they are reported to ward office. Since such cases are related to social prestige, the locals are found reluctant to take such cases to police station or to other legal entities. Most of the local women were also not aware about the provisions of complaint registering through toll free number 1145 dedicated by National Women Commission.

Discussions were also carried out to sensitize the local women on possible cases of GBV after the workforce & laborers start working during the construction phase. They were also informed about provisions of GRC and anti-harassment cell under this project. Hence awareness activities are required regarding GBV.

As a part of the project compliance, an Anti-Harassment Cell has been formed in Pokhara Metropolitan City with Ms Nirmala Sharma, Chief of Social Development Section of the PMC as the focal person. The letter regarding deputation of the focal person has been attached in Annex 2. The purpose of anti-harassment cell is to facilitate women to raise complaints against any sexual harassment and to work as a link between the victim and relevant authority so as to prevent and address any cases of sexual harassment in relation to the project.

### 3. DESCRIPTION OF THE PROJECT AND ITS ACTIVITIES

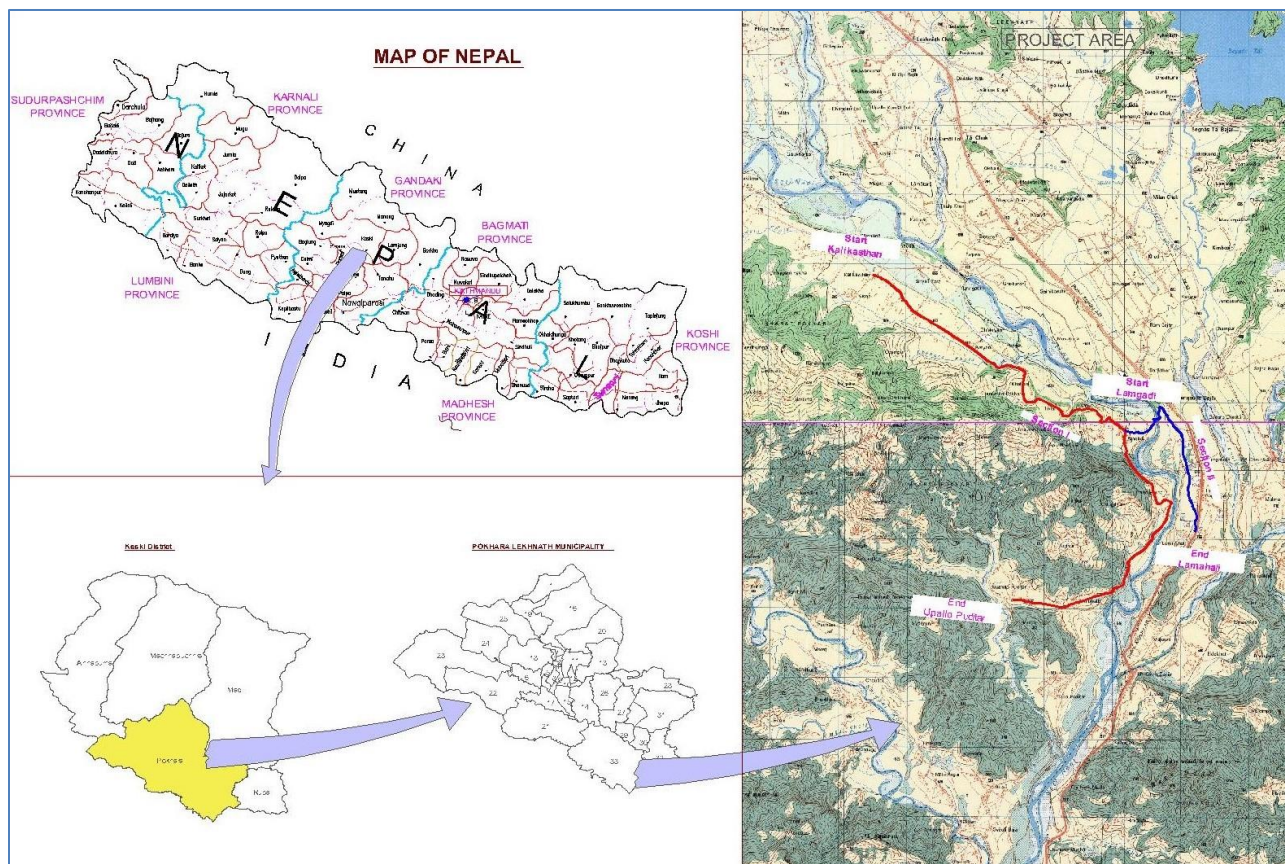
The proposed road project is one of the major road alignment of Pokhara Metropolitan City. It serves the agriculture as well as tourism area of the Metropolitan city and as bypass road from Prithvi Highway to Siddhartha Highway or Siddhartha Highway to Prithvi Highway. Since the proposed road upgradation will increase access to urban facilities, prosperity and development of the project area and its adjoining areas will be enhanced by this road. At the same time, the proposed road will bring social justice for the balance development of the entire city.

#### 3.1 Salient Features of the Project

This project covers two (2) sections. Section I is *Kalikasthan to Upallo Pudi (Janajagriti School)* of ward 33 covering 9.627 km, and Section II starts from Lamgadi chowk at Ch.4+980 of the Road Section I and ends at Lameaahal (Prithvi Highway) ward 32 covering 2.813 km long. The project is expected to contribute towards the municipal capacity for urban development planning, infrastructure development and institutional development of the municipality.

**Table 3-1: Details of Proposed Road Upgradation Project**

SN	Description	Description	
1	Road Type	Urban/ Collector Road	
2	Proposed road length	Section I: 9.627 km, Section II 2.813 km	
3	Number of Lane	Double Lane	
4	Right of Way	20 m (10 m both side from center line)	
5	Road Attributes	<b>Existing</b>	<b>Proposed</b>
	(i) Road Width	9.7 to 11.5 m	9.7 m & 11.5 m
	(ii) Carriageway Width	5.5 m in average	7 m throughout
	(iii) Camber of Carriage way	2.5%	
	(iv) Pavement Surfacing	Asphalt concrete (Flexible pavement)	
6	Terrain Type	Hilly	
7	Wards & Major settlements	Pokhara Metropolitan City - 33 & 32 Kalikasthan, Betyani, Khaireni, Lamgadi, Tiklang, Rusetari, Upallo Pudi, Lameaahal (Prithvi Highway)	
8	<b>Design Parameters</b>		
	Design speed of Road	30 km/hr	
	Maximum gradient	4%	
	Minimum Gradient	0.3%	
9	Total cost of ESMP	NPR. 2,371,000.00	
10	Total Project cost	NPR. 1,315,310,722.99 (including VAT and contingency)	
11	Cost per km	NPR. 105,732,373.23 (including VAT and contingency)	



**Figure 3.1: Index Map**

### 3.2 Slope instability along Road Alignment

There are some landslide areas along the road alignment. At some sections, there are surface instabilities and failures due to man-made factors. The details are given in Table 3-5 below;

**Table 3-2: Landslide sections along the road alignment**

SN	Chainages	Description	Remarks
1	2+640 to 2+720 km	Around 60 m of slope instability at RS	Gabion wall protection and bioengineering; Included in BoQ; Abstract of Cost - L & P
2	7+620 to 7+700 km	Around 80 m of slope instability at RS	
3	7+800 to 7+815 km	Around 15 m of slope instability at L/S	

Source: DPR, 2023

### 3.3 Proposed Campsite and Stockpile Area

The field study showed that an open space at Tiklang with area of around 0.37 ha., near Lamgadi chowk at WN 33, can be used for Contractor's campsite and for stockpiling of the construction materials. The land is private land currently left barren, and the contractor will lease the land. The details will be included in C-ESMP of the project.

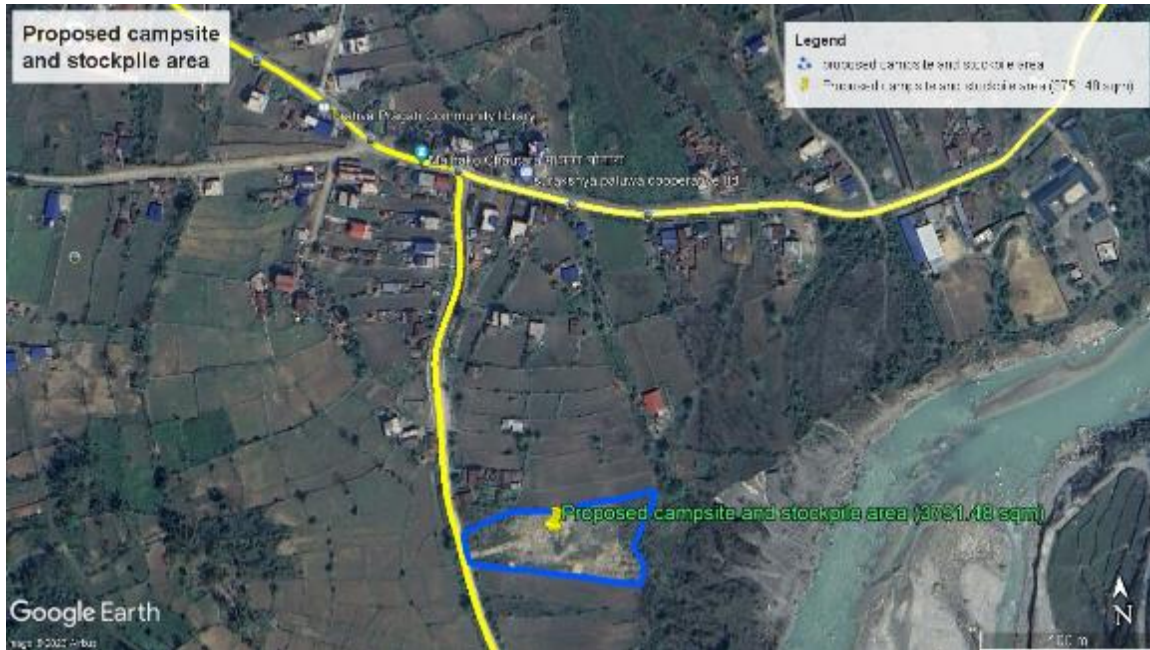


Figure 3.2: Proposed Campsite and stockpiling area at Tiklang (Lamgadi)

### 3.4 Solid Waste

Assuming the per capita waste generation to be 0.3 kg/person/day, it is estimated that around 1,125 kgs of solid waste will be generated per month from the campsites. Although this is not a huge volume, if not well managed - this will degrade the environment of the project area. Solid waste generated from the camps will be disposed within the proposed campsite only (as recommended in the C-ESMP), away from local water bodies and efforts will be made to minimize such waste through reuse, reduction, and recycling concepts. Regarding the waste generated during decommissioning of the temporary campsite, the reusable like cardboards, plastics, bins, etc. will be sold, the metal scrap will be sent or sold to scrap dealers, and any residue will be disposed off in coordination with the local ward/municipal authority through the solid waste management (collection & disposal) system of the municipality. The land will be cleared and restored to the satisfaction of the landholder or the local authority. Soak pits or septic tanks will be established for the sanitation units/latrines.

### 3.5 Spoil Management

It is estimated that around 12,000 m<sup>3</sup> of spoil will be generated. Some portion of this will be reused in the backfilling works. An open public space located around 175 m towards Seti River Ch 6+370, Ward Number 33 with area of around 0.2 ha. has been proposed as spoil disposal site. Construction debris will be disposed at designated spoil site only (as recommended in the C-ESMP) and efforts

will be made to minimize such waste through reuse, reduction, and recycling concepts. While hauling and storing spoil temporarily, spoil will be covered with plastic/tarpaulin cover.

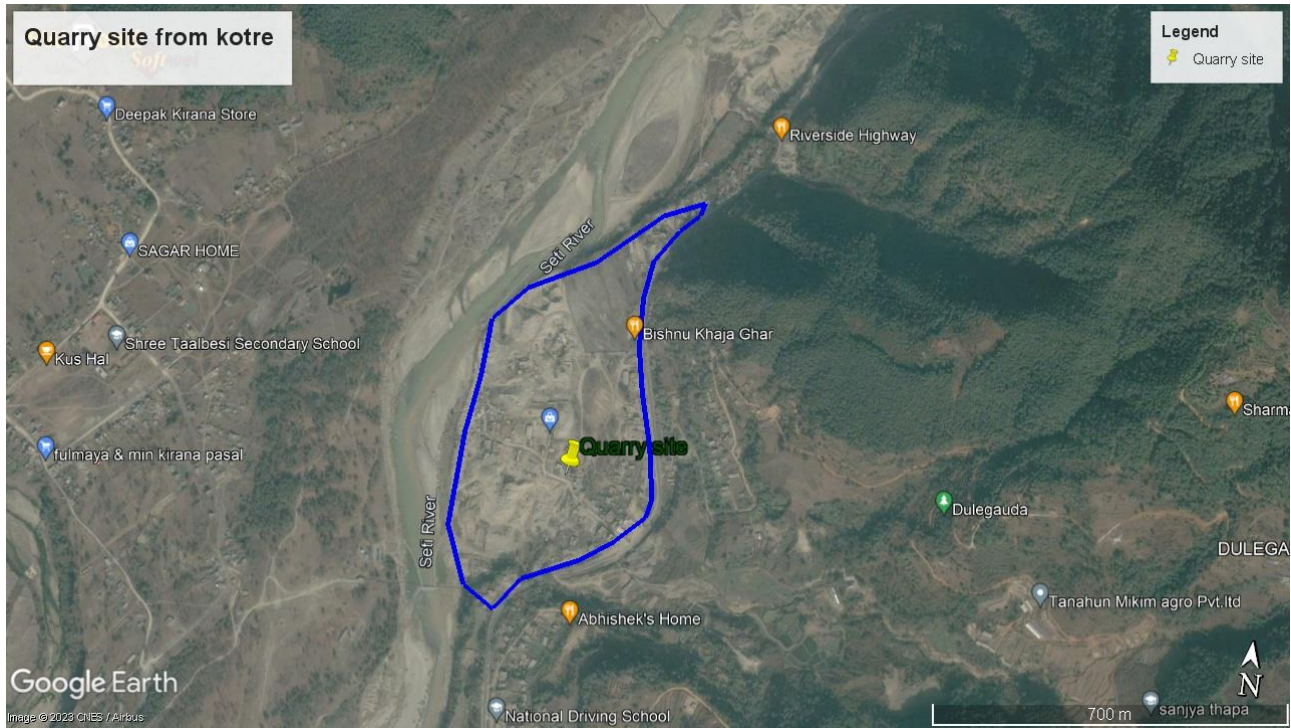


**Figure 3.3: Proposed spoil disposal site near Thanti, WN 33**

### **3.6 Use of Quarry materials**

The quarry materials will be brought from authorized and licensed crusher plants. The identified and proposed quarry site for the project is Kotre quarry site. The contractor will not operate its own quarry site and will not excavate any borrow pits. The project will require around 24,000 m<sup>3</sup> granular sub-base materials, around 15,800 m<sup>3</sup> curhser-run base materials, and around 15,230 m<sup>3</sup> borrow pit materials. All the quarry materials and borrow pit materials will be brought from the crusher plants.

For any other quarry site to be used as source of supply, the contractor will obtain quarry materials from the quarry plants among the list of registered quarry sites for which PMC has approved the IEE (*Minute of IEE approval provided in Annex 1*).



**Figure 3.4: Proposed Quarry site at Kotre**

### **3.7 GBV, SEA/SH aspects**

Based on the SEA/SH Risk Assessment checklist and assessment carried out for NUGIP by the World Bank, the Project's SEA/SH risks are assessed to be "Low". The project construction may disturb the local population with interactions of non-local workers. The outside workers may breach local social/cultural norms and values. If code of conduct is not well implemented for the workers, then there can be cases of SEA/SH, GBV and HIV AIDS. Concerns of sexual misconduct and STDs remains a pertinent social risk. Communicable diseases may spread from workforce to the community.

## 4. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

### 4.1 Social and Environmental Screening:

This sub-project is an upgradation of an existing road. The social and environmental safeguards screening of the sub-project has been done to assess any potential risk associated with the road upgradation in the required format. The screening checklists of screening of social and environmental safeguards are provided in Annex 1. The screening shows that the project area doesn't have major social or environmental risks. The land required for road construction is already available and is in public use. As per section B & C of Appendix C of Environmental and Social Management Framework (ESMF, August 2020) of NUGIP, it can be concluded that the proposed road upgradation project falls under 'Low to Medium impact project' under Category B. Hence an abbreviated ESMP is sufficient for the proposed project. This ESMP document has been prepared as per Appendix C - C of the ESMF document.

### 4.2 Implementation of Environmental and Social Management Plans

The sub-project ESMP implementation arrangements can be summarized as follows;

SN	Stakeholder	Role & Responsibilities for ESMP implementation
1	Pokhara Metropolitan City/PIU	<ul style="list-style-type: none"> <li>✓ The overall project environmental management is the responsibility of PIU</li> <li>✓ The regular monitoring will be carried out by the PIU</li> </ul>
2	Contractor	<ul style="list-style-type: none"> <li>✓ The contractor is required to submit C-ESMP within 45 days of contract signing.</li> <li>✓ Implement the mitigation measures and provisions as per ESMP of the project's DPR/ESIA</li> </ul>
3	DSC	<ul style="list-style-type: none"> <li>✓ Preparation of ESIA during DPR phase</li> <li>✓ Supervision support to the Contractor to implement the ESMP</li> <li>✓ Monitoring of implementation of ESMP and its compliance</li> <li>✓ The E&amp;S safeguards specialists of DSC will work closely with its technical staff to ensure project implementation in accordance to World Bank's safeguard standards.</li> </ul>
4	PCO & PMST	<ul style="list-style-type: none"> <li>✓ The PCO will have overall responsibility to ensure compliance with pertaining laws, policies, regulation for all sub projects</li> <li>✓ The PCO with support from PMST will review implementation support of environmental and social safeguard studies/ management plan prepared by PIU/DSC</li> </ul>

**Figure 4.1: Institutional Arrangement for ESMP Implementation**

### 4.3 Objectives of ESMP

The overall objective is to ensure that the environment and its surrounding areas are protected and developed to meet the needs of the local stakeholders and safeguard the requirements of the local people. It also aims to establish the roles & responsibilities of all parties involved in the project's environmental and social management; and the to ensure budget required for the same.

#### 4.4 ESMP Matrix:

Following project interventions and related mitigation measures have been planned in relation to the existing status and potentials improvements for the proposed road alignments;

**Table 4-1: Environmental and Social Management Plan (ESMP) Matrix**

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
<b>Physical Environment (Construction Phase)</b>				
1.	Land use concerns - <i>temporary and permanent changes in land use</i>	<ul style="list-style-type: none"> <li>▪ Leaseholder or rental contract will be maintained for temporary use of land required for campsite and stockpile site for the project.</li> <li>▪ Fertile topsoil will be conserved and reapplied as and when possible.</li> <li>▪ All the temporarily acquired land will be rehabilitated into previous state or better than the earlier state maintaining natural drainage and acceptable to the land owner/DSC.</li> </ul>	Contractor	
		<ul style="list-style-type: none"> <li>▪ Prior notification (2 months' before award of construction contract) for prohibiting any possible crop plantation within RoW will be given.</li> </ul>	Pokhara Metropolitan City	
2.	Use of quarry and borrow materials	<ul style="list-style-type: none"> <li>▪ Contractor will obtain required construction materials from the legally operating crusher industries only. Quarry materials will be purchased from legally operating crushers plants at Kotre, which is close to the road alignment, and the map of proposed quarry site is provided in Figure 3.4</li> <li>▪ In case of borrow pits, the borrow pit sites will be well demarcated, regularly monitored and topsoil will be collected. Later, the topsoil will be put back on the surfaces and the areas revegetated, if required.</li> </ul>	Contractor	
		<ul style="list-style-type: none"> <li>▪ PIU &amp; DSC will check the site requirements and quality of quarry materials and approve it.</li> </ul>	DSC/Pokhara Metropolitan City	
3.	Issues related to Campsite and stockpiling - <i>risks of accidents;</i>	<ul style="list-style-type: none"> <li>▪ Campsite is proposed at an open space of around 0.37 ha. at Tiklang (near Lamgadi chowk, WN 33) adjacent to the road alignment. Contractor's campsite</li> <li>▪ The site will be provisioned with proper drinking water facilities, WASH provisions (separate male and female toilets), and lighting system. Environmental sanitation will be maintained</li> </ul>	Contractor	

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
	<i>pollution to local environment</i>	<p>along with proper stock-keeping. Ensuring use of cleaner fuel like LPG and electricity for cooking and heating purposes.</p> <ul style="list-style-type: none"> <li>▪ Camp site will be provided with well ventilation, adequate bedding material, first aid facility, maintain security provisions, washing and bathing facility, kitchen with cooking facility, storage of foods for the labors. The contractor will maintain health and hygiene within the camps.</li> <li>▪ Using fuelwood will be prohibited strictly for cooking, heating and other construction purposes.</li> <li>▪ Proper insulator cover and proper drain will be managed to store the chemical to avoid the leakage of chemicals.</li> <li>▪ Stock of sand will be set wet to prevent it from blowing with the wind; water sprinkler will be used for this purpose.</li> <li>▪ The places used for the stockpiling of construction materials will be cleaned promptly after the completion of the project.</li> <li>▪ The site will be well fenced, and provided with a 24-hour guard.</li> <li>▪ The contractor will rehabilitated camp and stockpiling area after the demolition of the sites.</li> </ul>		
4.	Slope instability	<ul style="list-style-type: none"> <li>▪ Slope protection works using gabion walls</li> <li>▪ Slope stabilization works using bio-engineering works (use of Amriso and Vetiver plants) at Chainages 2+640 to 2+720 km, 7+620 to 7+700 km, 7+800 to 7+815 km</li> <li>▪ Consideration of climate extremities and provision of adequate drainage systems (major cross drainages to be provided at Ch. 2+244 km (Slab culvert at Khahare kholsi); Ch. 3+112 km (Box culvert at Dhap kholsi); and Ch. 7+296 km at (Slab culvert at Chilise kholsi)</li> </ul>	Contractor	Included within BoQ, BoQ; Abstract of Cost - L & P
5.	Air pollution in the construction locality - <i>dust nuisance to the locals, and ambient air pollution of the project area</i>	<ul style="list-style-type: none"> <li>▪ Water sprinkling (at least 3 times a day) at dry exposed surfaces and stockpiles of aggregates as necessary. Settlements like Kalikasthan, Khaireni, Majhako chautaro, Lamgadi, Tiklang, Upallo Pudi are more susceptible to dust nuisance.</li> <li>▪ Require trucks delivering aggregates and cement to have tarpaulin cover.</li> <li>▪ All diesel generators, haul trucks, pavers, graders, and rollers, required to comply with regulations</li> </ul>	Contractor  (Supervision support of Design & Supervision Consultant)	Included within BoQ, Abstract of Cost B-6

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<ul style="list-style-type: none"> <li>▪ No firewood for cooking and heating bitumen and incineration of wastes will be allowed by the contractor.</li> <li>▪ Burning of waste (from campsite) will be strictly prohibited.</li> <li>▪ Maintenance of vehicles on regular basis.</li> <li>▪ Ensure use of equipment and fuel complying with applicable emission standards.</li> </ul>		
		<ul style="list-style-type: none"> <li>▪ Air quality monitoring (at least 2 times during construction phase).</li> </ul>	Contractor	NPR 180,000
6.	Noise nuisance	<ul style="list-style-type: none"> <li>▪ Involve the local authority and the community in planning the work program so that any particularly noisy or otherwise invasive activities can be scheduled to avoid sensitive times. Settlements like Kalikasthan, Khaireni, Lamgadi, Tiklang, Upallo Pudi are susceptible to noise nuisance.</li> <li>▪ Operation of heavy equipment/vehicles, and noisy construction works will be stopped during the night time between 10.00 pm to 6.00 am.</li> <li>▪ Drop heights for loading and unloading coarse aggregates will be minimized</li> <li>▪ Soft horns to be used, and use silent type generators (if required)</li> <li>▪ If it is not practicable to reduce noise levels to or below noise exposure limits, the contractor will post warning signs in the noise hazard areas.</li> <li>▪ Contractor will monitor noise level along the construction site monthly.</li> <li>▪ Complete work in settlement areas as quickly as possible</li> </ul>	Contractor  (Supervision support of Design & Supervision Consultant)	Cost of Noise level monitoring comes within the Air Quality monitoring phase
7.	Impact on water bodies  (Seti river)  - disposal of waste and spoil; disposal of	<ul style="list-style-type: none"> <li>▪ Earthworks generating higher amount of spoil will be conducted during dry season to avoid the difficult working conditions that prevail during monsoon season such as problems from runoff.</li> <li>▪ Location for stock yards for construction materials are identified at least 100 m away from water courses. like Seti river, Khahare kholsi, Dhap kholsi. Place for storage of fuels and lubricants will be away from any drainage leading to water bodies.</li> <li>▪ Washing of project vehicles at river banks will be restricted.</li> </ul>	Contractor  (Supervision support of Design & Supervision Consultant)	

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
	<i>wastewater on to water bodies</i>	<ul style="list-style-type: none"> <li>▪ Proper storage of chemicals and lubricants, use of spillage kit to avoid spillage. Take all precautions to prevent entering of wastewater into streams, watercourses, or irrigation system. Install temporary silt traps or sediment basins. All the chemicals and oil containers will be stored on the concrete surface to avoid contamination and spillage into land, surface and ground water.</li> <li>▪ While working across or close to any water body, the flow of water must not be obstructed. Ensure no construction materials like earth, stone, are disposed in a manner that may block the flow of water of any water course</li> <li>▪ Water quality monitoring (Seti river; and stations will be defined during preparation of C-ESMP) to be carried out as per requirement (at least 4 samples; 1 before starting work and should be included as baseline in C-ESMP, 2 bi-annually, and 1 during end period of the project) and the parameters will be as per the requirements provided in Annex 4</li> <li>▪ Any disposal on Seti river will be prohibited; fishing by the workforce will be strictly prohibited; Washing of project vehicles along the river bank will also be prohibited;</li> <li>▪ Awareness activities will be carried out for the workforce (during 1<sup>st</sup> &amp; 3<sup>rd</sup> Quarters - Yr. 1; at least 30 participants/event)</li> </ul>		<p>NPR 80,000</p> <p>NPR 50,000</p>
8.	Solid waste and spoil generation - <i>waste littering; burning of waste; degradation of local aesthetic values</i>	<ul style="list-style-type: none"> <li>▪ Waste minimization and waste segregation will be prioritized; 3R approach will be promoted.</li> <li>▪ Composting of organic waste (around 60% of 1125 kg/month) generated from the camps will be disposed within the proposed camps.</li> <li>▪ Containment of hazardous waste will be carried out.</li> <li>▪ Awareness raising event will be carried out.</li> <li>▪ Decommissioning waste will be re-used, sold to local scrap dealers.</li> <li>▪ Coordination with local municipality team for final disposal into the municipality's waste collection &amp; disposal system.</li> <li>▪ It has been planned that basic facilities like composting, waste segregation, etc. will be started from first month/quarter of</li> </ul>	Contractor	NPR 200,000

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<p>contractor's mobilization; other practices under 3R approach (e.g. waste minimization) will be carried out through out; and awareness events will be carried out every quarter (detailed plan will be provided in C-ESMP)</p> <ul style="list-style-type: none"> <li>▪ Disposal of spoil into water bodies will be strictly prohibited.</li> <li>▪ The contractor will avoid haphazard disposal of spoil materials and will maintain the landscape &amp; drainage to maintain natural flow of surface runoff,</li> <li>▪ The contractor will avoid steep slope along the disposal site, and will provide toe wall at the bottom of the disposal to prevent slide - as required.</li> <li>▪ The contractor will rehabilitate the disposal area covering vegetation and planting trees.</li> <li>▪ Generated spoil will be disposed only at designated spoil disposal sites. Details of disposal sites will be confirmed during construction by the contractor and will be presented in the C-ESMP.</li> </ul>		
9.	<p>Others</p> <p>- <i>climate susceptibility, risk of natural disaster, etc</i></p>	<ul style="list-style-type: none"> <li>▪ As one of the Climate Resilience actions, during hydrological calculations, additional 16% weightage has been included for hydraulic design of drainages and cross-drainages</li> <li>▪ The Contractor will develop and maintain emergency response system in order to address any accidents or other emergency situation or disaster at site such as fall of workers from height, collapse of pier, flood, earthquake, accident, etc. The Contractor will dispose all the chemical wastes generated during the time of construction safely without interrupting the existing nearby settlements, water bodies, forests and wildlife.</li> </ul>		
<b>Physical Environment (Operation &amp; Maintenance Phase)</b>				
10.	<p>Road Stability and Drainage Management</p> <p>- <i>risks of accidents; degradation of road utilities</i></p>	<ul style="list-style-type: none"> <li>▪ Regular/periodic maintenance of the road</li> <li>▪ Construction of drainage system to mitigate possible inundation in the settlements along the project alignment</li> <li>▪ Ensure proper compaction as per design</li> <li>▪ Awareness activities to be carried out in community level to reduce the incidences of disposal of waste into road-side drains</li> </ul>	Pokhara Metropolitan City	<p>Included in BoQ, General-6</p> <p>BoQ, Abstract of Cost A-6</p>

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
11.	Air pollution and Noise nuisance	<ul style="list-style-type: none"> <li>▪ There should be a consensus between PMC, district Transport Management Office, Transportation Entrepreneur, and the local people regarding the operation of conditioned vehicles</li> <li>▪ Campaigns like 'No Horn' and use of soft-horns can be initiated by the local authority</li> </ul>	TMO, transportation entrepreneur, local people	No extra cost will be required.
12.	Water pollution	<ul style="list-style-type: none"> <li>▪ Disposal of any septic or industrial wastewater into the roadside drains will be strictly prohibited</li> <li>▪ Washing of public and private vehicles at river banks , like Seti river, will be restricted</li> </ul>	Pokhara Metropolitan City	No extra cost will be required.
<b>Biological (Construction Phase)</b>				
13.	Vegetation loss	<ul style="list-style-type: none"> <li>▪ Compensatory plantation @ 1:10 for each tree cut; totaling to plantation of 190 trees for 19 trees to be cut (9 trees in Section I; 10 trees in Section II), (The details are provided in Annex 6 of this document)</li> <li>▪ Greenery promotion works will be carried out along the settlement belts within RoW (400 plants of Kapur, Dhupi, Kalki, etc to be planted covering both side plantation for around cumulative length of 1 km of road stretch)</li> <li>▪ Care-taking cost of 1 year is included in this cost, and for later period, PMC will need to bear the care-taking cost</li> <li>▪ In Section II, 1 Peepal tree at Ch. 2+775 will be relocated /conserved</li> </ul>	Contractor	NPR 285,000
		<ul style="list-style-type: none"> <li>▪ Compensation of 6 private trees @ NPR 3500/tree for 6 fruit trees; total NPR 21,000 to be provided by Pokhara Metropolitan City. The details is provided in Annex 6. This was discussed in presence of the local representatives and the technical team of the project. The minute has been provided in Annex 2.</li> </ul>	Pokhara Metropolitan City for care-taking works	NPR 600,000
			Pokhara Metropolitan City	

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
<b>Socio-economic and Cultural (Construction Phase)</b>				
14.	Disturbance to electric poles in the proposed road width	<ul style="list-style-type: none"> <li>▪ Relocate and install 66 electric poles along the alignment in coordination with the local electricity office and telecommunication authority as required.</li> <li>▪ Will be initiated timely without causing delay for the road construction</li> </ul>	Pokhara Metropolitan City and Contractor	Included in BoQ (Abstract of cost, A-1)
15.	Social dis-harmony and Grievances	<ul style="list-style-type: none"> <li>▪ Clear and timely dissemination of project information, and safeguards aspects including anti-harassment cell; Coordination with the local stakeholders</li> <li>▪ Awareness raising, information and dissemination about GRM and GBV (meetings, monitoring and logistic costs @ 1 meeting every month)</li> </ul>	Contractor with supervision support of DSC, and coordination of PIU	NPR 216,000
16.	Reinstatement of Water Supply Pipe lines - <i>interruption in water supply; damages to water supply pipelines</i>	<ul style="list-style-type: none"> <li>▪ The contractor will work in close coordination with the locals and User Committees of <i>Bharatpokhari-Nirmalpokhari Small Town Water Supply and Sanitation Project, and Upallo Pudi Water Supply User Committee</i> ensuring timely information is provided to the community about disruption of water supply; and ensuring alternative means of water supply in the interim (e.g. potable drinking water through tanker supply) during pipeline disruption, re-establishment and reestablishment); and rehabilitation of 1.91 km of pipelines of the system will be addressed without any delay.</li> </ul>	Contractor in support of Pokhara Metropolitan City	Included in BoQ; Abstract of cost, A-2
17.	Difficulties in access & mobility to private properties and premises - <i>obstruction to reach the local markets; challenges specially for the elderly and the children</i>	<ul style="list-style-type: none"> <li>▪ Diversions and proper crossings will be available for elderly and differently-able people in the construction phase to ensure their mobility is not impacted during construction.</li> <li>▪ Metal planks and wooden planks will be placed to ease the access to private houses and shops (tentatively 15 sites)</li> <li>▪ In total 187 ramps (149 in Section I, and 38 in Section II) have been provisioned (<i>Details provided in Annex 7</i>)</li> </ul>	Contractor  (Supervision support by DSC)	Included in BoQ (Abstract of cost, M)

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
18.	Road safety & Community safety - risk of accidents; traffic disturbances	<ul style="list-style-type: none"> <li>▪ 'Drive slow' messages will be placed along the active sites.</li> <li>▪ Barricades will be placed to avoid any accidental falls. Hard barricades will be provided at temporary deep excavations and trenches for foundation works.</li> <li>▪ Sign boards with safety messages and warnings will be placed in local languages all along the alignment at the construction sites and at the trench excavation area.</li> <li>▪ Construction works to consider elderly, women, child &amp; differently able people (EWCD) requirements</li> <li>▪ Trenches will be backfilled with immediate effect.</li> <li>▪ Awareness activities will be conducted to inform &amp; aware locals.</li> <li>▪ Carry out site management practice such as the fencing around work area and road signage.</li> <li>▪ Increase public awareness of safety, health and environmental issues by providing information directly and indirectly through campaign.</li> <li>▪ Display appropriate signage, in Nepali language, for use during construction and implementation of the project to enhance awareness creation on the potential hazards of the project.</li> <li>▪ To minimize any negative impacts from operation of the labour camp, the contractor will manage the labour camp as per measures provided in SN 3 above</li> <li>▪ The contractor will assign a safety supervisor and will monitor daily construction works in terms of health and safety.</li> <li>▪ The Contractor will comply with the requirements of the Environmental, Health, and Safety (EHS) General Guidelines of the World Bank, April, 2007 and the statutory norms of safety during construction</li> </ul>	Contractor	Included in BoQ (Abstract of cost, G)
		<ul style="list-style-type: none"> <li>▪ Awareness activities (at least two) will be conducted to inform &amp; aware locals regarding potentials risks and proposed safety measures related to the project activities</li> </ul>	Contractor with supervision support of DSC and coordination of PIU	NPR 50,000

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
19.	Occupational Health & Safety - <i>risk of injuries; higher exposure to water borne diseases and pulmonary diseases; conflict with the locals</i>	<ul style="list-style-type: none"> <li>▪ Personal Protective Equipment (PPEs) will be provided to the workers, and its use will be monitored closely.</li> <li>▪ Replacement of PPEs after 'wear &amp; tear' - at least every quarter</li> <li>▪ First aid boxes will be provided at campsites as well as active working sites (the kits to be refilled and updated every month).</li> <li>▪ CoC will be implemented for all the parties involved in the project including engineers, supervisors, operators, drivers and labourers</li> <li>▪ Proper WASH provisions will be provided in the labour camps</li> <li>▪ Drinking water quality monitoring (at least once every 6 months; total of at least 3 times)</li> <li>▪ Provision of potable water for the workforce will be ensured</li> <li>▪ Toilets will be provided at the ratio of at least 1 unit for 15 workers.</li> <li>▪ Provision of insurance to cover physical damage to workers.</li> <li>▪ Drivers with authorized license holders will only be allowed for the operation of construction vehicles.</li> <li>▪ Workers and staff at the construction site will be provided with proper training to ensure that workers are trained on what to do in the event that an accident occurs on site.</li> <li>▪ The contractor's supervisors will be instructed to conduct 'pre-work instructions' to the workers everyday - explaining them about the nature of works, condition of the site, and associated risks as well as safety measures.</li> <li>▪ Agreement with nearby health institution will be in place by the contractor.</li> <li>▪ Contractor will be responsible to maintain the records of each and every accident and incidence and will make available to DSC/PCO/PMST as and when required.</li> <li>▪ Contractor's team, staff and laborers can also make use of the GRM to raise complaints / grievances if any.</li> </ul>	Contractor  (Supervision support by DSC team)	To be included within contractor's overhead (GCC)  NPR 60,000 for drinking water quality monitoring



S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<ul style="list-style-type: none"> <li>▪ 2 orientations/trainings with at least 25 participants in each training; 1 event during 2<sup>nd</sup> Quarter-Year 1, another to be scheduled as per requirement</li> <li>(iii) Human trafficking - focused on women &amp; girl trafficking                             <ul style="list-style-type: none"> <li>▪ Awareness program will be developed and implemented</li> <li>▪ 2 orientations/trainings with at least 20 participants in each training; during 3<sup>rd</sup> &amp; 4<sup>th</sup> Quarter-Year 1</li> </ul> </li> </ul>		NRs. 150,000
21.	Child labour, forced labour and wage discrimination	<ul style="list-style-type: none"> <li>▪ Child labour &amp; forced labour will be strictly prohibited</li> <li>▪ Copies of citizenship card or other valid personal ID card will be kept in record of the workers</li> <li>▪ Awareness among the workers and the local community (at least two) will be conducted</li> <li>▪ Equal wage for male and female workers will be ensured</li> </ul>	Contractor (Supervised by local authority and DSC)	NPR 50,000  (will be conducted jointly with CoC session)
22.	Traffic Management	<ul style="list-style-type: none"> <li>▪ Traffic sign boards and messages, in local languages, will be placed at main chowks, junctions and start-end points.</li> <li>▪ Emergency traffic management plan should be prepared by the contractor and approved by the Project. The plan may include informing about the scheduled road closure and the alternative routes identified to divert the normal traffic flow, transport material during off-peak time.</li> <li>▪ Provide advance notice to stop vehicles by erecting indicator signs at a necessary distance in order to reduce congestion at the site of work, thus enabling making of proper security arrangements, or lane wise traffic management.</li> <li>▪ The contractor will be supervised to prepare a Traffic Management Plan.</li> </ul>	Contractor	Included in BoQ (Abstract of cost, G)
23.	Others	<ul style="list-style-type: none"> <li>▪ Information dissemination regarding project details, Grievance Mechanism, and environmental &amp; social safeguards aspects including GBV will be disseminated to the local through leaflets, and local media</li> </ul>	Contractor (Coordinated by local authority and DSC)	NPR 100,000
<b>Socio-economic and Cultural (Operation &amp; Maintenance Phase)</b>				
24.	Traffic accidents and associated risks	<ul style="list-style-type: none"> <li>▪ Raise awareness of traffic rules, and installation of speed humps to control speed near pedestrian crossing areas</li> <li>▪ Awareness will be raised regarding traffic safety</li> </ul>	Pokhara Metropolitan City	Cost will be borne by municipality

Environmental and Social Management Plan (ESMP), December 2023

Upgradation of Dobilla-Bagmara-Tiklang-Badarkot-Lamgadi-Chaplang-Upallo Puditar-Tallo Puditar-Jhigate (Janajagriti Ma Vi) Tagaregaula Road,  
Pokhara Metropolitan City

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<ul style="list-style-type: none"> <li>▪ Speed limits will be defined</li> <li>▪ Traffic sign boards and messages, in local languages, will be placed at main chowks, junctions and start-end points</li> <li>▪ Zebra crossings are provided at settlement areas (<i>details provided in Annex 7</i>)</li> </ul>		
25.	Community Health and Safety - risk of accidents; conflict with the workers; risk of communicable diseases	<ul style="list-style-type: none"> <li>▪ 0.7 m high Safety / Crash barriers with corrugated sheet-metal beam rail are provided at around 2.5 km in section I, and at around 0.34 km in section II. These measures are provided along curved stretches and hilly stretches along the road alignments.</li> <li>▪ 9 Road Safety Convex mirrors are provided in section I, and 1 in section II for road safety for the vehicles and pedestrians</li> <li>▪ Ramps are provided in interlinking points, and crossing points of roads</li> <li>▪ Installation of road markings at all major as well as minor intersections. Road Signs and Road Markings have been provided as per Traffic Sign &amp; Marking manual as per DPR</li> <li>▪ Reinforced Cement Concrete covered drain will be provided throughout the alignment in integration with footpath.</li> </ul>	Pokhara Metropolitan City	Included in BoQ (Abstract of cost G)
26.	Impacts due poor maintenance of road-drains	<ul style="list-style-type: none"> <li>▪ Awareness activities will be carried to stop disposal of waste into the road-side drains</li> <li>▪ Drainages will be regularly cleared under periodic maintenance</li> <li>▪ Road side plantation at settlement belts (plantation to be carried out within RoW)</li> </ul>	Pokhara Metropolitan City	Cost will be borne by municipality

The total cost of ESMP implementation is NPR. 2,371,000 (*In words: Twenty three lakhs and seventy one thousands only*), and the items will be included in BoQ of the contract document. The contractor will take prior approval from PMC and the DSC team for expenses under provisional sum of the contract document.

#### 4.5 Summary of Costs of ESMP Activities

The summary of costs for the ESMP activities is outlined in Table 4-2 below;

**Table 4-2: Summary of Cost of ESMP Implementation**

SN	Items & Headings	Unit	Qty	Rate	Total, NPR	Reference
	<b>Provisional Sum amount</b>					
1	Water quality test	Samples	6	20000	140,000	
2	Air quality and Noise level monitoring	Samples	2	90000	180,000	
3	SWM works				200,000	
4	Greenery promotion				885,000	
5	Awareness on Health & safety, child labour, environmental conservation		6		150,000	
(i)	Environmental Awareness (during 1 <sup>st</sup> & 3 <sup>rd</sup> Quarters - Yr. 1; at least 30 participants/event)	Events	2	25,000		
(ii)	Road safety & Community HS	Events	2	25,000		
(iii)	CoC, and Child Labour	Events	2	25,000		
6	Awareness on Communicable Diseases, Girls/Women Trafficking, SEA/SH risks, GBV (Events will be conducted for workers as well as community)	Events	8		500,000	
(i)	SEA/SH, GBV (at least 45 participants in each orientation/training, during first 2 <sup>nd</sup> & 3 <sup>rd</sup> Quarter - Year 1)	Events	4	50,000		
(ii)	HIV AIDS & Communicable diseases (at least 30 participants in each orientation/training; 1 event during 1 <sup>st</sup> Quarter-Year 1, another to be scheduled as per requirement)	Events	2	75,000		
(iii)	Women/Girl Trafficking (at least 30 participants in each orientation/training; during 3 <sup>rd</sup> & 4 <sup>th</sup> Quarter-Year 1)	Events	2	75,000		
7	Social safeguards (grievance meetings, site monitoring, etc)	Meetings /Events	18		216,000	
8	Information dissemination materials and medium					
	(a) Leaflets				25,000	
	(b) PSA (local media)		3	25,000	75,000	
	<b>Total</b>				<b>2,371,000</b>	

#### 4.6 Environmental & Social Monitoring

Environmental and social monitoring is an essential tool to make ensure the implementation of mitigation measures and to know the effectiveness of those measures. ESMP monitoring is necessary for the following purposes;

- to track the impacts,
- to evaluate the effectiveness of proposed mitigation measures, and
- to suggest improvements, if any new circumstances arise.

The following table summarizes the plan for environmental and social monitoring for the proposed project;

**Table 4-3: Environmental & Social Monitoring Plan**

SN	Monitoring Aspects	Location	Parameters	Methodology	Frequency	Responsibility
<b>A</b>	<b>Construction Phase</b>					
1	Air quality monitoring	Settlement areas near road alignment	At least TSP; PM <sub>10</sub> /PM <sub>2.5</sub>	Air Sampler / Detector	Every Six Months	Contractor
2	Noise Levels	Settlement areas near road alignment	Average noise levels (L <sub>eq</sub> )	Noise Meter / Android Application	Every Month	Contractor
3	Water Quality	Seti River; near disposal site and Campsite	Parameters as per ESMP of the project	Laboratory Analysis	Every Six Months	Contractor
4	Debris clearance and disposal	Along road alignment	Spoil tip sites; road sections where	Site verification		DSC, PIU/PCO
5	Road Traffic safety	Along road alignment	Status of road for use; road accidents	Use of Logs; Records of complaints	Every Month	DSC, PIU/PCO
6	Campsite monitoring	Construction Campsite	Space for workers; Potable water; Sanitation facilities; waste management	Site verification; records of provisions of WASH materials;	Every Month	DSC, PIU/PCO
7	Occupational Health & Safety	Active construction sites; campsite	Provision/Use of PPEs; First Aid/treatment; Awareness/orientations conducted for workers	Site verification; records of supply of PPEs; records of events	Every Month	DSC, PIU/PCO
8	Loss of vegetation; greenery promotion	Active construction sites; road sections passing through vegetated area	Site clearance at vegetated areas; plantation works	Site verification; records of trees cut; records of newly planted trees	Every Month	DSC, PIU/PCO
9	GBV aspects	Work sites; settlement areas near campsite	Laborers' records; Cases of GBV in	Community consultation; GRM records	Every Month	DSC, PIU/PCO

*Environmental and Social Management Plan (ESMP), December 2023*

*Upgradation of Dobilla-Bagmara-Tiklang-Badarkot-Lamgadi-Chaplang-Upallo Puditar-Tallo Puditar-Jhigate (Janajagriti Ma Vi) Tagaregauda Road,  
Pokhara Metropolitan City*

SN	Monitoring Aspects	Location	Parameters	Methodology	Frequency	Responsibility
			relation to project works; any unrecorded cases			
<b>B Operation &amp; Maintenance Phase</b>						
1	Road stability	Road alignment	Status of slopes along road alignment; status of road components	Site verification; ward records; traffic police office records	Every 3 months - 1 <sup>st</sup> year; Bi-annually after that	DSC, PIU/PCO
2	Water pollution	Surface flows (natural drainages & irrigation canals)	Parameters as per standards (Annex 4)	Laboratory Analysis	Every 6 Months	DSC, PIU/PCO
3	Vegetation/tree survival rate	Plantation sites	Number of surviving trees; status of planted trees	Site verification; interaction with road-side communities	Every 6 Months	DSC, PIU/PCO
4	Road safety	Road alignment and adjacent settlements	Road accidents; status of road components	Site verification; interaction with road users	Every Month	DSC, PIU/PCO

Monitoring activities during O&M Phase will need to be scheduled based also on the site requirements and need of the communities using the road services. Contractor will be responsible for monitoring during DLP period. After the DLP period, PMC will be totally responsible for the O&M phase.

## 5. STAKEHOLDER ENGAGEMENT AND INFORMATION DISSEMINATION

### 5.1 Stakeholder Engagement

#### 5.1.1 Consultations during DPR Phase

The local community, ward offices, Pokhara Metropolitan City (PMC) Office, water supply user committees, Community Forest User Group members, local businessmen, labourers and farmers were consulted during the preparation of the ESMP. Consultations were also carried out with the women and indigenous communities living along the proposed road alignment. The details of the consultation are provided in SN 3 of Table 5-2.

Focused group discussions (FGDs), formal consultation meetings, and Key informant interview (KII) were used to engage as many locals as possible during the public consultation process. The details of design aspects of the road, social & environmental safeguards, and GBV aspects were discussed during the public consultations. The list of people and institutions consulted are given in table below.

**Table 5-1: Lists of People and Institutions Consulted**

SN	Name	Organization/Address
1.	Mrs. Manju Devi Gurung	Deputy Mayor, Pokhara Metropolitan City
2.	Mr. Shyam Krishna Thapa	CEO, Pokhara Metropolitan City
3.	Mr. Narendra Thapa	Chairman, Ward No. 26, Pokhara Metropolitan City
4.	Mr. Purna Kumar Gurug	Chairman, Ward No. 27, Pokhara Metropolitan City
5.	Mr. Durga Pd. Subedi	Chairman, Ward No. 30, Pokhara Metropolitan City
6.	Mr. Dhakanath Kandel	Chairman, Ward No. 31, Pokhara Metropolitan City
7.	Mr. Akkal Bahadur Karki	Chairman, Ward No. 32, Pokhara Metropolitan City
9.	Mr. Ramchandra Adhikari	Chairman, Ward No. 33, Pokhara Metropolitan City
10.	Mr. Purna Lama	Chief, Private Secretary, Pokhara Metropolitan City
11.	Mr. Surendra Pandey	Chief, Infrastructure Division, Pokhara Metropolitan City
12.	Mr. Netra Prasad Timilsina	Engineer, Pokhara Metropolitan City
13.	Mr. Jagannath Koirala	Engineer, Pokhara Metropolitan City
14.	Mr. Raghu Khakurel	Social Expert, BN Consultancy
15.	Mr. Nawaraj Bhandari	Engineer, BN Consultancy
16.	Mr. Yogesh Shakya	Environmental Expert, BN Consultancy
17.	Mr. Binod Bhandari	Member, Ward No. 33, Pokhara Metropolitan City
18.	Mr. Prakash Karki	Member, Ward No. 33, Pokhara Metropolitan City
19.	Mr. Durga Thapa K.C.	Member, Ward No. 33, Pokhara Metropolitan City
20.	Mr. Lila Nepali	Member, Ward No. 33, Pokhara Metropolitan City
21.	Mr. Jagannath Koirala	Engineer, Ward No. 33, Pokhara Metropolitan City

SN	Name	Organization/Address
22.	Mr. Netra Pd. Timilsina	Engineer, Ward No. 33, Pokhara Metropolitan City
23.	Mr. Khemaraj Bhattarai	Farmer, Ward No. 33, Pokhara Metropolitan City
24.	Mr. Naran Prasad Bastakoti	Farmer, Ward No. 33, Pokhara Metropolitan City
25.	Mr. Basanta Kumar Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
26.	Mr. Gokul Malla	Farmer, Ward No. 33, Pokhara Metropolitan City
27.	Mr. Purna Kumar Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
28.	Mr. Bhumishwor Acharya	Farmer, Ward No. 33, Pokhara Metropolitan City
29.	Mr. Rum Bahadur Mijar	Farmer, Ward No. 33, Pokhara Metropolitan City
30.	Mr. R.P. Magar	Businessman, Ward No. 33, Pokhara Metropolitan City
31.	Mr. Yam Bahadur K.C.	Farmer, Ward No. 33, Pokhara Metropolitan City
32.	Mr. Keshab Bahadur Khatri	Businessman, Ward No. 33, Pokhara Metropolitan City
33.	Mr. Ishwori Prasad Paudel	Farmer, Ward No. 33, Pokhara Metropolitan City
34.	Mr. Khadka Bahadur Baniya	Farmer, Ward No. 33, Pokhara Metropolitan City
35.	Mr. Jiba Nath Parajuli	Farmer, Ward No. 33, Pokhara Metropolitan City
36.	Mr. Yubaraj Acharya	Businessman, Ward No. 33, Pokhara Metropolitan City
37.	Mr. Resham Ranamagar	Farmer, Ward No. 33, Pokhara Metropolitan City
38.	Mr. Krishan Bahadur Ranabhat	Farmer, Ward No. 33, Pokhara Metropolitan City
39.	Mr. Bashudev Subedi	Farmer, Ward No. 33, Pokhara Metropolitan City
40.	Mr. Khim Lal Bhattarai	Farmer, Ward No. 33, Pokhara Metropolitan City
41.	Mr. Bisara Nepali	Ward No. 33, Pokhara Metropolitan City
42.	Mr. Saraswati Bastakoti	Ward No. 33, Pokhara Metropolitan City
43.	Mr. Dil Kumari B.K.	Ward No. 33, Pokhara Metropolitan City
44.	Mr. Parbati Ranabhat	Ward No. 33, Pokhara Metropolitan City
45.	Mr. Bishnu Maya Adhikari	Ward No. 33, Pokhara Metropolitan City
46.	Mr. Ram Bahadur Hamal	Ward No. 33, Pokhara Metropolitan City
47.	Mr. Bal Bahadur Nepali	Ward No. 33, Pokhara Metropolitan City
48.	Mr. Danda Bahadur Sarki	Ward No. 33, Pokhara Metropolitan City
49.	Mr. Amrit Sahi	Farmer, Ward No. 33, Pokhara Metropolitan City
50.	Mr. Gop Baniya	Ward No. 33, Pokhara Metropolitan City
51.	Mr. Bel Bahadur K.C.	Farmer, Ward No. 33, Pokhara Metropolitan City
52.	Mr. Moti Lal Dhakal	Farmer, Ward No. 33, Pokhara Metropolitan City
53.	Mr. Orka Bahadur Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
54.	Mr. Bal Bahadur Baraili	Farmer, Ward No. 33, Pokhara Metropolitan City
55.	Mr. Chet Bahadur Basnet	Farmer, Ward No. 33, Pokhara Metropolitan City
56.	Mr. Dhanapati Acharya	Farmer, Ward No. 33, Pokhara Metropolitan City
57.	Mr. Tikaram Adhikari	Farmer, Ward No. 33, Pokhara Metropolitan City
58.	Mr. Yagya Prasad Acharya	Farmer, Ward No. 33, Pokhara Metropolitan City
59.	Mr. Shiva Adhikari	Businessman, Ward No. 33, Pokhara Metropolitan City

SN	Name	Organization/Address
60.	Mr. Prakash Basaula	Businessman, Ward No. 33, Pokhara Metropolitan City
61.	Mr. Ram Krishna Nepali	Laborer, Ward No. 33, Pokhara Metropolitan City
62.	Mr. Hari Maya Nepali	Ward No. 33, Pokhara Metropolitan City
63.	Mr. Gyanendar Panta	Farmer, Ward No. 33, Pokhara Metropolitan City
64.	Mr. Krishna Bahadur Garbuja	Farmer, Ward No. 33, Pokhara Metropolitan City
65.	Mr. Tarapati Acharya	Farmer, Ward No. 33, Pokhara Metropolitan City
66.	Mr. Chiranjibi Dahal	Farmer, Ward No. 33, Pokhara Metropolitan City
67.	Mr. Madhab Prasad Acharya	Businessman, Ward No. 33, Pokhara Metropolitan City
68.	Mr. Meghanath Acharya	Farmer, Ward No. 33, Pokhara Metropolitan City
69.	Mr. Krishna Bahadur Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
70.	Mr. Durga Bahadur Pun	Farmer, Ward No. 33, Pokhara Metropolitan City
71.	Mr. Kul Bahadur Pun	Farmer, Ward No. 33, Pokhara Metropolitan City
72.	Mr. Moti Bahadur Magar	Farmer, Ward No. 33, Pokhara Metropolitan City
73.	Mr. Raj Kumar Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
74.	Mr. Subash Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
75.	Mr. Ram Bahadur Pun	Plumber, Ward No. 33, Pokhara Metropolitan City
76.	Mr. Dam Bahadur Pun	Businessman, Ward No. 33, Pokhara Metropolitan City
77.	Mr. Dil Bahadur Pun	Farmer, Ward No. 33, Pokhara Metropolitan City
78.	Mr. Mani Ram Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
79.	Mr. Bidhya Bahadur Nepali	Farmer, Ward No. 33, Pokhara Metropolitan City
80.	Mr. Bhim Bahadur Shrestha	Businessman, Ward No. 33, Pokhara Metropolitan City
81.	Mr. Jit Bahadur Karki	Businessman, Ward No. 33, Pokhara Metropolitan City
82.	Mr. Keshab Kumar Aali	Farmer, Ward No. 33, Pokhara Metropolitan City
83.	Mr. Om Bahadur Aale	Farmer, Ward No. 33, Pokhara Metropolitan City
84.	Mr. Ganga Bahadur Shrestha	Farmer, Ward No. 33, Pokhara Metropolitan City
86.	Mr. Sanjaya Nepali	Laborer, Ward No. 33, Pokhara Metropolitan City
87.	Mr. Shankar Nepali	Farmer, Ward No. 33, Pokhara Metropolitan City
88.	Mr. Bal Bahadur Sarki	Farmer, Ward No. 33, Pokhara Metropolitan City
89.	Mr. Rum Ba.	Laborer, Ward No. 33, Pokhara Metropolitan City

Followings are the details of the public consultations carried out during the filed study;

**Table 5-2: List of Public Consultations and their Summary**

SN	Meeting	Date	Total Participants	Outcomes
1.	Stakeholder consultation held at Pokhara Metropolitan City Office	September 25, 2023	Total- 13 (M- 13, F- 0)	Presentation and discussion on DPR Report and Socio-economic condition, Safeguards, and GBV aspects
2.	Community consultation held at	September 25, 2023	Total- 51 (M- 42, F- 9)	Detailed Discussion on avoiding vegetation loss; land requirement,

	Lamgadi (Dobilla Bagmara - Tiklang Badarkot - Lamgadi Chhaplang - Upallo Puditar, Tallo Puditar - Jhigate Tagaregauda Road)			mitigation measures for social and environmental aspect including GBV, SEA/SH
3.	Consultation meeting held with Janajati at Lamgadi (Dobilla Bagmara - Tiklang Badarkot - Lamgadi Chhaplang - Upallo Puditar, Tallo Puditar - Jhigate Tagaregauda	September 25, 2023	Total- 32 (M- 30, F- 2)	Detailed Discussion on updated design aspects; discussion on avoiding vegetation loss; land requirement, employment opportunities for locals, mitigation measures for social and environmental aspect including GBV, SEA/SH
4.	Consultation meeting held with Women at Lamgadi (Dobilla Baghamara - Tiklang Badarkot - Lamgadi Chhaplang - Upallo Puditar, Tallo Puditar - Jhigate Tagaregauda	September 25, 2023	Total- 10 (M- 1, F- 9)	Detailed Discussion on updated design aspects; discussion on avoiding vegetation loss; land requirement, anti-harassment cell & GRC, and mitigation measures for social & environmental aspect including GBV, SEA/SH

The major concerns discussed during the public consultations were as followings;

- Priority for road construction was requested, and the locals also demanded for employment opportunities in the project's construction works
- The locals requested to protect/conservate public utilities like water supply systems, chautaris (*public rest places with Bar-Peepal trees*), electric poles, public taps, and Bhimsenthan (temple). The discussions also focused on the timely reinstatement of any private or public properties damaged during the construction phase.
- Need of alternative source of drinking water (e.g. potable tanker supply) was requested for the time of interruption of drinking water supply system during road construction phase
- Awareness of workers and locals regarding social harmony was also discussed
- Potential concerns of dust problem, and disturbances due to noise during construction phase was raised as a concern as there are settlements and schools along the road alignment
- Minimization of tree loss, compensatory plantation at the rate of 1:10 per tree cut, and greenery promotion works were also demanded by the locals (Ward Chair - WN 33)
- It was discussed that open land at Tiklang/near Lamgadi (WN 33) can be used for campsite & stockpile site.
- Quality of the road construction works was one of the concerns raised

The minutes of the meetings are provided in Annex 2. Public engagement has been considered as one of the key tools to ensure the safeguards aspects of the project. Hence, public consultation will be taken as a regular process during the construction phase as well.

## **5.1.2 Stakeholder Consultations Plan for Implementation Phase**

Consultations during implementation phase will include direct interactions with the Project Affected Persons. PIU, DSC and contractor will conduct regular consultations with PAPs as well as local users' committees, local unit of electricity office, and other stakeholders. All consultations on social and environmental issues carried out during implementation of subprojects will be held in an inclusive manner, including vulnerable social groups and women. Public consultation will be taken as a continuous process during the construction phase as well.

## **5.2 Grievance Redress Mechanism (GRM)**

As part of the implementation stage the PIU, project engineers and Environment and Social staffs will directly interact and consult with the project affected persons. These would comprise of consultations towards addressing the impacts on private properties, public properties, trees, etc.

### **5.2.1 Grievance Redress Mechanism**

The stakeholders may raise any grievances related to the impacts on them or any other grievances. Such types of grievances needs to be addressed through Grievance Redress Mechanism (GRM) for timely response on stakeholders query and concerns. At first instance, the project-affected grievant should raise their grievance with the Grievance officer of the project, and the Grievance officer will determine whether it can be resolved within the project, at the ward level, or whether another mechanism should be used. The records will be kept properly.

A Grievance Redress Mechanism has been set up to allow stakeholders including PAPs to raise any concerns or complaints, or to appeal any disagreeable decisions, practices and activities arising from the project including compensation for land and assets (if applicable). Information about GRM will be published on the municipality's website, will be pasted at public space in the sub-project area, in the notice boards of municipality and ward offices. Locals will be encouraged to make use of the GRM established for the sub-project to raise any complaints/ grievances induced due to this sub-project. Stakeholders will be made fully aware of their rights and the procedures.

GRM has been initiated, and 1<sup>st</sup> Level GRC has been formed at project's ward level. At the Ward level, the staffing of the Grievance Redress Committee (GRC) includes ward representatives, DSC representative under coordination of Chairperson of WN 33. Mr. Ramchandra Adhikari. Likewise, 2<sup>nd</sup> Level GRC has already been established under coordination of the Mayor of Pokhara Metropolitan City office (, Mr. Dhanaraj Acharya (*The details are provided in Annex 2*). The notice regarding formation of 1<sup>st</sup> Level GRC and 2<sup>nd</sup> Level GRC has been published and shared to the stakeholders.

The third level GRC will be at the PCO level, comprising members from the PCO. The PCO will forward the same to WB. Those engaged as the monitoring unit for ESMP, RAP related issues (as of no issues and implications that RAP will trigger for this project) but if triggers due to some

circumstances, it could be part of the committee. Special project grievance mechanisms such as on site provision of complain hearings allows project affected persons to get fair treatment on time. The subproject will also handle issues regarding the compensation damages done during construction.

The details of the proposed GRC structure and GRM process were discussed during public consultations with stakeholders in all levels. The details of the proposed GRC structure and GRM process were discussed during public consultations with stakeholders in all levels as detailed in tables below;

**Table 5-3: Details of 1<sup>st</sup> Level GRC**

SN	Members	Designation	Remarks
1	Ramchandra Adhikari	Coordinator	Chairperson - Ward 33
2	Lila Devi Nepali	Member	Female Member - Ward 33
3	Lalu Parajuli	Member	Representative, Tole Development Committee, WN 33
4	Yubaraj Poudel	Member	Secretary - Ward 33
5	Dil Bahadur Rana	Member Secretary	DSC Representative

**Table 5-4: Details of 2<sup>nd</sup> Level GRC**

SN	Members	Designation	Remarks
1	Dhanaraj Acharya	Coordinator	Mayor - Pokhara Metropolitan city
2	Shyam Krishna Thapa	Member	CAO - Pokhara Metropolitan city
3	Nirmala Sharma	Member	Chief- Social Development Section - Pokhara Metropolitan city
4	Nabin Gautam	Member	Engineer (Focal Person - NUGIP) - Pokhara Metropolitan city
5	Kiran Prasad Koirala	Member	Grievance Hearing Officer, Pokhara Metropolitan city
6	Manoj Shrestha	Member Secretary	DSC - TL

All local contact information and options for complaint submission will be available on site, at Toles, Wards, municipality office, PCO on information boards and the project municipality websites. A half yearly report on Grievance Redress by the subproject project will be prepared and will be sent to the project municipality's GRCs by Wards' GRCs and ultimately to GRC of PCO. The PCO will forward the same to the World Bank.

### **5.2.2 Further details of the GRM**

The functions of grievance mechanism include redressing grievances of community / beneficiaries /project affected persons in all project respects, providing rehabilitation and resettlement assistance and related activities, and hearing grievances from workers involved in the project at any level or phase. All complainants have the option to approach court/judiciary or the World Bank's Grievance Redress Service in case he or she is not satisfied with the verdict provided. The grievances related to women will be dealt by the focal person of Anti-Harassment Cell, Ms. Nirmala Sharma.

### 5.3 Information Dissemination

For the success of the project, all information about the proposed activities and their expected results will be publicly shared with the affected people and interested stakeholder. In collaboration with the relevant local authorities, NGOs and other community groups, the project will disclose all the relevant information in the various stages of project cycle. Agencies working for environmental and social aspects will also be informed about the ongoing and planned activities, to identify jointly appropriate protective or corrective measures. The following approaches will be adopted to make information accessible to all the concerned stakeholders throughout the project cycle;

- Mass Media: Use local media like newspaper, radio and TV.
- Meeting/Workshops
- Distribution of project documents: Certain project documents will be disclosed in Nepali (or other relevant local language). Project-related information materials will be distributed prior to each construction work to local officials, local people, stakeholders and other concerned offices like municipality, Ward, Tole Committee etc.

Point of information will be defined at the municipality office level during implementation to disseminate all the documents related to the project activities. Based on the public information disclosure policy, PCO and the municipality will unveil the information through its website. The information dissemination plan for the project is presented in Table 5.3 below;

**Table 5-5: Information Dissemination Plan**

Means of Communication	Timeline & Frequency	Responsibility	Resources
Municipality Website (project details, GRM)	At the start of the project, & maintained throughout	PIU/ Information Officer	Information Officer
Newspaper and local Radio (project salient features, dates, GRM etc.)	Project implementation phase Weekly basis	PIU, municipality Information Officer	Radio-program, FM Radio Clip
Project leaflets and Fact Sheet	Project details, Implementing agencies, project period - 2 times	PIU, Information Officer	Double-sided colour A4 (500 copies)
Face to face engagements - meetings, focus group discussion with relevant stakeholders	Project Main Activities, Financial Assistance, Implementing agencies, project period etc. 2 time in year	PIU, Information Officer	

## **List of References**

- *Environment Protection Act, Government of Nepal, 2019*
- *Environment Protection Regulations, Government of Nepal, 2020 (and amendments)*
- *Environmental and Social Management Framework, Nepal Urban Governance and Infrastructure Project, August 2020, the World Bank*
- *Final Detailed Project Report on Upgradation of Dobilla-Bagmara-Tiklang-Badarkot-Lamgadi-Chaplang-Upallo Puditar-Tallo Puditar-Jhigate (Janajagriti Ma Vi) Tagaregauda Road, October 2023*
- *Nepal Human Rights Year Book 2023, Informal Sector Service Center (INSEC), Kathmandu.*
- *Project Implementation Manual, Nepal Urban Governance and Infrastructure Project, December 2022, the World Bank*
- *<https://censusnepal.cbs.gov.np> (then CBS, now Office of NSO)*

# **Environmental and Social Management Plan (ESMP)**

Credit No. IDA-6778-NP

## **Nepal Urban Governance and Infrastructure Project (NUGIP)**

### **Upgradation of Sisuwa - Sishaghat (Sisuwa - Khudikhola Section) Road**

Pokhara Metropolitan City  
Kaski District, Gandaki Province

December 2023  
The World Bank



## Acronym

BoQ	: Bill of Quantity
CBS	: Central Bureau of Statistics
CESMP	: Contractor's Environment and Social Management Plan
CoC	: Code of Conduct
DPR	: Detailed Project Report
DSC	: Design and Supervision Consultant
DUDBC	: Department of Urban Development & Building Construction
EA	: Environmental Assessment
EHS	: Environment, Health and Safety
EPR	: Environmental Protection Rule
ESMP	: Environmental and Social Management Plan
FGD	: Focus Group Discussion
GBV	: Gender Based Violence
GRC	: Grievance Redress Committee
GRM	: Grievance Redress Mechanism
ILO	: International Labor Organization
NSO	: National Statistics Office
NUGIP	: Nepal Urban Governance and Infrastructure Project
OHS	: Occupational Health & Safety
OP/BP	: Operational Policy/Bank Policy
PCO	: Project Coordination Office
PIM	: Project Implementation Manual
PIU	: Project Implementation Unit
PPE	: Personal Protective Equipment
RoW	: Right of Way
SEA/SH	: Sexual Exploitation and Abuse/Sexual Harassment
STD	: Sexually Transmitted Disease
TMO	: Transport Management Office
WASH	: Water, Sanitation and Hygiene
WB	: World Bank

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## **Executive Summary**

### **Introduction**

This updated Environmental and Social Management Plan (ESMP) document covers the road upgradation project connecting Sisuwa to Khudikhola section under Sisuwa - Sishaghat Road of Pokhara Metropolitan City, Kaski district. The road passes through ward number 30 and ward number 32 of Pokhara Metropolitan City. The project is intended to improve quality of life and livelihood of the local people along the settlements along and near the road alignment. The total length of the proposed road section is 4.14 km. The geographical location of the starting point is 28°9'48.8"N, 84°4'10.03"E and end point coordinates are 28°8'3.6"N, 84°5'37.68"E.

RoW of the proposed road is declared as 15 m. Available width ranging from at least 11.3 m to 15 m is available for road upgradation works, and is currently in public use. Since all the design components are within the existing available road width, the proposed road width is itself the Corridor of Impact or the actual footprint required for construction. Hence, there is no additional land required. There is no any outstanding issues within the proposed road width.

### **Baseline Information**

Within the proposed road alignment there are 111 electric poles and 8 km of drinking water supply pipelines including both sides of the road need to be reinstated. One (1) Public Rest Place (Chautari) at Ch. 0+090 km need protection. There are 9 trees within the construction width, and all these are under ownership of Pokhara Metropolitan City. Since the project area is relatively less urbanized, air quality and noise levels are relatively better. The primary source of ambient air pollution is due to dust from vehicles plying on earthen roads. Water quality of underground drinking water source is found to be potable.

The total population of project wards - ward 30 and 32, is 30,875 and the total number of households is 8,179. The average household size of the project wards is 3.77. Total male population of the project wards is 14,621 and total female population of the project wards is 16,254. The sex ratio of the project wards 0.89. (*Source: NSO, 2021*). Based on the field study and public consultation meetings, there are around 367 households along the road alignment with total population 1373 having 672 male populations and 701 female populations. (*Source: Field study, September, 2023*).

The project area have people of Brahman, Chhetri, Newar, Gurung, Magar, Tamang and some dalit communities. There are 96 households of janajati families. This includes total population of 359 with 176 male and female 183 of janajati families. The indigeneous people are living in a mixed community. Separate consultation was carried out with the indigeneous people (ie. Newar, Gurung, Magar, Tamang etc.) of the project area. (*Source: Field study, September, 2023*)

### **Legal and Regulatory Requirements**

The sectoral and cross-sectoral guidelines and standards promulgated by the GoN in various periods are adequate to mainstream the environmental and social safeguard dimensions in the project preparation and implementation phases. The report has included the applicable GoN plan, policies, act, regulations, guidelines, and standards. Similarly, the report has also included the environmental and social safeguards standards of the World Bank. \

## **Screening, Scoping, Impact identification, Prediction and Management**

Direct Impact area of the project is considered as Road Width of 11.3 m to 15 m of the road alignment. Similarly, the project's influence area falls within 500 meters from both edges of the road. Environmental and Social Screening checklists were used for screening and summarizing the overall impacts. The site-specific impacts in construction and operation phases are included in the ESIA report. Some of the impacts include;

### **Physical Impacts**

- *Use of Quarry materials*
- *Stockpiling and construction campsite*
- *Ambient air pollution, Noise nuisance*
- *Solid waste & spoil generation*
- *Road stability & management*

### **Biological Impacts**

- *Vegetation loss*
- *Risk of degradation of water resources*

### **Socio-economic and Cultural Impacts**

- *Change in land use*
- *Damage to public and private utilities*  
*This includes 111 electric poles, 8 km of drinking water supply pipelines including both sides of the road and 1 Public Rest Place (Chautari) at Chainage 0+090 Sisuwa*
- *Difficulty in access & mobility to private properties and premises*
- *Community Health & Safety*
- *Occupational Health and Safety*
- *Social disturbances/risk of GBV- SEA/SH, and Human trafficking,*
- *Risk of communicable diseases like HIV AIDS and CoVID*
- *Child labour, forced labour and wage discrimination*
- *Traffic management issues, etc*

The mitigation measures corresponding to the impacts have been suggested in the report. Some of the mitigation measures are;

### **Measures for Physical Impacts**

- *Use of construction materials only from the legally operating crusher industries*
- *Suitable selection of site for stockpiling*
- *Vehicles and equipment meeting GoN emission standard to be used*
- *Regular maintenance of vehicles and equipment*
- *Follow 3R approach of waste management*
- *Waste segregation at source, prohibition of waste burning*
- *Prohibition of spoil disposal into rivers, water bodies and public places*
- *Awareness activities to reduce the incidences of disposal of waste into road-side drains*

### **Measures for Biological Impacts**

- *Prohibition in use of fuel wood from local community by the workers,*
- *Prohibition of disposal of any waste or waste water into water bodies*

## **Measures for Socio-economic & Cultural Impacts**

- *Pokhara Metropolitan City office will accomplish the process of transfer of deeds of the land parcels that are within road width of the road alignment*
- *Electrical poles and private hand pumps will be reinstated without delay*
- *Metal/wooden planks, and earthen ramps will be provisioned to ease access to shops, courtyards and public passages; Traffic Management Plan will be prepared*
- *Sign boards/messages in local languages, safety barricades will be provided*
- *Provision of PPEs and first aid kits*
- *Provision of safe, clean and hygienic workplace and adequate WASH facilities at campsite*
- *The project will restrict child labor*
- *Public awareness raising events (safety, environmental conservation)*
- *Employment opportunity & priority for the locals*
- *Code of Conduct to be implied for the workforce*
- *Construction works to consider elderly, women, child & differently able people (EWCD) requirements*
- *Awareness on GBV, SEA/SH, communicable diseases/CoVID, and human trafficking*

## **Resettlement Action Plan**

The impact on private structures along the proposed road up-gradation project have been avoided to the possible extent. Since RoW of the road was already declared on 2072/05/27 BS (September, 2015), and the required Road Width is already in public use, there are no issues of land acquisition. The Resettlement Action Plan (RAP) aims to provide policy and procedures of land acquisition, compensation and resettlement of affected persons if design changes. However, RAP is not required for this project.

## **Sexual Exploitation & Abuse, and Sexual Harassment Prevention and Response Action Plan**

Based on the Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) Risk Assessment checklist and assessment carried out for NUGIP by the World Bank, the Project's SEA/SH risks are assessed to be "Low". An SEA/SH Prevention and Response Action Plan has been developed for NUGIP based on this assessment and includes specific measures that aim to prevent and mitigate SEA/SH risks that the project activities might trigger. The Plan has also addressed "Table - 1: Recommended actions to address SEA/SH Risks in IPF Projects" as per the "Good Practice Note" published by the World Bank in September 2018.

## **Environmental and Social Management Plan**

Environmental and Social Management Plan (ESMP) has been proposed including potential impacts and required mitigation measures. A total cost of NPR 2,375,000 has been allocated for mitigation and management of the environmental and social impacts of the project activities. In addition, agencies responsible for executing environmental mitigation measures and monitoring have been identified in the ESMP. The project also includes a Grievance Redress Mechanism (GRM) for timely update and resolution of stakeholders' concerns and grievances.

## **Grievance Redress Committee (GRC)**

1<sup>st</sup> Level and 2<sup>nd</sup> Level Grievance Redress Committees have been established in the project area to allow stakeholders to raise any concerns or complaints, or to appeal any disagreeable decisions, practices and activities arising from the project including compensation for land and assets (if applicable). The committees can be provided with grievances through any of the mediums like written, verbal, telephone, letter, etc. and the committee will process it following the procedures of ESMP document of the project, and if not solvable, it will be forwarded to the higher level of GRM.

### **Institutional arrangements**

The Ministry of Urban Development (MoUD) has set up a Project Coordination Office (PCO) under the Department of Urban Development and Building Construction (DUDBC) to implement NUGIP. The PCO is responsible for overall project compliance including compliance with environmental and social measures. The PCO will be supported by a Project Management Support Team (PMST). A Project Implementation Unit (PIU) has been established in Pokhara Metropolitan City for implementation of the subproject project at the local level and will be responsible for implementation of the ESMP and other environmental and social instruments. Technical Assistance will be provided through a Design and Supervision Consultancy (DSC) which includes environmental and social safeguards specialists.

## कार्यकारी शाराम्श

यस वातावरणीय तथा सामाजिक व्यवस्थापन योजना प्रतिवेदनले कास्कि जिल्ला, पोखरा महानगरपालिकाको सिसुवा - सिशाघाट सडक अन्तर्गत सिसुवा देखि खुदि खोलासम्मको सडक खण्डको स्तरोन्नती उपआयोजना समेटेछ। यो सडक खण्ड पोखरा महानगरपालिकाको वडा नं. ३० र ३२ भएर जान्छ। यस सडक खण्डको स्तरोन्नति कार्य सडक किनार र आसपासका जनताको जीवनस्तर र जीविकोपार्जनमा परिवर्तन ल्याउने उद्देश्यले गर्न लागिएको छ। यस प्रस्तावित सडक खण्डको लम्बाई ४.१४ कि.मि. रहेको छ। यस उपआयोजनाको भौगोलिक अवस्थितिमा शुरुवात विन्दु २८°९'४८.८" उत्तर, ८४°४'१०.०३" पूर्व र अन्तिम विन्दु २८°८'३.६" उत्तर, ८४°५'३७.६८" पूर्व हुन्।

प्रस्तावित सडकको क्षेत्राधिकार (Right of Way) १५ मिटर रहेको छ। हाल सडक स्तरोन्नतीका लागि न्यूनतम ११.३ देखि १५ मिटर बाटो खुल्ला रहेको छ, जुन अहिले सार्वजनिक प्रयोगमा रहेको छ। सडकका सम्पूर्ण संरचनाहरू यही उपलब्ध चौडाईभित्रै डिजाइन गरिएको कारण यहीनै सडक स्तरोन्नती आयोजनाका लागि करिडोर अफ इम्प्याक्ट (Corridor of Impact) हुनेछ, र थप जग्गाको आवश्यकता पर्नेछैन। प्रस्तावित सडक खण्डमा कसैको गुनासो आदी जस्ता कुनै किसिमका समस्या छैन।

### विद्यमान अवस्था:

प्रस्तावित सडक किनारामा १११ वटा विद्युतका पोलहरू, प्रस्तावित सडक खण्डको दुवै तर्फ गरि जम्मा ८ कि.मी. खानेपानीको पाइप लाइनलाई प्रतिस्थापन गर्नु पर्ने देखिन्छ। चेनेज ०+०९० मा रहेको एक सार्वजनिक विश्राम स्थल (चौतारी) लाई संरक्षण गर्नु पर्ने छ। प्रस्तावित सडक चौडाई भित्र ९ वटा रुखहरू पर्दछन्, जुन पोखरा महानगरपालिकाको स्वामित्व भित्र पर्दछ। प्रस्तावित आयोजना क्षेत्र तुलनात्मक रूपमा कम शहरीकरण भएकोले प्रदुषण पनि कमै रहेको छ। आयोजनाक्षेत्रको खानेपानीको गुणस्तर पिउन योग्य रहेको छ।

प्रस्तावित आयोजना रहेको वडाहरू- वडा नं. ३० र ३२ को कुल जनसंख्या ३०,८७५ रहेको र कुल परिवार संख्या ८,१७९ रहेको छ। आयोजनाको वडाको औसत परिवारको आकार ३.७७ रहेको छ। त्यस्तै आयोजनाको वडाहरूको महिला संख्या १४,६२१ र पुरुष संख्या १६,२५४ रहेको छ भने लैङ्गिक अनुपात ०.८९ रहेको छ (स्रोत: NPHC, NSO - 2021)। स्थलगत अध्ययन र सार्वजनिक परामर्श बैठकको आधारमा सडक क्षेत्रमा करिब ३६७ घरपरिवार रहेका छन् भने जम्मा जनसंख्या १,३७३ रहेको छ। जसमा ६७२ जना पुरुष र ७०१ जना महिलाको संख्या रहेको छ (स्रोत: Field study, September, 2023)।

यस उपआयोजना क्षेत्रमा ब्राम्हण/क्षेत्री, नेवार, गुरुङ्ग, मगर, तामाङ र दलित समुदायको बसोबास रहेको छ। जहाँ ९६ घरपरिवार जनजाति समुदायको रहेको छ, जसको जम्मा जनसंख्या ३५९ रहेको छ भने पुरुषको संख्या १७६ र महिलाको संख्या १८३ रहेको छ। यस आयोजना क्षेत्रमा आदिवासी/जनजाति र मिश्रित समुदायको बसोबास रहेको छ। आयोजना क्षेत्रमा रहेको आदिवासीहरूसंग छुट्टै छलफल गरिएको थियो (स्रोत: Field study, September, 2023)।

### ऐन तथा नीति, नियमको आवश्यकता:

नेपाल सरकारले विभिन्न समयमा जारी गरेका विषयगत तथा बहुविषयगत निर्देशिका तथा मापदण्डहरू आयोजना तयार गर्न तथा कार्यान्वयन चरणहरूमा वातावरणीय एवं सामाजिक सुरक्षण आयामहरू मूल

प्रवाहीकरण गर्न यथेष्ट छन् । यस प्रतिवेदनले सम्बन्धित नेपाल सरकारका योजना, निति, ऐन, नियम, निर्देशिका एवम् मापदण्डहरु समेटेको छ । त्यसैगरी यस प्रतिवेदनले विश्व बैङ्कको वातावरणीय तथा सामाजिक मापदण्डहरु पनि समेटेको छ ।

### स्कीनिङ्ग, क्षेत्र निर्धारण, प्रभाव पहिचान, पुर्वानुमान तथा व्यवस्थापन:

आयोजनाको प्रत्यक्ष प्रभावित क्षेत्र यस उपआयोजनाको सडकको चौडाइ ११.३ मिटर देखि १५ मिटरसम्म रहेको छ । त्यसैगरी आयोजनाको प्रभाव क्षेत्र सडकको किनारको दुवै तर्फ ५०० मिटरसम्मको क्षेत्रलाई लिइएको छ । प्रभावहरुको वर्गीकरण तथा संक्षेपीकरण गर्न वातावरणीय तथा सामाजिक चेकलिष्ट प्रयोग गरिएको छ । स्थान विशेषको प्रभावहरु वातावरणीय तथा सामाजिक प्रभाव मूल्याङ्कनमा समावेश गरिएका छन् । केही प्रभावहरु निम्नानुसार छन् ।

### भौतिक प्रभावहरु:

- उत्खनन् सामाग्रीको प्रयोग
- भण्डारण र निर्माण शिविर स्थल
- ध्वनी, वायु र जल प्रदुषण
- फोहरमैला तथा ढुङ्गा-माटो व्यवस्थापन
- सडकको स्थाइत्व र व्यवस्थापन

### जैविक प्रभावहरु:

- बोटबिरुवाको क्षति ।
- जलश्रोत प्रदुषणको जोखिम ।

### सामाजिक-आर्थिक तथा सांस्कृतिक प्रभावहरु:

- भूमि उपयोगमा परिवर्तन
- सार्वजनिक तथा नीजि संरचनाहरुमा क्षती (जम्मा १११ वटा बिजुलीको खम्बा, सडकको दुवै तर्फ गरी ८ कि.मि. खानेपानीको पाइप लाइन र एक सार्वजनिक विश्रामस्थल (चौतारी)
- घर-आँगन, पसल तथा नीजि सम्पतिमा पहुँच र गतिशिलतामा कठिनाइ
- सामुदायिक स्वास्थ्य र सुरक्षा
- व्यवसायजन्य स्वास्थ्य र सुरक्षा
- सामाजिक सद्भावमा अवरोध, गुनासो व्यवस्थापन
- यौन जन्य हिंसा तथा मानव बेचबिखन जस्ता विषय सँग सम्बन्धित जोखिम
- HIV AIDS तथा CoVID) जस्ता सरुवा रोग सँग सम्बन्धित जोखिम
- बाल श्रम, जबरजस्ती काममा लगाउने तथा ज्यालामा असमानता जस्ता समस्या
- ट्राफिक व्यवस्थापन

यी असरहरु न्यूनीकरणका लागि विभिन्न उपायहरु यस प्रतिवेदनको वातावरण तथा सामाजिक व्यवस्थापन योजना (ESMP) मा उल्लेख गरिएका छन् । ती मध्ये केही प्रमुख उपायहरु निम्नानुसार रहेका छन् :

#### भौतिक प्रभावहरु न्यूनीकरण गर्ने केही उपायहरु:

- स्वीकृत गिट्टी वालुवा प्लान्टबाट मात्रै गिट्टी वालुवा प्रयोग गर्ने
- निर्माण सामग्री भण्डारण स्थल व्यवस्थापन
- नेपाल सरकारले तोकेको मापदण्ड अनुकूल सवारी साधन तथा यन्त्रहरु प्रयोग गर्ने
- सवारी साधन तथा यन्त्रहरु को नियमित मर्मत संभार गर्ने
- फोहोर व्यवस्थापनमा 3R अवधारण अवलम्बन गर्ने
- श्रोतमा नै कुहिने र नकुहिने फोहोर वर्गीकरण, तथा प्लाष्टिक जन्य फोहोर जलाउनमा प्रतिबन्ध
- सार्वजनिक स्थल तथा खोलामा निर्माणजन्य फोहोर फाल्न प्रतिबन्ध

#### जैविक वातावरणमा पर्ने प्रभावहरु न्यूनीकरण गर्ने केही उपायहरु:

- कामदारहले वन जङ्गलबाट काठ दाउरा लिन ल्याउनमा प्रतिबन्ध
- कामदारहले खोलामा माछा मार्न प्रतिबन्ध तथा खोलामा निर्माणजन्य फोहोर फाल्न प्रतिबन्ध

#### सामाजिक-आर्थिक तथा सांस्कृतिक प्रभावहरु न्यूनीकरणका उपायहरु :

- सडकको क्षेत्राधिकारमा भित्र रहेका जग्गाहरुको कित्ताकाट र स्वमित्व हस्तान्तरणको प्रक्रिया पोखरा महानगरपालिकाले पुरा गर्नेछ ।
- खानेपानी पाईप लाईन तथा विजुलीका पोलहरु पुनःस्थापना तथा व्यवस्थापन गर्ने
- घर-आँगन, पसल तथा नीजि क्षेत्रमा आवागमनमा सहजताका लागि आवश्यक स्थानहरुमा काठको वा फलामको फड्के वा earthen ramp को व्यवस्था गरिदिने, साथै ट्राफिक व्यवस्थापन योजना तयार गरिनेछ
- नेपाली भाषामा *Sign board* तथा सूचनाहरु राख्ने, तथा सुरक्षाका लागि *barricade* राखिनेछ
- कामदारहरुलाई सुरक्षाका उपकरणहरु तथा प्राथमिक उपचार सामग्री उपलब्ध गराइनेछ
- कामदारहरुलाई सुरक्षित तथा सफा आवासगृहको व्यवस्था, तथा उपयुक्त WASH सुविधाहरु उपलब्ध गराइनेछ
- परियोजनामा वालवालिकालाई काम लगाउन निषेध गरिनेछ
- स्थानीयलाई रोजगारीको अवसर तथा प्राथमिकता
- कामदारहरुलाई आचार संहिता (CoC) लागू गरिनेछ
- निर्माण चरणका डाइभर्जनहरुको डिजाइनले बृद्ध-बृद्धा, महिला, वालवालिका तथा फरक क्षमताका भएका व्यक्तिहरुका लागि उपयुक्त उपायहरुको व्यवस्था गर्नु पर्दछ ।
- वातावरणीय संरक्षण र सामाजिक सुरक्षण सम्बन्धी जनचेतनामूलक कार्यक्रम संचालन गरिने ।
- यौन जन्य हिंसा (यौन दुराचार), मानव बेचबिखन, HIV AIDS and CoVID सम्बन्धी जनचेतनामूलक कार्यक्रमहरु संचालन गरिनेछ ।

### **पुनःवास कार्ययोजना:**

प्रस्तावित सडक स्तरोन्नति उपआयोजनाको सडकको क्षेत्राधिकार भित्रको नीजि संरचनामा पर्ने असरलाई सकेसम्म जोगाइएको छ । महानगरपालिकाले उपलब्ध गराएको निर्णय प्रतिलिपिमा उल्लेख भए बमोजिम वि.सं. २०७२ साल भदौ २७ गतेको निणयले बाटोको क्षेत्राधिकार स्पष्ट गरेको छ र जग्गा अधिग्रहणको आवश्यकता छैन । पुनःवास कार्य योजनाले डिजाइन परिवर्तन भएमा प्रभावित व्यक्तिहरुको जग्गा अधिग्रहण, क्षतिपूर्ति र पुनःवासको नीति र प्रकृयाहरु प्रदान गर्ने लक्ष्य राखेको छ । तर यस परियोजनाको लागि पुनःवास कार्य योजना आवश्यक छैन ।

### **यौन शोषण तथा दुर्वेसन एवं दुर्व्यवहार रोकथाम तथा सम्बोधन कार्य योजना:**

विश्व बैङ्कले नेपाल शहरी शासकीय तथा पूर्वाधार आयोजना (NUGIP) को लागि गरिएको यौनिक शोषण, दुर्वेसन एवम् यौन दुर्व्यवहार जोखिम मूल्याङ्कनका आधारमा यस आयोजनाको SEA/SH जोखिमको “न्यून” मूल्याङ्कन गरिएको छ । यस मूल्याङ्कनमा आधारित भई आयोजनाको लागि SEA/SH निरोध तथा सम्बोधन कार्ययोजना आयोजनाको लागि SEA/SH रोकथाम तथा सम्बोधन कार्ययोजना बनाइएको छ । यसमा उपआयोजनाको कार्यक्रमले सिर्जना गर्न सक्ने SEA/SH जोखिमहरु निषेध एवं रोकथाम तथा न्यूनीकरण गर्ने उद्देश्यका निश्चित व्यवस्थाहरु समावेश गरिएका छन् । यस योजनाले तालिका- १. विश्व बैङ्कले सेप्टेम्बर २०१८ मा प्रकाशित “असल अभ्यास नोट” अनुसार IPF परियोजनाहरुमा SEA/SH जोखिमहरुलाई सम्बोधन गर्न सुझाएका कार्यहरुलाई पनि समावेश गरेको छ ।

सामान्यतया नेपाली समाजमा लैङ्गिक हिंसासम्बन्धी घटनाहरु घटिरहन्छन् । समुदाय स्तरका महिलाहरूसँग भएका छलफल अनुसार, आयोजना क्षेत्रमा केही साना-तीना घरेलु हिंसाका घटनाहरु घटे तापनि सामाजिक प्रतिस्थाका कारण आपसी मेलमिलाप गर्नेगरेको छ ।

### **वातावरण तथा सामाजिक व्यवस्थापन योजना :**

पहिचान गरिएका सवालहरु, सम्भाव्य असर एवं प्रभावहरु, तिनीहरुको न्यूनीकरण गर्ने विधिहरु र अनुगमन विधिहरु समावेश गरी यस प्रतिवेदनले वातावरणीय तथा सामाजिक व्यवस्थापन रुपरेखा (ESMF) मा उल्लेख भए बमोजिम प्रस्ताव गरेको छ । निर्माण तथा सञ्चालन चरणमा हुने वातावरणीय तथा सामाजिक प्रभाव न्यूनीकरण गर्ने लागत खर्च वातावरणीय तथा सामाजिक प्रभाव मूल्याङ्कन प्रतिवेदनमा संलग्न छ । अझ वातावरणीय प्रभाव न्यूनीकरण व्यवस्था तथा अनुगमन गर्ने जिम्मेवार निकायहरु वातावरणीय तथा सामाजिक व्यवस्थापन रुपरेखा तोकिएको छ । वातावरण तथा सामाजिक व्यवस्थापन योजना कार्यान्वयनका लागि कूल रु. २,३७५,००० को बजेट प्रस्ताव गरिएको छ । यस उपआयोजनामा सरोकारवालाहरुको जिज्ञासा एवं गुनासोहरुको बारे अद्यावधिक सूची राख्न र उपयुक्त समयमै समाधान गर्न एवं गुनासो सम्बोधन विधि (GRM) समेत समेटिएको छ ।

### गुनासो व्यवस्थापन समिति (GRC) को व्यवस्था:

उपआयोजना निर्वाध रूपमा कार्यान्वयन गर्न र समयमा नै उपआयोजना सम्पन्न गर्नका लागि निर्माण चरणमा आउने गुनासाहरुको सुनुवाई गर्ने र त्यस्ता गुनासाहरुलाई तत्कालै स्थानिय स्तरमा नै समाधान गर्ने उद्देश्यले आयोजना स्तरमा र नगरपालिका स्तरमा एक/एक गुनासो व्यवस्थापन समितिको गठन गरिएकोछ। उक्त गुनासो समितिलाई कुनै पनि प्रकारका संचारका माध्यम, चिट्ठिपत्र वा भौतिक रूपमा उपस्थित भएर टिपाउने गुनासाहरुको सुनुवाई ESMF मा उल्लेख भए बमोजिमको नियम र परिधिमा रहि समाधान गर्ने र आफुले समाधान गर्न नसकिने गुनासाहरुलाई उपल्लो निकायमा पठाउन एक गुनासो व्यवस्थापन समितिको गठन गरिनेछ।

### संस्थागत व्यवस्था :

आयोजना कार्यान्वयन गर्न शहरी विकास मन्त्रालयले शहरी विकास तथा भवन निर्माण विभाग अन्तर्गत नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना (NUGIP) को कार्यालय स्थापना गरेको छ। वातावरणीय तथा सामाजिक विधिको साथै सम्पूर्ण विधिहरु पालना सम्बन्धी जिम्मेवारीको जवाफदेहिता आयोजना समन्वय कार्यालय (PCO) मा रहने छ। आयोजना समन्वय कार्यालयलाई एउटा आयोजना व्यवस्थापन सहयोग टोलीले (PMST) सहयोग गर्नेछ। उपआयोजनाहरुको वातावरणीय तथा सामाजिक व्यवस्थापन योजना कार्यान्वयन स्थानीय तहमा गर्न र अन्य वातावरणीय एवं सामाजिक संयन्त्रहरुको कार्यान्वयनमा जिम्मेवार हुने गरी पोखरा महानगरपालिकामा एक आयोजना कार्यान्वयन इकाइ (PIU) स्थापना गरिएकोछ। सुरक्षण विशेषज्ञ सहितको डिजाइन तथा सुपरिवेक्षक परामर्शदाता (DSC) मार्फत प्राविधिक साहायाता पुऱ्याइनेछ।

## 1. PROJECT INTRODUCTION

Department of Urban Development and Building Construction (DUDBC) under Ministry of Urban Development (MoUD) of Government of Nepal has been executing 'Nepal Urban Governance and Infrastructure Project (NUGIP) within the strategic framework for urban development as envisaged in National Urban Development Strategy since the fiscal year 2077/78 B.S.

DPR of *Upgradation Works of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road* of Pokhara Metropolitan City has been prepared as per the Contract between Municipal Executive, Pokhara; Nepal Urban Governance and Infrastructure Project (NUGIP) (Client) and BN Consultancy Pvt. Ltd (BN) - Plush Engineers and Architects (P) Ltd (PEA) which have entered into the agreement, for performing work REF No: NP-DUDBC-215991-CS-QCBS, into effect from 9<sup>th</sup> April 2023 to provide services on Detailed Engineering Design and Construction Supervision (DSC) covering the upgradation works. The project is expected to contribute towards the municipal capacity for urban development planning, infrastructure development and institutional development of the municipality together with the improvement of livelihood of the local people along the settlement.

The study on Environmental and Social Management Plan of *Upgradation Works of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road* in Pokhara Metropolitan City has been conducted during September 2023. The study is based on the Environmental and Social Management Framework (ESMF) for Nepal Urban Governance and Infrastructure Project (NUGIP) in Nepal.

Estimated Cost:	NPR. 594,199,107.88 (including VAT and contingency)
Start/Completion Date:	January 2024 - July 2025

## 2. DESCRIPTION OF THE PROJECT SITE

Pokhara Metropolitan City lies in the Kaski District of Gandaki Province. Pokhara is located 200 km west of the capital Kathmandu. Pokhara Metropolitan City is the headquarters of Kaski district and the federal state capital of the province. The total area of Pokhara Metropolitan City, which comprises of 33 wards, is 464.24 square kilometers. Pokhara has an estimated city population of 513,504 living in 140,459 households as per 2021 Nepal census.

### 2.1 Location of the project

The project is located in wards 30 and 32 of Pokhara Metropolitan City. The project covers Sisuwa - Khudi khola section. Its starting point coordinates are 28°9'48.8"N, 84°4'10.03"E and end point coordinates are 28°8'3.6"N, 84°5'37.68"E.

### 2.2 Land Use

The project area is primarily an agricultural area with significant number of water bodies. There are many small and large lakes in the surrounding foothill areas. Rupa taal is the lake closest to the proposed road alignment. Settlements are seen in clusters. There is a rapid growth in development of settlement areas in the project area.

### 2.3 Topography and Hydrology

Main settlement in the metropolitan city lies in the plain areas surrounded by hills. Altitude of the city varies from 827 m (amsl) in the southern part to 1740 m (amsl) in the northern part. The road alignment lies in the plain terrain with elevation ranging from 634 m to 701 m from sea level. Khudi khola flows North-East to South-west at the end of the road section. Begnas taal, Rupa taal, Maidi taal, Khaste taal, Gunde taal, Niureni taal, Dipang taal and Kamal Pokhari also lies in the project area. However, these are not along the proposed road alignment.

### 2.4 Climate and Vegetation

The climate here is considered warm and temperate. The summers here have a good deal of rainfall, while the winters have very little. As per the Köppen-Geiger classification, the prevailing weather conditions in this region are categorized under Cwa. The mean yearly temperature recorded in Pokhara is 18.3 °C, as per the available data. The rainfall here is around 4851 mm per year. The balmy days of summer commence at the end of June and conclude in September. This period encompasses the months: June, July, August, and September. In December, the precipitation level plummets to a mere 109 mm. This month holds the title for being exceptionally arid. Most of the precipitation here falls in July, averaging 1114 mm.

The road alignment has tropical to subtropical vegetation types with dominance of deciduous trees. Trees like Ficus species, Sissoo (*Dalbergia Sissoo*), Simal (*Bombax ceiba*), Khirro (*Sapium insigne*), Ipil (*Leucaena leucocephala*), and bamboo species. Bar-Peepal trees, especially in *chautaris* - public rest places, are of common sight along the project area. There are no community forest along the proposed road alignment. There are 9 trees within the construction width, and all these are under ownership of Pokhara Metropolitan City. The details are provided in Annex 6.

## 2.5 Air Quality, Water Quality, and Noise level

The ambient air quality of the project area doesn't show critical state. The air quality index of Pokhara shows that the AQI is 124, with PM<sub>2.5</sub> level of 44.8 µg/m<sup>3</sup> and (Source: <https://www.iqair.com/nepal/eastern-region/pokhara>). However, the project area is relatively less urbanized, hence air quality is better. The primary source of ambient air pollution is due to dust from vehicles plying on earthen roads. Noise levels were measured using an android application, and a continuous measurement was conducted along the road alignment. The average noise levels ranged from 64.3 dBA to 66 dBA.

The drinking water source of the project area is primarily deep tubewell. The water quality of the drinking water supply system is satisfactory and the parameters are within the threshold limits of NDWQS 2022 (Annex 3). The report shows that there is no turbidity, foul taste, or odour. Turbidity value was 1.9 NTU; pH range was 7.4; TDS 235 mg/L; EC 477 µS/cm; and Calcium value of 44 mg/L in the drinking water sample of distribution system sampled and tested by *Lekhnath Small Town Water Supply*. The laboratory report of Total Coliform tested for the same source shows 16 *E. Coli* count as tested on 6<sup>th</sup> August 2023.

## 2.6 Existing Status, Structures and Utilities along Road Alignment

The field study shows that the following public structures or utilities at present near the proposed road alignment;

**Table 2-1: Existing Public structures alongside road alignment**

SN	Structures	Description	Remarks
1	Chautari	1 Chautari at Sisuwa (Ch. 0+018 km) 1 Peepal chautari at Ch. 1+045 km 1 Bar-Peepal Chautari at Sisuwa - Gagangaunda chowk (Ch. 3+010 km)	These structures will not be affected
		1 Peepal Chautari at Sisuwa (Ch. 0+090 km)	This falls within road width, and will be protected. This will require narrowing of the cycle track at that point
2	Public Tap/Kuwa	1 public tap at Sisuwa (Ch. 0+007 km) 1 public tap at Ch. 1+040 km 1 public tap at Ch. 1+830 km	These structures are beyond road width
3	Waiting station	1 at Ch. 3+002 km	
4	Temples	1 Temple at Ch. 1+330 km	

Source: DPR - Upgradation of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road, Pokhara Metropolitan City, 2023

The field study shows that the project needs relocation of following public structures or utilities;

**Table 2-2: Existing Utilities along the Road Width**

SN	Structures	Description	Remarks
1	Electric poles	111	Will be relocated and new ones installed; included in BoQ Abstract of Cost - A1
2	Water supply pipeline	8 km	Will be reinstated; included in BoQ Abstract of Cost - A2

Source: DPR - Upgradation of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road, Pokhara Metropolitan City, 2023

It has been discussed with the stakeholders that there will be need of installation of new electric poles. Likewise, consultation was carried out also with members of water supply user committees (Annex 2).

## 2.7 Demography of the project area

The total population of Pokhara Metropolitan City is 513,504 and total household is 140,459. The average household size of the municipality is 4.39 which is greater than that of district household size of 3.66. Male population is 247,495, and female population is 266,009. The sex ratio is 0.93.

The total population of project wards - ward 30 and 32, is 30,875 and the total number of households is 8,179. The average household size of the project wards is 3.77. Total male population of the project wards is 14,621 and total female population of the project wards is 16,254. The sex ratio of the project wards 0.89. (Source: NSO, 2021)

The total households along the road alignment is 367 with total population 1373 having 672 male population and 701 female population. (Source: Field study, September, 2023).

## 2.8 Settlements

The major settlements existed along the alignment are Sisuwa, Kamana Sundar road, Gumaaz pul, Nahar chowk, Taamu chowk, Satmuhane.

## 2.9 Land availability

**2.10 The land required for road construction is already available and is in public use. The RoW was declared on 2072/05/27 BS (September, 2015), however, ownership of private land strips are yet to be transferred to Pokhara Metropolitan City. PMC will conduct the process of transfer of deeds of these land parcels. The proposed road width is within the existing road width and there are no any outstanding issues or grievances related to the land that is in public use at the moment. Letter of Pokhara Metropolitan City (PMC) regarding RoW and availability of land for road upgradation has been provided in Annex 2. Ethnicity**

The project area have people of Brahman, Chhetri, Newar, Gurung, Magar and some dalit communities. There are 96 households of janapati families. This includes total population of 359 with

176 male and female 183 of janajati families. The indigeneous people are living in a mixed community. Separate consultation was carried out with the indigeneous people of the project area. (Source: Field study, September, 2023)

## **2.11 GBV, SEA / SH**

Community consultations carried out for the ESMP preparation showed there are some instances of family disputes. During the consultation, it was discussed that some minor cases of family disputes, like dispute between husband-wife, take place in the project area - reflecting gender violence. As per the consultation carried out with the local women, there are no significant cases related to GBV, and if any such cases happen, then those cases are settled under facilitation of the local elite and social figures. In case, if such cases are not resolved even under facilitation of the local elite and social figures, then they are reported to ward office. Since such cases are related to social prestige, the locals are found reluctant to take such cases to police station or to other legal entities. Most of the local women were also not aware about the provisions of complaint registering through toll free number 1145 dedicated by National Women Commission.

Discussions were also carried out to sensitize the local women on possible cases of GBV after the workforce & laborers start working during the construction phase. They were also informed about provisions of GRC and anti-harassment cell under this project. Hence awareness activities are required regarding GBV.

As a part of the project compliance, an Anti-Harassment Cell has been formed in Pokhara Metropolitan City with Ms Nirmala Sharma, Chief of Social Development Section of the PMC as the focal person. The letter regarding deputation of the focal person has been attached in Annex 2. The purpose of anti-harassment cell is to facilitate women to raise complaints against any sexual harassment and to work as a link between the victim and relevant authority so as to prevent and address any cases of sexual harassment in relation to the project.

### 3. DESCRIPTION OF THE PROJECT AND ITS ACTIVITIES

The proposed road project is one of the major road alignment of Pokhara Metropolitan City. It serves the agriculture as well as tourism area of the Metropolitan city and as bypass road from Prithivi Highway to Siddhartha Highway or Siddhartha highway to Prithivi Highway. Since the proposed road upgradation will increase access to urban facilities, prosperity and development of the project area and its adjoining areas will be enhanced by this road. At the same time, the proposed road will bring social justice for the balance development of the entire city.

#### 3.1 Salient Features of the Project

The proposed upgradation road project has following features;

**Table 3-1: Details of Proposed Road Upgradation Project**

SN	Description	Description	
1	Road Type	Urban/ Collector Road	
2	Proposed road length	4.14 km	
3	Number of Lane	Double Lane	
4	Right of Way	15 m	
5	Road Attributes	Existing	Proposed
	(i) Road Width	11.3 m to 15 m (in public use)	11.3 m to 15 m
	(ii) Carriageway Width	5.0 m in average	7 m throughout (additional 1.5 m Cycle Track both sides)
	(iii) Camber of Carriage way	2.5%	
	(iv) Pavement Surfacing	Asphalt concrete (Flexible pavement)	
6	Terrain Type	Plain terrain (hill region) with gentle slope only at the end section	
7	Wards & Major settlements	Pokhara Metropolitan City - 30 & 32 Sisuwa, Kamana Sundar road, Gumaaz pul, Nahar chowk, Taamu chowk, Satmuhane	
8	<b>Design Parameters</b>		
9	Design speed of Road	30 km/hr	
10	Maximum gradient	8%	
11	Minimum Gradient	0.3%	
12	Total cost of ESMP	NPR. 2,375,000.00	
13	Total Project cost	NPR. 594,199,107.88 (including VAT and contingency)	
14	Cost per km	NPR. 143,526,354.56 (including VAT and contingency)	

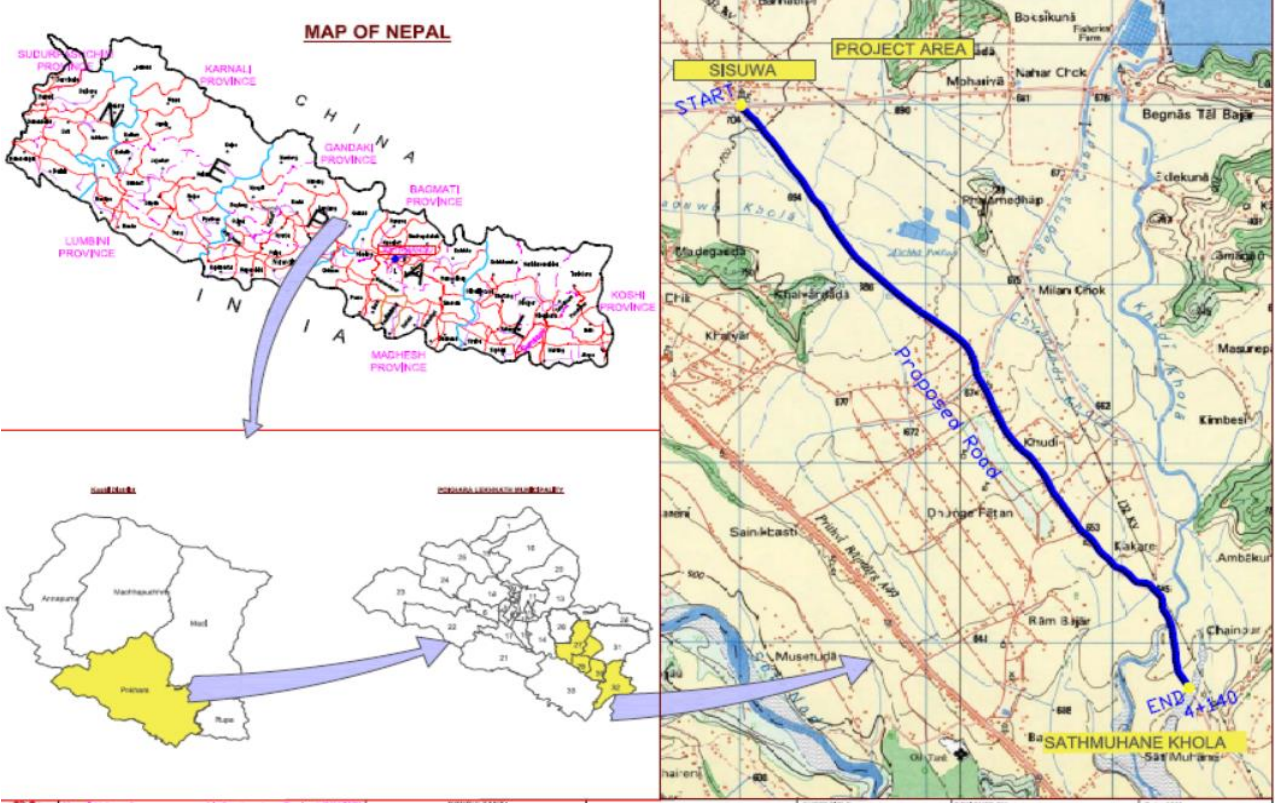
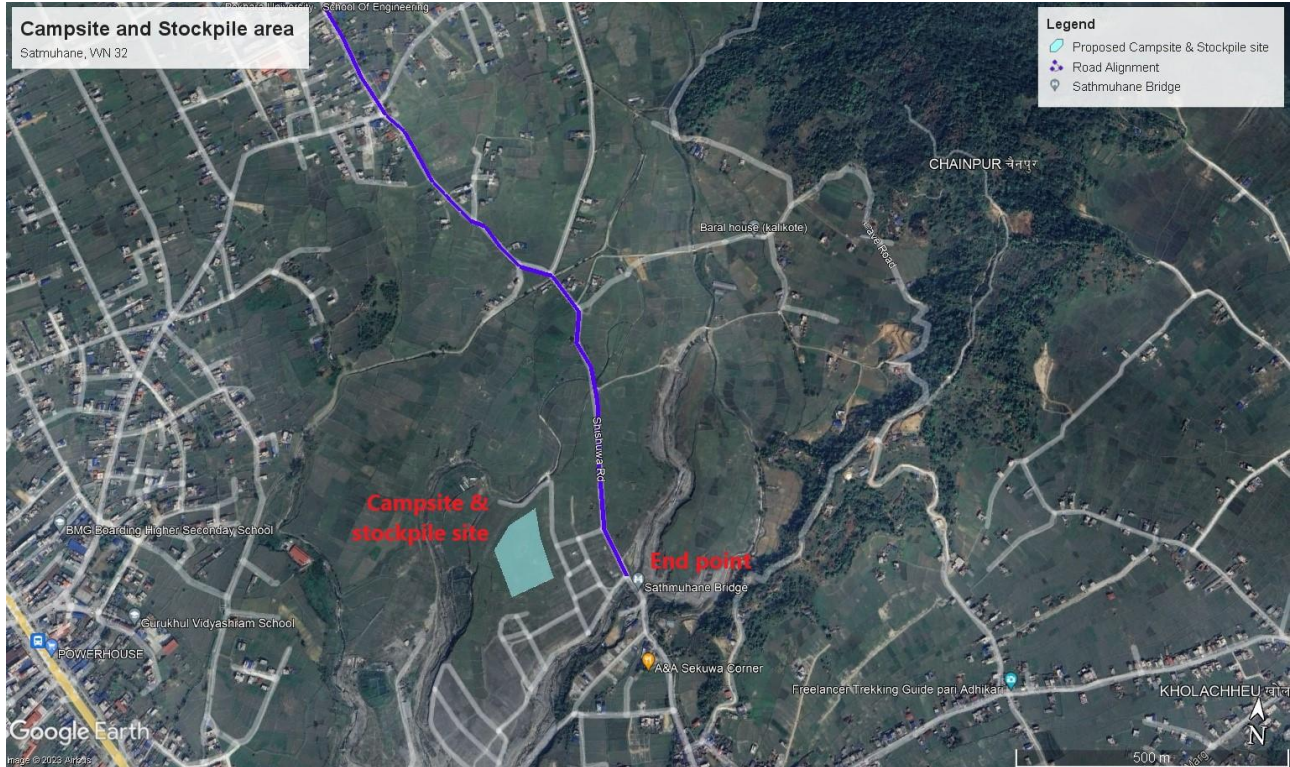


Figure 3.1: Index Map

**3.2 Proposed Campsite and Stockpile Area**

The field study showed that an open space at Satmuhane with area of around 0.45 ha. near Khudi khola bridge at WN 32, can be used for Contractor’s campsite and for stockpiling of the construction materials. The land is private land, and the land is currently barren land. The contractor will lease the land. The details will be included in C-ESMP of the project.



**Figure 3.2: Proposed Campsite and stockpiling area at Satmuhane (near Khudi khola)**

### 3.3 Solid Waste

Assuming the per capita waste generation to be 0.3 kg/person/day, it is estimated that around 900 kgs of solid waste will be generated per month from the campsites. Although this is not a huge volume, if not well managed - this will degrade the environment of the project area. Solid waste generated from the camps will be disposed within the proposed campsite only (as recommended in the C-ESMP), away from local water bodies and efforts will be made to minimize such waste through reuse, reduction, and recycling concepts. Regarding the waste generated during decommissioning of the temporary campsite, the reusable like cardboards, plastics, bins, etc. will be sold, the metal scrap will be sent or sold to scrap dealers, and any residue will be disposed off in coordination with the local ward/municipal authority through the solid waste management (collection & disposal) system of the municipality. The land will be cleared and restored to the satisfaction of the landholder or the local authority. Soak pits or septic tanks will be established for the sanitation units/latrines.

### 3.4 Spoil Management

It is estimated that around 6600 m<sup>3</sup> of spoil will be generated. Some portion of this will be reused in the backfilling works. An open public space at Khudi of WN 30 with area of around 0.1 ha. and another open public space near Satmuhane of WN 32 with area of around 0.25 ha. have been proposed as spoil disposal site. Construction debris will be disposed at designated spoil site only (as recommended in the C-ESMP) and efforts will be made to minimize such waste through reuse, reduction, and recycling concepts. While hauling and storing spoil temporarily, spoil will be covered with plastic/tarpaulin cover.

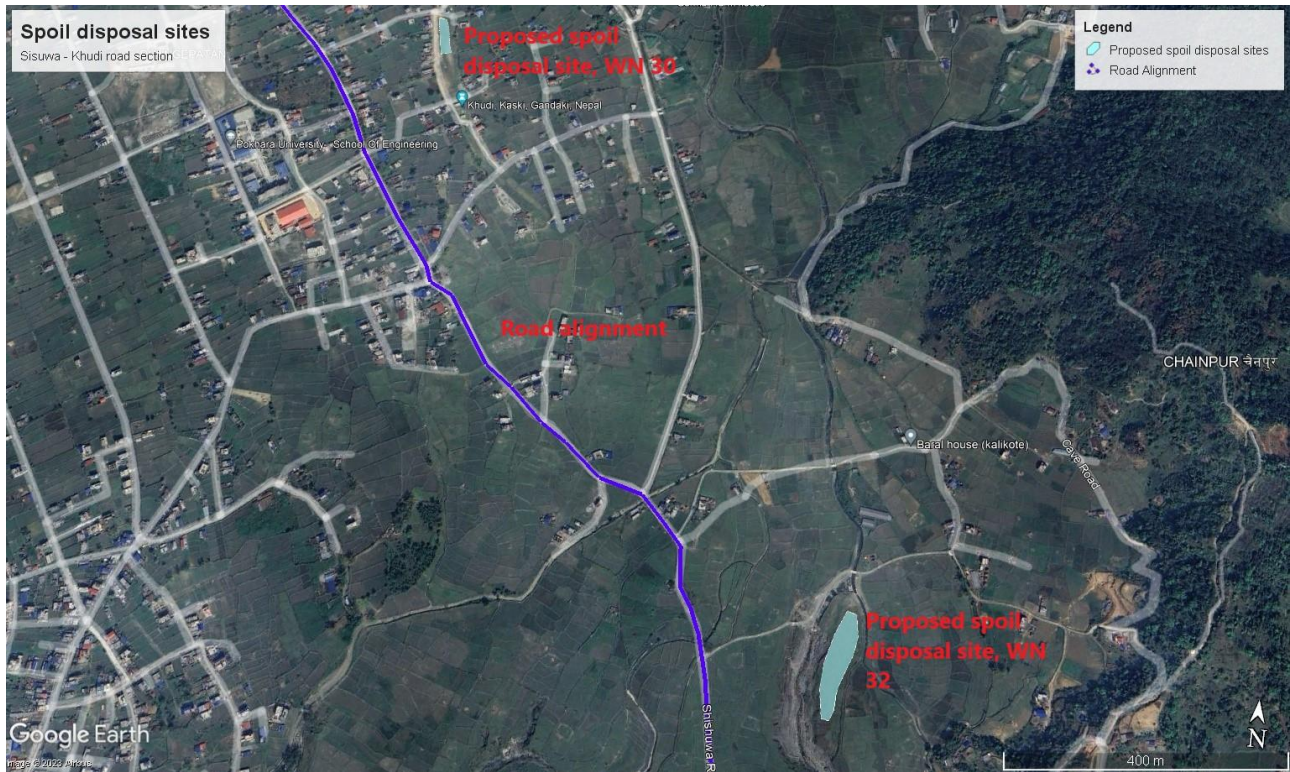
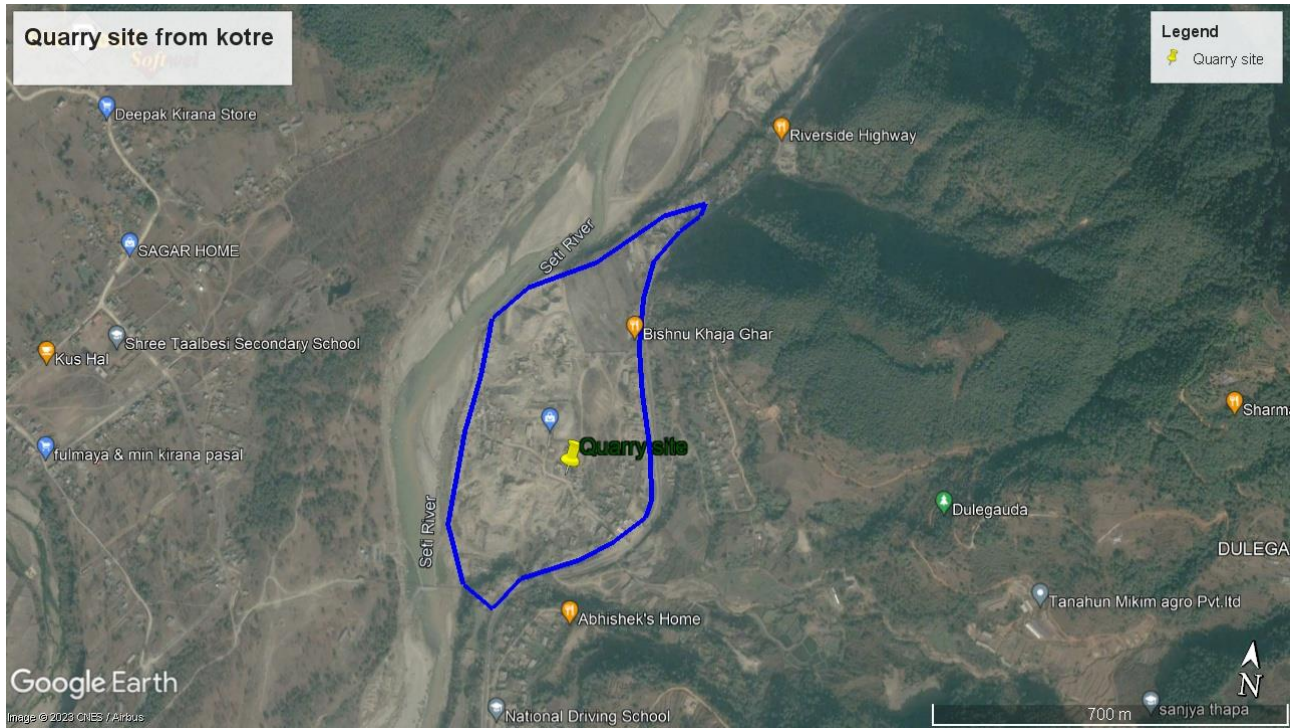


Figure 3.3: Proposed spoil disposal sites (WN 30, and WN 32)

### 3.5 Use of Quarry materials

The quarry materials will be brought from authorized and licensed crusher plants. The identified and proposed quarry site for the project is Kotre quarry site. The contractor will not operate its own quarry site. The project will require around 11,300 m<sup>3</sup> granular sub-base materials and 8,735 m<sup>3</sup> curhser-run base materials. All the quarry materials will be brought from the crusher plants.



### 3.6 Figure 3.4: Quarry site at KotreGBV, SE/SH aspects

Based on the SEA/SH Risk Assessment checklist and assessment carried out for NUGIP by the World Bank, the Project's SEA/SH risks are assessed to be "Low". The project construction may disturb the local population with interactions of non-local workers. The outside workers may breach local social/cultural norms and values. If code of conduct is not well implemented for the workers, then there can be cases of SEA/SH, GBV and HIV AIDS. Concerns of sexual misconduct and STDs remains a pertinent social risk. Communicable diseases may spread from workforce to the community. As per the data of *Nepal Human Rights Year Book 2023 - INSEC*, there were 2 cases of Human trafficking in Kaski district. Hence, awareness on this regard will be relevant.

## 4. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

### 4.1 Social and Environmental Screening:

This sub-project is an upgradation of an existing road. The social and environmental screening of the sub-project has been done to assess any potential risk associated with the road upgradation in the required format. The screening checklists are provided in Annex 1. The screening shows that the project area doesn't have major social or environmental risks. As per section B & C of Appendix C of Environmental and Social Management Framework (ESMF, August 2020) of NUGIP, it can be concluded that the proposed road upgradation project falls under 'Low to Medium impact project' under Category B. Hence an abbreviated ESMP is sufficient for the proposed project. This ESMP document has been prepared as per Appendix C - C of the ESMF.

### 4.2 Implementation of Environmental and Social Management Plans

The sub-project ESMP implementation arrangements can be summarized as follows;

SN	Stakeholder	Role & Responsibilities for ESMP implementation
1	Pokhara Metropolitan City/PIU	<ul style="list-style-type: none"> <li>✓ The overall project environmental management is the responsibility of PIU</li> <li>✓ The regular monitoring will be carried out by the PIU</li> </ul>
2	Contractor	<ul style="list-style-type: none"> <li>✓ The contractor is required to submit C-ESMP within 45 days of contract signing.</li> <li>✓ Implement the mitigation measures and provisions as per ESMP of the project's DPR/ESIA</li> </ul>
3	DSC	<ul style="list-style-type: none"> <li>✓ Preparation of ESIA during DPR phase</li> <li>✓ Supervision support to the Contractor to implement the ESMP</li> <li>✓ Monitoring of implementation of ESMP and its compliance</li> <li>✓ The E&amp;S safeguards specialists of DSC will work closely with its technical staff to ensure project implementation in accordance to World Bank's safeguard standards.</li> </ul>
4	PCO & PMST	<ul style="list-style-type: none"> <li>✓ The PCO will have overall responsibility to ensure compliance with pertaining laws, policies, regulation for all sub projects</li> <li>✓ The PCO with support from PMST will review implementation support of environmental and social safeguard studies/ management plan prepared by PIU/DSC</li> </ul>

**Figure 4.1: Institutional Arrangement for ESMP Implementation**

### 4.3 Objectives of ESMP:

The overall objective is to ensure that the environment and its surrounding areas are protected and developed to meet the needs of the local stakeholders and safeguard the requirements of the local people. It also aims to establish the roles & responsibilities of all parties involved in the project's environmental and social management; and to ensure budget required for the same.

#### 4.4 ESMP Matrix:

Following project interventions and related mitigation measures have been planned in relation to the existing status and potentials improvements for the proposed road alignments;

**Table 4-1: Environmental and Social Management Plan (ESMP) Matrix**

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
<b>Physical Environment (Construction Phase)</b>				
1.	Land use concerns - temporary and permanent changes in landuse	<ul style="list-style-type: none"> <li>▪ Leaseholder or rental contract will be maintained for temporary use of land required for campsite and stockpile site for the project.</li> <li>▪ Fertile topsoil will be conserved and reapplied as and when possible.</li> <li>▪ All the temporarily acquired land will be rehabilitated into previous state or better than the earlier state maintaining natural drainage and acceptable to the land owner/DSC.</li> </ul>	Contractor	
		<ul style="list-style-type: none"> <li>▪ Prior notification (2 months' before award of construction contract) for crop plantation will be given.</li> </ul>	Pokhara Metropolitan City	
2.	Use of quarry materials	<ul style="list-style-type: none"> <li>▪ Contractor will obtain required construction materials from the legally operating crusher industries only. Quarry materials will be purchased from legally operating crushers plants at Kotre, which is close to the road alignment, and the maps of proposed quarry site is provided in Fig. 3.4</li> <li>▪ In case of borrow pits, the borrow pit sites will be well demarcated, regularly monitored and topsoil will be collected. Later, the topsoil will be put back on the surfaces and the areas revegetated, if required.</li> </ul>	Contractor	
		<ul style="list-style-type: none"> <li>▪ PIU &amp; DSC will check the site requirements and quality of quarrying material and approve it.</li> </ul>	DSC/PIU	
3.	Issues related to Campsite and stockpiling - risks of accidents; pollution to local environment	<ul style="list-style-type: none"> <li>▪ Campsite is proposed at an open space of around 0.45 ha. at Satmuhane (close to Khudi khola, WN 32) adjacent to the end point of the proposed road alignment.</li> <li>▪ The site will be provisioned with proper drinking water facilities, WASH provisions, and lighting system. Environmental sanitation will be maintained along with proper stock-keeping. Ensuring use of cleaner fuel like LPG and electricity for cooking and heating purposes.</li> <li>▪ Separate rooms, &amp; toilets will be provisioned for male &amp; female workers</li> <li>▪ Proper insulator cover and proper drain will be managed to store the chemical to avoid the leakage of chemicals.</li> <li>▪ Stock of sand will be set wet to prevent it from blowing with the wind; water sprinkler will be used for this purpose.</li> </ul>	Contractor	

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<ul style="list-style-type: none"> <li>▪ The places used for the stockpiling of construction materials will be cleaned promptly after the completion of the project.</li> <li>▪ The site will be well fenced, and provided with a 24-hour guard.</li> <li>▪ The contractor will rehabilitated camp and stockpiling area after the demolition of the sites.</li> </ul>		
4.	Air pollution in the construction locality  - dust nuisance to the locals, and ambient air pollution of the project area	<ul style="list-style-type: none"> <li>▪ Water sprinkling (at least 3 times a day) at dry exposed surfaces and stockpiles of aggregates as necessary. Settlements like Sisuwa, Kamana Sundar chowk, Gumaaz pul, Nahar chowk, Taamu chowk, Satmuhane are more susceptible to dust nuisance.</li> <li>▪ Require trucks delivering aggregates / cement to have tarpaulin cover.</li> <li>▪ All diesel generators, haul trucks, pavers, graders, and rollers, required to comply with regulations</li> <li>▪ No firewood for cooking and heating bitumen and incineration of wastes will be allowed by the contractor.</li> <li>▪ Burning of waste (from campsite) will be strictly prohibited.</li> <li>▪ Maintenance of vehicles on regular basis.</li> <li>▪ Ensure use of equipment and fuel complying with applicable emission standards.</li> </ul>	Contractor  (Supervision support of Design & Supervision Consultant)	Included within BoQ, Abstract of Cost B-6
		<ul style="list-style-type: none"> <li>▪ Air quality monitoring (at least 2 times during construction phase).</li> </ul>	Contractor	NPR 180,000
5.	Noise nuisance	<ul style="list-style-type: none"> <li>▪ Involve the local authority and the community in planning the work program so that any particularly noisy or otherwise invasive activities can be scheduled to avoid sensitive times. Settlements like Sisuwa, Kamana Sundar chowk, Gumaaz pul, Nahar chowk and Taamu chowk are more susceptible to noise nuisance.</li> <li>▪ Operation of heavy equipment/vehicles, and noisy construction works will be stopped during the night time between 10.00 pm to 6.00 am.</li> <li>▪ Drop heights for loading / unloading aggregates will be minimized</li> <li>▪ Soft horns to be used, and use silent type generators (if required)</li> <li>▪ If it is not practicable to reduce noise levels to or below noise exposure limits, the contractor will post warning signs in the noise hazard areas.</li> <li>▪ Contractor will monitor noise level along the construction site monthly.</li> <li>▪ Complete work in settlement areas as quickly as possible</li> </ul>	Contractor  (Supervision support of Design & Supervision Consultant)	Cost of Noise level monitoring comes within the cost of Air Quality monitoring activity
6.	Impact on water bodies	<ul style="list-style-type: none"> <li>▪ Earthworks generating higher amount of spoil will be conducted during dry season to avoid the difficult working conditions that prevail during monsoon season such as problems from runoff.</li> </ul>	Contractor	

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
	(Khudi khola)  - disposal of waste and spoil; disposal of wastewater on to water bodies	<ul style="list-style-type: none"> <li>▪ Location for stock yards for construction materials are identified at least 100 m away from water courses like Khudi khola. Place for storage of fuels and lubricants will be away from any drainage leading to water bodies.</li> <li>▪ Washing of project vehicles at river banks will be restricted.</li> <li>▪ Proper storage of chemicals and lubricants, use of spillage kit to avoid spillage. Take all precautions to prevent entering of wastewater into streams, watercourses, or irrigation system. Install temporary silt traps or sediment basins</li> <li>▪ While working across or close to any water body, the flow of water must not be obstructed. Ensure no construction materials like earth, stone, are disposed in a manner that may block the flow of water of any water course</li> <li>▪ Any disposal on Khudi khola will be prohibited; fishing by the workforce will be strictly prohibited; Washing of project vehicles along the river bank will also be prohibited;</li> </ul>		
		<ul style="list-style-type: none"> <li>▪ Water quality monitoring (Khudi khola; and stations will be defined during preparation of C-ESMP) to be carried out as per requirement (at least 4 samples; 1 before starting work and should be included as baseline in C-ESMP, 2 bi-annually, and 1 during end period of the project) and the parameters will be as per the requirements provided in Annex 4</li> </ul>	Contractor	NPR 60,000
		<ul style="list-style-type: none"> <li>▪ Environmental Awareness activities will be carried out for the workforce (during 1<sup>st</sup> &amp; 3<sup>rd</sup> Quarters - Yr. 1; at least 30 participants/event)</li> </ul>	Contractor (Coordination support of DSC)	NPR 50,000
7.	Solid waste  - waste littering; burning of waste; degradation of local aesthetic values	<ul style="list-style-type: none"> <li>▪ Waste minimization and waste segregation will be prioritized; 3R approach will be promoted.</li> <li>▪ Composting of organic waste generated (around 60% of 900kg/month) from the camps will be disposed within the proposed camps.</li> <li>▪ Containment of hazardous waste will be carried out.</li> <li>▪ Awareness raising event will be carried out.</li> <li>▪ Decommissioning waste will be re-used, sold to local scrap dealers.</li> <li>▪ Coordination with local municipality team for final disposal into the municipality's waste collection &amp; disposal system.</li> <li>▪ It has been planned that basic facilities like composting, waste segregation, etc will be started from first month/quarter of contractor's</li> </ul>	Contractor	NPR 200,000

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		mobilization; other practices under 3R approach (e.g. waste minimization) will be carried out through out; and awareness events will be carried out every quarter (detailed plan will be provided in C-ESMP) <ul style="list-style-type: none"> <li>▪ Disposal of waste into water bodies will be strictly prohibited.</li> </ul>		
8.	Spoil Disposal	<ul style="list-style-type: none"> <li>▪ Disposal of spoil into water bodies will be strictly prohibited.</li> <li>▪ Generated spoil will be disposed only at designated spoil disposal sites. Details of disposal sites will be confirmed during construction by the contractor and will be presented in the C-ESMP.</li> <li>▪ The contractor will avoid haphazard disposal of spoil materials,</li> <li>▪ The contractor will maintain landscape of the disposal site after disposal</li> <li>▪ The contractor will avoid steep slope along the disposal site.</li> <li>▪ The contractor will provide toe wall at the bottom of the disposal to prevent slide.</li> <li>▪ The contractor will provide drainage along the disposal to maintain natural flow of surface runoff.</li> <li>▪ The contractor will rehabilitate the disposal area covering vegetation and planting trees.</li> </ul>		
9.	Others  <i>Climate susceptibility, risk of natural disaster, etc</i>	<ul style="list-style-type: none"> <li>▪ As one of the Climate Resilience actions, during hydrological calculations, additional 16% weightage has been included for hydraulic design of drainages and cross-drainages</li> <li>▪ The Contractor will develop and maintain emergency response system in order to address any accidents or other emergency situation or disaster at site such as fall of workers from height, collapse of pier, flood, earthquake, accident, etc.</li> <li>▪ The Contractor will dispose all the chemical wastes generated during the time of construction safely without interrupting the existing nearby settlements, water bodies, forests and wildlife.</li> </ul>		
<b>Physical Environment (Operation &amp; Maintenance Phase)</b>				
10.	Road Stability and Drainage Management	<ul style="list-style-type: none"> <li>▪ Regular/periodic maintenance of the road</li> <li>▪ Construction of drainage system to mitigate possible inundation in the settlements along the project alignment</li> <li>▪ Ensure proper compaction as per design</li> </ul>	Pokhara Metropolitan City	Included in BoQ, General works B6

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
	- risks of accidents; degradation of road utilities	<ul style="list-style-type: none"> <li>Awareness activities to be carried out in community level to reduce the incidences of disposal of waste into road-side drains</li> </ul>		BoQ, Abstract of Cost A-6
11.	Air pollution and Noise nuisance	<ul style="list-style-type: none"> <li>There should be a consensus between PMC, district Transport Management Office, Transportation Entrepreneur, and the local people regarding the operation of conditioned vehicles</li> <li>Campaigns like 'No Horn' and use of soft-horns can be initiated by the local authority</li> </ul>	TMO, transportation entrepreneur, local people	No extra cost will be required.
12.	Water pollution	<ul style="list-style-type: none"> <li>Disposal of any septic or industrial wastewater into the roadside drains will be strictly prohibited</li> <li>Washing of public and private vehicles at river banks, like Khudi khola, will be restricted</li> </ul>	Pokhara Metropolitan City	No extra cost will be required.
<b>Biological (Construction Phase)</b>				
13.	Vegetation loss	<ul style="list-style-type: none"> <li>Compensatory plantation @ 1:10 for each tree cut; totaling to plantation of 90 trees for 9 trees to be cut (9 trees) <i>(The details are provided in Annex 6)</i></li> <li>Care-taking cost of 1 year is included in this cost, and for later period, PMC will need to bear the care-taking cost</li> </ul>	Contractor  Pokhara Metropolitan City for care-taking works	NPR 135,000
		<ul style="list-style-type: none"> <li>Greenery promotion works will be carried out along the settlement belts within RoW (380 plants of Ashoka, Sissoo, etc to be planted covering both side plantation for around cumulative length of 1 km of road stretch)</li> </ul>		NPR 570,000
<b>Socio-economic and Cultural (Construction Phase)</b>				
14.	Impact on property from vibrations due to the use of heavy machinery and other	<ul style="list-style-type: none"> <li>Identify any building at risk from vibration damage and avoiding any use of pneumatic drills or heavy vehicles in the vicinity of settlement areas of Sisuwa</li> <li>Establish photographic and video graphic evidences of structures and properties in and alongside proposed road width; cracked walls will be reinstated</li> <li>Conducting excavation works at critical sites under close observation of the local representatives</li> </ul>	Contractor	NPR 300,000

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
	construction activities	<ul style="list-style-type: none"> <li>Protection and management of a chautari at Sisuwa chowk</li> </ul>	Contractor (Supervision & coordination support of DSC)	NPR 140,000
		<ul style="list-style-type: none"> <li>Awareness raising, information and dissemination about GRM (meetings, monitoring and logistic costs@ 1 meeting every month)</li> </ul>	Contractor (Supervision & coordination support of DSC)	NPR 180,000
15.	Disturbance to electric poles in the proposed road width	<ul style="list-style-type: none"> <li>Relocate and Install 111 electric poles along the alignment in coordination with the local electricity office and telecommunication authority.</li> <li>Will be initiated timely without causing delay for the road construction</li> </ul>	Contractor under coordination of Pokhara Metropolitan City	Included in BoQ (Abstract of cost, A-1)
16.	Reinstatement of Water Supply Pipelines - interruption in water supply; damages to water supply pipelines	<ul style="list-style-type: none"> <li>The contractor will work in close coordination with the locals and User Committee of <i>Lekhnath Khanepani Upabhokta Sanstha</i> ensuring timely information is provided to the community about disruption of water supply and ensuring alternative means of water supply in the interim (e.g. potable drinking water through tanker); and rehabilitation of 8 km of pipelines of the system will be addressed without any delay.</li> </ul>	Contractor in support with Pokhara Metropolitan City	Included in BoQ; Abstract of cost, A-2

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
17.	Difficulties in access & mobility to private properties and premises - obstruction to reach the local markets; challenges specially for the elderly and the children	<ul style="list-style-type: none"> <li>▪ Diversions and proper crossings will be available for elderly and differently-able people in the construction phase to ensure their mobility is not impacted during construction.</li> <li>▪ Metal planks and wooden planks will be placed to ease the access to private houses and shops (tentatively 25 sites)</li> </ul>	Contractor  (Supervision support by DSC)	Included in BoQ (Abstract of cost, M)

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
18.	Road safety & Community safety - risk of accidents; traffic disturbances	<ul style="list-style-type: none"> <li>▪ 'Drive slow' messages will be placed along the active sites.</li> <li>▪ Barricades will be placed to avoid any accidental falls. Hard barricades will be provided at temporary deep excavations and trenches for foundation works.</li> <li>▪ Sign boards with safety messages and warnings will be placed in local languages all along the alignment at the construction sites and at the trench excavation area.</li> <li>▪ Construction works to consider elderly, women, child &amp; differently able people (EWCD) requirements</li> <li>▪ Trenches will be backfilled with immediate effect.</li> <li>▪ Carry out site management practice such as the fencing around work area and road signage.</li> <li>▪ Increase public awareness of safety, health and environmental issues by providing information directly and indirectly through campaign.</li> <li>▪ Display appropriate signage, in Nepali language, for use during construction and implementation of the project to enhance awareness creation on the potential hazards of the project</li> <li>▪ To minimize any negative impacts from operation of the labour camp, the contractor will manage the labour camp as per measures provided in SN 3 above</li> <li>▪ The contractor will assign a safety supervisor and will monitor daily construction works in terms of health and safety.</li> <li>▪ The Contractor will comply with the requirements of the Environmental, Health, and Safety (EHS) General Guidelines of the World Bank, April, 2007 and the statutory norms of safety during construction</li> </ul>	Contractor	Included in BoQ (Abstract of cost, G)
		<ul style="list-style-type: none"> <li>▪ Awareness activities will be conducted to inform &amp; aware locals regarding potentials risks and proposed safety measures related to the project activities</li> </ul>		NPR 50,000

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
19.	Occupational Health & Safety - risk of injuries; higher exposure to water borne diseases and pulmonary diseases; conflict with the locals	<ul style="list-style-type: none"> <li>▪ Personal Protective Equipment (PPEs) will be provided to the workers, and its use will be monitored closely.</li> <li>▪ Replacement of PPEs after 'wear &amp; tear' - at least every quarter</li> <li>▪ First aid boxes will be provided at campsites as well as active working sites (the kits to be refilled and updated every month).</li> <li>▪ CoC will be implemented for all the parties involved in the project including engineers, supervisors, operators, drivers and labourers</li> <li>▪ Proper WASH provisions will be provided in the labour camps</li> <li>▪ Drinking water quality monitoring (at least once every 6 months; total of at least 3 times)</li> <li>▪ Provision of potable water for the workforce will be ensured</li> <li>▪ Toilets will be provided at the ratio of at least 1 unit for 15 workers.</li> <li>▪ Provision of insurance to cover physical damage to workers.</li> <li>▪ Drivers with authorized license holders will only be allowed for the operation of construction vehicles.</li> <li>▪ Workers and staff at the construction site will be provided with proper training to ensure that workers are trained on what to do in the event that an accident occurs on site.</li> <li>▪ The contractor's supervisors will be instructed to conduct 'pre-work instructions' to the workers everyday - explaining them about the nature of works, condition of the site, and associated risks as well as safety measures.</li> <li>▪ Agreement with nearby health institution will be in place by the contractor.</li> <li>▪ Contractor will be responsible to maintain the records of each and every accident and incidence and will make available to DSC/PCO/PMST as and when required.</li> <li>▪ Contractor's team, staff and laborers can also make use of the GRM to raise complaints / grievances if any</li> </ul>	Contractor  (Supervision support by DSC team)	To be included within contractor's overhead (GCC)  NPR 60,000 for drinking water quality monitoring



S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<ul style="list-style-type: none"> <li>▪ 2 orientations/trainings with at least 15 participants in each training; during 3<sup>rd</sup> &amp; 4<sup>th</sup> Quarter-Year</li> </ul>		NRs. 100,000
21.	Child labour, forced labour and wage discrimination	<ul style="list-style-type: none"> <li>▪ Child labour &amp; forced labour will be strictly prohibited</li> <li>▪ Copies of citizenship card or other valid personal ID card will be kept in record of the workers</li> <li>▪ Awareness among the workers and the local community will be conducted (<i>CoC &amp; Child labour will be integrated in awareness events</i>)</li> <li>▪ Equal wage for male and female workers will be ensured</li> </ul>	Contractor (Supervised by local authority and DSC)	NPR 50,000
22.	Traffic Management	<ul style="list-style-type: none"> <li>▪ Traffic sign boards and messages, in local languages, will be placed at main chowks, junctions and start-end points.</li> <li>▪ Emergency traffic management plan should be prepared by the contractor and approved by the Project. The plan may include informing about the scheduled road closure and the alternative routes identified to divert the normal traffic flow, transport material during off-peak time.</li> <li>▪ Provide advance notice to stop vehicles by erecting indicator signs at a necessary distance in order to reduce congestion at the site of work, thus enabling making of proper security arrangements, or lane wise traffic management.</li> <li>▪ The contractor will be supervised to prepare a Traffic Management Plan.</li> </ul>	Contractor	Included in BoQ (Abstract of cost, G)
23.	Others	<ul style="list-style-type: none"> <li>▪ Information dissemination regarding project details, Grievance Mechanism, and environmental &amp; social safeguards aspects will be disseminated to the local through leaflets, and local media</li> <li>▪ Leaflets (on project information, grievance mechanism, safeguards aspects, etc)</li> <li>▪ PSA materials (3 in total)</li> </ul>	Contractor (Coordinated by local authority and DSC)	NPR 25,000 NPR 75,000
<b>Socio-economic and Cultural (Operation &amp; Maintenance Phase)</b>				
24.	Traffic accidents and associated risks	<ul style="list-style-type: none"> <li>▪ Raise awareness of traffic rules, and installation of speed humps to control speed near pedestrian crossing areas</li> <li>▪ Awareness will be raised regarding traffic safety</li> <li>▪ Speed limits will be defined</li> <li>▪ Traffic sign boards and messages, in local languages, will be placed at main chowks, junctions and start-end points</li> </ul>	Pokhara Metropolitan City	Cost will be borne by municipality

S. N.	Project Phase & Impacts	Mitigation Measures	Responsibility	Cost, NPR
		<ul style="list-style-type: none"> <li>▪ Zebra crossings are provided at settlement areas (<i>details provided in Annex 7</i>)</li> </ul>		
25.	Community Health and Safety - risk of accidents; conflict with the workers; risk of communicable diseases	<ul style="list-style-type: none"> <li>▪ In total 28 ramps have been provisioned in interlinking points, and crossing points of roads (<i>Details provided in Annex 7</i>)</li> <li>▪ Installation of road markings at all major as well as minor intersections. Road Signs and Road Markings have been provided as per Traffic Sign &amp; Marking manual as per DPR</li> <li>▪ Reinforced Cement Concrete covered drain will be provided throughout the alignment in integration with footpath.</li> </ul>	Pokhara Metropolitan City	Included in BoQ (Abstract of cost, M) Included in BoQ (Abstract of cost G)
26.	Impacts due poor maintenance of road-drains	<ul style="list-style-type: none"> <li>▪ Awareness activities will be carried to stop disposal of waste into the road-side drains</li> <li>▪ Drainages will be regularly cleared under periodic maintenance</li> <li>▪ Road side plantation at settlement belts (plantation to be carried out within RoW)</li> </ul>	Pokhara Metropolitan City	Cost will be borne by municipality

The total cost of ESMP implementation is NPR. 2,375,000 (*In words: Twenty three lakhs and seventy five thousands only*), and the items will be included in BoQ of the contract document. The contractor will take prior approval from PMC and the DSC team for expenses under provisional sum of the contract document.

#### 4.5 Summary of Costs of ESMP Activities

The summary of costs for the ESMP activities is outlined in Table 4-2 below;

**Table 4-2: Summary of Cost of ESMP Implementation**

SN	Items & Headings	Unit	Qty	Rate	Total, NPR	Reference
	<b>Provisional Sum amount</b>					
1	Water quality test	Samples	6	20000	120,000	
2	Air quality and Noise level monitoring	Samples	2	90000	180,000	
3	SWM works				200,000	
4	Protection of chautari		1		140,000	
5	Damage repairing for any vibration related damages				300,000	
6	Greenery promotion				705,000	
7	Awareness on Health & safety, child labour, environmental conservation		6		150,000	
(i)	Environmental Awareness (during 1 <sup>st</sup> & 3 <sup>rd</sup> Quarters - Yr. 1; at least 30 participants/event)	Events	2	25,000		
(ii)	Road safety & Community HS	Events	2	25,000		
(iii)	CoC, and Child Labour	Events	2	25,000		
8	Awareness on Communicable Diseases, Covid, Girls/Women Trafficking, SEA/SH risks, GBV (Events will be conducted for workers as well as community)	Events	6		300,000	
(i)	SEA/SH, GBV (at least 45 participants in each orientation/training, during first 2 <sup>nd</sup> & 3 <sup>rd</sup> Quarter - Year 1)	Events	2	50,000		
(ii)	HIV AIDS & CoVID (at least 30 participants in each orientation/training; 1 event during 1 <sup>st</sup> Quarter-Year 1, another to be scheduled as per requirement)	Events	2	50,000		
(iii)	Women/Girl Trafficking (at least 30 participants in each orientation/training; during 3 <sup>rd</sup> & 4 <sup>th</sup> Quarter-Year 1)	Events	2	50,000		
9	Social safeguards (grievance meetings, site monitoring, etc)	Meetings /Events	18		180,000	
10	Information dissemination materials and medium					
	(a) Leaflets				25,000	
	(b) PSA (local media)		3	25,000	75,000	
	<b>Total</b>				<b>2,375,000</b>	

#### 4.6 Environmental & Social Monitoring

Environmental and social monitoring is an essential tool to make ensure the implementation of mitigation measures and to know the effectiveness of those measures. ESMP monitoring is necessary for the following purposes;

- to track the impacts,
- to evaluate the effectiveness of proposed mitigation measures, and
- to suggest improvements, if any new circumstances arise.

The following table summarizes the plan for environmental and social monitoring for the proposed project;

**Table 4-3: Environmental & Social Monitoring Plan**

SN	Monitoring Aspects	Location	Parameters	Methodology	Frequency	Responsibility
<b>A</b>	<b>Construction Phase</b>					
1	Air quality monitoring	Settlement areas near road alignment	At least TSP; PM <sub>10</sub> /PM <sub>2.5</sub>	Air Sampler / Detector	Every Six Months	Contractor
2	Noise Levels	Settlement areas near road alignment	Average noise levels (L <sub>eq</sub> )	Noise Meter / Android Application	Every Month	Contractor
3	Water Quality	Khudi khola; and Campsite	Parameters as per standards (Annex 4)	Laboratory Analysis	Every Six Months	Contractor
4	Spoil disposal	Along road alignment	Spoil tip sites; road sections where haphazard dump of spoil material, rehabilitation of the sites	Site verification	Every Month	DSC, PIU/PCO
5	Road Traffic safety	Along road alignment	Status of road for use; road accidents	Use of Logs; Records of complaints	Every Month	DSC, PIU/PCO
6	Campsite monitoring	Construction Campsite	Space for workers; Potable water; Sanitation facilities; waste management	Site verification; records of provisions of WASH materials;	Every Month	DSC, PIU/PCO
7	Occupational Health & Safety	Active construction sites; campsite	Provision/Use of PPEs; First Aid/treatment; Awareness/orientations conducted for workers	Site verification; records of supply of PPEs; records of events	Every Month	DSC, PIU/PCO
8	Solid Waste Management	Camp site and along the alignment and other construction areas	Types of waste generation, quantity, disposal practice	Observation	Every Month	DSC, PIU/PCO

<b>SN</b>	<b>Monitoring Aspects</b>	<b>Location</b>	<b>Parameters</b>	<b>Methodology</b>	<b>Frequency</b>	<b>Responsibility</b>
8	Loss of vegetation; greenery promotion	Active construction sites; road sections passing through vegetated area	Site clearance at vegetated areas; plantation works	Site verification; records of trees cut; records of newly planted trees	Every Month	DSC, PIU/PCO
9	Impact upon physical structures	Along the alignment	Public and private structures affected, compensation distributed, loss of business, rehabilitation and relocation, RP preparation etc.	Site verification, observation, documents in place.	Every Month	DSC, PIU/PCO
10	GBV aspects	Work sites; settlement areas near campsite	Laborers' records; Cases of GBV in relation to project works; any unrecorded cases	Community consultation; GRM records	Every Month	DSC, PIU/PCO
<b>B Operation &amp; Maintenance Phase</b>						
1	Road stability	Road alignment	Status of slopes along road alignment; status of road components	Site verification; ward records; traffic police office records	Every 3 months - 1 <sup>st</sup> year; Bi-annually after that	DSC, PIU/PCO
2	Water pollution	Surface flows (natural drainages & irrigation canals)	Parameters as per standards (Annex 4)	Laboratory Analysis	Every 6 Months	DSC, PIU/PCO
3	Vegetation/tree survival rate	Plantation sites	Number of surviving trees; status of planted trees	Site verification; interaction with road-side communities	Every 6 Months	DSC, PIU/PCO
4	Road safety	Road alignment and adjacent settlements	Road accidents; status of road components	Site verification; interaction with road users	Every Month	DSC, PIU/PCO

Monitoring activities during O&M Phase will need to be scheduled based also on the site requirements and need of the communities using the road services. Contractor will be responsible for monitoring during DLP period. After the DLP period, PMC will be totally responsible for the O&M phase.

## 5. STAKEHOLDER ENGAGEMENT AND INFORMATION DISSEMINATION

### 5.1 Stakeholder Engagement

#### 5.1.1 Consultations during DPR phase

The local community, ward offices, Pokhara Metropolitan City (PMC) Office, water supply user committees, Community Forest User Group members, local businessmen, labourers and farmers well consulted during the process. Consultations were carried out also with the women and Janajatis living along the proposed road alignment. The details of the consultation are provided in SN 3 of Table 5-2.

Focused group discussions (FGDs), formal consultation meetings, and Key informant interview (KII) were used to engage as many locals as possible during the public consultation process. The details of design aspects of the road, social & environmental safeguards, and GBV aspects were discussed during the public consultations. The list of people and institutions consulted are given in table below;

**Table 5-1: Lists of People and Institutions Consulted**

SN	Name	Organization/Address
1.	Mrs. Manju Devi Gurung	Deputy Mayor, Pokhara Metropolitan City
2.	Mr. Shyam Krishna Thapa	CEO, Pokhara Metropolitan City
3.	Mr. Narendra Thapa	Chairman, Ward No. 26, Pokhara Metropolitan City
4.	Mr. Purna Kumar Gurug	Chairman, Ward No. 27, Pokhara Metropolitan City
5.	Mr. Durga Pd. Subedi	Chairman, Ward No. 30, Pokhara Metropolitan City
6.	Mr. Dhakanath Kandel	Chairman, Ward No. 31, Pokhara Metropolitan City
7.	Mr. Akkal Bahadur Karki	Chairman, Ward No. 32, Pokhara Metropolitan City
9.	Mr. Ramchandra Adhikari	Chairman, Ward No. 33, Pokhara Metropolitan City
10.	Mr. Purna Lama	Chief, Private Secretary, Pokhara Metropolitan City
11.	Mr. Surendra Pandey	Chief, Infrastructure Division, Pokhara Metropolitan City
12.	Mr. Netra Prasad Timilsina	Engineer, Pokhara Metropolitan City
13.	Mr. Jagannath Koirala	Engineer, Pokhara Metropolitan City
14.	Mr. Shreeram Pokharel	Ward No. 30, Ex-chairman, Pokhara Metropolitan City
15.	Mr. Shyam Mohan Bhattarai	Pokhara Metropolitan City
16.	Mr. Dhurbaraj Nyaupane	Chairman-NCP, Ward No. 30, Pokhara Metropolitan City
17.	Mr. Uma Pariyar	Member, Ward No. 30, Pokhara Metropolitan City
18.	Mr. Bichitra Nyaupane	Social Worker, Pokhara Metropolitan City
19.	Mr. Gajendraraj Dhakal	Social Worker, Pokhara Metropolitan City
20.	Mr. Ramchandra Adhikari	Social Worker, Pokhara Metropolitan City
21.	Mr. Homnath Rimal	Social Worker, Pokhara Metropolitan City
22.	Mr. Narayan Prasad	Pokhara Metropolitan City
23.	Mr. Shankar Pd. Paudel	Pokhara Metropolitan City

*Environmental and Social Management Plan (ESMP), October 2023 Upgradation of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road, Pokhara Metropolitan City*

<b>SN</b>	<b>Name</b>	<b>Organization/Address</b>
24.	Mr. Govinda Bhandari	Pokhara Metropolitan City
25.	Mr. Parbati Adhikari	Member Lekhanath WSUC Pokhara Metropolitan City
26.	Mr. Durga Kumari Sharma	Member Lekhanath WSUC Pokhara Metropolitan City
27.	Mr. Dineshraj Paudel	Pokhara Metropolitan City
28.	Mr. Sammar Bdr. Deuja	Pokhara Metropolitan City
29.	Mr. Lok Bdr. Gurung	Pokhara Metropolitan City
30.	Mr. Nabin Sahi	Pokhara Metropolitan City
31.	Mr. Buddhi Nath Bastola	Social Worker, Pokhara Metropolitan City
32.	Mr. Ramji Lamichhane	Social Worker, Pokhara Metropolitan City
33.	Mr. Ramchandrar Bastola	Farmer, Pokhara Metropolitan City
34.	Mr. Khadka Bdr. Gautam	Farmer, Pokhara Metropolitan City
35.	Mr. Pitri Raj Marsyani	Pokhara Metropolitan City
36.	Mr. Mahendra Adhikari	Pokhara Metropolitan City
37.	Mr. Bishnu Pd. Pokharel	Pokhara Metropolitan City
38.	Mr. Punindra Raj Dhakal	Pokhara Metropolitan City
39.	Mr. Dhaneshwor Neupane	Pokhara Metropolitan City
40.	Mr. Narayan Pd. Paudel	Social Worker, Pokhara Metropolitan City
41.	Mr. Nanda Lal Acharya	Social Worker, Pokhara Metropolitan City
42.	Mr. Shiva Raj paudel	Social Worker, Pokhara Metropolitan City
43.	Mr. Ganapati Ojha	Social Worker, Pokhara Metropolitan City
44.	Mr. Pradip Pd. Bhattarai	Kamana Chowk, Pokhara Metropolitan City
45.	Mr. Khagaraj Lamichhane	Social Worker, Pokhara Metropolitan City
46.	Mr. Sapta Nath Kuwar	Farmer, Pokhara Metropolitan City
47.	Mr. Somanath Bastola	Social Worker, Pokhara Metropolitan City
48.	Mr. Anil Babu Bastola	Chairman RSP, Pokhara Metropolitan City
49.	Mr. Amrit Pageni	Pokhara Metropolitan City
50.	Mr. Puspakamal Dhungana	VP, Lekhanath WSUC, Pokhara Metropolitan City
51.	Mr. Sharwan Raj Kattel	Member RSP, Pokhara Metropolitan City
52.	Mr. Ram Pd. Paudel	VP,Chairman NC, Pokhara Metropolitan City
53.	Mr. Bhim Kumari Pun	Pokhara Metropolitan City
54.	Mr. Rajendra Adhikari	Social Worker, Pokhara Metropolitan City
55.	Mr. Laxmi Pd. Tripathi	Ex-president, Lekhanath FNCCI, Pokhara Metropolitan City
56.	Mr. Shrijana Shrestha	Service, Pokhara Metropolitan City
57.	Mr. Rama Nepali	Ex ward member, Ward No. 30, Pokhara Metropolitan City
58.	Mr. Bharat Raj Neupane	Treasurer Lekhanath WSUC, Pokhara Metropolitan City
59.	Mr. Murari Sharma	Chairman, Lekhanath WSUC, Pokhara Metropolitan City
60.	Mr. Gabindra Adhikari	Ex-Chairman Tole B.S., Pokhara Metropolitan City
61.	Mr. Binod Pd. Lamichhane	Ward No. 30, Pokhara Metropolitan City
62.	Mr. Laxmi Kumari Shrestha	Housewife, Ward No. 26, Pokhara Metropolitan City
63.	Mr. Narayan Hari Tiwari	Ward No. 30, Pokhara Metropolitan City
64.	Mr. Umanath Neupane	Ward No. 30, Pokhara Metropolitan City
65.	Mr. Hari Pasad	Ward No. 30, Pokhara Metropolitan City
66.	Mr. Ramji Pd. Neupane	Ex-serviceman, Pokhara Metropolitan City
67.	Mr. Bishnu Hari Bastola	Ward No. 30, Pokhara Metropolitan City
68.	Mr. Dipendra Sharma	Business, Ward No. 30, Pokhara Metropolitan City
69.	Mr. Suryakanta Sigdel	Business, Ward No. 30, Pokhara Metropolitan City
70.	Mr. Muna Lal Neupane	Business, Ward No. 30, Pokhara Metropolitan City

<b>SN</b>	<b>Name</b>	<b>Organization/Address</b>
71.	Mr. Ram Chandra Koirala	Business, Ward No. 30, Pokhara Metropolitan City
72.	Mr. Balaram Paudel	Business, Ward No. 30, Pokhara Metropolitan City
73.	Mr. Prakash Lal Shrestha	Chairman Newa Khala Achhau, Pokhara Metropolitan City
74.	Mr. Shiva Amatya	CEO, Lekhanath WSUC, Pokhara Metropolitan City
75.	Mr. Uma Pariyar	Ward Member, Ward No. 30, Pokhara Metropolitan City
76.	Mr. Sunil Pun	Ward No. 30, Pokhara Metropolitan City
77.	Mr. Mangal Bdr. Nepali	Member FUC, Ward No. 30, Pokhara Metropolitan City
78.	Mr. Jayaram Raj Bhandari	VC Tole B.S. Ward No. 30, Pokhara Metropolitan City
79.	Mr. Shyam Kisan Shrestha	Ex-army, Ward No. 30, Pokhara Metropolitan City
80.	Mr. Khadka Bdr. Nepali	Ward No. 30, Pokhara Metropolitan City
81.	Mr. Shyam Sundar Shrestha	Farmer, Ward No. 30, Pokhara Metropolitan City
82.	Mr. Kamal Chandra Shrestha	Business, Ward No. 30, Pokhara Metropolitan City
83.	Mr. Mina Subedi	Social Worker, Pokhara Metropolitan City
84.	Mr. Manju Bhandari	VC, Tole B.S., Pokhara Metropolitan City
86.	Mr. Radha Sapkota	Social Worker, Pokhara Metropolitan City
87.	Mr. Gita Subedi	Social Worker, Pokhara Metropolitan City
88.	Mr. Gam Bdr. Lama	Ex-army, Pokhara Metropolitan City

Followings are the details of the public consultations carried out during the filed study;

**Table 5-2: List of Public Consultations and their Summary**

<b>SN</b>	<b>Meeting</b>	<b>Date</b>	<b>Total Participants</b>	<b>Discussions</b>
1	Stakeholder consultation held at PMC Office	September 25, 2023	Total- 14 (M- 14, F- 0)	Sharing and discussion on DPR Report and Socio-economic condition, Safeguards aspects, RoW and road width, GRM, etc.
2	Consultation meeting with Lekhnath WSUC, Meeting held at Lekhnath WSUC Office, Pokhara Metropolitan City Ward No. 30, Lekhnath.	September 24, 2023	Total- 13 (M- 13, F- 0)	Sharing of design and coverage area; safeguards requirements and GRM of the project
3	Community consultation held at Consultation meeting with Lekhnath Chowk – Dandako Nak – Sisuwa – Khudi Khola - Gagangaunda Road	September 24, 2023	Total- 88 (M- 75, F- 13)	Detailed Discussion on RoW, Road width, avoiding vegetation loss; social and environmental aspect along with its mitigation measures; including GBV, SEA/SH & GRM
4	Consultation meeting held with Janajati at Consultation meeting with Lekhnath Chowk – Dandako Nak – Sisuwa – Khudi Khola - Gagangaunda	September 24, 2023	Total- 16 (M- 11, F- 5)	Detailed Discussion on updated design aspects; discussion on avoiding vegetation loss; land requirement, employment opportunities for locals, mitigation measures for social and environmental aspect including GBV, SEA/SH

SN	Meeting	Date	Total Participants	Discussions
5	Consultation meeting held with Women at Consultation meeting with Lekhnath Chowk – Dandako Nak – Sisuwa – Khudi Khola - Gagangaunda	September 24, 2023	Total- 14 (M- 2, F- 12)	Detailed Discussion on RoW, Road width, updated design aspects; avoiding vegetation loss; social and environmental aspects Discussions were also focused on provisions & functions of GRC, Anti-harassment cell, and other options line provisions of complaint registering through toll free number 1145 dedicated by National Women Commission

The major concerns discussed during the public consultations were as followings;

- Early start of the project and quality of the road was discussed
- Reinstatement of public utilities including water supply, electricity, etc were discussed. Protection/conservation of chautaris (*public rest places with Bar-Peepal, or Peepal trees*) was discussed.
- It was discussed that open land at Satmuhane (WN 32) can be used for campsite & stockpile site.
- Awareness of workers and locals environmental sensitivities, and also regarding social aspects, and regarding social harmony between workers and locals were discussed
- Potential concerns of dust nuisance, and disturbances due to noise during construction phase was raised as a concern as there are settlements and schools along the road alignment
- Minimization of tree loss, compensatory plantation at the rate of 1:10 per tree cut, and greenery promotion works were discussed

The minutes of the meetings are provided in Annex 2. Public engagement has been considered as one of the key tools to ensure the safeguards aspects of the project. Hence, public consultation will be taken as a regular process during the construction phase as well.

### **5.1.2 Stakeholder Consultations Plan for Implementation Phase**

Consultations during implementation phase will include direct interactions with the Project Affected Persons. PIU, DSC and contractor will conduct monthly meetings. PIU, DSC and contractor will conduct regular consultations with PAPs as well as local users' committees, local unit of electricity office, and other stakeholders as well. All consultations on social and environmental issues carried out during implementation of subprojects will be held in an inclusive manner, including vulnerable social groups and women. Public consultation will be taken as a continuous process during the construction phase as well.

## 5.2 Grievance Redress Mechanism (GRM)

As part of the implementation stage the PIU, project engineers and Environment and Social staffs will directly interact and consult with the project affected persons. These would comprise of consultations towards addressing the impacts on private properties, public properties, trees, etc.

**5.2.1** A Grievance Redress Mechanism has been set up (see 5.2.1) to allow stakeholders including PAPs to raise any concerns or complaints, or to appeal any disagreeable decisions, practices and activities arising from the project including compensation for land and assets (if applicable). Information about GRM will be published on the municipality's website, will be put up at public space in the sub-project area, in the notice boards of municipality and ward offices. Locals will be encouraged to make use of the GRM established for the sub-project to raise any complaints/ grievances induced due to this sub-project. Stakeholders will be made fully aware of their rights and the procedures. **Grievance Redress Mechanism and Structure of GRC**

GRM has been initiated, and 1<sup>st</sup> Level GRC has been formed at project's ward level. At the Ward level, the staffing of the Grievance Redress Committee (GRC) includes ward representatives, DSC representative under coordination of Chairperson of WN 30 Mr. Durga Pd. Subedi (*The minutes are provided in Annex 2*). The first level of GRC is composed of the following team:

**Table 5-3: Details of 1<sup>st</sup> Level GRC**

SN	Members	Designation	Remarks
1	Durga Prasad Subedi	Coordinator	Chairperson - Ward 30
2	Uma Pariyar	Member	Dalit Female Ward Member
3	Narayan Hari Tiwari	Member	Representative, Tole Development Committee
4	Balaram Pathak	Member	Secretary - Ward 30
5	Dil Bahadur Rana	Member	Supervision Engineer, DSC

Likewise, 2<sup>nd</sup> Level GRC has already been established under coordination of the Mayor of Pokhara Metropolitan City office, Mr. Dhanaraj Acharya (*The minutes are provided in Annex 2*). The second level GRC at the municipality level. It is composed of the following team:

**Table 5-4: Details of 2<sup>nd</sup> Level GRC**

SN	Members	Designation	Remarks
1	Dhana Raj Acharya	Coordinator	Mayor - PMC
2	Shyam Krishna Thapa	Member	CAO - PMC
3	Nabin Gautam	Member	Engineer (Focal Person - NUGIP) - PMC
4	Kiran Pd Koirala	Member	Grievance Officer - PMC
5	Nirmala Sharma	Member	Section Chief, Social Development
6	Manoj Shrestha	Member Secretary	DSC - TL

The notice regarding formation of 1<sup>st</sup> Level GRC and 2<sup>nd</sup> Level GRC has been published and shared to the stakeholders. The notice is provided in Annex 2.

The third level GRC will be at the PCO level, comprising members from the PCO. The PCO will forward the same to WB. Those engaged as the monitoring unit for ESMP, RAP related issues (as of no issues and implications that RAP will trigger for this project) but if triggers due to some circumstances, it could be part of the committee. Special project grievance mechanisms such as on site provision of complain hearings allows project affected persons to get fair treatment on time. The subproject will also handle issues regarding the compensation damages done during construction.

The details of the proposed GRC structure and GRM process were discussed during public consultations with stakeholders in all levels.

All local contact information and options for complaint submission will be available on site, at Toles, Wards, municipality office, PCO on information boards and the project municipality websites. A half yearly report on Grievance Redress by the subproject project will be prepared and will be sent to the project municipality's GRCs by Wards' GRCs and ultimately to GRC of PCO. The PCO will forward the same to the World Bank.

### **5.2.2 Further details of the GRM**

The functions of grievance mechanism include redressing grievances of community / beneficiaries /project affected persons in all project respects, providing rehabilitation and resettlement assistance and related activities, and hearing grievances from workers involved in the project at any level or phase. All complainants have the option to approach court/judiciary or the World Bank's Grievance Redress Service in case he or she is not satisfied with the verdict provided. The grievances related to women will be dealt by the focal person of Anti-Harassment Cell, Ms. Nirmala Sharma.

### **5.3 Information Dissemination**

For the success of the project, all information about the proposed activities and their expected results will be publicly shared with the affected people and interested stakeholder. In collaboration with the relevant local authorities, NGOs and other community groups, the project will disclose all the relevant information in the various stages of project cycle. Agencies working for environmental and social aspects will also be informed about the ongoing and planed activities, to identify jointly appropriate protective or corrective measures. The following approaches will be adopted to make information accessible to all the concerned stakeholders throughout the project cycle;

- Mass Media: Use local media like newspaper, radio and TV.
- Meeting/Workshops
- Distribution of project documents: Certain project documents will be disclosed in Nepali (or other relevant local language). Project-related information materials will be distributed prior to each construction work to local officials, local people, stakeholders and other concerned offices like municipality, Ward, users committees, etc.

Point of information will be defined at the municipality office level during implementation to disseminate all the documents related to the project activities. Based on the public information disclosure policy, PCO and the municipality will unveil the information through its website. The information dissemination plan for the project is presented in Table 5-5 below;

**Table 5-5: Information Dissemination Plan**

Means of Communication	Timeline & Frequency	Responsibility	Resources
Municipality Website (project details, GRM)	At the start of the project, & maintained throughout	PIU/ Information Officer	Information Officer
Newspaper and local Radio (project salient features, dates, GRM etc.)	Project implementation phase Weekly basis	PIU, municipality Information Officer	Radio-program, FM Radio Clip
Project leaflets and Fact Sheet	Project details, Implementing agencies, project period - 2 times	PIU, Information Officer	Double-sided colour A4 (500 copies)
Face to face engagements - meetings, focus group discussion with relevant stakeholders	Project Main Activities, Financial Assistance, Implementing agencies, project period etc. 2 time in year	PIU, Information Officer	

## **List of References**

- *Environment Protection Act, Government of Nepal, 2019*
- *Environment Protection Regulations, Government of Nepal, 2020 (and amendments)*
- *Environmental and Social Management Framework, Nepal Urban Governance and Infrastructure Project, August 2020, the World Bank*
- *Final Detailed Project Report on Upgradation of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road, October 2023*
- *Nepal Human Rights Year Book 2023, Informal Sector Service Center (INSEC), Kathmandu.*
- *Project Implementation Manual, Nepal Urban Governance and Infrastructure Project, December 2022, the World Bank*
- *<https://censusnepal.cbs.gov.np> (then CBS, now Office of NSO)*

## **List of Annex**

Annex 1: Environmental and Social Screening Checklists

Annex 2: Minutes, Public Notice and Letters

Annex 3: Proposed Typical Cross Sections

Annex 4: GoN Permissible Environmental limits/standards

Annex 5: Water Quality Test Report

Annex 6: List of Trees to be cut & Compensatory Plantation Plan

Annex 7: List of Zebra crossings, and Ramp

Annex 8: Code of Conduct (CoC) on GBV

Annex 9: Photographs

**Annex 1: Environmental and Social Screening Checklists**

### Checklist for Environmental Screening

SN	Particulars	Yes	No	Can't Say	Remarks
1.	Is the site vulnerable to major natural or induced hazards such as: Landslides, Flooding, Storm surge, Severe wind damage, Earthquakes, Fire, Explosion, Other (specify)	Yes			The project area is susceptible to urban rainwater flooding
2.	Is the project area adjacent to or within any of the following environmentally sensitive areas? <ul style="list-style-type: none"> <li>• Cultural heritage site (historical, religious, traditional, or cultural significance)</li> <li>• Protected Area (National Parks, Wildlife Reserve, Hunting Reserve, Conservation Areas, and Buffer Zones etc.)</li> <li>• Wetland/Ramsar Site/Simsar</li> <li>• Forest</li> <li>• Special area for protecting biodiversity/interest</li> <li>• Breeding/nesting ground of wildlife/occurrence of migratory species</li> <li>• Migration route/Wildlife corridor</li> <li>• Any site of national or international importance</li> </ul>		No		The project area is not within any environmentally sensitive area  The road section ends at Khudi khola
3.	Likely impact on trees (including Timber & fruit bearing) and vegetation cover	Yes			The project will require felling of trees 9 trees  These trees are within the ownership of the municipality. The details are provided in Annex 6.
4.	Possibility of degradation of land and ecosystems of surrounding?		No		
5.	Is the project area densely populated?		No		
6.	Heavy with development activities/big industries nearby & type?		No		
7.	Alteration of surface water hydrology of waterways due to the project resulting in increased sediment in streams affected by increased soil erosion at construction site?		No		
8.	Chance of deterioration of surface water quality due to silt runoff and sanitary	Yes			Road section ends at Khudi khola. There is an

SN	Particulars	Yes	No	Can't Say	Remarks
	wastes from worker-based camps and chemicals used in construction				existing bridge in service
9.	Does the sub project require significant extraction of surface or ground water?		No		
10.	Increased risk of water pollution from oil, grease, fuel spills and other materials	Yes			This is probable if campsite is not managed properly
11.	Impact on water quality due to release of sewage/sludge?		No		
12.	Possibility of flooding due to sewage		No		
13.	Possibility of increased air pollution during Pre-construction/construction/operation phase?	Yes			During construction phase
14.	Other pollution concerns relating to inconveniences in living conditions that may trigger cases of upper respiratory problems?		No		
15.	Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological hazards during project construction and operation	Yes			Physical hazards like accidents and illness are likely
16.	Noise and vibration due to blasting and/or other civil works?	Yes			However, blasting is not required
17.	Possibility of poor sanitation and solid waste disposal	Yes			Campsite management aspect
18.	Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?		No		
19.	Accident risks associated with pre construction, construction & operation phases of project	Yes			Injuries during construction phase, and traffic accidents during operation phase are potential risks
20.	Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)		No		The population influx will be in small scale, possibly with some of them from neighbouring cities and districts (estimated to be around 90 - 100 workers/day during normal period, 150 - 175 workers/day during peak construction period)
21.	Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives,		No		Fuel and lubricants pose potential risks, but explosives are not used in the project

SN	Particulars	Yes	No	Can't Say	Remarks
	fuel and other chemicals during construction and operation?				
22.	Interference with other utilities and blocking of access to resource/utility	Yes			111 numbers of electric poles will need to be shifted and reinstalled. 8 km of water supply pipeline network will need to be restored.
23.	Generation of solid waste and/or hazardous waste during construction/operation of project?		No		

### Checklist for Social Screening

SN	Particulars	Details
1	Proposed Site Location-	Pokhara Metropolitan City, Ward no. 30 & 32
1.1	Land requirement for the project	It is an up-gradation of an existing road. Existing road width is 11.3 to 15 m. There will be no land requirement
1.2	Land ownership of the project area: Govt. / Private lands	Land within the proposed road width is already in use by the public. However, the ownership of private land strips is yet to be transferred. There are no outstanding issues like any grievances or compensation regarding this.
1.3	Does the project requires acquisition of Govt. land/structures?	No
1.4	Present use of Govt. Land that will be used for the project activities with Persons/Households using for agriculture, residential, commercial and other purposes	No
1.5	Does the project require acquisition of private land/structures?	No. The existing road width in use is 11.3 m to 15 m, and is already in public use.
1.6	Present use of Govt. Land that will be used for the project activities with Persons/Households using for; ✓ Agricultural purposes ✓ Residential purposes ✓ Commercial purposes ✓ Other purposes (Indicate)	Public use
1.7	Does the project require relocation of encroachers/squatters	No
1.8	Does the project require relocation of community facilities/Govt. establishment or any objects that are of religious, cultural and historical significance	No It was observed that there are public structures like Chautaris (1 Chautari at Sisuwa (Ch. 0+018 km) 1 Peepal chautari at Ch. 1+045 km 1 Bar-Peepal Chautari at Sisuwa - Gagangaunda chowk (Ch. 3+010 km); 1 public tap at Sisuwa (Ch. 0+007 km) 1 public tap at Ch. 1+040 km

SN	Particulars		Details
			<p>1 public tap at Ch. 1+830 km; 1 waiting station at Ch. 3+002 km; and 1 Temple at Ch. 1+330 km close to the proposed road alignment. Since these do not fall within the Road Width, these structures will not be damaged during road upgradation.</p> <p>1 Peepal Chautari at Sisuwa (Ch. 0+090 km) fall within the Road Construction Width</p>
1.9	Proposed project located in an area where residents are-	<ul style="list-style-type: none"> <li>• All Mainstream</li> <li>• All Indigenous peoples</li> <li>• Majority Mainstream or Non-indigenous peoples</li> <li>• Majority Indigenous peoples</li> </ul>	<p>Majority Mainstream or Non-indigenous people</p> <p>The indigenous people are living in mixed communities</p>
2	Potential Social Impacts- Will the Project cause		
2.1		Involuntary resettlement of people? (physical displacement and/or economic displacement)	No, resettlement is not required in this project
2.2		Impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?	No such impact on poor women and children, indigenous people, and/or economic displacement.
2.3		Will community facilities require relocation?	<p>In total 111 numbers of electric poles will need to be shifted and new poles installed.</p> <p>Around 8 km of water supply pipeline network, considering both side of the road alignment, will need to be restored.</p>
2.4		Will the sub-project disturb any traditional activity on adjoining or nearby?	No
2.5		Poor sanitation and solid waste disposal in construction camps and work sites	Yes there will be concern of sanitation and solid waste disposal in construction camp and work sites.
2.6		Possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?	Local peoples have knowledge on such communicable diseases but labourers' understanding may be low about possible transmission of communicable diseases
2.7		Large population influx during project construction and operation that causes increased burden on social infrastructure and services	No, the up-gradation of road project is a small scale intervention, and there will be only around 90 to 100 workers at a particular time, possibly

SN	Particulars		Details
		(such as water supply and sanitation systems)?	with some of them from neighbouring cities and districts.
2.8		Social conflicts relating to inconveniences in living conditions where construction interferes with preexisting roads	No. But there will be temporary disturbances to locals during construction works. Traffic management plan will be prepared by the contractor and will be included in Contractor's Site specific ESMP.
2.9		Describe any other impacts that have not been covered in this screening form	Gender-based violence and GESI aspects; These aspects will be incorporated in ESMP
2.10		Describe alternatives, if any, to avoid or minimize displacement from private and public lands	No such concerns
2.11		RAP/ARAP Requirement	No

**Annex 2: Minutes, Public Notice and Letters**

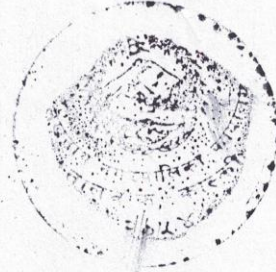
RoW Declaration Letter

लेखनाथ नगरपालिका कार्यालय  
तालचोक, कास्की  
(नवशा शाखा)

सात तालको बगेचा शहर  
GARDEN CITY OF SEVEN LAKES



लेखनाथ नगरपालिकाको विशेष नगरपरिषदेको निर्णय





मिति २०७२ भाद्र २७ गत



निर्णयहरूः

- यसपुर्व नगरपालिकाबाट नक्शा पास भै बनेका घरहरूको लागि बस्ती विकास शहरी योजना तथा भवन निर्माण सम्बन्धी आधारभुत मार्गदर्शन २०७२ को शर्तहरू (Set Back / FAR) पुरा गरेपछि मात्र तला थप स्वीकृत दिने निर्णय गरियो ।
- यस पुर्व निर्माण स्वीकृत भै बनेका घरमाथि तला थप अनुमति दिने सम्बन्धमा Structural Engineer तथा Civil Engineer को सिफारिस सहित तला थप गर्न मिल्ने भनि आएमा मात्र तला थप स्वीकृत दिने निर्णय गरियो ।
- कच्चि घर (फर्म, गोदाम, टहरा) १००० वर्ग फिट भन्दा बढि भएमा Ground Coverage ratio पुरा गरि सामान्य इन्जिनियरिङ्ग प्रविधि अप्नाई बनाउन दिने गरि नक्शा पास गर्ने निर्णय गरियो साथै ग्रामिण पहाडि ईलाकामा बाहेक अन्य स्थानमा नियमानुसार (अस्थाई, स्थायी) सम्पन्न दिने व्यवस्था गर्ने निर्णय गरियो ।
- एउटा घडेरीको प्रयोजनका लागि निजको मुख्य बाटो सम्मको निकास कम्तीमा २.२५ मी र बढिमा ४० मी. सम्मको लम्वाई भएमा मात्र घडेरीलाई बाटो सँग जोडिएको मानि नक्शा पास गर्ने अन्यथा नगर्ने निर्णय गरियो ।
- मुख्य बाटोबाट भित्र बाटो खोल्दा वा खोलेको बाटोमा बाटो खोल्ने पक्षले नै सेट व्याक र च्छेद पुर्याउनु पर्ने निर्णय गरियो ।
- भ्याल राख्ने प्रयोजनका लागि दाया बाया कम्तीमा १.०/१.० मी छाडनु पर्ने तर दाया बाया नछाडने भएमा जग विम तथा उपयुक्त इन्जिनियरिङ्ग प्रविधि अनिवार्य रुपमा प्रयोग गर्नु पर्ने निर्णय गरियो ।
- यस नगरपालिकामा २०७२/०२/०४ गते पुर्व दर्ता भई राजश्व संमेत तिरीसकेका घरहरूको हकमा यस पुर्वकै नियम बमोजिम नियमीत नक्शापास तथा सम्पन्न प्रमाण पत्र दिने तर नियमानुसार जरिवानाको व्यवस्था गर्ने निर्णय गरियो ।
- सटर भएका व्यापारिक प्रयोजनका घरहरूमा २१ औं नगर परिषदको निर्णयमा सवै तलाहरूको राजश्वमा थप रु २१- नक्शापास दस्तुर कायम गर्ने निर्णय गरियो ।
- साविक भरतपोखरी गा.वि.स नगरपालिकामा गाभितु पुर्व बनेका घरहरूलाई चालु राजश्वमा ५० ५ छुट दिई स्थलगत मुचुल्का र वडाको सिफारिसको आधारमा चालु आ.व. भरि नगरपालिकामा गाभितु पुर्व बनेको प्रमाणित सिफारिस दिने निर्णय गरियो ।
- लेखनाथ नगरपालिकाको जग्गा विकास मापदण्ड २०७२ लागु हुनु पुर्व बनेका बाटो न्युनतम मापदण्ड पुगेका, फिल्डमा वा नापी नक्षामा कित्ता मात्र काट भएका प्लटहरूलाई नियमानुसार लाग्ने दस्तुर लिई नियमीत गर्ने निर्णय गरियो ।
- नगरपालिकामा भै रहेका तपशिल बमोजिमका मापदण्डहरूलाई तपशिल बमोजिम कायम गर्ने निर्णय गरियो ।

  
इन्जिनियर

  
रि. कायम

## लेखनाथ नगरपालिकाको जग्गा विकास मापदण्ड २०७२

### आवश्यकताको संक्षिप्त पृष्ठभूमि

लेखनाथ नगरपालिका १२३.११ वर्ग कि.मि. क्षेत्रफलमा फैलिएको छ । नेपालका अन्य शहरहरूको संगसंगै लेखनाथ नगरपालिकामा पनि शहरीकरणको क्रम तिब्ररूपमा बढिरहेको छ । मानिसहरूको बसोबासलाई व्यवस्थित गर्न, नगरपालिकाको भू-उपयोगलाई नगरपालिकाबाट प्रवाह हुने सेवा सुविधा संग जोड्न र सात तालको बगैँचा शहर (Garden city of Seven Lakes) को दिर्घकालीन विकासमा कार्यक्रमलाई निश्चित मापदण्ड भित्र राख्न जरुरी देखिएकाले यो मापदण्ड बनाइएको छ ।

यो जग्गा विकास मापदण्ड २०७२, लेखनाथ नगरपालिका बाट पास भएको मिति देखी निजी तथा संस्थागत अथवा जुनसुकै तरिकाले गरिने लेखनाथ नगरपालिका क्षेत्र भित्रको जग्गा विकास होबलम म्भखर्माथि कुभलतण संबन्धी कार्यहरूमा बाध्यात्मक रूपमा संबन्धित सबै पक्षले पालना गर्नुपर्ने हुन्छ । यस किसिमको जग्गा विकास क्षेत्रहरू सरकारी वा गैरसरकारी स्तरबाट जग्गा विकास गरिदा यस नगरपालिका बाट सो विकसित आवशीय क्षेत्रको प्लानमा के कस्ता आधर भूत सुविधाहरू बाटो ,ढल ,खानेपनी,बिजुली,टेलिफोन कुन कुन स्तरका सुविधा के कसरी र कति हुने हो सो समेत खुलेको योजना बनाई स्वीकृत गराउनु पर्ने छ ।

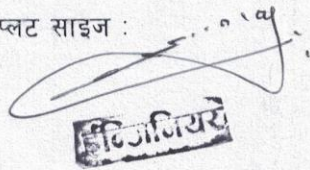
#### १. बाटोको चौडाई :

कुनै पनि प्लट वा भवनमा आवतजवतका निम्ति बाटोको आवश्यकता हुने हुदा उक्त प्लट निजी वा सार्वजनिक बाटो संग जोडिएको हुनुपर्ने छ र सो बाटो वा प्रवेशको निम्ति छुट्टिएको क्षेत्रमाथि अतिक्रमण हुने गरी भौतिक संरचना निर्माण गर्न पाइने छैन । यस्ता बाटाहरूको चौडाई तपशिल अनुसारको हुनुपर्नेछ ।।

सि नं.	बाटोको प्रयोजनको किसिम	बाटोको न्यूनतम चौडाई
१.	मुल सडक जोड्ने बाटो	८(आठ) मिटर
२.	ब्लक देखी ब्लक सम्म जाने बाटो	६ (छ) मिटर
३.	प्लट देखी प्लट सम्म जाने बाटो	६ (छ) मिटर
४.	ड्रनिङ्ग घुम्टी पर्याप्त हुनुपर्ने	थप २० प्रतिसेत

✱ माथि उल्लेखित बाटोहरू सबै नापीको नक्शामा कायम गरीएको हुनु पर्ने छ र लगत कट्टा गरी सार्वजनिक गर्नु पर्ने छ ।

#### २. प्लट साइज :





आवशीय क्षेत्रमा गन्तव्यलेखन प्रारम्भ अघि न्यूनतम क्षेत्रफलको तर्जुमा गर्नु पर्ने हुन्छ । यसरी तर्जुमा गर्दा क्षेत्रको विस्तार नैसर्गिक स्थिती र आवश्यकतालाई ध्यानमा राखी कित्ता काट गरी घडेरीहरुको आकार प्रकार छुट्टयाउनु पर्ने हुदा तपशिल अनुसार हुनुपर्ने हुन्छ ।

सि नं.	विवरण	न्यूनतम चौडाई र क्षेत्रफल
१.	घडेरीको चौडाई	६ (छ) मिटर
२.	घडेरीको क्षेत्रफल	०-३ -०-०(३.० आना)

### ३.प्लटको डेपथ(Depth) :

प्लटको डेपथ (गाहिराई) तल उल्लेख गरिए अनुसार हुनुपर्ने छ ।

सि नं.	प्लटको क्षेत्रफल	प्लटको न्यूनतम डेपथ
१.	० -३-०-० देखी ० -४-०-० सम्म	१.७५* चौडाई
२.	० -४-०-० भन्दा बढी ० -८-०-० सम्म	१.७५* चौडाई
३.	० -८-०-० भन्दा बढी ० -१२-०-० सम्म र बढी	२* चौडाई

### ४.खुला सार्वजनिक क्षेत्र(बाटो वाहेक) :

वसोवास क्षेत्र र योजनाबद्ध विकास क्षेत्रहरुमा हावा,पानी,घाम र अन्य दैविक प्रकोप व्यवस्थापनका दृष्टिकोणले व्यवस्थित गर्न खुल्ला क्षेत्रको आवश्यक पर्दछ । यस्ता सार्वजनिक खुला क्षेत्रमा प्रत्येक घरवाट टहल,खेलकुद गर्न र सामजिक कार्यहरु गर्न मानिसहरु आउने छन् । साथै भूकम्प आदि दैविक प्रकोपको बेलामा उद्धारस्थलको रुपमा पनि यस्ता खुला क्षेत्रलाई प्रयोग गर्न सकिन्छ ।

यस्ता खुला क्षेत्र जग्गाको प्रतिशतका आधारमा तपशिल बमोजिमका राखीएको हुन पर्ने छ । उक्त खुल्ला क्षेत्रको प्लट साईज को लम्बाई चौडाई भन्दा ३ गुणा बढि बनाउन पाईने छैन ।

सि नं.	आयोजनाको कूल क्षेत्रफल (रोपनी)	खुला सार्वजनिक क्षेत्रको क्षेत्रफल (आयोजनाको कूल क्षेत्रफलको प्रतिशत)
१.	५ देखि १० रोपनी सम्म	जम्मा जग्गाको ५ %
२.	१० देखि २५ रोपनी सम्म	जम्मा जग्गाको ४ %
३.	२५ देखि १०० रोपनी सम्म	जम्मा जग्गाको ३.५ %
४.	१०० रोपनी भन्दा बढी भएमा	जम्मा जग्गाको २.५ %

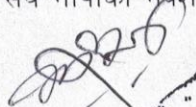
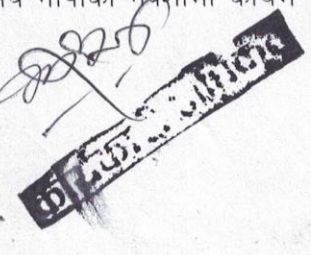
माथि उल्लेखीत खुला सार्वजनिक क्षेत्रहरु सवै नापीको नक्शामा कायम गरीएको हुनु पर्ने छ र लगत कट्टा गरी सार्वजनिक गर्नु पर्ने छ ।

### ५. अन्य आधारभूत सुविधाहरुको व्यवस्था :

क) सतह ढलको उपयुक्त व्यवस्था हुनुपर्ने छ ।

ख)वाटो पिच(कालोपत्रे) हुनु पर्ने छ ।

- म) फोहर पानीको उपर्युक्त व्यवस्थापन हनुपर्ने छ।  
घ) खाने पानी लाईनको उपर्युक्त व्यवस्था हनुपर्ने छ।  
ड.) विजुली र टेलीफोन लाईनको उपर्युक्त व्यवस्था हनुपर्ने छ।  
च)समुदाय बाट निस्किएको फोहर समुदायलेनै व्यवस्थापन गर्ने व्यवस्था हनुपर्ने छ।

६.ध्यान दिनुपर्ने कुराहरु :

- क) कायम भै रहेको बाटो,कुलो,पानीको मुहान, पोखरी,मठमन्दीर,ढल, पानीको निकासलाई कुनैपनि कार्य गर्दा बन्द गर्न पाईने छैन ।र अन्य पुरातात्विक महत्वका क्षेत्र विनास गर्न पाईने छैन।  
ख) स्थायी तथा अस्थायी रूपले सार्वजनिक जग्गा मिचन,कब्जा गर्न अथावा अन्य कुनै नोक्सानी गर्न पाईने छैन।  
- प्राकृतिक सुन्दरता विग्रने भूक्षण हुने , गरी कार्य गर्न पाइने छैन।  
ग) वातवरणलाई कुनै किसिमको असर पर्ने गरि कुनैपनि जुनसुकै समयमा पनि गर्न पाईने छैन। अन्यथा प्रचलित कानुन अनुसार हुने छ।  
घ) आयोजना क्षेत्र वरिपरि रहेका छरछिमेकीलाई कुनै असर पर्ने गरी कार्य गर्न पाईने छैन।  
ड.) ३० डिग्री भन्दा बढि भिरालो भएको जमिनमा PLOTTING गर्न पाईने छैन।

अन्य प्रचलित कानुन वमोजिम कुनै निकाय वा संस्थाबाट अनुमति स्वीकृति लिनुपर्ने अवस्थामा तत् निकाय वा संस्थाबाट समेत अनुमति लिनु पर्ने छ।

  
डि.जि.गि.ए.सि.

  
डि. कारुणिक शिवा



## लेखनाथ नगरपालिका भित्रका सडकहरुको मापदण्ड

नगरपालिका भित्रका सडक, नहर एवं कुलाका नामावली र घर नकसा पास गर्दा छोडनु पर्ने निश्चित दुरी वा मापदण्ड

सि.न	सडकको नाम	सडकको मध्य भाग बाट दाया बाया छोडनु पर्ने दुरीको परिमार्जित निर्णय फिटमा	कैफियत
१	विजयपुर कोत्रे सडक(पृथ्वी राजमार्ग	८२ + G.C	
२	शिशुवा शिशाघाट सडक	५०	
३	राखि भिजुरे सडक	२०	
४	तालचोक वेगनास ताल सडक - (३१)	५०	
५	मलिकाचोक धुम मोटरबाटो	१५	
६	वेगनास ताल तालवेसी सडक -वेगनास भोर्लेटार खण्ड )	१५	

वडा नं. १ / २९

१	बरालथर बाट आयल निगम हुदै पटनेरी जाने बाटो	२०	
२	पृथ्वीराजमार्ग B M G जाने बाटो	१५	
३	पानी टैकी बाट माथिल्लो पटनेरी जाने बाटो	१५	
४	मुम्बा बाट खल्याङ जाड्ने बाटो	२०	
५	जनप्रकाश उच्च मा.वि भण्डारढिकले वितरण गरेको घडेरी	१० ✓	
६	भण्डारढिक बाट दुलैगौडा जानेबाटो	१५	
७	आदर्शचोक चौकबाट ओक्ले डाडा बडा नं ८ जोड्ने बाटो	१५	
८	आदर्शचोक बाट पटनेरी पशुपति घाट जाने बाटो	१५	

वडा नं २ / २७

१	ग्रामीण आवास मार्ग क) कुलो ख) सानो	१५ ✓ १० ✓	
२	अघौ चौक प्रगती चौक मार्ग	३०	
३	अघौ चौक रिठेपानी मार्गबाट जेसिए हुदै डाडा पारी जानेबाटो	१५	
४	अघौ चौक रिठेपानी मार्गबाट रिठेपानी जाने कुमालगाउ कल्याण प्र.वि	१५	
५	रिठेपानी मार्गबाट ग्रमिण आवास जोड्ने बाटो	२०	
६	पृथ्वीराजमार्ग गच्छा कुलो मार्ग	२०	
७	त्रिवेणी क्याम्पस बाट नहरको डिल हुदै हरियाली टोल जोड्ने बाटो	२६	
८	घरेलु चौरबाट पृथ्वी राजमार्ग जोड्ने बाटो - बहरे पण्डितथर	१५	
९	रिठेपानी बाट पण्डितथर जोड्नेबाट डाडा तर्फ	१५	
१०	प्रगतीचोक बाट रामज्योती प्रा.वि जोड्ने बाटो	२०	
११	प्रगतीचोक बाट वीर प्रा.वि हुदै मोरे खरे जानेबाटो	२०	
१२	प्रगतीचोकबाट लमतर जाने बाटो	१५	

कार्यकारी अधिकृत  
 कार्यकारी अधिकृत  
 अध्यक्ष

मिति: २०७२ आइतवार  
 समय: - विहान ८:०० बजे  
 स्थान: - नगरपालिका सभाकक्ष

उपरोक्तानुसारको मिति, समय र स्थानमा यस लेखनाथ - नगरपालिकाका प्रमुख तथा कार्यकारी अधिकृत श्री रामचन्द्र पौडेल ड्यूको अध्यक्षतामा संचालित विशेष नगर परिषद नेपाल सरकार वार. स्वीकृत - [२०७२।१।२५] पक्ती विडार, शहरी योजना तथा श्रम निर्माण संरक्षी आधारभूत - मर्ग पत्रान २०७२ संग संरक्षित) को उपस्थिति विना बयार रदियो /

उपस्थिति

- १) श्री रामचन्द्र पौडेल - प्रमुख तथा कार्यकारी अधिकृत
- २) श्री डम्बर वे. घापा - ले. का.
- ३) श्री बालु नथ पौडेल - ले. उपप्रमुख
- ४) श्री विनय थापा - श. ले. उ. पा. प्राज्ञोपदि.
- ५) श्री हरी व. लि. सी. राष्ट्र. पाठशाला
- ६) श्री हेमक. हमाल - राष्ट्र. पाठ.
- ७) श्री सुरेश पौडेल - ले. उ. पाठशाला
- ८) श्री प्रेमकृष्ण गुब्बरू - ले. उ. पाठशाला
- ९) श्री राममोहन बज्रा - राष्ट्र. पाठ.
- १०) श्री प्रेमकृष्ण गुब्बरू - सं. सं. को.
- ११) श्री मोति गिरी - अध्यक्ष - नेपाल
- १२) श्री सत व. भुजेल - ले. उ. पाठशाला - प्राज्ञोपदि.
- १३) श्री वावुराम गिरी - अध्यक्ष - ले. उ. का. सं.
- १४) श्री कावराज श्वनाल संयारकी ले. न. पा. १३.
- १५) श्री विष्णुहरि पौडेल संयारकी ले. न. पा. १८.
- १६) श्री नवराज पापकोटा संयारकी
- १७) श्री चन्द्रकान्त पौडेल ले. न. पा. ३०.
- १८) श्री मीना महाराज (जोशी) "
- १९) श्री अशोक हरि "
- २०) श्री रेजिना गिरी "

(24) श्री रविन्द्र अधिकारी - आ.ल.प. -		
22. श्री बाजुदेव पलादे वजगाई	वडा	सामिक
23. श्री सावित्रा पाँडेला	सव.	सावित्रा
24. श्री अनिल प्रसाद खान्नाथ	सा.इ.	अनिल
25. श्री विष्णु प्रसाद बराल	गा.पु.	विष्णु
26. श्री राज शर्मा	पालिका	राज
(26) श्री जगन्नाथ कोइराला	इन्जिनियर	जगन्नाथ
(27) श्री रविन्द्र अधिकारी	इन्जिनियर	रविन्द्र
(28) श्री राममणी अधिकारी	कानून अधिकारी	राममणी
(29) श्री विपक कोइराला	स्वरिदार	विपक
(30) श्री पडाडा शंकर	कार्यालय व्यवस्थापक	पडाडा
(31) श्री सावित्रा पाँडेला	संस्थापना	सावित्रा
(32) श्री रविन्द्र खान्नाथ	संस्थापक	रविन्द्र
(33) श्री मिश्रानी बराल	लेखनाथ प्रसाद कार्यालय	मिश्रानी

Letter of PMC regarding availability of road width for road upgradation



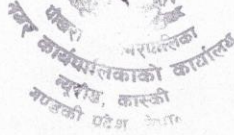
पोखरा महानगरपालिका  
नगरकार्यपालिको कार्यालय



पत्र संख्या : ०८०/०८१  
चलानी नं. ३६२४

न्यूरोड, कास्की  
गण्डकी प्रदेश, नेपाल

फोन नं. ०६१ ५२११०५  
कार्यालय सोधपुछ : ५२५१७३  
ईमेल : [info@pokharamun.gov.np](mailto:info@pokharamun.gov.np)  
वेबसाइट : [www.pokharamun.gov.np](http://www.pokharamun.gov.np)



मिति २०८०/०८/०६

श्री आयोजना प्रमुख ज्यू,  
आयोजना समन्वय कार्यालय, NUGIP,  
शहरी विकास तथा भवन निर्माण विभाग (DUDBC),  
बबरमहल, काठमाण्डौ ।

विषय: सिसुवा - सिसाघाट (सिसुवा - खुदिखोला खण्ड) सडक खण्डमा कुनै  
मुद्दाहरु (Outstanding Issues) नरहेको सम्बन्धमा ।

यस महानगरपालिकाको वडा नं. ३० र ३२ मा पर्ने सिसुवा - सिसाघाट (सिसुवा - खुदिखोला खण्ड) सडक खण्डको शहरी विकास तथा भवन निर्माण विभाग (DUDBC) अन्तर्गत नेपाल सहरी शासकीय पूर्वाधार आयोजना (NUGIP) मार्फत विश्व बैंकको आर्थिक सहयोगमा स्तरोन्नति हुन लागेको शन्दर्भमा उक्त सडक खण्डको क्षेत्राधिकार मिति २०७२/०५/२७ मा बसेको विशेष नगर परिषदको बैठकले निर्धारण गरे बमोजिम विद्यमान एवं प्रस्तावित सडक चौडाई भित्रको साइट (Site) अहिले खुल्ला रहेको छ । उक्त सडक खण्डको स्तरोन्नतिका लागि प्रस्तावित सडक चौडाईमा कुनै मुद्दाहरु (Outstanding Issues) जस्तै: क्षतिपूर्तिका मुद्दा, भैँभगडा वा अदालति मुद्दा आदि नरहेको व्यहोरा जानकारीको लागि अनुरोध गर्दछु । साथै, सर्वसाधारणको जनकारीको लागि वातावरणीय एवं सामाजिक प्रभाव मूल्याङ्कनको अन्तिम प्रतिवेदन तयार भएपछि उक्त प्रतिवेदनलाई यस महानगरपालिकाको वेब साइट र सम्बन्धित निकायहरुमा राखी आयोजना सम्बन्धि पारदर्शीता अपनाउन यस महानगरपालिका प्रतिबद्ध रहेको व्यहोरा समेत जानकारी लागि अनुरोध गर्दछु ।

धनराज आचार्य

प्रमुख  
प्रमुख

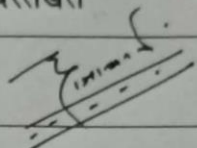
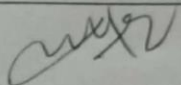
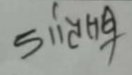
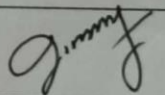
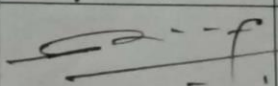

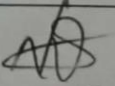
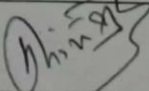
Minutes of Formation of GRM (2<sup>nd</sup> Level)

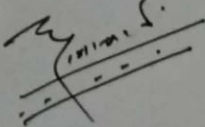
आजमिति २०८०/०७/१४ गतेका दिन यस पोखरा महानगरपालिकाको नगर प्रमुख श्री धनराज आचार्य ज्यूको अध्यक्षतामा बसेको बैठकमा निम्न उल्लेखित महानुभावहरुको उपस्थितिमा तपशिलमा उल्लेखित बुँदाहरु उपर बिस्तृत छलफल गरि सर्वसम्मतिले निर्णय पारित गरियो ।

बिषय:

१. गुनासो सुनुवाई समिति (GRC) गठन सम्बन्धमा ।
२. विविध ।

उपस्थिति:

क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
१.	श्री धनराज आचार्य	प्रमुख पो.म.न.पा.		
२.	श्री मञ्जु देवी गुरुड	उप-प्रमुख पो.म.न.पा.		
२.	श्री हेम प्रसाद आचार्य	नि.प्र.प्र.अ. पो.म.न.पा.		
४.	दुर्गा प्रसाद सुवेदी	वडाध्यक्ष वडा नं.३०		९८२६००३०३१
५.	अक्कल बहादुर कार्की	वडाध्यक्ष वडा नं.३२		
६.	रामचन्द्र अधिकारी	वडाध्यक्ष वडा नं.३३		९८५६००३०३३
७.	श्री किरण प्र. कोईराला	सुनासो सुचना सुन्ने अधिकारी पो.म.न.पा.		९८५६००५९५५९
८.	श्री नविन गौतम	आयोजना संपर्क व्यक्ति		९८४६७९५९०५
९.	श्री नेत्रप्रसाद तिमिल्सिना	ईन्जिनियर		९८५६०२५१११
१०.	श्री मनोज श्रेष्ठ	परामर्शदाता टोली प्रमुख		९८४१३५१५९४

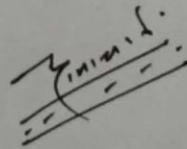


निर्णयहरू

१. विश्व बैंकको आर्थिक सहयोगमा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना मार्फत यस महानगरपालिकाको बडा नं. ३२, ३३ र बडा नं. ३० र ३२ मा पर्ने देबिला - बाघमारा - तिकलाइ - बाँदरकोट - लामगादी - चप्लाइ - उपल्लो पुडिटार - तल्लो पुडिटार - भिगटे - (जनजागृति मा. वि.) - तगरेगौडा सडक खण्ड र शिसुवा - खुदिखोला - गगनगौडा सडक खण्डको स्तरोन्नति हुने भएको छ। उक्त सडक खण्डहरूको निर्माण अवधिमा आउने गुनासाहरूको सुनुवाई गर्न परामर्शदाताको टोली र यस महानगरपालिकाको पदाधिकारीहरू बिच मिति २०८०/०७/१४ गतेका दिन यस महानगरपालिकामा भएको छलफलमा पोखरा महानगरपालिकाका प्रमुख श्री धनराज आचार्य ज्यूको संयोजकत्वमा नगर स्तरिय एक गुनासो सुनुवाई संयन्त्र हुनु पर्ने विषयमा पनि छलफल भएको थियो। साथै वातावरणीय एवं सामाजिक व्यवस्थापन कार्यनीति (ESMF) मा उल्लेख भए बमोजिम पनि आयोजना स्तरमा रहेको गुनासो सुनुवाई समितिले समाधान गर्न नसकेको गुनासाहरूलाई महानगरपालिकामा रहेको गुनासो सुनुवाई समितिले समाधान गर्नु पर्ने र उक्त समितिले पनि समाधान गर्न नसकेको गुनासाहरूलाई नेपाल शहरी शासकिय तथा पूर्वाधार आयोजनामा पठाउनु पर्ने उल्लेख भए बमोजिम सोही प्रयोजनका लागि यस महानगरपालिकाको प्रमुख श्री धनराज आचार्य ज्यूको संयोजकत्वमा निम्न उल्लेखित व्यक्तिहरू रहने गरी नगर स्तरिय एक गुनासो सुनुवाई समिति (GRC) गठन गर्ने निर्णय सर्वसम्मतिले परित गरियो। महानगरपालिका स्तरिय गुनासो सुनुवाई समितिका पदाधिकारीहरूको नामावली यस प्रकार रहेको छ।

१. संयोजक- श्री धनराज आचार्य प्रमुख, पोखरा म.न.पा.।
२. सदस्य- श्री श्याम कृष्ण थापा प्रमुख प्रसासकीय अधिकृत, पोखरा म.न.पा.।
३. सदस्य- श्री नविन गौतम (आयोजना सम्पर्क व्यक्ति (NUGIP Focal Person)।
४. सदस्य- श्री किरण प्रसाद कोईराला (महानगरपालिकाको गुनासो सुन्ने अधिकारी)।
५. सदस्य श्री निर्मला शर्मा (सामाजिक विकास महाशाखा प्रमुख)
६. सदस्य सचिव- श्री मनोज श्रेष्ठ परामर्शदाता टोली नेता (DSC प्रतिनिधि)।

२. यस गुनासो सुनुवाई समितिमा आयोजना स्तरमा रहेको गुनासो सुनुवाई समितिबाट समाधान हुन नसकि आएका गुनासाहरू एवं अन्य माध्यमबाट सिधै यस समितिमा आएका गुनासाहरूलाई तत्काल समाधान गर्न वा वातावरणीय एवं सामाजिक व्यवस्थापन कार्यनीति (ESMF) मा उल्लेख गरिएको समयावधि भित्र समाधान गरिने र समाधान गर्न नसकिने गुनासाहरूलाई नेपाल शहरी शासकिय तथा पूर्वाधार आयोजनामा पठाउने प्रयोजनको लागि यस गुनासो सुनुवाई समितिको नियमित बैठक प्रत्येक महिनाको पहिलो शुक्रवार बस्ने र आवश्यक भएमा जुनसुकै समयमा पनि बस्न सकिने निर्णय सर्वसम्मतिले परित गरियो।



### Minutes of Formation of GRM (1<sup>st</sup> Level)

आयोजना स्तरिय गुनासो सुनुवाई समिति (GRC) गठन हुने माइन्ट  
शिसुवा - खुदिखोला - गगनगौडा सडक खण्ड

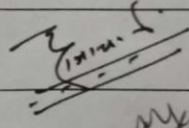
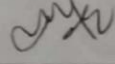
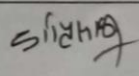
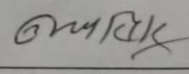
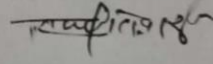
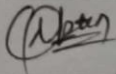
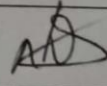
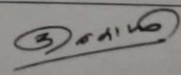
विषय:- गुनासो सुनुवाई समिति (GRC) गठन सम्बन्धमा ।

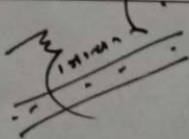
आज मिति २०८०/०७/१६ गतेका दिन यस पोखरा महानगरपालिकाको प्रमुख श्री धनराज आचार्य ज्यूको अध्यक्षतामा निम्न उल्लेखित महानुभावहरुको उपस्थितिमा बसेको बैठकले तपशिलमा उल्लेखित बुँदाहरु उपर बिस्तृत छलफल गरि सर्वसम्मतिले निर्णय पारित गरियो ।

#### बिषय:

१. गुनासो सुनुवाई समिति (GRC) गठन सम्बन्धमा ।
२. विविध ।

#### उपस्थिति:

क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
	श्री धनराज आचार्य	प्रमुख पो.म.न.पा.		९८२१०२२८७१
	हेम प्रसाद आचार्य	नि.प्र.प्र.अ. पो.म.न.पा.		
	दुर्गा प्रसाद सुवेदी	वडाध्यक्ष वडा नं. ३०		९८२६००३०३०
	उमा परियार	दलित महिला सदस्य वडा नं.३०		९८६६०४२३५०
	नारायणहरि तिवारी	प्रतिनिधि टो.वि.स. वडा नं. ३०		९८६६०२८६२२
	श्री दिल ब. राना	ईन्जिनियर परामर्श दाता		
	श्री नविन गौतम	आयोजना संपर्क व्यक्ति		९८५६७९५९०५
	श्री नेत्रप्रसाद तिमिल्सिना	ईन्जिनियर		९८५६०२५१११
	बलराम पाठक	वडा सचिव वडा नं. ३०		९८५६०१०१५६

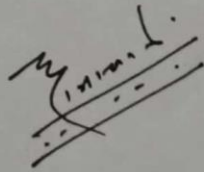


निर्णयहरू:

१. विश्व बैंको आर्थिक सहयोगमा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना मार्फत स्तरोन्नति हुन लागेको पोखरा महानगरपालिका वडा नं. ३० र ३२ मा पर्ने शिसुवा-खुदिखोला- गगनगौडा सडक खण्डको निर्माणका अवधिमा आउने गुनासाहरुको अध्ययन गरी स्थानिय स्तरमा नै समाधान गर्न यस आयोजनाको वातावरणीय तथा सामाजिक व्यवस्थापन कार्यनीति (ESMF) मा उल्लेख भए अनुसार आयोजना स्तरमा वडा नं.३० का वडा अध्यक्ष श्री दुर्गा प्रसाद सुवेदी ज्यूको संयोजकत्वमा निम्न उल्लेखित व्यक्तिहरु रहने गरी एक गुनासो सुनुवाई समिति (GRC) गठन गर्ने निर्णय सर्वसम्मतिले परित गरियो । गुनासो सुनुवाई समितिका पदाधिकारीहरुको नामावली यस प्रकार रहेको छ ।

१. संयोजक- श्री दुर्गा प्र सुवेदी वडाध्यक्ष वडा नं. ३०
२. सदस्य- श्री उमा परियार (दलित महिला वडा सदस्य)
३. सदस्य- श्री नारायणहरि तिवारी (टोल विकास समितिको प्रतिनिधि - आयोजना प्रभावित )
४. सदस्य- श्री बलराम पाठक (वडा सचिव वडा कार्यालय ३०)
५. सदस्य सचिव- श्री दिल ब. राना (सुपरभिजन इन्जिनियर DSC प्रतिनिधि ।

२. यस गुनासो सुनुवाई समितिमा विभिन्न माध्यमबाट वा सिधै आएका गुनासाहरुलाई तत्काल समाधान गर्न वा वातावरणीय एवं सामाजिक व्यवस्थापन कार्यनीति (ESMF) मा उल्लेख गरिएको समयावधि भित्र समाधान गर्न र समाधान गर्न नसकिने गुनासाहरुलाई महानगरपालिका रहेको गुनासो सुनुवाई समितिमा पठाउने प्रयोजनको लागि यस गुनासा सुनुवाई समितिको नियमित बैठक प्रत्येक महिनाको पहिलो आइतवार बस्ने र आवश्यक भएमा जुनसुकै समयमा पनि बस्न सकिने निर्णय सर्वसम्मतिले परित गरियो ।



## Notice Regarding Formation of GRC



पोखरा महानगरपालिका  
नगर कार्यपालिकाको कार्यालय  
न्युरोड, पोखरा, कास्की  
गण्डकी प्रदेश, नेपाल



सूचना प्रकाशन मिति: २०८०/०७/१६



सूचना ! सूचना ! सूचना !

मिति २०८०/०७/१६ गतेका दिन यस पोखरा महानगरपालिकाको प्रमुख श्री धनराज आचार्य ज्यूको अध्यक्षतामा बसेको बैठकले विश्व बैंकको आर्थिक सहयोगमा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना मार्फत स्तरोन्नति हुन लागेको यस पोखरा महानगरपालिका वडा नं. ३० र ३२ मा पर्ने शिसुवा-खुदिखोला- गगनगौडा सडक खण्डको निर्माणका अवधिमा आउने गुनासाहरुको अध्ययन गरी स्थानिय स्तरमा नै समाधान गर्न आयोजना स्तरमा वडा नं.३० का वडा अध्यक्ष श्री दुर्गा प्रसाद सुवेदी ज्यूको संयोजकत्वमा निम्न उल्लेखित व्यक्तिहरु रहने गरी एक गुनासो सुनुवाई समिति (GRC) गठन गरिएको बारे सम्बन्धित सबैलाई जानकारी गराइन्छ । साथै, आयोजना सम्बन्धि कोही कसैलाई कुनै गुनासो भए उल्लेखित गुनासो सुनुवाई समितिमा मौखिक वा लिखित रुपमा जानकारी गराउन हुन अनुरोध छ ।

१. संयोजक- श्री दुर्गा प्र सुवेदी वडाध्यक्ष वडा नं. ३०
२. सदस्य- श्री उमा परियार (दलित महिला वडा सदस्य)
३. सदस्य- श्री नारायणहरि तिवारी (टोल विकास समितिको प्रतिनिधि - आयोजना प्रभावित )
४. सदस्य- श्री बलराम पाठक (वडा सचिव वडा कार्यालय ३०)
५. सदस्य सचिव- श्री दिल ब. राना (सुपरभिजन इन्जिनियर DSC प्रतिनिधि)

नि.प्रमुख प्रशासकिय अधिकृत  
पोखरा महानगरपालिका

Anti- Harassment Cell Focal Person Appointment Letter



## पोखरा महानगरपालिका

नगर कार्यपालिकाको कार्यालय  
न्यूरोड, कास्की  
सुदूरपश्चिमी प्रदेश, नेपाल  
कार्यपालिकाको कार्यालय  
न्यूरोड, कास्की  
सुदूरपश्चिमी प्रदेश, नेपाल

प.सं ०७९१०८०  
च.नं. ५६४६

फोन नं. ०७९१-५५४०१  
Email : ito.pokharamun@gmail.com

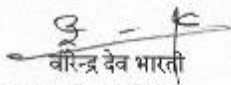
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मिति: २०८०-०३-१८

श्री शहरी विकास तथा भवन निर्माण विभाग  
नेपाल शहरी शासकीय तथा पूर्वाधार आयोजना  
बबरमहल, काठमाडौं ।

**विषय :- Anti-Harassment cell को जिम्मेवारी तोकिएको बारे ।**

नेपाल शहरी शासकीय तथा पूर्वाधार आयोजनाबाट मिति २०८०/०३/१० को प.सं. ०७९/८० को चलानी नं. ३५१ को प्राप्त पत्र अनुसार तालचोक बेगनास सडक आयोजनासंग सम्बन्धित लेडिङ हिंसा तथा यौन दुर्व्यवहार सम्बन्धी गुनासोहरूलाई अभिलेखिकरण तथा सहजीकरण गर्नका लागि यस नगरपालिकाको सामाजिक विकास महाशाखा प्रमुख श्री निर्मला शर्मा लाई Anti-Harassment cell को गुनासो समेत हेर्ने गरि जिम्मेवारी तोकिएको व्यहोरा अनुरोध छ ।
















बिरिन्द्र देव भारती  
प्रमुख प्रशासकिय अधिकृत  
प्रमुख प्रशासकीय अधिकृत

**बोधार्थ**  
निर्मला शर्मा - सामाजिक विकास महाशाखा प्रमुख

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आज मिति २०८०/०६/०८ गते सोमबारका दिन यस पोखरा महानगरपालिकाका प्रमुख प्रशासकीय अधिकृत श्री श्याम कृष्ण थापा ज्यूको अध्यक्षतामा पोखरा महानगरपालिकाको कार्यालयमा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना अन्तर्गत कास्कि जिल्लाको पोखरा महानगरपालिकाको वडा नं. २६, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्ड र वडा नं. ३०, ३२ र ३३ मा पर्ने प्रस्तावित दोबिल्ला बागमारा - तिक्लाङ्ग बाँदरकोट - लामगादि छप्लाङ्ग - उपल्लो पुडिटार, तल्लो पुडिटार - फिंगटे तगरेगौडा सडक खण्डको स्तरोन्नति गर्ने कार्यको विस्तृत परियोजना प्रतिवेदन र वातावरणीय एवं सामाजिक व्यवस्थापन योजना (ESMP) तयारीका क्रममा प्राविधिक, वातावरणीय र सामाजिक एवं आर्थिक वस्तु स्थिति माथिको मूल्याङ्कन, प्रभाव र सम्भाव्य उपायहरुका बारेमा B.N. Consultancy Pvt. Ltd. का DSC Team, महानगरपालिका, सम्बन्धित वडाध्यक्षहरु बिच तपसिल बमोजिमको उपस्थितिमा बैठक बसि निम्नानुसारका छलफल तथा निर्णयहरु गरियो ।

क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
	श्याम कृष्ण थापा	प्रमुख प्रशासकीय अधिकृत		
	नरेन्द्र थापा	वडाध्यक्ष वडा नं. २६		
	पुर्ण कुमार गुरुङ	वडाध्यक्ष वडा नं. २७		
	दुर्गा प्रसाद सुवेदी	वडाध्यक्ष वडा नं. ३०		
	ढकनाथ कणेल	वडाध्यक्ष वडा नं. ३१		
	अक्कल बहादुर कार्की	वडाध्यक्ष वडा नं. ३२		
	रामचन्द्र अधिकारी	वडाध्यक्ष वडा नं. ३३		
	पूर्ण लामा	स्वकीय सचिव प्रमुख		
	सुरेन्द्र पाण्डे	पूर्वाधार महाशाखा प्रमुख		
	नेत्र प्रसाद तिमिल्सिना	ई. पो. म. न. पा.		
	जगन्नाथ कोईराला	ई. पो. म. न. पा.		
	रघु खकुरेल	परामर्शदाता, BN		
	नवराज भण्डारी	परामर्शदाता, BN		
	योगेश शाक्य	परामर्शदाता, BN		

बैठकका निर्णयहरु :

१. प्रस्तावित सडक खण्डहरुको सडकहरुको क्षेत्राधिकार, सडक चौडाई र डिजाईनका बारेमा छलफल गरियो ।
२. विश्व बैंकको **Environmental and Social Managemnet Framework** अनुरूप वातावरणीय तथा सामाजिक व्यवस्थापन योजनामा समावेश गरिने वातावरणीय तथा सामाजिक सुरक्षणका विभिन्न पक्षहरुका बारेमा छलफल गरियो । साथै सो कार्यहरु कार्यान्वयनका लागि यस महानगरपालिकाद्वारा प्रतिबद्धता जाहेर भयो ।
३. प्रस्तावित सडक खण्डहरुको स्तरोन्नतीका लागि खानेपानी, विद्युत, सिंचाई लगायत अन्य सम्बन्धित सरोकारवालाहरूसंग यस महानगरपालिकाको अगुवाईमा समन्वय गरिने विषयमा छलफल गरियो ।
४. प्रस्तावित सडक खण्डहरुको निर्माणका चरणमा आउन सक्ने विभिन्न गुनासाहरुलाई सम्बोधन गर्नका लागि गुनासो सुनुवाई समिति (GRC) गठन गर्ने सम्बन्धमा छलफल गरियो ।



Consultation meeting with Lekhnath Khanepani Upabhokta Sanstha

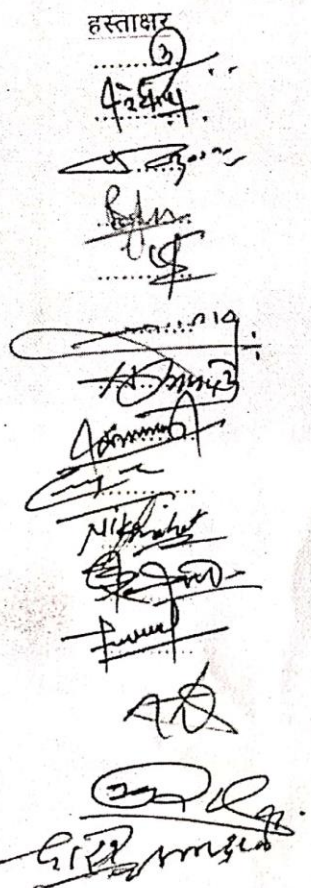
समय- विहान १०:०० बज

स्थान : संस्थाको प्रधान कार्यालय, पोखरा-३०

आज मिति २०८०।०६।०७ गते आइतबारको दिनमा यस लेखनाथ खानेपानी उपभोक्ता संस्थाका अध्यक्ष श्री मुरारी शर्माज्यूको अध्यक्षतामा र पोखरा महानगरपालिका वडा नं.२६ का वडा अध्यक्ष श्री नरेन्द्र थापाज्यूको रोहवरमा अर्घु डाँडाकोनाक शिशुवा खुदी हुदै खुदी खोला सम्म World Bank को सहयोगमा निर्माण हुने बाटोको सम्बन्धमा बैठक बस्दा निम्न अनुसारको उपस्थिती रहयो।

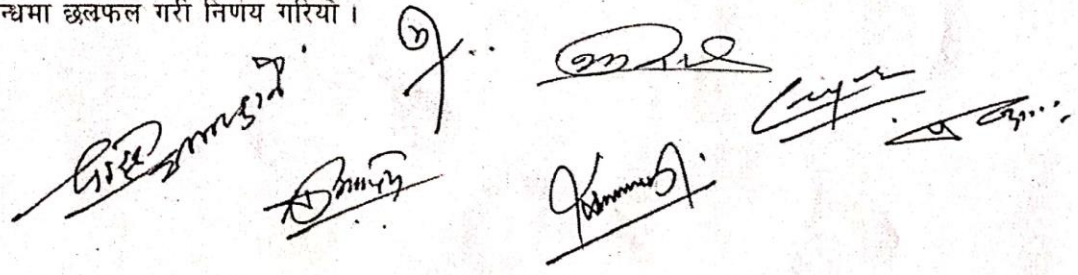
उपस्थिती :

१. अध्यक्ष - श्री मुरारी शर्मा, ले.खा.उ.सं.
२. वडा अध्यक्ष- श्री नरेन्द्र थापा, पो.म.न.पा. वडा नं. २६
३. उपाध्यक्ष - श्री पुष्पकमल हुंगाना, ले.खा.उ.सं.
४. समाजशास्त्री - श्री रघु खकुरेल, ...BN.....
५. वातावरण विज्ञ -श्री योगेश शाक्य, BN Consultancy
६. इन्जिनियर - श्री जगन्नाथ कोइराला, पो.म.न.पा. वडा नं. ....
७. कार्यालय प्रमुख - श्री शिव प्रसाद अमात्य, ले.खा.उ.सं.
८. सहायक कार्यालय प्रमुख, श्री विश्व राम भण्डारी, ले.खा.उ.सं.
९. इन्जिनियर, श्री रमेश गिरी, ले.खा.उ.सं.
- १०) श्री इन्जिनियर निवेष्टा मटर
- ११) श्री श्री रतन थापा
- १२) श्री तब राज प्रशारी
१३. श्री नेत्र प्र. तिमिल्सिना पो.म.न.पा.
१४. शरत राज भोपात्रे खोपां कोषाध्यक्ष
१५. वासुदेव लामिदाने कोषाध्यक्ष इन्जिनियर

हस्ताक्षर  


निर्णय नं.१

नेपाल शहरी शासकीय पूर्वाधार आयोजना मार्फत विश्व बैंकको आर्थिक सहयोगमा पुन निर्माण हुन ल लेखनाथ चोक भित्री अर्घौ डाँडाकोनाक शिशुवा खुदी हुदै खुदी खोला सडकखण्डमा रहेको लेखनाथ खाने उपभोक्ता संस्थाको पाइपलाइनको आवश्यक पुनस्थापनाको लागि यस संस्थाले पूर्ण सहजिकरण गर्न तयार सम्बन्धमा छलफल गरी निर्णय गरियो।



Public Notice for ESMP Preparation of Pokhara Metropolitan City



पोखरा महानगरपालिका  
नगरकार्यपालिको कार्यालय



पत्र संख्या :  
चलानी नं. २४५६



फोन नं. ०११ ५२११०५  
कार्यालय सौरभपुर ५२११०५  
ईमेल : [info@pokharamun.gov.np](mailto:info@pokharamun.gov.np)  
वेबसाइट : [www.pokharamun.gov.np](http://www.pokharamun.gov.np)

मिति : २०८०/०५/३१

बिषय : सुचना !

सुचना !!!

शहरी विकास तथा भवन निर्माण विभाग (DUDBC), नेपाल सहरी शासकिय पूर्वाधार आयोजना (NUGIP) ले यस पोखरा महानगरपालिका, वडा नं. ३३ अन्तर्गत पर्ने दोबिल्ला बागमारा - तिक्लाङ्ग बाँदरकोट - लामगादि छप्लाङ्ग - उपल्लो पुडिटार, तल्लो पुडिटार - भिङ्गटे तगरेगौडासम्मको सडक खण्डको स्तरोन्नति गर्ने भएको छ । यसै सिलसिलामा उक्त सडक खण्डको विस्तृत परियोजना प्रतिवेदन तयारीका चरणमा गरिने वातावरणीय तथा समाजिक व्यवस्थापन योजना (ESMP) तयारीका लागि परामर्शदाता (BN-PEA JV) का DSC Team, महानगरपालिका र यस महानगरपालिका वडा नं. ३३ को दोबिल्ला बागमारा - तिक्लाङ्ग बाँदरकोट - लामगादि छप्लाङ्ग - उपल्लो पुडिटार, तल्लो पुडिटार - भिङ्गटे तगरेगौडासम्मको सडक खण्डको आयोजनाबाट प्रभावित हुने वासिन्दा/जग्गा धनीहरुका बिच निम्न उल्लेखित स्थान र मितिमा हुने विस्तृत छलफल तथा अन्तरक्रिया कार्यक्रममा उपस्थित हुनका लागि सम्बन्धित सबै सरोकारवालाहरुलाई सुचित गरिन्छ

अन्तरक्रिया हुने मिति र स्थान:

मिति: २०८०/०६/०८ गते सोमबार

समय: विहान ७:३० बजे

स्थान: पोखरा महानगरपालिका वडा नं. ३३ लामगादि

श्याम कृष्ण थापा  
प्रमुख प्रशासकीय अधिकृत  
प्रमुख प्रशासकीय अधिकृत

“भ्रष्टाचार विरुद्धको चाल, असल शासनको बहाल ।”

Public Consultation Meeting

सार्वजनिक छलफल तथा अन्तरक्रिया

आज मिति २०८०/०६/०७ गते आइतवारका दिन यस पोखरा महानगरपालिकाका उप प्रमुख एवं का.वा. प्रमुख श्रीमान् मञ्जुदेवी गुरुङ ज्यूको अध्यक्षतामा पोखरा महानगरपालिका, वडा नं. ३० स्थित शिसुवा चोकमा भएको छलफल तथा अन्तरक्रिया कार्यक्रममा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना अन्तर्गत कास्की जिल्ला पोखरा महानगरपालिकाको वडा नं. २६, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्डको स्तरोन्नति गर्ने कार्यको विस्तृत परियोजना प्रतिवेदन र वातावरणीय एवं सामाजिक व्यवस्थापन योजना (ESMP) तयारीका क्रममा प्राविधिक, वातावरणीय र सामाजिक एवं आर्थिक वस्तु स्थिति माथिको मूल्याङ्कन, प्रभाव र सम्भाव्य उपायहरूका बारेमा B.N. Consultancy Pvt. Ltd. का DSC Team, महानगरपालिका र स्थानिय सरोकारवालाहरूका बिच विस्तृत छलफल तथा अन्तरक्रिया गर्ने कार्य सम्पन्न भयो । साथै छलफलका क्रममा वातावरणीय तथा सामाजिक व्यवस्थापन ढाँचा (ESMF) को परिधि भित्र रहि तपशिलमा उल्लेखित बुँदाहरू माथि उठेका मुद्दाहरू (Issues) र तिनका समाधानका उपायहरूका बारेमा विस्तृत छलफल गरि निर्णय गरियो ।

क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
१	मञ्जु देवी गुरुङ	उपप्रमुख एवं का. वा. प्रमुख		९८५६००२०२६
२	पुर्ण कृ. गुरुङ	अध्यक्ष वडा नं. २६		९८५६००२०२६
३	अमरकमल व. कार्की	अध्यक्ष वडा नं. ३२		९८५६००२०२२
५	नरेन्द्र थापा	अध्यक्ष वडा नं. २६		९८५६००२०२६
५	कुशी प्र. कुवेदी	अध्यक्ष वडा नं. ३०		९८५६००२०३०
६	श्रीराम पोखरेल	अध्यक्ष वडा नं. ३०		
७	विष्णु राय सापका	सामाजिक कार्यकर्ता		९८५६००२२८१
८	श्याम मोहन मजुरे	उपमालिका		९८५६२३९९३
९	सुब्रह्मण्य सापका	नेता, सापका वडा नं. ३०		९८५६२८६९२
१०	सुभा परियाल	वडा नं. ३० जनप्रतिनिधि		९८५६०६५३५०

क्र.सं.	नाम थर	पद/पेशा	दस्ताखत	संपर्क नं.
11.	शिव कृष्ण पुनः	का- स.स.प		9821165970
12.	राजेश्वर अधिकारी	सामाजिक कार्यकर्ता Social Worker		9856056222
	बिक्रम प्रसाद श्रेष्ठ	पुरातन कार्यकर्ता		9856022067
	प्रकाश लाल श्रेष्ठ	अध्यक्ष नेवा. (ख.न. प्र.सं.)		9856087755
	सिद्धि श्रेष्ठ	कार्यकारी		8582262623
	रमण नेपाली	निवर्तमान वडा सचिव		508802935
	भरत राज श्रेष्ठ	ने.सं. प्र.सं. कोषाध्यक्ष		5088026808
	मुरारि श्रेष्ठ	ने.सं. प्र.सं. अध्यक्ष		5088020622
	मन्जु श्रेष्ठ	ने.सं. प्र.सं. उपअध्यक्ष		9846048262
	जविन्द्र अधिकारी	नियोजन से. नि. प्र.सं. अध्यक्ष		5088029233
	बिनाद प्रसाद श्रेष्ठ	चौखण्डा 30		50880-29680
	ला.द.श्री	11-28		
	नारायण श्रेष्ठ	30		5088025622
	उभागाथ व्याघ्र	चौखण्डा 30		9839943344
	इश्वर प्रसाद श्रेष्ठ	चौखण्डा 30		
	राजेश्वर प्रसाद श्रेष्ठ	चौखण्डा 30		5088018008
	विष्णु श्रेष्ठ	चौखण्डा 30		5088053556

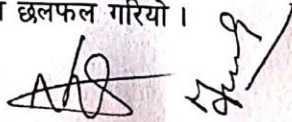
क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
	विद्युत न्या.पान	हमाज लेकी	B.L.	9848259138
	गोविन्द राज चौहान	लाभकारी	[Signature]	984603067
	रामचन्द्र अधिकारी	समाजसेवी	[Signature]	9863814658
	होमनाथ रिमाल	समाजसेवी	[Signature]	
	नाथराज प्रसाद	X X	[Signature]	2225930829
	गोकुल प्रसाद पौडेल	X X	शोकन	558580095
	गोविन्द रावरी	X X	गोविन्द	
	पार्वती अधिकारी (पौडेल)	मानवानी सपथ	पार्वती	9841834818
	दुर्गा कुमारी रात्रा	स्वाध्यायी कक्षा	दुर्गा	5585032220
	दिनेश्वर खत्री पौडेल	-	दिनेश्वर	5585020956
	समान 96151 4371	-	समान	5585926276
	लोक बहादुर (गुप्ता, बाजे)	सचिव	लोक	5585580557
	नाविन शाही		[Signature]	55850-25258
	नाथराज वास्वा, मीरासा केस		[Signature]	9846026400
	रमणी सु. अधिकारी राम चन्द्र वास्वा	समाजसेवी विद्यार्थी	[Signature]	9846228545
	रविवर व. जाति	"	[Signature]	9846105317
	पिपरी राज मथारी		[Signature]	

क्र.सं.	नाम थर	पद/पेशा	दस्ताखत	संपर्क नं.
	गोविन्द कार्की			९८६०८२१०
	बिरेन्द्र प्रसाद चौधरी			
	दुर्गाधर राजवंश	प्रबन्धक		९८५६०२७२८५
	बालकृष्ण श्रेष्ठ	" "		९८५३०९९३३
	गोविन्द प्रसाद चौधरी	सामग्री		९८५३०३२५१२
	नन्दु बाला श्रेष्ठ	" "		९८५३०३२५०१
	शिवराज चौधरी	सामग्री		९८५३०९९३५
	जगदीश श्रेष्ठ	" "		९८०३२२६४०
	Pradip P. Bhandari	कामना-सेवा		९९५६०५८२६२
	रवाराज लामिछाने	सामग्री-सेवा		९८६५०५९९०५
	सत्य नारायण श्रेष्ठ	किसान		९८६३९५९४५
	सुभाष चन्द्र श्रेष्ठ	सामग्री-सेवा		९८२६०२५०४
	अनिल वासु श्रेष्ठ	सामग्री-सेवा		९८२६९४६२८२
	अशुत पौडेल	सामग्री-सेवा		९८५६५३२८७
	पुष्पकमल श्रेष्ठ	सामग्री-सेवा		९८६६२८५०५९
	शिवराज श्रेष्ठ	सामग्री-सेवा		९८६६९४०८२०
	विकास प्रसाद श्रेष्ठ	सामग्री-सेवा		९८५०२०५३२७



आज माथि उल्लेखित महानुभावहरुको उपस्थितिमा भएको छलफलका बुँदा एवं निर्णयहरु:

१. पोखरा महानगरपालिकाको वडा नं. २६, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्डको क्षेत्राधिकार (लेखनाथ चोक देखि शिसुवा चोकसम्म १० मिटर र शिसुवा चोक देखि गगनगौडासम्म १५ मिटर) रहेको सम्बन्धमा सम्बन्धित सबै सरोकारवालाहरु जानकार रहेको र उक्त सडक खण्ड यथाशिघ्र निर्माण र निर्माण गुणस्तरीय हुनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो । साथै सडक निर्माण गर्दा अपनाइने विधि र प्रकृत्याका बारेमा जानकारी दिने कार्य समेत गरियो ।
२. सडक निर्माण गर्दा रोजगारीको पहिलो प्राथमिकता स्थानिय बासिन्दाहरुलाई दिनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो ।
३. बाटो निर्माण गर्दा बाटोमा पर्ने पानीका पाइप, बिजुलीका पोल, कल्भर्ट र सिंचाइको कुलो निर्माण कार्य शुरु गर्दा पहिलो चरणमा नै उचित स्थानान्तरण गरिनु पर्ने विषयमा जानकारी दिई छलफल गरियो । साथै निर्माण चरणमा खानेपानी सेवा अबरुद्ध हुन गएमा बैकल्पिक व्यवस्था गरि शुद्ध पिउने पानी उपलब्ध गराउनु पर्ने र ढल निकास अबरुद्ध भएमा त्यसको उचित व्यवस्थापन हुनु पर्ने सम्बन्धमा समेत विस्तृत छलफल गरियो ।
४. यस प्रस्तावित सडक खण्ड क्षेत्रमा घरेलु हिंसा तथा लैङ्गिक विभेद सम्बन्धि खासै समस्या नदेखिए पनि बाहिरी कामदार र स्थानीय समुदाय बिच हुन सक्ने भैँभगडा वा अवाञ्छित गतिविधिका सम्बन्धमा पालना गर्नु पर्ने आचार संहिताको बारेमा जानकारी दिई विस्तृत छलफल गरियो ।
५. सडक निर्माणका क्रममा हुन सक्ने ध्वनी, वायु प्रदुषण जस्ता समस्याका र त्यसको निराकरण सम्बन्धमा विस्तृत छलफल गरियो ।
६. सडक निर्माणका क्रममा प्रस्तावित सडक खण्डका किनारमा रहेका वर पीपलका रुख/चौतारी एवं धार्मिक सम्पदाको संरक्षण गर्ने, र सकेसम्म कम मात्र रुखहरु काट्ने गरी डिजाइन गर्ने विषयमा छलफल भयो । साथै काटिएका रुखहरुका हकमा प्रति एक रुख बराबर १० नयाँ विरुवाहरु लगाउने, तथा हरियाली प्रवर्धनका क्रियाकलापहरु गरिने विषयमा छलफल गरियो ।
७. निर्माण व्यवसायीको क्याम्प र कामदारका लागि शिविर वडा नं. ३० को खुदीको चौर नजिकको खाली स्थान उपयुक्त हुने र बाटो खन्दा उत्पन्न हुने माटो ढुङ्गा आदि फाल्न वडा नं.३० को खुदीको चौर नजिकको खाली स्थान उपयुक्त हुने सम्बन्धमा छलफल गरियो ।
८. यस प्रस्तावित सडक खण्डको प्रस्थान बिन्दु लेखनाथ चोक देखि अन्तिम बिन्दु खुदि खोलासम्मको सडकको दाँया बाँया भण्डै ३६७ घरधुरी रहेको र महिला संख्या लगभग ७०१ र पुरुषको संख्या ६७२ रहेको विषयमा छलफल भयो ।
९. यस प्रस्तावित सडक चौडाइ (Road width) भित्र कुनै पनि संरचनाहरु नरहेको सम्बन्धमा विस्तृत छलफल गरियो ।
१०. वातावरणीय एवं सामाजिक व्यवस्थापन योजना बारे यस महानगरपालिकाको कार्यालयमा सम्पर्क गरि जानकारी लिन सकिने लगायत सडक निर्माणका क्रममा आइपर्ने विविध वातावरणीय एवं सामाजिक समस्या र तिनका समाधानका उपायहरु माथि विस्तृत छलफल गरियो ।



Consultation Meeting with Janajati

आदिवासी/जनजातिहरूसंग भएको छलफल

आज मिति २०८०/०६/०७ गते आइतवारका दिन यस पोखरा महानगरपालिकाका उप प्रमुख एवं का.वा. प्रमुख श्रीमान् मञ्जुदेवी गुरुङ ज्यूको अध्यक्षतामा पोखरा महानगरपालिका, वडा नं. ३० स्थित शिसुवामा भएको छलफल तथा अन्तरक्रिया कार्यक्रममा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना अन्तर्गत कास्कि जिल्लाको पोखरा महानगरपालिकाको वडा नं. २७, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्डको स्तरोन्नति गर्ने कार्यको विस्तृत परियोजना प्रतिवेदन र वातावरणीय एवं सामाजिक व्यवस्थापन योजना (ESMP) तयारीका क्रममा प्राविधिक, वातावरणीय र सामाजिक एवं आर्थिक वस्तु स्थिति माथिको मूल्याङ्कन, प्रभाव र सम्भाव्य उपायहरूका बारेमा B.N. Consultancy Pvt. Ltd. का DSC Team, महानगरपालिका र स्थानिय जनजातिहरूका बिच विस्तृत छलफल तथा अन्तरक्रिया गर्ने कार्य सम्पन्न भयो । साथै छलफलका क्रममा वातावरणीय तथा सामाजिक व्यवस्थापन ढाँचा (ESMF) को परिधि भित्र रहि तपशिलमा उल्लेखित वुँदाहरू माथि उठेका मुद्दाहरू (Issues) र तिनका समाधानका उपायहरूका बारेमा विस्तृत छलफल गरि निर्णय गरियो ।

क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
१	मञ्जु देवी गुरुङ	उपप्रमुख एवं का. वा. प्रमुख		
२	लक्ष्मी कु. श्रेष्ठ	गृहिणी		९८४२२६२६२३
३	रमा नेपाली	पोखरा ३० मि. वार्डका का. सदस्य		९८४६०२९३८
४	सुजाना श्रेष्ठ	कर्मचारी		९८४२२६२६२३
५	प्रकाश लाल श्रेष्ठ	नेका सल्लाहकार अर्थशास्त्रज्ञ		९८५६०४१७५५
६	शिव अमात्य	लेखनाथ सा.श. शा.पा. का.पु.		९८४६३२०८१०
७	जिम कुमारी पुन	पोखरा ३० वडा सदस्य		९८२५१६८४७०
८	उमा परीजार	सा.स. सदस्य		९८४६०४५३५०
९	सुनिल पुन	उपसल्लाहकार		९८५६०७०९५५
१०	मंगल बहादुर नेपाली	वन उपसल्लाहकार		९८०५०८८३



आज माथि उल्लेखित महानुभावहरुको उपस्थितिमा भएको छलफलका बुँदा एवं निर्णयहरु:

१. पोखरा महानगरपालिकाको वडा नं. २६, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्डको क्षेत्राधिकार (लेखनाथ चोक देखि शिसुवा चोकसम्म १० मिटर र शिसुवा चोक देखि गगनगौडासम्म १५ मिटर) रहेको सम्बन्धमा सम्बन्धित सबै सरोकारवालाहरु जानकारी रहेको र उक्त सडक खण्ड यथाशिघ्र निर्माण र निर्माण गुणस्तरीय हुनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो। साथै सडक निर्माण गर्दा अपनाइने विधि र प्रकृत्याका बारेमा जानकारी दिने कार्य समेत गरियो।
२. सडक निर्माण गर्दा रोजगारीको पहिलो प्राथमिकता स्थानिय बासिन्दाहरुलाई दिनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो।
३. बाटो निर्माण गर्दा बाटोमा पर्ने पानीका पाइप, बिजुलीका पोल, कल्भर्ट र सिंचाइको कुलो निर्माण कार्य शुरु गर्दा पहिलो चरणमा नै उचित स्थानान्तरण गरिनु पर्ने विषयमा जानकारी दिई छलफल गरियो। साथै निर्माण चरणमा खानेपानी सेवा अवरुद्ध हुन गएमा बैकल्पिक व्यवस्था गरि शुद्ध पिउने पानी उपलब्ध गराउनु पर्ने र ढल निकास अवरुद्ध भएमा त्यसको उचित व्यवस्थापन हुनु पर्ने सम्बन्धमा समेत विस्तृत छलफल गरियो।
४. यस प्रस्तावित सडक खण्ड क्षेत्रमा घरेलु हिंसा तथा लैङ्गिक विभेद सम्बन्धि खासै समस्या नदेखिए पनि बाहिरी कामदार र स्थानीय समुदाय बिच हुन सक्ने भैँभगडा वा अवाञ्छित गतिविधिका सम्बन्धमा पालना गर्नु पर्ने आचार संहिताको बारेमा जानकारी दिई विस्तृत छलफल गरियो।
५. सडक निर्माणका क्रममा हुन सक्ने ध्वनी, वायु प्रदुषण जस्ता समस्याका र त्यसको निराकरण सम्बन्धमा विस्तृत छलफल गरियो।
६. सडक निर्माणका क्रममा प्रस्तावित सडक खण्डका किनारमा रहेका बर पीपलका रुख/चौतारी एवं धार्मिक सम्पदाको संरक्षण गर्ने, र सकेसम्म कम मात्र रुखहरु काट्ने गरी डिजाइन गर्ने विषयमा छलफल भयो। साथै काटिएका रुखहरुका हकमा प्रति एक रुख बराबर १० नयाँ विरुवाहरु लगाउने, तथा हरियाली प्रबर्धनका क्रियाकलापहरु गरिने विषयमा छलफल गरियो।
७. निर्माण व्यवसायीको क्याम्प र कामदारका लागि शिविर वडा नं. ३० को खुदीको चौर नजिकको खाली स्थान उपयुक्त हुने र बाटो खन्दा उत्पन्न हुने माटो ढुङ्गा आदि फाल्न वडा नं.३० को खुदीको चौर नजिकको खाली स्थान उपयुक्त हुने सम्बन्धमा छलफल गरियो।
८. यस प्रस्तावित सडक खण्डको प्रस्थान बिन्दु लेखनाथ चोक देखि अन्तिम बिन्दु खुदि खोलासम्मको सडकको दाँया बाँया भण्डै ९६ जनजातीहरुको घरधुरी रहेको र महिला संख्या लगभग १८३ र पुरुषको संख्या १७६ रहेको विषयमा छलफल भयो।
९. यस प्रस्तावित सडक चौडाइ (Road width) भित्र कुनै पनि संरचनाहरु नरहेको सम्बन्धमा विस्तृत छलफल गरियो।
१०. वातावरणीय एवं सामाजिक व्यवस्थापन योजना बारे यस महानगरपालिकाको कार्यालयमा सम्पर्क गरि जानकारी लिन सकिने लगायत सडक निर्माणका क्रममा आइपर्ने विविध वातावरणीय एवं सामाजिक समस्या र तिनका समाधानका उपायहरु माथि विस्तृत छलफल गरियो।

Consultation meeting with Women

महिलाहरूसंग भएको छलफल

आज मिति २०८०/०६/०७ गते आइतवारका दिन यस पोखरा महानगरपालिकाका उप प्रमुख एवं का.वा. प्रमुख श्रीमान् मञ्जुदेवी गुरुङ ज्यूको अध्यक्षतामा पोखरा महानगरपालिका, वडा नं. ३० स्थित शिसुवा चौकमा भएको छलफल तथा अन्तरक्रिया कार्यक्रममा नेपाल शहरी शासकिय तथा पूर्वाधार आयोजना अन्तर्गत कास्की जिल्लाको पोखरा महानगरपालिकाको वडा नं. २६, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्डको स्तरोन्नति गर्ने कार्यको विस्तृत परियोजना प्रतिवेदन र वातावरणीय एवं सामाजिक व्यवस्थापन योजना (ESMP) तयारीका क्रममा प्राविधिक, वातावरणीय र सामाजिक एवं आर्थिक वस्तु स्थिति माथिको मूल्याङ्कन, प्रभाव र सम्भाव्य उपायहरूका बारेमा B.N. Consultancy Pvt. Ltd. का (DSC Team) महानगरपालिका र स्थानिय महिलाहरूका विच विस्तृत छलफल तथा अन्तरक्रिया गर्ने कार्य सम्पन्न भयो । साथै छलफलका क्रममा वातावरणीय तथा सामाजिक व्यवस्थापन ढाँचा (ESMF) को परिधि भित्र रहि तपशिलमा उल्लेखित बुँदाहरू माथि उठेका मुद्दाहरू (Issues) र तिनका समाधानका उपायहरूका बारेमा विस्तृत छलफल गरि निर्णय गरियो ।

क्र.सं.	नाम थर	पद/पेशा	दस्तखत	संपर्क नं.
१	मञ्जु देवी गुरुङ	उपप्रमुख एवं का.वा. प्रमुख		
२	मीना सुवेदी	सामाजिक कार्यकर्ता		९८५६०८६९५९
३	मञ्जु भण्डारी	शैल सिर्जनाकर्ता भण्डारी		९८५६०७८२६२
४	लक्ष्मी कु. श्रेष्ठ	गृहिणी	ला.क्ष.मी.	९८६२२६२६५३
५	रमा नेपाली	पोरकर ३० निर्वाहकर्ता		९८६६०२९७६६
६	सृजता श्रेष्ठ	कार्यकारी		९८६२२६२६५३
७	दुर्गा शर्मा भुर्तेल	ठगणारी		९८६६०३८८८०
८	पार्वती अधिकारी	सामाजिक कार्यकर्ता		९९५१८३५९६०
९	भिम कुमारी पुन	पोरकर ३० वडा सदस्य		९८२५१६३९७०
१०	उमा पथिपाठ	ठगणारी		९८६६०४५३३०

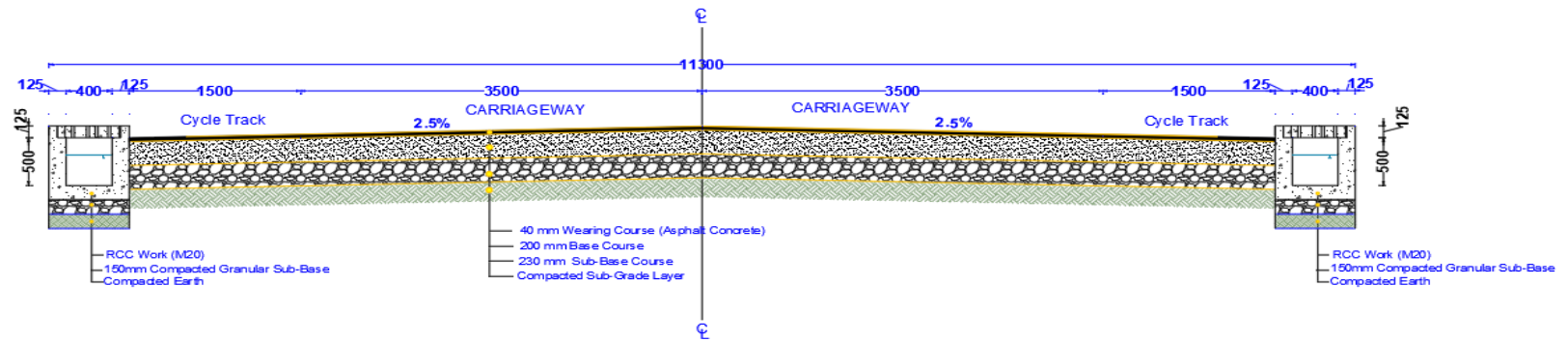


आज माथि उल्लेखित महानुभावहरुको उपस्थितिमा भएको छलफलका बुँदा एवं निर्णयहरु:

१. पोखरा महानगरपालिकाको वडा नं. २६, २७, ३० र ३२ मा पर्ने प्रस्तावित लेखनाथ चोक - डाँडाको नाक - शिसुवा - खुदि खोला - गगनगौडा सडक खण्डको क्षेत्राधिकार (लेखनाथ चोक देखि शिसुवा चोकसम्म १० मिटर र शिसुवा चोक देखि गगनगौडासम्म १५ मिटर) रहेको सम्बन्धमा सम्बन्धित सबै सरोकारवालाहरु जानकार रहेको र उक्त सडक खण्ड यथाशिघ्र निर्माण र निर्माण गुणस्तरीय हुनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो । साथै सडक निर्माण गर्दा अपनाइने विधि र प्रकृयाका बारेमा जानकारी दिने कार्य समेत गरियो ।
२. सडक निर्माण गर्दा रोजगारीको पहिलो प्राथमिकता स्थानिय बासिन्दाहरुलाई दिनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो ।
३. बाटो निर्माण गर्दा बाटोमा पर्ने पानीका पाइप, विजुलीका पोल, कल्भर्ट र सिंचाइको कुलो निर्माण कार्य शुरु गर्दा पहिलो चरणमा नै उचित स्थानान्तरण गरिनु पर्ने विषयमा जानकारी दिई छलफल गरियो । साथै निर्माण चरणमा खानेपानी सेवा अबरुद्ध हुन गएमा बैकल्पिक व्यवस्था गरि शुद्ध पिउने पानी उपलब्ध गराउनु पर्ने र ढल निकास अबरुद्ध भएमा त्यसको उचित व्यवस्थापन हुनु पर्ने सम्बन्धमा समेत विस्तृत छलफल गरियो ।
४. हाल यस प्रस्तावित सडक खण्ड स्तरोन्नती आयोजना क्षेत्र भित्र महिला हिंसा, बाल श्रम, लैङ्गिक विभेद र बालविवाह जस्ता घटनाहरु उल्लेख्य रुपमा घटेको देखिदैन । तथापी, भविष्यमा यस्ता संवेदनशील घटनाहरु हुन नदिन र यदि कहि कतै भएमा अपनाउनु पर्ने सजगताको विषयमा जानकारी दिई छलफल गरियो ।
५. आयोजना निर्माण पश्चात स्थानीय बजार विस्तार र आर्थिक क्रियाकलापहरु अभिवृद्धि भई आय आर्जनमा टेवा पुग्ने विषयमा विस्तृत छलफल गरियो ।
६. यस प्रस्तावित सडक खण्ड क्षेत्रमा घरेलु हिंसा तथा लैङ्गिक विभेद सम्बन्धि खास्सै समस्या नदेखिए पनि बाहिरी कामदार र स्थानीय समुदाय बिच हुन सक्ने भैँभगडा वा अवान्छित गतिविधिका सम्बन्धमा पालना गर्नु पर्ने आचार संहिताको बारेमा जानकारी दिई विस्तृत छलफल गरियो । साथै वातावरण सामाजिक व्यवस्थापन ढाँचा (ESMF) मा समेत उल्लेख गरिएका महिला हिंसा, लैङ्गिक विभेद (GBV, SEA/SH) आदि विषयका बारेमा छलफल गरियो ।
७. वातावरणीय एवं सामाजिक व्यवस्थापन योजना बारे यस महानगरपालिकाको कार्यालयमा सम्पर्क गरि जानकारी लिन सकिने लगायत सडक निर्माणका क्रममा आइपर्ने विविध वातावरणीय एवं सामाजिक समस्या र तिनका समाधानका उपायहरु माथि विस्तृत छलफल गरियो ।



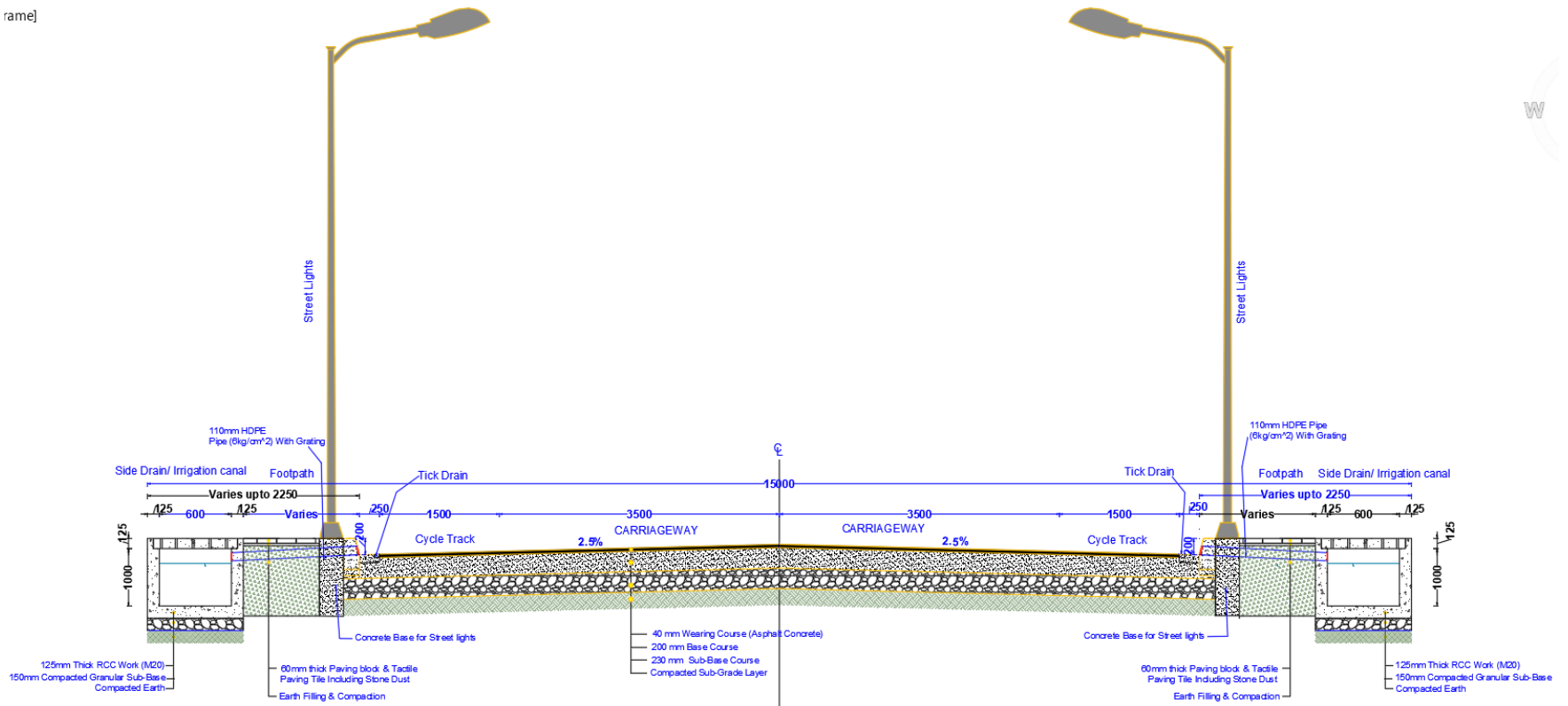
### **Annex 3: Proposed Typical Cross Sections**



Typical Cross section of 11.3 m road in settlement area from Chain-age 0+000 to 0+120 (Type A)

ESMP for the upgradation of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road, Pokhara Metropolitan City

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Typical Cross section of 15 m road (Type B)

**Annex 4: GoN Permissible Environmental limits/standards**

**(A) Standards for Inland Surface waters from combined wastewater treatment**

S. N.	Characteristics	Tolerance Limits
1.	Total Suspended solids, mg/l, <i>max</i>	50
2.	pH	5.5 to 9.0
3.	Biochemical oxygen demand (BOD) for 5 days at 20 degree C, mg/l, <i>max</i>	50
4.	Oils and grease, mg/l, <i>max</i>	10
5.	Phenolic compounds, mg/l, <i>max</i>	1
6.	Mercury (as Hg), mg/l, <i>max</i>	0.01
7.	Zinc (as Zn), mg/l, <i>max</i>	5
8.	Ammonical nitrogen, mg/l, <i>max</i>	50
9.	Chemical Oxygen Demand, mg/l, <i>max</i>	250

**(B) National Drinking Water Quality Standard, 2079 BS**

**B-1: Mandatory Parameters to be tested**

SN	Parameters	Unit	Limits	Remarks
	<b>Physical</b>			
1	Turbidity	NTU	5	
2	pH		6.5 - 8.5	
3	Colour	TCU	5	
4	Taste & odour		Unobjectionable	
5	Electrical Conductivity	µS/cm	1500	
	<b>Chemical</b>			
6	Iron	mg/L	0.3 (3)	
7	Manganese	mg/L	0.20	
8	Arsenic	mg/L	0.05	
9	Fluoride	mg/L	0.50 - 1.50 (Min. - Max.)	
10	Ammonia	mg/L	1.50	
11	Chloride	mg/L	250	
12	Sulphate	mg/L	250	
13	Nitrate	mg/L	50	
14	Copper	mg/L	1	
15	Zinc	mg/L	3	

ESMP for the upgradation of Sisuwa - Sishaghat (Sisuwa - Khudi Khola Section) Road, Pokhara Metropolitan City

16	Aluminum	mg/L	0.20	
17	Total Hardness	mg/L	500	
18	Residual Chlorine	mg/L	0.10 - 0.50 (Min. - Max.)	
<b>Microbiological</b>				
19	E-Coli	(CFU/10 ml)	0	

**B-2: Additional Parameters to be tested based on Risk and Requirement**

SN	Parameters	Unit	Limits	Remarks
<b>Physical</b>				
1	Total Dissolved Solids	mg/L	1000	
<b>Chemical</b>				
2	Calcium	mg/L	200	
3	Lead	mg/L	0.01	
4	Cadmium	mg/L	0.003	
5	Chromium	mg/L	0.05	
6	Cyanide	mg/L	0.07	
7	Mercury	mg/L	0.001	
8	Nitrites	mg/L	3	
<b>Microbiological</b>				
1	Total Coliform	(CFU/10 ml)	0 (In 95% samples)	

### (C) National Ambient Air Quality Standard, 2069 BS

Parameters	Units	Averaging Time	Concentration in Ambient Air, Maximum
TSP	µg/m <sup>3</sup>	24 - hours	230
PM <sub>10</sub>	µg/m <sup>3</sup>	24 - hours	120
PM <sub>2.5</sub>	µg/m <sup>3</sup>	24 - hours	40
Sulfur Dioxide	µg/m <sup>3</sup>	Annual	50
		24-hours	70
Nitrogen Dioxide	µg/m <sup>3</sup>	Annual	40
		24-hours	80
Carbon Monoxide	µg/m <sup>3</sup>	8hours	10000
Lead	µg/m <sup>3</sup>	Annual	0.5
Benzene	µg/m <sup>3</sup>	Annual	5
Ozone	µg/m <sup>3</sup>	8-hours	157

Ref.: Section 62, Number 19, Nepal Gazette, Part 5, 2069/04/29, Notice 2

### (D) National Sound Pressure Level, 2069

Microenvironment	Sound Pressure Level, L <sub>eq</sub> dB(A)	
	Daytime	Nighttime
Industrial Area	75	70
Commercial Area	65	55
Rural Settlement Area	45	40
Urban Settlement Area	55	50
Mixed Settlement Area	63	55
Pristine Area	50	40

Ref.: Section 62, Number 30, Nepal Gazette Part 5, 2069/7/13

### (E) Diesel Powered Generator Emission Limits (g/kWh), 2069

Category, (kW)	CO	HC	NO <sub>x</sub>	PM
kW < 8	8	1.3	9.2	1
8 = kW < 19	6.6	1.3	9.2	0.85
19 = kW < 37	6.5	1.3	9.2	0.85
37 = kW < 75	6.5	1.3	9.2	0.85
75 = kW < 130	5	1.3	9.2	0.7
130 = kW < 560	5	1.3	9.2	0.54

Ref.: Section 62, Number 30, Nepal Gazette Part 5, 2069/7/13

The minimum height of the chimney should be maintained not less than 11m for the industrial boiler utilizing solid or liquid fuel.

**Annex 5: Water Quality Report**

Ministry of Water Supply  
Department of Water Supply & Sewerage Management  
**Federal Water Supply and Sewerage Management Project**  
*Water Quality Testing Laboratory, Pokhara*

Water Quality Test Report

Sample Details:	
Sample Name: Lekhnath Small Town Water Supply	Source Type: Boring
Location: Lekhanath, Pokhara	Sampling point : <b>Gumbaj Boring/Intake</b>
Sampling Method: Manual	Sampled by: Makhan Gurung
Contact person: Makhan Gurung	Contact No.:
Received date: 2077/06/13	Completed date: 2077/06/14

**Analyzed Parameters**

**Physical Parameters:**

S.N.	Parameters	Observed value/s	NDWQS	Analyzed Method
1.	PH at 26.9 <sup>0</sup> C	7.4	6.5-8.5	4500-H <sup>+</sup> B, APHA
2.	Electrical conductivity (μs/cm)	477.0	1500	2510 B, APHA
3.	Turbidity (NTU)	1.9	5(10)	3130 B, APHA
4.	Taste & odor	-	Unobjectionable	Perception
5.	Color (TCU)	-	5(15)	2120 C, APHA
6.	TDS (mg/lit)	235.0	1000	Instrumental

**Chemical Parameters:**

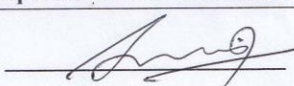
S.N	Parameters	Observed value/s	NDWQS	Analyzed Method
1.	Total Hardness as CaCO <sub>3</sub> (mg/lit)	172	500	2340 C, APHA
2.	Calcium (mg/lit)	44	200	3500-Ca B, APHA
3.	Chloride (mg/lit)	08	250	4500 Cl <sup>-</sup> B, APHA
4.	Fluoride (mg/lit)	-	0.5-1.5	4500 F <sup>-</sup> D, APHA
5.	Ammonia (mg/lit)	<0.1	1.5	4500- NH <sub>3</sub> F, APHA
6.	Nitrate (mg/lit)	-	50	4500-NO <sub>3</sub> <sup>-</sup> B, APHA
7.	Cyanide (mg/lit)	-	0.07	4500-CN <sup>-</sup> E APHA
8.	Iron (mg/lit)	0.1	0.3(3)	3111 B ,APHA
9.	Manganese	<0.01	0.2	3111 B, APHA
10.	Arsenic (mg/lit)	ND	0.05	3111 B, APHA
11.	Chromium 3 <sup>+</sup> (mg/lit)	-	0.05	3111 B, APHA
12.	Copper (mg/lit)	-	1.0	3111 B, APHA
13.	Lead (mg/lit)	-	0.01	3111 B, APHA
14.	Cadmium (mg/lit)	-	0.003	3111 B, APHA
15.	Zinc (mg/lit)	-	3.0	3111 B, APHA
16.	Mercury (mg/lit)	-	0.001	3112 B, APHA
17.	Aluminium (mg/lit)	-	0.2	3500-AI B, APHA
18.	Sulphate (mg/lit)	-	250	4500-SO <sub>4</sub> <sup>2-</sup> C, APHA
19.	FRC (mg/lit)	-	0.1-0.2	4500-Cl G, APHA

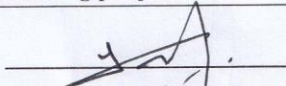
**Microbiological parameters:**

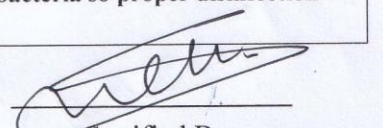
S.N	Parameters	Observed value/s	NDWQS	Analyzed Method
1.	<i>E. coli</i> (CFU/100 mL)	3	Nil	9222 D, APHA
2.	Total Coliform (CFU/100 mL)	16	Nil	9222 B, APHA

ND: Not Detected

**Remarks:** Tested water sample was found to be contaminated by Coliform bacteria so proper disinfection technique/s should be followed before drinking purpose.

  
Analyzed By

  
Approved By  
कमिष्ट

  
Certified By  
सुनियर डिभिजनल इन्जिनियर

**Note:**

- The entire test was conducted as per the National Drinking Water Quality Standard Guideline, 2062 BS (MPPW/GoN)
- For microbiological test, the water sample in sterilized containers is only accepted.
- If the received sample water volume is inadequate, it will be rejected for analysis.

**Annex 6: List of Trees to be cut, and  
Compensatory Plantation Plan**

### Trees to be cut

SN	Trees	Number	Chainage (km)	Remarks
1	Sissoo ( <i>Dalbergia Sissoo</i> )	3	0+140 to 0+150	Sisuwa
2	Mango ( <i>Magnifera indica</i> )	1	2+550	
3	Khirro ( <i>Falconeria insignis</i> )	2	2+700 to 2+705	
4	Sissoo ( <i>Dalbergia Sissoo</i> )	2	2+705 to 2+710	
5	Badar ( <i>Ziziphus mauritiana</i> )	1	3+700	
	<b>Total</b>	<b>9</b>		

### Compensatory Plantation Plan & Greenery Promotion

SN	Activities and items	Description	Remarks
1	Number of trees to be planted under compensatory plantation	90 trees to be planted; Proposed trees like Ashoka, Sissoo, etc trees	@10 trees per tree cut
2	Time of plantation	During June - July - August time period	Year 1 and Year 2
3	Area for plantation	Open space / public land at Gagangaunda and Satmuhane areas, and along available greenery belt along the road alignment	
4	Cost of plantation works	NPR 135,000	@1500 per tree including seedling, bed-preparation, transportation and care taking of 12 months
5	Greenery promotion works (around 380 trees of Ashoka, Sissoo, etc to enhance greenery in WN 30 & 32)	NPR 570,000	

**Annex 7: List of Zebra Crossings and Ramps**

### List of Proposed Zebra Crossings Locations

S.N.	Proposed Chainage, km	Remarks
1	0+010.00	
2	0+220.00	
3	0+610.00	
4	1+065.00	
5	1+432.00	
6	1+782.00	
7	1+967.00	
8	2+357.00	
9	2+780.00	
10	3+033.00	
11	3+548.00	

### List of Proposed Ramp Locations

SN	Chainage, km	Number	Remarks
1	0+140.00	2	both sides
2	0+480.00	1	left side
3	0+640.00	2	both sides
4	0+700.00	1	right side
5	1+280.00	2	both sides
6	1+380.00	2	right side
7	1+480.00	2	both sides
8	1+600.00	1	right side
9	1+700.00	1	right side
10	1+740.00	1	right side
11	1+860.00	1	left side
12	1+980.00	2	both sides
13	2+240.00	2	both sides
14	2+520.00	1	left side
15	3+060.00	1	left side
16	3+220.00	1	right side
17	3+260.00	2	both sides
18	3+420.00	1	left side
19	3+920.00	2	both sides
Total number of Ramp = 28			

**Annex 8: Code of Conduct (CoC) on GBV**

## World Bank Approved Code of Conduct (CoC) on GBV for the Project

### नेपाल शहरी शासकीय तथा पुर्वाधार आयोजना

#### कार्य स्थलमा हुने यौनजन्य तथा महिला हिंसा सम्बन्धी आचार सहिता

##### व्याक्तिगत आचार सहिता

म, ..... यो आचार सहिता पालना गर्नु मेरो दाहित्व हो भनी स्वीकार गर्दछु । म कुनै पनि यौनजन्य तथा महिला हिंसा जस्ता कार्यमा संलग्न हुने छैन । परियोजना को काम को शिलसिलामा यो आचार सहिता पालना गर्न सहमत छु ।

१. म जातजाति धर्म, भाषा, लिङ्ग, उमेर, राजनीतिक वा सामाजिक हैसियत, भौगोलिकता, पहुँच, वैवाहिक स्थिती वा अन्य कुनै पनि आधारमा भेदभाव नगरी सबैलाई सम्मानजनक र समान रूपमा व्यवहार गर्नेछु ।
२. सामाजिक सन्जालको प्रयोग गरी अश्लील शब्द, दृष्य सामग्री वा कार्यलय समय अधिपछी वार्तालाप मार्फत सहकर्मि/कामदार लाई यौन दुर्व्यहार गर्ने छैन ।
३. कार्यस्थलमा सिङ्गी बजाउने, चुम्बन गर्ने, व्याक्तिगत उपहार दिने आदि जस्ता कार्य गरी कर्मचारी, सहकर्मि/कामदार लाई यौन दुर्व्यहार गर्ने छैन ।
४. कुनै पनि प्रलोभन/ धम्की देखाई (जस्तै पदोन्नती लोभ देखाएर, जागीर नदिने धम्की दिएर शोषण गरेर आदि) यौन दुर्व्यहार पक्षमा संलग्न हुने छैन
५. कार्य समयावधि भित्र कुनैपनि मदिराजन्य तथा लागुपदार्थको सेवन गर्ने छैन ।
६. परियोजना सरोकारवाला वा वरपरका समुदायका सदस्यहरुलाई कुनैपनि म लैङ्गिक हिंसा तथा यौनजन्य दुर्व्यहार गर्ने छैन ।
७. कुनै पनि कर्मचारी/श्रमिक विरुद्ध हिंसा गरिएको दोषी ठहरिएमा प्रचलित सघिय, प्रादेशिक, स्थानीय सरकार वर्ल्ड बैंक को कानुन, निती नियम अनुसार सजाय/ दण्डित जरिवाना तिर्न तयार हुनेछु ।
८. कार्य गर्ने शिलसिलामा सम्मानजनक निर्देशनहरुको पालना गर्दछु ( वातावरणीय + सामाजिक)
९. मेरो जिम्मेवारी कुशलता र लगनशीलता पुर्वक पुरा गर्नेछु ।

१०. सम्बन्धित कार्यलय /कम्पनीले सन्चालन गरेको विभिन्न प्रशिक्षण कार्यक्रममा सक्रिय रुपमा भाग लिनेछु ।
११. परियोजनाका प्रत्यक्ष लाभदायक सदस्य/समुदायमा यौन दुर्व्याहार/शोषण गर्ने छैन ।
१२. विश्वासनीयता नैतिक उल्लघनको रिपोर्ट गरेमा कुनै कामदार विरुद्ध बदला लिने छैन ।
१३. कार्य स्थलमा लैङ्गिक सम्बेदनशिल भाषाको प्रयोग गर्दछु
१४. कार्यस्थलमा महिला हिंसा तथा यौनजन्य क्रियाकलाप लाई प्रोत्साहन गर्ने खालका गतिविधी गर्न दिने छैन ।
१५. कार्यस्थलमा महिला तथा यौन हिंसा गतिविधीहरूलाई प्रोत्साहन गर्ने छैन ।
१६. १८ वर्षभन्दा मुनिका बालिकाहरूमा कुनै डिजीटल मिडीया मार्फत वा कुनै माध्यमबाट /स्वीकृती लिई वा नलिई यौनजन्य क्रियाकलापमा सहभागी हुनेछैन, यदि नाबालिका स्वीकृती लिई यौनजन्य क्रियाकलापमा गरेमा क्षमा हुदैन ।
१७. परियोजना कार्यन्वयन को बेलामा यौनजन्य दुर्व्याहार /यौन शोषण भएमा वा आचार सहिता उल्लघन गरेमा वडा/ नगरपालिका स्तरमा रहेको गुनासो सुनवाई सयन्त्रमा तुरुन्त निवेदन/जानकारी दिनेछु ।
१८. कार्यस्थलमा कसैले यौनजन्य दुर्व्याहार सम्बन्धी शक्कापद व्यावहार गरेमा वा शक्कापद कार्य गरेमा तुरुन्त टोली प्रमुख /प्रबन्धकलाई जानकारी/निवेदन दिनेछु ।

माथि उल्लेखित आचार सहिता राम्ररी पढे र बुझेको छु र कार्यस्थलमा कडाईका साथ पालना गर्दछु भनी हस्ताक्षर गर्दछु ।

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व्यवस्थापक/टोली प्रमुख

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कर्मचारी/कामदार

## **Annex 9: Photographs**



Photo 1: Meeting with Metropolitan Officials and Wards Chairperson, September 2023



Photo 2: Public consultation in presence of Ward Chairpersons and Deputy Mayor of PMC, September 2023



Photo 3: Local interacting during the Public Consultation held during September 2023



Photo 4: Meeting with Janajatis of the project area in presence of Deputy Mayor of PMC, September 2023



Photo 5: Meeting with women of the project area in presence of Deputy Mayor of PMC, September 2023



Photo 6: Informal consultation with the locals during field study, September 2023



Photo 7: Interaction with local women using the public tap that lies along the proposed road alignment, WN 30



Photo 8: Meeting at Lamgadi, September 2023



Photo 9: Sissoo trees along road alignment, WN 30



Photo 10: Proposed Campsite (Satmuhane, WN 30)