



Government of Nepal
Ministry of Water Supply
Department of Water Supply and Sewerage Management
Water Sector Governance and Infrastructure Support Project
Project Implementation Unit
Janaki Rural Municipality, Durgauli, Kailali

Detailed Project Report of Durgauli Water Supply Project **Janaki Rural Municipality, Kailali** **NP-DWSSM-290176-CS-QCBS**

Final Report

Volume I: Main Report and Appendix

Volume II: Drawings

Volume III: Quantity and Cost Estimation

Volume IV: Bidding Document with Specification

Volume V: Environmental & Social Screening Report

Volume VI: Environmental & Social Management Plan



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ABBREVIATIONS & ACRONYMS

BoQ	: Bill of Quantity
CBS	: Central Bureau of Statistics
CoC	: Code of Conduct
DHM	: Department of Hydrology and Meteorology
DPR	: Detailed Project Report
DWSSM	: Department of Water Supply and Sewerage Management
EHS	: Environmental Health and Safety
EPR	: Environmental Protection Rule
ESIA	: Environmental and Social Impact Assessment
ESMP	: Environmental & Social Management Plan
ESMF	: Environmental and Social Management Framework
FPIC	: Free Prior Informed Consent
GBV	: Gender Based Violence
GoN	: Government of Nepal
IDA	: International Development Association
ILO	: International Labour Organization
MoWS	: Ministry of Water Supply
MWASH	: Municipal Water and Sanitation Hygiene
MSL	: Mean Sea Level
MST	: Municipal Support Project
OD	: Outer Diameter
OHS	: Occupational Health and Safety
OHT	: Over Head Tank
PIU	: Project Implementation Unit
PMU	: Project Management Unit
PPE	: Personal Protective Equipment
RAP	: Resettlement Action Plan
RM	: Rural Municipality
RoW	: Right of Way
SEA/SH	: Sexual Exploitation and Abused/ Sexual Harassment
STD	: Sexual Transmitted Disease
WASH	: Water and Sanitation Hygiene
WaSGISP	: Water Sector Governance and Infrastructure Support Project
WSUC	: Water Supply and Users' Committee

Unit

%	Percent/ Percentage
CO ₂	Carbon dioxide
dB	Decibel
g	Gram
HHs	Households
Kg	Kilogram
Km	Kilometer
kV	Kilovolt
kWh	Kilo Watt Hour
ltr	Liter
m	Meter
masl	Meter Above Sea Level
mm	Millimeter
NRs.	Nepalese Rupees
⁰ c	Degree Centigrade
sq.m.	Square Meter

Executive Summary

The Government of Nepal is implementing the Water Sector Governance and Infrastructure Support Project (WaSGISP), funded by the World Bank (\$80 million out of \$100 million), to enhance water supply and sanitation services in six local governments in Karnali and Sudurpaschim Provinces. The project is executed by the Ministry of Water Supply (MoWS) and implemented by the Department of Water Supply and Sewerage Management (DWSSM) in collaboration with municipalities. Participating municipalities include Birendranagar, Sharada, Dipayal-Silgadhi, Janaki, Joshipur, and Bardagoriya.

The **Durgauli Water Supply and Sanitation (WSS) sub-project**, located in Janaki Rural Municipality and implemented by the Water Supply and Sanitation Division Office (WSSDO), Kailali, is currently in partial operational phase. The primary water source for this sub-project is groundwater. A tube well has a pumping discharge capacity of 16 liters per second (lps), with a safe yield of 17.67 lps. This indicates that the groundwater abstraction rate is within safe limits, as confirmed by geophysical logs of existing tube well at the Overhead Tank (OHT) premises. These logs and well logging reports demonstrate sustainable groundwater abstraction potential, with tube well designs, including screens and assemblies, deemed satisfactory. However, the tube well require proper rehabilitation and sealing to maintain performance. Another new tube well is proposed to drill at the same premises as a backup arrangement and to augment the discharge.

The project serves Janaki Rural Municipality Ward No. 01 and 03 settlements, including Durgauli, Toraiyapur, Bhagatpur, Titiliya, Belaspur. It involves extending and upgrading existing infrastructure to meet the growing population's needs, projected to rise from 7646 in 2024 to 13331 by 2046, with an average growth rate of 2.71%. The estimated water demand by 2046 is 1.69 MLD.

The project relies on groundwater, with a existing tube well requiring a minor rehabilitation and a new tube well to be constructed and used as production wells. To address future degradation of yields, a 230 cum Balancing Water Reservoir (BWR) is proposed to complement the existing 225 cum overhead tank (OHT). The system includes two District Metering Areas (DMAs) and a 46 km pipeline network, using polyethylene and ductile iron pipes for efficiency and durability.

The system design includes household connections for 1,322 households, equipped with water meters and flow control valves for equitable distribution. 276 households are already connected but 42 needs to be replaced due to the inappropriate size of the distribution pipe. The project also proposes minor rehabilitation of existing infrastructure, including Tube well, Over head Tank, buildings, and electrical facilities. Two layer of boundary wall proposed in

the OHT area. Similarly 104 meter stone masonry wall is proposed to provide protection from Bijuliya Khola during the flood season. Water treatment will incorporate pressure filters and automatic chlorination, with adjustments based on updated water quality tests.

The project cost is estimated at NRs 1346,89906.18, including a 33% allocation for contingencies and VAT. Unit costs and estimates are based on government norms and recent project data.

An Environmental and Social Management Plan (ESMP) has been developed to mitigate potential risks and ensure sustainable development. The plan includes measures for environmental and social compliance, stakeholder roles, and a Grievance Redress Mechanism (GRM). A budget of NRs 1500000.00 is allocated for these measures. The ESMP highlights the project's commitment to community well-being, social accountability, and environmental protection.

कार्यकारी सारांश

नेपाल सरकारले कर्णाली र सुदूरपश्चिम प्रदेशका छ वटा स्थानीय सरकारमा खानेपानी तथा सरसफाइ सेवालाई अभिवृद्धि गर्न विश्व बैंकको (१० करोड डलर मध्ये ८ करोड डलर) को लगानीमा खानेपानी सुशासन तथा पूर्वाधार सहयोग आयोजना (WaSGISP) कार्यान्वयन गरिरहेको छ । आयोजना खानेपानी मन्त्रालय (MoWS) द्वारा कार्यान्वयन गरिएको छ र खानेपानी तथा ढल निकास व्यवस्थापन विभाग (DWSSM) ले नगरपालिकाहरूसँगको सहकार्यमा कार्यान्वयन गरेको छ। सहभागी नगरपालिकाहरूमा वीरेन्द्रनगर, शारदा, दिपायल-सिलगढी, जानकी, जोशीपुर र बर्दगोरिया रहेका छन् ।

खानेपानी तथा सरसफाइ डिभिजन कार्यालय कैलालीको जानकी गाउँपालिकामा रहेको दुर्गौली खानेपानी तथा सरसफाइ उपयोजना अहिले आंशिक रूपमा सञ्चालनमा रहेको छ । यस उप-परियोजनाको प्राथमिक जलस्रोत भूमिगत पानी हो। एउटा ट्यूबवेलको पम्पिङ डिस्चार्ज क्षमता १६ लिटर प्रति सेकेन्ड (एलपीएस) हुन्छ, जसको सुरक्षित उपज 16.67 lps. यसले ओभरहेड ट्याङ्की (OHT) परिसरमा अवस्थित ट्यूबवेलको जियोफिजिकल लगहरूद्वारा पुष्टि गरिए अनुसार भूजल अमूर्तता दर सुरक्षित सीमाभित्र छ भनी सङ्केत गर्छ। यी लगहरू र राम्रो लागि रिपोर्टहरूले स्क्रिन र एसेम्बलीहरू सहितको ट्यूबवेल डिजाइनहरू सहित, सन्तोषजनक मानिएको दिगो भूजल अमूर्त सम्भाव्यता देखाउँछन्। यद्यपि, कार्यसम्पादन कायम राख्न ट्यूबवेललाई उचित पुनर्स्थापना र सिलिङ आवश्यक पर्दछ। अर्को नयाँ ट्यूबवेललाई ब्याकअपको व्यवस्था र डिस्चार्ज बढाउनको लागि सोही परिसरमा ड्रिल गर्ने प्रस्ताव गरिएको छ।

यो आयोजनाले जानकी गाउँपालिका वडा नम्बर १ र वडा नम्बर ३ मा दुर्गौली, तोरैयापुर, भगतपुर, तितलिया, बेलासपुर लगायतका बस्तीमा सेवा प्रदान गर्दछ। यसले बढ्दो जनसंख्याको आवश्यकताहरू पूरा गर्न अवस्थित पूर्वाधारको विस्तार र स्तरोन्नति समावेश गर्दछ, जुन 2024 मा 7646 बाट 2046 सम्म 13331 मा बढेर 2.71% को औसत वृद्धि दरमा हुने अनुमान गरिएको छ। 2046 सम्म अनुमानित पानीको माग 1.69 एमएलडी छ।

परियोजना भूमिगत पानीमा निर्भर छ, जसमा दुईवटा अवस्थित ट्यूबवेलहरू छन् र एउटालाई पुनर्स्थापना गरी उत्पादन वेलको रूपमा प्रयोग गरिन्छ। कम सुरक्षित उत्पादनलाई सम्बोधन गर्न, अवस्थित 225 कम ओभरहेड ट्याङ्की (OHT) को पूरकको लागि 230 कम ब्यालेन्सिङ

वाटर रिजर्भोयर (BWR) प्रस्ताव गरिएको छ। यस प्रणालीले दक्षता र स्थायित्वका लागि पोलिथीन र डक्टाइल आइरन पाइपहरू प्रयोग गरी दुई जिल्ला मिटरिङ एरियाहरू (DMA) र ४६ किलोमिटर पाइपलाइन नेटवर्क समावेश गर्दछ।

प्रणालीको डिजाइनमा १,३२२ घरपरिवारका लागि घरायसी जडानहरू, पानीको मिटरहरू र न्यायोचित वितरणका लागि प्रवाह नियन्त्रण भल्भहरू समावेश छन्। २ सय ७६ घरधुरी जडान भइसकेका छन् तर वितरण पाइपको आकार अनुपयुक्त भएकाले ४२ वटा बदल्नुपर्छ । परियोजनाले इनार, ट्याङ्की, भवन, र विद्युतीय सुविधाहरू सहित अवस्थित पूर्वाधारहरूको सानो पुनर्स्थापना पनि प्रस्ताव गर्दछ। ओएचटी क्षेत्रमा प्रस्तावित सीमाको दुई तह। त्यसैगरी बाढीको मौसममा बिजुलिया खोलाबाट संरक्षण गर्न १०४ मिटर ढुङ्गाको पर्खाल बनाउने प्रस्ताव गरिएको छ । पानी प्रशोधनले प्रेशर फिल्टरहरू र स्वचालित क्लोरिनेशन समावेश गर्दछ, अद्यावधिक गरिएको पानी गुणस्तर परीक्षणहरूमा आधारित समायोजनहरू सहित।

परियोजना लागत अनुमानित रु 1346,89906.18, आकस्मिकता र VAT को लागि 33 % विनियोजन सहित। एकाइ लागत र अनुमानहरू सरकारी मापदण्डहरू र हालको परियोजना डेटामा आधारित छन्। सम्भावित जोखिमहरू न्यूनीकरण गर्न र दिगो विकास सुनिश्चित गर्न वातावरणीय र सामाजिक व्यवस्थापन योजना (ESMP) विकसित गरिएको छ। योजनामा वातावरणीय र सामाजिक अनुपालन, सरोकारवालाको भूमिका, र गुनासो निवारण संयन्त्र (GRM) को उपायहरू समावेश छन्। यी उपायहरूको लागि रु 1500000.00 बजेट विनियोजन गरिएको छ। ESMP ले सामुदायिक कल्याण, सामाजिक उत्तरदायित्व, र वातावरण संरक्षणको लागि परियोजनाको प्रतिबद्धतालाई हाइलाइट गर्दछ।

1.Introduction

1.1 Background

The Government of Nepal (GoN) (Ministry of Water Supply (MoWS) as an executing agency and the Department of Water Supply and Sewerage Management (DWSSM)/ Participating Municipalities as implementing agencies) and the International Development Association (IDA) have signed an 80 million USD financing agreement for Water Sector Governance and Infrastructure Support Project (WaSGISP).

1.2 Sub-Project Description

The Durgauli WSS (DWSS) Sub-Project is located in Janaki Rural Municipality (JRM) of the Kailali district of Sudurpaschim Province. . It is situated in Ward No. 1. Geographically, the project area lies at a latitude of 28°33'26.05896" N and a longitude of 81°6'33.84036" E, with an altitude of 110 meters above mean sea level (MSL). This area has a hot and humid climate. It is surrounded by the Radha Krishna Temple to the west, Bijuliya Kula to the east, a sports hall to the south, and Saraswoti Secondary School to the north. Durgauli Bazar is its largest market. Most of the area is flat, and the Bijuliya Kula and Kulariya rivers flow through this ward. The project area is located 10.3 kilometers south of Lamki Chok and 350 meters south of Durgauli Bazar. The settlement pattern of the project area is heterogeneous. The population of the service area is projected to reach 7,646 in the survey year 2024. By the end of the design period in 2046, it is expected to grow to 13,331 at an average weighted population growth rate of approximately 2.71%.

The DWSS sub-project is an enhancement of an existing groundwater-based water supply project. Implementation began in the fiscal year 2077/078 with funding from the Water Supply and Sanitation Division Office, Kailali. Supported by WaSGISP, JRM aims to further enhance the DWSS sub-Project located in Ward 01. Key infrastructure completed so far includes a 225-cubic-meter RCC overhead tank, boreholes, two tube wells (one operational), an office building, a guard house, an 11 kVA transmission line, a 50 kVA transformer, a total of 23 km of distribution pipelines, and 276 household connections and is not totally completed yet but in partial operational phase. The existing infrastructure includes an overhead tank with a capacity of 225 cubic meters, a deep tube well (constructed using drilling, casing, gravel packing, pumping, well development, geophysical logging, and monitoring technologies), an office building, and a toilet. However, these facilities are only partially functional and require minor repairs and maintenance. A Water Quality test report is attached in *Annex-VI*. Additionally, The cumulative length of distribution pipe of the proposed project is about 69 kilometer, out of which existing pipe line networks is about 23 kilometer and new pipeline network is 46 Km.

Under WaSGISP intervention following is planned:

- a) 230 cum reservoir tank,
- b) A tube well construction
- c) RCC frame structure building to house billing counter room, pump control room, dosing room, toilet facilities (ladies and gents) for visitors,
- d) 46 Km pipe laying work,
- e) 276 house connection work out of 1322 (42 existing connection need to replace due to inappropriate sized existing pipeline)
- f) Two pressure vessel treatment plants equipped with multi-grade filtration system. (Layered water filtration system, typically made of gravel, sand, and anthracite coal. Each layer filters particles of different sizes, with coarser materials at the bottom and finer ones at the top). The plants also include a well-designed drainage system.

The most important part of this sub-project is laying 46 km of pipe along the existing road corridor like: Lamki-Tikapur highway, Seti Lokmarga, Bhagatpur -Jagatpur road, Toraiyapur-Dharmapur road. Durgauli-Belaspur road. These roads are in public use and require no felling of trees, and do not transverse any protected areas and private land. Since the existing road is clear and is already in public use there are no issues of land acquisition nor any outstanding grievances with the current public use of the road. Similarly, the pipe trench will have a depth of 90 cm and a width of 60 cm. During the excavation period, caution boards will be installed, and the area will be barricaded with caution tape to ensure pedestrian safety and prevent any impact on pedestrian movement. The trench will be immediately back filled upon completion of the pipe-laying work. The land proposed for other structures of the sub-project is located on OHT premises of the existing Durgauli WSS sub-project site and the ownership belongs to Durgauli Water Supply system of Janaki Rural Municipality. The existing land area of OHT premises for the Durgauli WSS sub-project is four Kattha (1354.52 sq. meter) and the land ownership certification letter from ward office is attached in *Annex-III*. All the structures proposed under WaSGISP will be accommodated within this proposed site, except distribution pipeline which will follow the existing road, which is in public use. Hence, additional land acquisition is not required.

The existing three-room office building will be adapted as a guard room, billing counter, and storeroom with minor repairs. A new two-room office building, a toilet block, and an electric control room are proposed for construction. The current electric control room and temporary toilet building will be dismantled to manage the site's landscaping.

Two layer of boundary proposed in the OHT area. The outer boundary encompasses the WSP structures, the temple, covered hall and public building and inner boundary covers only the OHT, BWR and pressure filter structures. Similarly 104 meter stone masonry wall is proposed to provide protection from Bijuliya Khola during the flood season.

All proposed structures, except the distribution pipelines, will be accommodated within the OHT premises. The proposed land for the sub-project is the existing Janaki WSS sub-project site, and the ownership belongs to JRM (*the land ownership hand over details are attached in Annex- II and III*). The distribution pipelines will follow existing public roads. As the pipe laying area on the existing road is clear and already in public use, no additional land acquisition is required. Consequently, issues or grievances related to compensation payments and land ownership are not anticipated. This sub-project does not require tree felling and does not encroach on protected areas or private land.

Therefore, the project is designed to fulfill Janaki's priority needs for environmental and sanitation improvement and will significantly contribute to achieving environmental goals, enhancing the standard of living for the residents of Janaki Rural Municipality, and ensuring conditions for sustainable economic development in Janaki Rural Municipality. The salient features of the Durgauli WSS sub-project are given in table below.

Table 1: Salient Features of the Sub-project

GENERAL INFORMATION		
1	Name of the Project	Durgauli Water Supply and Sanitation Sub-Project
2	Location Area	
	Province	Sudurpaschim
	District	Kailali
	Municipality	Janaki Rural Municipality
	Ward	01 and 03
3	Coverage Village	Durgauli, Toraiyapur, Bhagatpur, Titiliya, Belaspur
4	Present Household (2024)	1322
5	Survey Year	2024
6	Base Year (Project Completion Year)	2026
7	Design Year	2046

8	Present Population (2024)	7646
9	Population Growth Rate (%)(Weighted Average)	2.71
10	Design Population (2046)	13331
11	Beneficiary Institution	
	School	6
	Government Offices	4
	Temple	8
12	Design Water Demand (lpd)	1691592
1. Socio-economic Status ¹		
1	Ethnicity	Percentage (%)
	Tharu	55
	Bhrahmin/Chhetri	39
	Dalit	6
2	Income Status (Bases on 10% Social and Economic Data Survey, 2024)	Percentage (%)
	Average Income Household	25
	Low Income Household	14
	Poor Income Household	62
2. TECHNICAL ASPECT		
1	Type of Project	Ground Water Based Pumping,
2	Name/Type of Source	Ground Water
3	Source location	Durgauli, Janaki RM-01 Latitude: 28°33'26.05896" N Longitude: 81°6'33.84036" E
4	Pumping Discharge(lps)	16 lps
5	Safe Yields (lps)	17.67 lps

¹ Baseline Survey data:- 2024

3. Status Of Project		
1	Implementation Status	Partially completed by WSSDO, Kailali
2	Year of Implementation	Fiscal Year 2077/78
3	Operational Status	functional
4.0 Project Components		
4(A)	Completed Component	
	OHT	225 Cum- (1)
	Tube Well	1
	Office Building	1 (three Room)
	Transformer	50 kVA (1)
	Boundary Wall	Partially boundary
	Pipe laying	23 Km existing, 46 Km new (total 69 Km)
	HH connection	276 (42 need to replace due to inappropriate size of existing pipe
	Toilet	1 (Dismantled)
	Electric Control room	1 (Dismantled)
4(B)	New Components Proposed	
1	Tube well Drilling	1
2	Balancing Ground Reservoir	230 cum (1)
3	Household connection and institutional connection	1046
4	Treatment Plant	1
5	Distribution Pipeline works	46 Km
6	Toilet Block	1
7	Fire Hydrant	5
8	Total Length of Pumping Mains:	454 m

9	Total Length of Distribution pipe (km):	69 km (existing 26 + planned 46) Carried out along the existing road which is in public
10	RCC Valve Chamber	24
11	Brick Masonary Valve Chamber	32
12	Generator Room	1
13	Transfemor	100 kVA
14	Rehab Connection	42
15	Office building	1 (2 room with toilet and electric control)
16	Dosing house	1
5.0 Available Facilities		
1	Access Road	Blacktop Road access 3 Kilometer from Tikapur and 10 Kilometer from Lamki
2	Local Construction Material	Crusher with 5 kilometer range
3	Water	Hand pumps & OHT supply
4	Electricity	11kVA High tension Line with 50 kVA transformer at site
6.0 Pipe Used (Laying length)		
1	DI (m)	454 m
	PE (m)	45944 m
	HDPE existing (m)	21383 m
7.0 FINANCIAL		
1	Total Cost of WS Component in NRs. (Including all VAT and Contingency)	134689906.18

Table 2: Pipe Used for Distribution Network (meter)

S.N	Description	Total Length (L)	Laying Length (L+ 10 %Extra)
A	PE PIPES - 6 Kg/Sqcm series (Outer diameter-OD measured in mm)	m	m
	75 OD	2695	2965
	90 OD	402	443

	110 OD	833	917
	125 OD	968	1065
	140 OD	3541	3896
	160 OD	1621	1784
	180 OD	273	301
	200 OD	234	258
	225 OD	97	107
	Sub Total	10664	11736
B	PE PIPES of 10 Kg/Sq cm		
	50 OD	26939	29633
	63 OD	4159	4575
	Sub Total	31098	3420
	DI pipe Existing		
	Pipe of 10" (250 mm)	10	11
C	Existing HDPE Pipe 6kg/Sq cm		
	75 OD	3437	3781
	90 OD	1553	1709
	110 OD	2334	2568
	125 OD	2486	2735
	140 OD	187	206
	160 OD	583	642
	180 OD	350	385
	200 OD	784	863
	225 OD	293	323
	Sub-Total	12007	13212
D	10 Kg HDPE Existing		
	50 OD	4228	4651
	63 OD	4753	5229
	Sub Total =	8981	9880
	Total Distribution Laying Length (m)	69036	

1.3 Rationale of the ESMP

Rule 3 (1) of Environment Protection Act (EPA), 2019 describes completing Environmental Studies as per Schedule 1 or 2 or 3 under Environment Protection Regulation 2020 (First Amendment in 2021/05/24 on Nepal Gazette). For the Sub-project, none of the legal provisions are compliance to Schedule 1 or 2 or 3 and hence detailed Environment Study

(Brief Environmental Study (BES), Initial Environmental Examination (IEE) and Environmental Impact Study (EIA) is not mandatory. The screening report revealed that the proposed WSP does not lie in any National Parks /Protected areas or any critical aquatic and terrestrial habitat area. So, there is minimal environmental/or social impacts and no physical displacement is caused by the sub-project. Consequently, in accordance with the Environmental and Social Risk Management Procedures outlined in Chapter 6 of ESMF, this sub-project is categorized as having a 'moderate risk of impact' (Category III), necessitating the preparation of Environmental and Social Management Plan (ESMP) to comply with World Bank Environmental and Social Standards (ESS) requirements. The ESMP will form part of the bid document and to be reviewed and updated during implementation as per requirements. The ESMP will be included in the contractual clauses and will be made binding on the contracting firm.

1.4 Scope and Objective of Environment and Social Management Plan (ESMP)

The ESMF which was developed for the overall project provides the guiding framework for the site specific environmental and social monitoring plan study in conformance with World Bank policy and accordingly the project level standards. This ESMP is prepared in line with the requirements of the National Environmental Law and Regulations of Nepal and World Bank considering the anticipated impacts associated with the proposed sub-project, such as: air pollution, noise pollution among other effects. The ESMP study for Water Supply sub-projects will guide the sub-project implementation and ensure that adequate measures are taken to protect and minimize any potential adverse environmental and social impacts associated with the proposed construction works. This ESMP provides the actions required to be taken for managing and keeping the negative impacts and risk of the proposed water supply scheme to a minimum, while enhancing the significant positive and beneficial impacts.

The major objective of this Environment and Social Management Plan (ESMP) is to mitigate any social and environment impacts in development interventions. The specific objectives are:

- To identify the existing site-specific environmental and social condition of the project area.
- To identify the environmental and social risks and impacts of the proposed development intervention.
- To explore alternatives, and suggest practical mitigation measures with sufficient budget to mitigate the adverse environmental impacts.
- To prepare environmental monitoring plan.
- To specify institutional arrangement, and roles and responsibilities for environmental and social risk management, and monitoring of the sub-project.

1.5 Legal and Policy Framework

Under the legal and policy framework, a brief of legal acts, policies, regulations and guidelines of the GoN and the World Banks Environmental and Social Standards have been discussed that are relevant and applicable to the Durgauli WSS sub-project.

The ESMF reviewed country's legal and institutional framework, identified gaps from comparison of national and World Bank ESF requirements and suggested corresponding measures to meet the requirements. Nine of the ten World Bank Environmental and Social Standards (ESSs) are relevant to this project, namely ESS1 on Environmental Assessments, ESS2 on Labour and Working Conditions, ESS3 on Resource Efficiency and Pollution Prevention and Management, ESS4 on community Health and Safety, ESS5 on Involuntary Resettlement, ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources, ESS7 on Indigenous Peoples, ESS8 Cultural Heritage and ESS10 on Stakeholder Engagement and Information Disclosure.

2. DESCRIPTION OF STUDY AREA

2.1 Location and Accessibility

The Durgauli WSS Sub-Project is situated in Janaki Rural Municipality, Ward No.01, Kailali District, Sudurpaschim Province. The project area is located 3 km north of Tikapur and 10 Km south of Lamki, with Durgauli Bazar serving as the largest market in this ward. The terrain is predominantly flat, and the Kulariya rivers and Bijuliya River traverse the ward. The settlement pattern in the project area is heterogeneous.

Geographically, the area lies at a latitude of 28°33'26.05896" N, longitude 81°6'33.84036" E, and an altitude of 110 meters above mean sea level (MSL). The climate is characterized as hot and humid. The project site is bounded by Radha Krishna Temple to the west, Bijuliya Kula to the east, a sports hall to the south, and Saraswoti Secondary School to the north.

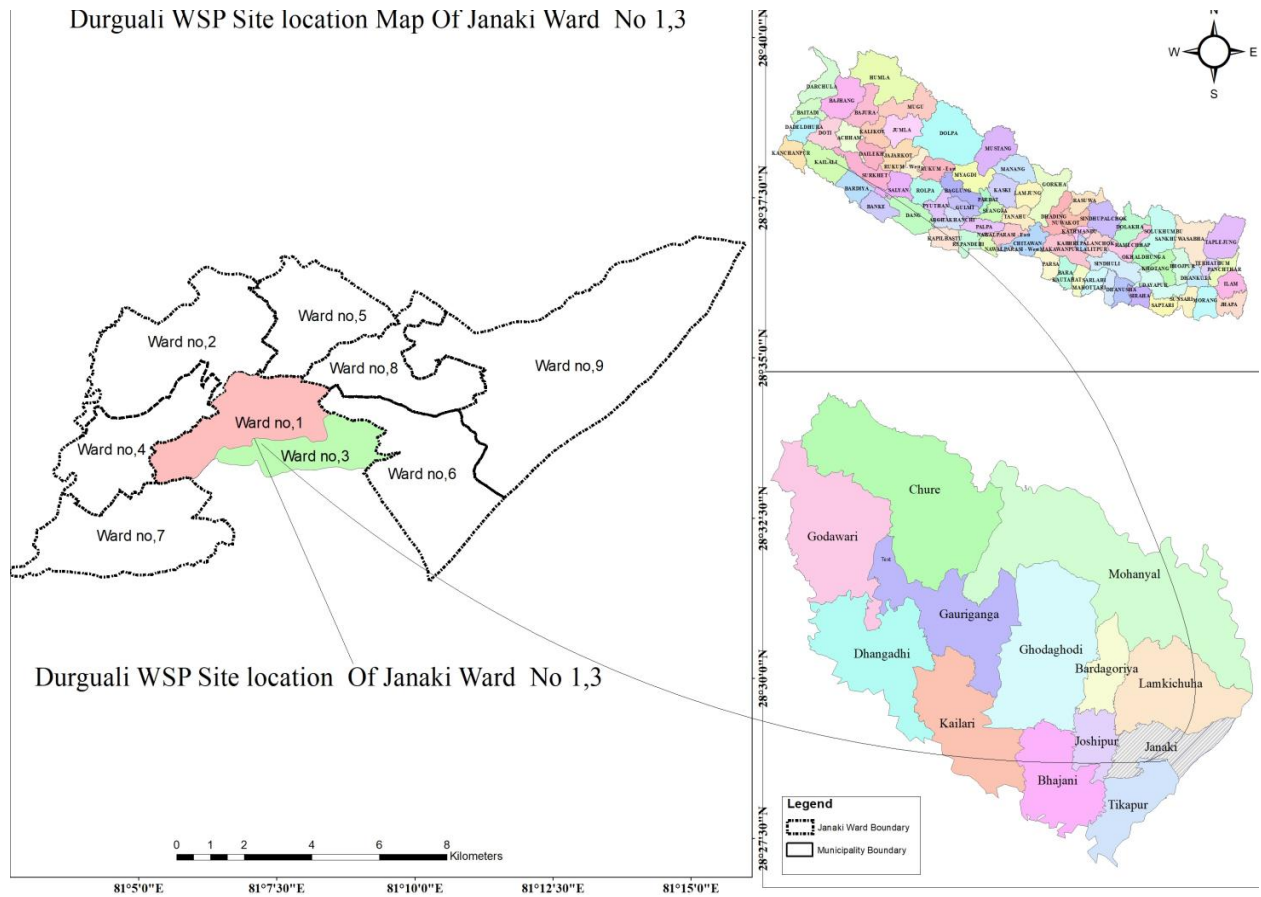


Figure 1: Location Map of Janaki Rural Municipality Ward 01



Figure 2: Location of proposed land for Durgauli WSS Sub-Project and google Map

The existing Durgauli Water Supply and Sanitation (WSS) Project in Janaki RM was being implemented by the Water Supply and Sanitation Division (WSSDO), Kailali. 276 households are connected with metered connection. Tube well, Overhead Tank, distribution network and a office building are completed components. These components can be utilized with minor rehabilitation and other necessary components are to be constructed. Although handed over to the RM, it is partially operational and remaining works will be completed by the current intervention from WaSGISP. The primary water source for this sub-project is groundwater.

The sub-project's tube well has a pumping discharge capacity of 16 liters per second (lps), with a safe yield of 17.67 lps. This indicates that the safe yield capacity exceeds the pumping rate, affirming that the current groundwater abstraction rate is within safe limits. This conclusion is supported by geophysical logs of existing tube wells at the Overhead Tank (OHT) premises, which show sufficient yield to meet the projected demand without over exploitation of the groundwater resource.

The geophysical logs and well logging reports of the boreholes at the OHT premises demonstrate satisfactory conditions for sustainable groundwater abstraction. These tube wells were drilled and developed several years ago but require proper rehabilitation and sealing to maintain performance. The design of the tube well structure, including screens and the adopted tube well assembly, was found to be satisfactory.

Table 3: Assessment of Existing Tube well Design

S.N	Description	Unit	Values
1	Pumping Discharge	lps	16
2	Discharge of Well (m ³ /s)	m ³ /sec	0.016
3	Optimum screen entrance velocity (m/s)	m/sec	0.03
4	Screen Clogged	%	50%
5	Screen Diameter	m	0.20
6	Percent of Open Area	%	25%
7	Length of screen	m	10
8	Discharge Capacity of Tube Well	lps	23.56
9	Safe Yield (75% of Yield)	lps	17.67

(Source: Water Supply and Sanitation Division Office (WSSDO), Dhangadhi, Kailali)

2.2 Physical Features

2.2.1 Topography and Land Use

The project area lies on the land of Terai on the northern boundary of the Indo-Gangetic plain ranging from 110 m to 125 m above sea level. The Karnali River flows on the eastern border of the RM and canals drawn from Karnali river passes across the project area. The topography of the project area consists of flat lands. According to the municipal profile of Janaki Rural Municipality, about 74.4 % of the land is cultivable land while about 13.9% of land area is covered by Jungle. Similarly, 4.8% of the land is covered by water, 4.5% by sandy area. The land use pattern of the Janaki Rural Municipality is given below table.

Table 4: Land Use Pattern of Janaki Rural Municipality

S.N.	Land Use Pattern	Area (Sq.km.)	Percentage (%)
1	Cultivated land	79.81	74.4
2	Jungle	14.87	13.9
3	Water covered area	5.11	4.8
4	Bushes covered area	1.88	1.8
5	Sandy area	4.86	4.5
6	Grazing area	0.67	0.6
7	Garden	0.06	0.1
Total		107.27	100.0

Source: Janaki Rural Municipality Profile

2.2.2 Geology

Geologically, the project area lies in the Terai Zone of the Nepal Himalaya. The flatland of Terai constitutes the north fringe of the extensive Ganga foreland basin. The Pleistocene and Holocene alluvial accumulations of this strip were laid down by rivers, originating within the Himalaya or beyond it in the Tibetan Plateau. The average thickness of these sediments exceeds 1,500 m. The project area is composed of thick deposit of recent alluvium consisting of gravels, sand and clay. The subsurface geology is dominated by the sediments from large and coalescing fans, the deposits of the Ganga Basin extending to the north, and the sediments constituting the Siwalik trough.

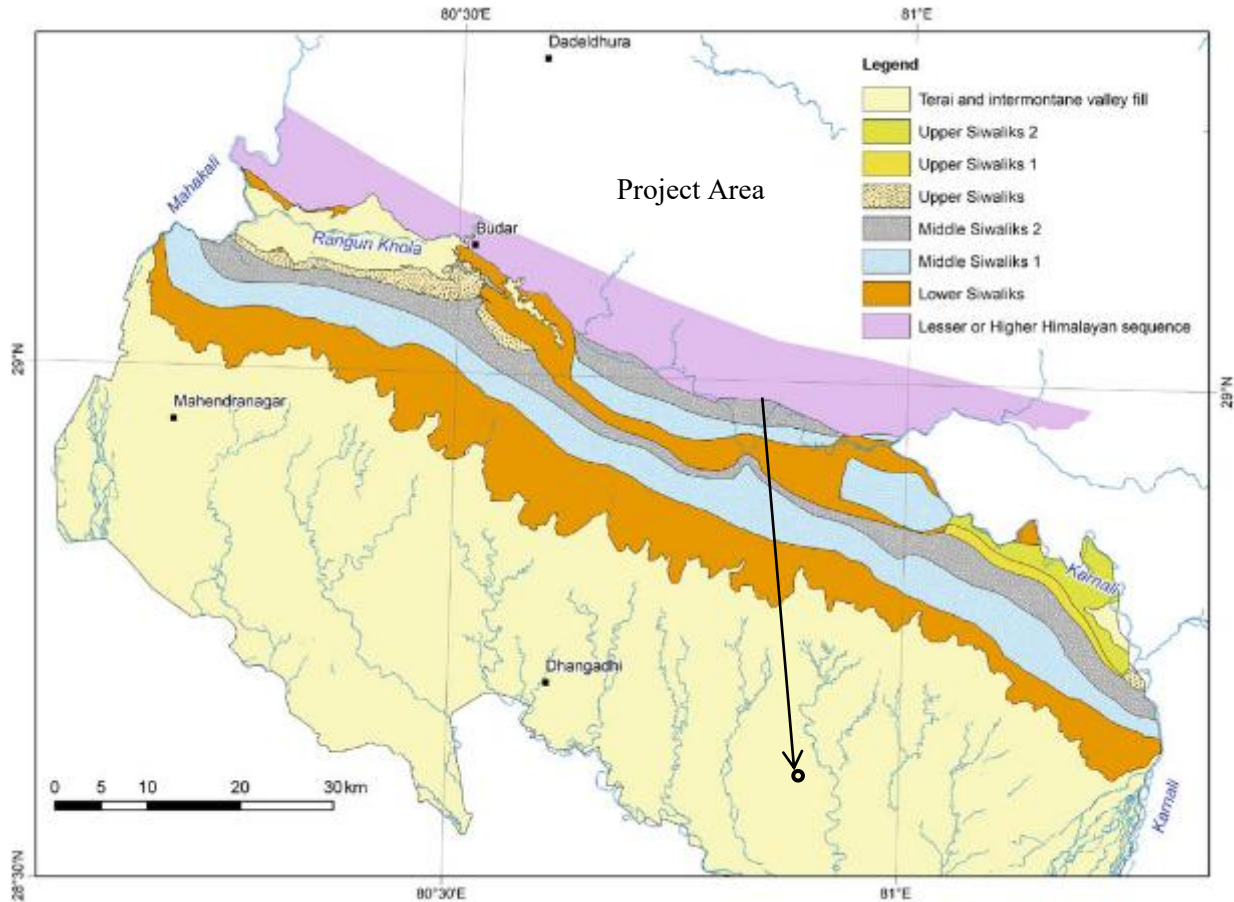


Figure 3: Modified Geological Map of Western Siwaliks and Terai. Source: Dhital, 2015

2.2.3 Climate

Temperature: The project area lies in Terai region with tropical climatic condition. The temperature rises as high as 46°C during summer and falls as low as 5°C during winter. Both the maximum and minimum temperature is increasing at the rate of 0.023°C /year and 0.016°C /year respectively (DHM, 2017).

Rainfall: Considering the 30 years rainfall data (from 1984 to 2013) recorded at Dhangadhi, Kailali, the district receives an annual rainfall of 1860.47 mm and the average annual rainfall shows an increasing trend. The observed climate trend analysis of Nepal from year 1971 to 2014 (DHM, 2017) shows that the annual precipitation trend of Kailali District is increasing at the rate of 3.44 mm/year but the post-monsoon precipitation shows decreasing trend at the rate of 0.22 mm/year. The temporal distribution of rainfall is highly controlled by the monsoon with more than 80% of rainfall occurring during June to September.

2.2.4 Climate Change and Disaster Vulnerability

According to Climate Change Vulnerability Mapping for Nepal (MoE, 2010) based on indices, Kailali district has low combined sensitivity, low overall vulnerability and moderate

adaptation capability to the impacts of climate change. Likewise, District Disaster Management Plan of Kailali, (*DDC Kailali, 2070*) has assigned three vulnerability categories (high, medium and low) to different disasters. The project area has medium level earthquake vulnerability, low level flood vulnerability and low level fire vulnerability.

2.2.5 Drainage Network

The project area is drained by some locally originating ephemeral creeks drains into the Bijuliya Kula and Kulariya River towards the south of the project area. There is no probability of flooding and water logging in the sub-project area as the proposed site is located in flat land.

2.2.6 Air and Water Quality and Noise Level

Point sources of air and water pollution were not visible in and around the project area. The water quality test of the existing tube wells located at the sub-project site was done and found to comply with the NDWQS. Generally, the ground in Terai shows occasional increases in iron and turbidity. Therefore, a water treatment system comprising aeration, filtration, and disinfection is recommended to meet the requirements of the NDWQS for drinking water (*Water Quality Test report of Deep Tube well is attached in Annex VI*).

Human activities and vehicular movement plying along the Lamki- Tikapur road at the North and Durgauli- Manuwa road at the west are the major sources of pollution around the OHT premises, where significant construction work will take place. Additionally, dust generated by vehicular movement on the unpaved internal roads along the distribution pipeline areas; such as Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Durgauli Bazar, Milan tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa , Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole; is the main source of air pollution. Similarly, noise pollution in the project area primarily arises from vehicular movement, wind activity, and frequent visitors. The air quality monitoring test and noise level monitoring has been conducted to establish the baseline and the monitoring report data is given in table below.

Table 5: Air Quality Monitoring Report

	National Ambient Air Quality Standards, 2012²				Location
S.N	Parametere	units	Average time	Maximum concentration	Durgauli Chowk ³
1	TSP	µg m-3	24-hr	230	-
2	PM10	µg m-3	24-hr	120	79
3	PM2.5	µg m-3	24-hr	40	61
7	Carbon monoxide	µg m-3	8-hr	10000	714

Table 6: Sound Level Monitoring Report (Dec/20/2024)

S.N	Location	Noise level decible (dB) (day time)			National Standards of Sound Level, 2069 Day Time Limits Leq (Decibel) dB (Day)
		Minimum	Average	Maximum	
1	Toraiyapur Chowk	50	62	88	65
2	Radha Krishna Temple	38	48	60	63
3	Durgauli Bazar	50	62	75	65
4	Durgauli health Post	41	58	70	63
5	Shree Saraswati Secondary School	40	51	70	65

2.2.7 Soil Type and Quality

Top soil in the project area is fine textured humus mixed loamy soil productive to vegetation. Regarding the quality of soil, for the remoteness of the project area, the soil is free from pollution of urban origin (like garbage, sewage and industrial discharge).

² National Ambient Air Quality Standards, 2012 (NAAQS)

³ Dec/19/2024

2.3 Biological Features

2.3.1 Vegetation

The Durgauli WSS Sub-Project is located at Janaki Rural Municipality Ward No. 1. In this area various types of plant species were observed around the sub-project during screening. The project site is adjacent to Radha Krishna Mandir, and the surrounding plant species include Bel (*Aegle marmelos* Correa), Jamun (*Syzygium cumini*), Peepal (*Ficus religiosa*), Mango (*Mangifera indica*), Sisam (*Dalbergia sissoo*), Neem (*Azadirachta indica*), Amala (*Phyllanthus emblica* Linn.), Ashoka (*Saraca asoca*), Guava (*Psidium guajava*), Bamboo (*Bambusa vulgaris*), Malu (*Bauhinia vahlii*), and Liptis (*Eucalyptus tereticornis*), Alubukhara (Plum), Amalaa (Gooseberry), Anaar (Pomegranate), Aru (Peach), Bayar (Indian Plum), Bel (Wood Apple), Bhogate (Pummelo), Bhuin Katahar (Pineapple), Chinia Naspaati (Chinese Pear), Haade Bayer (Bead Plum), Jaamun (Black Plum), Junaar (Junar Orange), Jyaamir {Lemon (very sour)}, Kaagati (Lime) , Kera (Banana), Kimbu {Mulberry (black, red)}, Lichi (Lichee Fruit), Nashpaati (Pear), Nibua {Lemon (yellow)}, Papitaa or Mewaa (Papaya), Rukh Kathar (Jack Fruit), Sariphaa (Custard Apple or Sugar Apple), Gulmohar Tree (*Royal poinciana*), Common reed (*Phragmites australis*), Bougainvillea , Starfruit, Asparagus (*Asparagus officinalis*), Sagun tree (*Tectona grandis*) etc.

Fauna/Birds

Only mammalian species were considered in the study for their easy identification by the local people. As known from the local people the project area was visited by various mammals. The common species found in the sub-project area are: Jackal (*Canis aureus*), Monkey (*Cercopithecidae*), Mouse, Fox, Lizard, Turtle, Bee, Sheep, Cow, Buffalo, Mouse, Rat, Jackal, fox, Pig, Dog, Rabbit, Horse, Mongoose, Snake, Cat, Lizard, Python, Tortoise, Frog etc.

Parrot (*Psittaciformes*), Bulbul (*Pycnonotus barbatus*), Dhukur (*Streptopelia orientalis*), Dangre Rupi (*Acridotheres tristis*), Crow (*Corvus*), Tailorbird (*Orthotomus sutorius*), Kokale/ Grey treepie (*Dendrocitta formosae*), Vulture (*Cathartidae*, *Accipitridae*), Herons/Bagula (*Ardeidae*), Pigeon (*Columbidae*), Sparrow (*Passeridae*), Owl (*Strigiformes*), Bat (*Chiroptera*), Cormorant, Crane, Cuckoo (*Cuculus canorus*), Dove (*Columbidae*), Duck, Hen, Myna (*Acridotheres tristis*), Partridge (तितर), Nightangle (*Luscinia megarhynchos*), Raven (*Corvus corax*).

2.4 Socioeconomic and Cultural Features

2.4.1 Demographic Characteristics

According to the National Population Census 2021, the total population of the Rural Municipality is 49,860, including 23,198 (46.5%) males and 26,662 (53.5%) females. This

shows that the female population out numbers the male population in the Rural Municipality. The sex ratio is 87.01. The total number of households is 11,041, with an average household size of 4.52. The population density is 465 individuals per square kilometer.

According to National Population Census 2021 and Janaki Rural Municipality Village Profile, total population of ward no-01 is 5328 (Population census 2021) including 2477 males and 2851 female. This shows that female population outnumbered male population in project area. The sex ratio is 86.95 %. But according to the baseline survey 2024, total households is 1332 with population 7646. The baseline survey in this ward revealed the notable presence of Janajati/ethnic group (Tharu.) comprising about 55%, Brahmin/ Chhetri 39% and the Dalit group comprising about 6% of total households in the project area. Language spoken mainly depends on the caste/ethnicity. For the majority of people Tharu is the most common language followed by Nepali.

Table 7: Ethnic Distribution of population Durgauli

Caste/Ethnic Status	Percentage (%)
Tharu	55%
Brahmin / Chhetri	39%
Dalit	6%
Janajati(other than Tharu)	0
Grand Total	100.0

2.4.2 Socio-economic Characteristics

Agriculture and livestock rearing are the main occupations in the project area. Major crops grown in the project area are cereal crops like paddy, maize and wheat, pulse seeds like gram, red gram, black gram, red lentil and pea, oil seeds like mustard, flax seed and sesame, vegetables like potato, onion, cauliflower, lady's finger, garlic and cash crops like banana. Livestock reared in the area include cow/oxen, buffalo, goat, sheep and pig. Poultry is also common in the area. Meat and dairy are the major livestock products.

Besides agriculture, people are involved in other occupations like Business, Service, Labor and Foreign Employment. From the focal group discussion with local people, they have adopted more than one occupation. The business ventures besides commercial agriculture include wholesale and retail shops of daily utilities, electronics and electrical, garments, construction materials, etc. Durgauli Bazar, Toraiyapur chowk and Bhagatpur chowk are the growing market centers in this ward of Janaki Rural Municipality.

According to the National Population and Housing Census 2021, the literacy rate of population 6 yrs of age and above is 67.1%. Literacy is higher in male (75.1%) population than female (59%) which reflects the gender discrimination existent in education opportunities.

People have organized into different groups according to their subjective interest and involvement for the welfare to those interest groups. People are involved in community forest user groups, mothers group, youth clubs, civil awareness centers, committees and associations.

2.4.3 Available Public Service Facilities

There is one existing Water Supply & Sanitation Project in Janaki Rural Municipality ward no.1 Durgauli WSSP. There are 5 educational institutions including higher secondary schools, and basic schools in service area with 1,278 people including students, staffs and teachers. Similarly, temporary police post with 5 staff, RM executive office and ward 1 office lies in the project area. There is village clinic and immunization center at this ward, 5 numbers of female health care volunteers are mobilized at this health center and immunization clinic. Electricity supply through national transmission has reached to the entire ward. The source of drinking water for majority of families is ground water drawn through shallow tube well. All the settlements of the project area have been connected with road network. Financial institutions are available in this ward for providing saving and credit service.

2.4.4 Places of Religious and Cultural Importance

Each caste/social groups in the project area have their own cultures, religion and traditions. There are many festivals which are specifically celebrated by specific types of social/caste groups. For instance, Maaghi/Maanghey Sakraanti, Lawaogi Puja is the major festival celebrated by Tharu community in the area. Additionally, Dashain, Tihar, Janaipurnima, Naag Panchami, Buddha Jayanti, Thulo Ekadashi, Holi, Shivaratri etc. are other major festivals being celebrated by general people in the project area. Similarly, all of these groups have their own set of intangible heritages example, scared spaces, belief systems, knowledge and practices. But, during consultation with the community, it was reported that project footprints is unlikely to have a bearing on these intangible heritages.

There are eight places of religious and cultural importance in this ward. They are Radha Krishna Mandir, Radha Krishna Mandir (Ishwor Premi Aashram), Shiv mandir (Radha Krishna Mandir), Shiv Mandir (Toraiyapur), Shiv Mandir, Shanti Kuti (Bhagatpur).

2.4.5 Gender Based Violence (GBV) and Sexual Exploitation Abuse (SEA)/ Sexual Harassment (SH)

In the last decade, the percentage of women who have experienced physical violence since age 15 has remained at 22%–23%. However, there has been a slight increase over time in the percentage of women who experienced physical violence in the last 12 months, from 9% in 2011 and 2016 to 11% in 2022. The percentage of women who have experienced physical violence ranges from a low of 14% in the Brahmin/Chhetri ethnic group to a high of 42% in the Muslim group. The percentage of women who have ever experienced sexual violence declined from 12% in 2011 to 7% in 2016 before increasing slightly to 8% in 2022. Women in Madhesh Province (11%) and Karnali Province (10%) are more likely to have experienced sexual violence than women in the other provinces. Women in Sudurpashchim Province are least likely to have experienced sexual violence (4%). The share of women who experienced physical violence was highest in Madhesh Province (36.5%) followed by Lumbini Province (23.4%), Koshi province (20.5), Bagmati Province (17.4%), Karnali Province (16.7%), Sudurpaschim Province (16.1%), and Gandaki Province (15%).

Nepal has high incidence rates of GBV cases, with mostly girls and women as reported victims. Latest DHS (2022) data shows that 23% of women in Nepal age 15–49 have experienced physical violence since age 15, and 8% have ever experienced sexual violence. Only 28% of women who have ever experienced any physical or sexual violence have sought help to stop the violence.

In 2011, the Federal Ministry of Health and Population (MoHP) initiated a pilot program to establish seven hospital-based One-Stop Crisis Management Centres (OCMCs). In the Kailali district, the OCMC at Seti Zonal Hospital documented a total of 433 cases related to Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), and Gender-Based Violence (GBV) during the fiscal year 2080/081. These cases included 9 incidents of child labor, 1 case of cybercrime, 109 instances of resource denial, 1 case of human trafficking, 53 cases of mental abuse, 95 cases of physical assault or violence, 123 cases of rape, 39 cases of sexual abuse, and 3 cases of social discrimination. Also **Mrs. Kalavati Timilsina** is the focal person of OCMC at Tikapur Hospital. She is the Senior Hospital Nursing Inspector in Tikapur Hospital.

Under the sub-project, the Department of Women and Children (DWC) has appointed a Department Chief in Janaki Rural Municipality to address GBV, SEA, and SH issues.

Additionally, the Janaki Rural Municipality has designated a focal person for GBV and SEA/SH, **Mrs. Yamuna Bist.**

Consultations with local women revealed no significant reported cases of GBV. However, when such cases arise, they are generally resolved through the facilitation of local elites and social figures. If unresolved, the cases are referred to the Rural Municipality office. The DWC report from the Rural Municipality also highlighted an increase in GBV cases in Janaki Rural Municipality and nearby areas, particularly during and after the pandemic period. Due to the association of such cases with social prestige, locals are often hesitant to report them to police or other legal authorities. Additionally, many local women were unaware of the toll-free helpline (1145) provided by the National Women Commission for registering complaints

The prevalence of GBV in the community may be exacerbated by the sub-project's infrastructure work, which is expected to involve approximately 40–45 laborers daily during peak construction. Consequently, potential risks of SEA/SH have been identified. To mitigate these risks, a Code of Conduct will be implemented, and the Code of Conduct for the WSS Sub-Project is attached as *Annex VIII*.

3. Study Methods

The methods adopted to achieve the objective primarily involved map analysis to establish a frame of reference, along with field investigations of the Durgauli WSS Sub-Project. This included the collection of field based information and mapping. The methods included:

3.1 Literature Review and Secondary Data Collection

The assignment commenced with a review literature and the collection of secondary data. Relevant information was sourced from project documents, including feasibility studies and detailed engineering design reports, district and municipal profile of the project area, topographical maps, geological maps, Google Earth imagery, published and unpublished project- related reports, and climatological records from the Department of Hydrology and Meteorology (DHM).

3.2 Field Survey, Mapping and Verification of Secondary Data

The study was conducted through an on-site walkthrough of the Durgauli WSS Sub-Project area, primarily focusing on the proposed location. It also included focused group discussions (FGDs), formal consultation meetings, and key informant interview (KII) with the local stakeholders, such as the local government, chamber of commerce, and local residents. Separate consultations with women, Dalits, and Tharu and other disadvantaged groups living in the service area was organized to discuss potential E&S issues related to proposed water supply sub-project and minute of meeting is attached in *Annex I*. The issues raised during public consultation along with its corresponding mitigation measures is given below in sub-heading 5.1 of public consultation section.

The environmental and social screening checklist was developed following a through desk study, and review of sub-project related documents, including feasibility studies, detailed engineering design report, environmental impact assessments of similar projects, and stakeholder consultation records. The checklist incorporates different parameters and issues outlined in the ESMF of the WaSGISP project and was further informed through consultations with stakeholders and municipal personnel.

Environmental and social assessment process involved gathering of relevant information on the existing physical, biological and socio-economic, and cultural environmental conditions. This was achieved through field breakthroughs, surveys, measurements, discussions, consultations, and stakeholder interactions. Additionally, potential issues to be addressed in the Environmental and Social Management Plan (ESMP) were identified.

3.3 Desk Work

Major part of the study was executed through desk-based work, which included engineering design, drawing and mapping, analysis, quantification, and planning of ESMP. Additionally, cost estimation for ESMP was carried out using information obtained from field studies and literature reviews.

4. Environment and Social Management Plan

4.1 Impacts and Mitigation

The proposed Durgauli WSSP sub-project is expected to have physical, biological, and socio-economic impacts. These impacts may arise during various phases of the project, including pre-construction, construction, and operation and maintenance. While some impacts may be negative, others can be positive. The objective of environmental management is to enhance positive impacts and minimize negative ones through appropriate mitigation measures. Key impacts are described below:

- 1. Disruption of natural drainage and pavements:** The pipe-laying activities along the public road through Durgauli Bazar, 1.Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Durgauli Bazar, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa , Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole may disrupt the existing roadside drainage system. Construction tasks such as earthworks, backfilling, and material stockpiling could obstruct natural drainage flows. This interference might lead to issues such as localized flooding, channel erosion, and other related impacts along these routes. Durgauli Bazar, which is near the OHT premises will be affected most and construction will be sequenced to ensure that trenches are backfilled promptly to minimize the drainage and pavement disruption.
- 2. Disruption to traffic flow and accessibility:** The excavation for construction and the laying of pipe near the OHT premises will impact the traffic flow and accessibility to the Radha Krishana temple, sports hall, and Saraswoti Secondary School, and Durgauli Bazar. In addition, the excavation and installation of pipelines (trenches 90 cm deep and 60 cm wide) along the public road in Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa, Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole will cause temporary road disruptions. These disruptions may affect traffic flow, leading to delays and congestion. To minimize the impact, the pipeline installation will be carried out in short sections of 500 meters at a time, with testing and backfilling completed promptly, within a week.
- 3. Impact to Communities:** Communities will face a range of interrelated challenges due to construction activities, including impacts on air and water quality, increased ambient noise levels, traffic congestion, road safety concerns, and disruptions to the mobility of people, goods, and services. The pipe laying and conducting pre-cover testing will

temporarily limit access to homes and may negatively affect businesses in Durgauli Bazar, Toraiyapur, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa, Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole. These impacts can be effectively mitigated with proper management. The pipe trenches will be relatively small, measuring 90 cm in depth and 60 cm in width, and construction will be sequenced to ensure that trenches are backfilled promptly, typically within a week, following the completion and testing of pipe-laying work.

4. **Occupational health and Safety:** Given the nature of construction activities, exposure to extreme weather conditions and the non-observance of health and safety measures could trigger occupational health and safety issues for workers. Additionally, an inadequate supply of safe, potable water; insufficient sanitation facilities; poor sanitation practices on-site; and substandard housing conditions may pose significant threats to their well-being. Workers employed informally, such as migrant workers or individuals newly entering the labor market, are most vulnerable. This is particularly critical given that a strong occupational health and safety culture is not prevalent in Nepal. Therefore, the onus will be on the Project to ensure that workers are advised of their rights, and to actively promote and protect those rights on behalf of the workers.

The impacts have been identified and predicted by considering all activities related to the construction, operation, and decommissioning of support facilities. The possible impacts and their corresponding mitigation measures are listed in Table 8 below.

Table 8: Environmental and Social Management Plan Matrix

Field	Impacts	Mitigations Measures	Responsible for Implementation	Monitoring Indicator	Cost NRs.	Frequency of Monitoring
1. Prior to Construction Activities						
Consents, permits, clearance, no objection certificate (NOC), etc.	Failure to obtain necessary consents, permits, NOCs, etc. for use of land and other property can result to design revisions and /or stoppage of works.	- Obtain all of the necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. - Acknowledge in writing and provide report of compliance on all consents, permits, clearance, NOCs, etc.	PIU/MST	Incorporated in final design and communicated to the Contractors.		Prior to award of contract
Existing utilities	Disruption of services-existing water supply and electricity temporarily.	- Identify and include locations and operators of utilities, including roads in the detailed design documents to prevent unnecessary disruption of services and traffic during construction, especially since the pipes will be lined along the roads, which could significantly impact traffic flow. - Coordinating with local water authorities and communicating with public. - Avoid relocating transformers and electrical pole as much as possible.	PST/MST/PIU	List of affected utilities and operators		During detailed design phase
Drinking Water Supply	Extraction of unsatisfactory raw water quality	- During the detailed engineering design stage, test water samples from existing tube wells located near proposed tube wells. The water Quality Test of Deep Tube well has been done and Report is attached in <i>ANNEX VI</i>. - The cumulative total daily water	PST, PMU	Incorporated in final design and communicated to contractors	60,000.00	Prior to award of contract

		demand for the Durgauli Water Supply Sub-Project has been estimated to be 1.69 MLD by the end of the design period in 2046 and discharge of 16 lps per DTW has been recommended for a safe yield. - Design to include basic treatment using lime dosing, pressure filter and disinfection using Ca(ClO)₂ and provisions for lab unit and kits.				
Stockpile areas, Storage areas, Disposal areas, and workers camp (if needed)	Disruption to traffic flow and sensitive receptors	- Stockpile area, storage areas and workers camp area is proposed within OHT premises. Contractor's camp will be located in existing OHT premises at Durgauli, Janaki RM-01. - The details will be included in C-ESMP (Contractor's Environment and Social Management Plan) of Sub-Project by the Contractor within 60 days after site mobilization.	PIU	List of selected sites for stockpile areas, storage areas, disposal areas and workers camp (Workers camp is separated from contractor's camp within the Existing OHT premises) (Estimated No. of workers is 20 man/day) Written consent of landowner/s (not lessee/s) for reuse of excess spoils to agricultural land	140,000.00	During detailed design phase
Waste Generation	Generation of solid waste, wastewater and other construction waste may cause pollution from work sites and workers camp (if	- Mechanism of safe disposal will be developed in the sub project site before the actual commencement of work, including provision of waste bins.	Janaki RM/Ward Office	Contractor records, visual inspection		During detailed design phase

	any is established)	- Prohibition of unwanted littering and discharge of waste. - Proper management of solid waste will be done using lined pits for waste disposal.				
2. During Construction Activities						
A. Physical Characteristics						
Community facilities	Disruption of natural drainage Damage to existing facilities like water supply and pavements (Durgauli Bazar, Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa, Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole)	- Avoid natural drainage pathways for pipe-laying works. - Stockpile the excavated material at safe but nearby place to construction site under the satisfaction of Construction Supervision Engineer. - Restore natural drainage system if the drainage system during the construction is blocked. - Conduct a detailed assessment if any drainage system exist. - Design and implement temporary drainage solutions to manage water flow during construction. - Prior permission has been obtained from respective local authority for use of water for construction. Use of water for construction works shall not disturb local water users. - If construction work is expected to disrupt, users of community shall be informed 7 days in advance and again 1 day prior to start of construction. - Coordinate with local water supply authorities to schedule any	PIU/RM/Contractor	List of any public or private infrastructure disturbed by the sub project works Minutes of meetings with the locals or affected persons.		As per need, or field- inspection if any such case is foreseen

		necessary rerouting or upgrades during low-demand periods, minimizing disruption. - Set up temporary water distribution points or alternative supply lines to ensure continuous access to water for affected areas.				
Ambient air	Conducting works at dry season and moving large quantity of materials may create dusts and increase in concentration of vehicle-related pollutants (such as carbon, monoxide, Sulphur oxides, particulate matter, nitrous oxides, and hydrocarbons) which will affect people who live and work near the sites (Durgauli Bazar, Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa, Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole)	- Confining earthworks according to an Excavation Segmentation Plan as part of the C-ESMP, which the contractor is required to prepare before construction begins. The C-ESMP should also include all necessary permits and documents that need to be obtained by the contractor before works commence. - Water sprinkling at dry exposed surfaces and stockpiles of aggregates at least twice daily, or as necessary. - If re-surfacing of excavated portion of roads cannot be done immediately, spread of crushed gravel over back filled surfaces - Require trucks delivering aggregates and cement to have tarpaulin cover and maintain a minimum of 2" free board - Limit speed of construction vehicles in access roads to maximum of 20 kph. - Ensure use of equipment and fuel complying with applicable emission standards.	Contractor/MS T/PIU	Location of stockpiles. Number of complaints from sensitive receptors. Heavy equipment and machinery with air pollution control devices. Certification that vehicles are compliant with air quality standards.	90,000.00	Daily monitoring by MST in coordination with PIU Monthly visual inspection by PIU. Air quality measurement, once a year.

		- Do not allow construction equipment/vehicles that generate significant air pollution (above the applicable limit) and those that are poorly maintained on-site. Require all vehicles to be attested and certified for emissions compliance before use. - Conducting once a year Air Quality Test for dust nuisance (PM 10 and PM 2.5) at key locations such as settlement, Durgauli chowk and Durgauli- Munuwa road of Janaki RM-01 during the dry working season (January-June). The tests will be carried out by the MST in coordination with the PIU or by a third party and the determined pollutants will be compared with the National Ambient Air Quality Standards (NAAQS) of 2012.				
Acoustic environment	Construction activities will be along the Row of existing roads (Durgauli Bazar, Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa, Pragati Tole, Aadarsha Tole, Bhagyashree Tole,	- Plan activities in consultation with local administration so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance. - Restrict noisy activities to daytime. - Minimize drop heights when loading and unloading coarse aggregates. - Horns should not be used unless it is necessary or unavoidable	Contractor/MS T/PIU	-Results of monitoring noise levels (Maintain maximum sound levels not exceeding 70 decibels when measured at a distance of 10m or more from the construction sites)	90,000.00	Daily monitoring by MST in coordination with PIU Monthly inspection by PIU. Noise level measurement, once a year.

	Thakulla Tole, Sapkota Tole, and Radha Krishna Tole) Temporary increase in noise level and vibrations may be caused by excavation equipment, and the transportation of equipment materials, and people.	- Utilize modern vehicles and machinery with the requisite adaptations to limit noise and exhaust emissions, and ensure that these are maintained to manufactures' specifications at all times. - All vehicles and equipment used in construction shall be fitted with exhaust silencers. Use silent type generators (if required) - If it is not practicable to reduce noise levels to or below noise exposure limits, the contractor must post warning signs in the noise hazard areas. Identify any building at risk from vibration damage and avoiding any use of pneumatic drills or heavy vehicles in the vicinity. Complete work in these areas quickly. - Providing ear mufflers to workers operating high dB construction equipment. - Implementing regular inspection & maintenance of construction/transportation vehicles to ensure compliance with National Noise Standard Guidelines (NVMES, 2069 B.S., 2012). - Conduct noise level test by MST in coordination with the PIU or by a third party once a year during the		-Number of complaints from sensitive receptors		
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		peak construction stage at specified locations near schools, hospital and Durgauli Bazar, Toraiyapur chok and Bhagatpur chok of Janaki RM-01.				
Waste disposal	Pollution of water and land resources, and cases of vector borne diseases due to haphazard waste disposal. Generation of solid waste and waste water from construction sites and labor camp	- Waste minimization and waste segregation (organic and inorganic) at source will be carried out. - Organic waste generated from the camps will be composted or properly managed in compost pit within the camp area by following the waste management guidelines. If feasible, compost will distributed to be used in the nearby agricultural fields. - Construction debris will be disposed at designated spoils site only (as recommended in the C-ESMP) and the efforts will be made to minimize such waste through reuse, reduction, and recycling concepts. - Hazardous wastes will be segregated from non-hazardous wastes. - Contractors responsible for handling, treating, and disposing of hazardous waste will be reputable, licensed by relevant national regulatory agencies, and follow good international industry practices for the type of waste handled.	Contractor	On-site situation in campsites (if any), work sites and their vicinities	10,000.00	Monthly monitoring by PIU/MST.

		- Hazardous waste will be stored in sealed containers, kept away from sunlight, wind, and rain. Storage will prevent the commingling or contact between incompatible wastes and allow for inspections to monitor for leaks or spills. - Disposal of hazardous waste will comply with all applicable local and international regulations - Awareness raising event will be carried out. - Decommissioning waste will be re-used, sold to local scrap dealers.				
B. Biological Characteristics						
Vegetation	- Loss of vegetation cover during construction works. However, at present, no tree clearance is envisaged during construction - Pressure on the Laligurans CF for its products like firewood, timber and non-timber forest products -	- Greenery promotion around the construction sites and road alignments where possible - Tree felling will be avoided, and if any such cases occur, prior approval from the local bodies will be received and compensatory plantation @ 1:10 will be carried out - Species of local economic significance and values will be planted - Providing alternative fuel to worker for cooking - Establish, implement, and enforce a Worker Code of Conduct that expressly prohibits illegal logging, clearing, and collection of plant species in general, including fines and dismissal for repeat offences.	Contractor	Area of greenery that has been cleared Number of trees cut (only if unavoidable) Complaints or grievances by the locals	500,000.00	Monthly monitoring by PIU/MST.

C. Socioeconomic Characteristics						
Community activities	The construction related activities that impede access will disturb the local residents.(disturbances to local activities due to obstacle in movement during pipe laying may occur in service areas of Durgauli Bazar, Seti Lok Margh, Tikapur to Lamki road, Durgauli to Munwa road, Durgauli to Bhagatpur road, Toraiyapur, Milan Tole, Ananda Tole, Ujaar Tole, Belashpur, Tikliya Gujruwa, Pragati Tole, Aadarsha Tole, Bhagyashree Tole, Thakulla Tole, Sapkota Tole, and Radha Krishna Tole).	- To minimize disturbances, construction work will be conducted at earliest possible. - Disturbances to local activities due to obstacle in movement during pipe laying may occur in service areas of Durgauli, Toraiyapur, Bhagatpur, Titiliya and Belaspur . - The pipe trench will have a depth of 90 cm and a width of 30 cm plus OD for larger than 110 mm and 40 cm for smaller OD. During the excavation period, caution boards will be installed, and the area will be barricaded with caution tape to ensure pedestrian safety and prevent any impact on pedestrian movement. To minimize the impact, the pipeline installation will be carried out in short sections of 500 meters at a time, with testing and back filling completed promptly, within a week. - The local residents will be consulted and informed about the work schedule preferably a week before the construction starts and one day before the construction starts. - Temporary diversions and	Contractor	Time schedule of construction work; Information related to construction activity to local residents Number of temporary diversions sign, signboards etc.		Daily (or whenever there are construction activities) by the Contractor/M ST Monthly visual inspection by PIU

		signboards will be provided for the pedestrian. - Ramps, where necessary, will be provided to ensure access to houses, and other service areas. Ramps provided will be of sturdy material and of sufficient width.				
Labor Camp Management	- Poor sanitation practices by workforce of 40 to 45 labours (15 local & 20-25 migrant) may cause pollution of surrounding environment. Social problems may arise due to bad behavior of the workforce such as gambling, alcoholism and disrespect to local people and culture - Changes in social structure, cultural and traditional practices of the rural people due to exposition to the outside workforce - Conflict between Local and Outside Workers and erosion of law and order situation of the project area	- Labor Camp will be located within the OHT premises. - Provide adequate health care facilities within construction sites and provide first aid facility round the clock - Proper ventilation will be provided in the camp. Separate rooms for men and women workers will be managed. Raised bed is the minimum standard of bedding in labor camps. - Install sanitary facilities for workers to avoid open defecation by construction of temporary toilet. Separate toilets will be established for males and females. - Provide and maintain proper drinking water, sewerage and waste disposal facilities at the camps. - Ensure no wood is burnt by any worker on or off site. Camps shall be provided free of cost, with electricity and regulator &	Contractor	Daily entry-sheet of the workforce in the campsites Number of local people versus outside workers in the sub project area will be regularly monitored	146,000.00	Monthly inspection at campsites (if any) by PIU.

		adequate fuel supplies of LPG or Kerosene - The use of local workers will be maximized in order to mitigate the impact. The use of locals will not only help in minimizing the adverse impact associated with the change in lifestyle but also a milestone to enhance the local economy through employment and cash flow. - Construction workers from outside the project area will be well-informed about the general norms and values of society before deployment. The construction workforce will be instructed to respect local people, especially the female members and the local culture and tradition. - A Code of Conduct (CoC) will be prepared for the construction workforce and the project staff on how to behave with the local people of the project area, which besides others will include a) Respect to the local people their culture, traditions and women; b) Not indulge in any conflict with the local people; c) Not to gamble with the local community people; d) Not to drink alcohol outside the construction camps and roam				
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		local markets after consuming alcohol.				
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Occupational Health & Safety	During the construction work, the laborers involved in the construction activities may be exposed to different level of health risks and are prone to accidents	- Mandatory use of safety measures (PPEs) such as mask, helmet, hand gloves and rubber boots, etc. - The laborers will be insured for their health and safety. - Provide safe drinking water for labors - First aid box will be kept at a proper and easily accessible place. - Prohibit child labor and forced labor in all construction activities. - Provide comprehensive training to all workers on occupational health and safety practices. This should include proper use of personal protective equipment (PPE), safe work procedures, emergency protocols, and awareness of specific hazards related to the construction site. - Contractor will arrange the First Aid Kit Box and standby medicine for workforce during working period and emergency situations. Adequate and easily accessible first-aid outfit should be available on the site. Some of the work force should be trained to use the outfit. The contractor should also make provisions for an ambulance to take	Contractor	Availability of personal protective equipment, First-aid facilities, Medical insurance coverage for workers, Housekeeping and condition of sleeping and sanitation facilities at campsite (if any), Roster of workers	50,000.00	Daily (or when there is a construction activity) by the Contractor/MS T. Monthly visual and document inspection by PIU

		injured for ill person to the nearest hospital, if needed - Construction workers will be trained in job hazards, emergency procedures and in any other relevant safety measures. - Active sites will be well demarcated and bounded. Excavated sites will be well bounded with hard barricades, where necessary. - Unauthorized entry to active construction sites and stockpile sites will be strictly regulated. - Movement of vehicles for construction activities will be strictly regulated under safety guidelines. - Code of Conduct (CoC) will be implied for the workforce so that they have no conflict with the local communities. - Systematic labor registration procedures will be adopted for keeping up-to-date information of all workers including contact details of the person to be contacted in case of emergency. -				
Social Harmony	-Changes in social structure, cultural and traditional practices of the rural people due to exposition to the outside workforce	-Workforce will be informed about the culture and living style of the project area. They will be instructed to respect the locally accepted culture and living style. - Special instruction will be given to all				

	- Conflict between Local and Outside Workers and erosion of law and order situation of the project area	workers to act in responsible manner during and after the working hours, respecting the rights, properties and practices of local people. - The use of local workers will be maximized in order to mitigate the impact. The use of locals will not only help in minimizing the adverse impact associated with the change in lifestyle but also a milestone to enhance the local economy through employment and cash flow. - Preference will be given to the local people in project related jobs and subsidiary opportunities - Construction workers from outside the project area will be well-informed about the general norms and values of society before deployment. The construction workforce will be instructed to respect local people, especially the female members and the local culture and tradition. -A code of conduct (CoC) will be prepared for the construction workforce and the project staff on how to behave with the local people of the project area, which besides others will include a) Respect to the local people their culture, traditions and women; b) Not indulge in any conflict with the local people; c) Not to gamble with the local community people; d) Not to drink alcohol outside the construction camps and roam local markets after				
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		consuming alcohol. -				
GRM, Social Disturbance / Risk of SEA/SH, Human trafficking, GBV, HIV AIDS and Communicable diseases	During the construction work, the laborers including the community, may be exposed to risk of SEA/SH, Human Trafficking, GBV, HIV AIDS and Communicable diseases.	(i) Regarding SEA/SH, GBV - Locals will be given due priority for any employment opportunity - GRM will be established for the workers, focal person handling GRM including SEA/SH will be assigned, and every laborer will be informed of the GRM. - Follow Code of Conduct which applies to staff, laborers and others employees at works site, personnel of subcontractors, any other personal assisting in the execution of the sub project works. - CoC will be COC signed, oriented on the CoC to ensure it is understood by those signing, and strictly adhered to and monitored for all workers. Signed copies of code of conduct will be maintained. - Separate toilets will be provided for male and female workers - SEA/SH, GBV awareness raising activities, trainings and stakeholder engagements such as community based awareness programs, and school based awareness programs will be carried out. The focal person (Yamuna Bist) of Anti-	PIU	Regular monitoring and supervision of construction site/ camp - Information related to SEA/SH, Human trafficking, GBV, HIV AIDS and Communicable diseases	50,000.00	Daily (or when there is a construction activity) by the Contractor. MST/ PIU Rural Municipality

		harassment Cell Department of Women and children under social development unit of Janaki RM will be part of trainings, awareness programs regarding SEA/SH. - SEA/SH grievances received by Levels 1 and 2 GRM will be referred to PIU/RM with utmost confidentiality. Individuals can also take their grievances to the focal person of Department of Women and children under social development unit of Janaki RM. Awareness program for women and against the gender based violence will be conducted for the workers as well as the local community regarding these concerns - 4 orientations/trainings with at least 25 participants in each training; to be conducted during Pre-construction and during Construction period. - Awareness program for women and against the gender-based violence will be conducted for the workers as well as the local community including school children regarding these concerns. (ii) HIV AIDS & Communicable diseases ▪ Awareness creation and				
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		sensitization to workers and other persons post- project to reduce or eliminate chances of infections of HIV-AIDS and other sexually transmitted diseases ▪ Distribute HIV & AIDS awareness materials in collaboration local health related agencies ▪ Ensure protective measures for communicable diseases is followed, prepare and follow SOPs by all workers and staff (hand washing, using sanitizer, masks etc.) including the community health and safety awareness and management ▪ Health screening of the workers will be carried out before joining them into workforce ▪ Emergency Response Plan will be implemented during any critical circumstances (e.g. COVID spread)				
Child labour, forced labour and wage discrimination	During the construction work, the laborers involved in the construction activities may be a Children	- Grievance Redress Mechanism will be established for labor issues, focal person handling worker related GRM will be assigned and every laborer will be informed of the GRM. - Grievances box will be installed in contractor and labor camp. - Child labour & forced labour will be strictly prohibited - Copies of citizenship card or other valid personal ID card will be kept	Rural Municipality/ Contractor	- Copies of citizenship card or other valid personal ID card will be seen if any doubt		Daily by the Contractor. MST Monthly visual inspection by PIU

		- in record of the workers - Awareness among the workers and the local community (at least two) will be conducted - Equal wage for male and female workers will be ensured				
Community Health & Safety	Overall, communities will be exposed to cross-cutting threats from construction's impacts on air and water quality, ambient noise level; Chances of accidents, Communicable and transmittable diseases may potentially be brought into the community by construction workers	- Contractor's will maintain adequate space and adequate lighting, temporary fence, barriers and signage at worksites; - Children and community members will be prohibited from active construction sites. - Proper fencing of stockpile areas - Awareness programs on communicable diseases and hygiene practices will be carried out - Disseminate the GRM to communities and affected stakeholders during consultations, community meeting, disseminate through local media and newspaper. - Sensitive localities in terms of risk of this environmental, social and health related impact is Janaki Rural Municipality ward-01 and 03. - Inform and regularly update and organize awareness campaigns targeting the affected communities, including vulnerable groups, about potential project hazards and changes to project activities that may have	Rural Municipality/ Contractor	-Number of permanent signs, barricades and flagmen on worksites -Number of complaints from sensitive receptors; Number of walkways, signs, and metal sheets placed at sub project location	100,000.00	Daily by the Contractor/ MST. Monthly visual inspection by PIU

		environmental, health, or safety impacts, as well as the proposed prevention, mitigation, and emergency response measures. - Active sites will be well demarcated and bounded. Excavated sites will be well bounded with hard barricades. - Unauthorized entry to active construction sites and stockpile sites will be strictly regulated. - Movement of vehicles for construction activities will be strictly regulated under safety guidelines. - Code of conducts will be implied for the workforce so that they have no conflict with the local communities. - Provision of ramps will be made where trenching works are being carried out to provide access to houses and businesses.				
3. During Operation and Maintenance Phase						
Exposure to chemicals	Excessive exposure to chlorine, hypochlorous acid, and hypochlorite ion generally results in irritation of the esophagus, a burning sensation in the mouth and throat.	- All disinfection chemicals require proper storage and handling practices - Provide safe storage for chemicals - Ensure that the person is hired, with knowledge of chlorine use for disinfection process during operation - Ensure use of PPE while using chemicals - Use of chlorine guideline as per	Contractor during DLP; WSUC or Operator after DLP	Visual inspection		Daily (or as needed) by the operator.

		WHO - Training on the handling and on dosage of the chemicals will be given to the staff. Ensure there is storage area for chemicals in compliance with the Material Safety Data Sheet (MSDS) for each substance. This includes: • Storing chemicals in appropriate containers that are compatible with the substances. • Ensuring proper labeling and segregation of incompatible chemicals (e.g., acids and bases, oxidizers and flammables). • Maintaining temperature, ventilation, and humidity controls as specified in the SDS. • Implementing secondary containment measures to prevent spills or leaks. - Ensuring easy access to spill kits, eye-wash stations, and fire extinguishers in case of emergencies." - Additional measures, as required, will be defined in the O&M manual of the water treatment facility and operation of the pipeline.				
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Water bodies	Water pollution due to effluent produced from the periodic Back washing of the filter plant, if discharged directly to the river course may cause harm to the water bodies and aquatic life especially during the dry season when flow will be less.	- A settling tank is proposed for decanting of the slurry from the effluent during backwash	Contractor during DLP; WSUC or Operator after DLP	Visual inspection Effluent sampling		For first year, DSMC After that WSUC daily inspection or as needed. Effluent sampling by the operator, only when necessary or practical.
Drinking water supply system	Delivery of unsafe water due to source contamination, leakage in pipes	- The operations and maintenance plan and training for staff will cover; - (i) Competent/cautions handling and storage of calcium Hypochlorite and qualified persons to implement/oversee disinfection and treatment;(ii) Providing safe storage for chemicals; in compliance with the Material Safety Data Sheet (MSDS) for each substance. - (iii) ensure capacity of WSUC to implement quick response to hazardous substance/waste spills; - (iv) Implement Safeguard Policy Statement (SPS)-complaint EMP and a WSP. This policy ensures that the water supply sub-project is environmentally and socially sustainable; and	Contractor during DLP; WSUC or Operator after DLP	Visual inspection Water Quality reports WTP records in the logbook		Daily or as needed visual inspection by the operator. Quarterly or as needed water quality testing by the operator.

		- (v) Monitor water quality.				
-Impact on Water Pollution -Pollution and nuisance due to sludge removal and its disposal	If the effluents from the WTP and waste water from the labor camp is not well treated, then there will be risk of pollution of local water bodies due to the discharge of effluent and liquid waste. However, likeliness of occurrence of this case is very low.	- The treatment plant will be cleaned on regular basis. - Quality of the effluent will be regularly monitored to ensure that the effluent meets the GoN tolerance limits of discharge of waste water from combined wastewater treatment plant - The operation and maintenance of the WTP will be carried out on timely and regular basis as per it O&M plan. - Standard Operation Procedure (SoP) will be adopted for the operation of WTP. - Sludge will be handled only by designated trained team authorize by the municipality and taken to the Tikapur fecal Sludge management (FSM) treatment plant. - Sludge will be disposed to the sludge drying bed or other designated place under coordination and permission of the municipality	Contractor during DLP; WSUC or Operator after DLP	Visual inspection Water Quality reports WTP records in the logbook		Daily or as needed visual inspection by the operator. Quarterly or as needed water quality testing by the operator.

4.2 Capacity Development and Training

To enhance the capacity of officials for effective implementation of proposed mitigation measures and monitoring the resultant effect, as well as create awareness among workers and supervision staff, trainings and awareness programmes have been planned and is given in Table. The PMU, PST, PIU, MST can be consulted for such trainings. Experts/Consultants can also be the resource persons to impart trainings. These experts shall be appointed based on specific need for the training.

Table 9: Details of proposed training program

S. N	Title	Objective	Time of training	Duration/ Days	Participants
1	Orientation on E&S by PMU/PST MST/PIU.	-ESMF requirements -Roles & responsibilities of contractor & MWASH unit -Identification of social issues -Addressing social impacts -Preparing mitigation plans	Pre-construction stage(when contractors are substantially mobilized)	1 Day	PIU/MST/Contractor/MWASH unit
2	Environmental and Social Management Plan (ESMP) Implementation Training by PMU/PST to MST/MWASH Unit	-To implement ESMP efficiently and accurately, leading to unfavorable impacts to environment workers and community.	Before mobilization of contractor	1 Day	PMU/PST/PIU/MST/MWASH unit
3	Focused training on specific issues by PIU/MST to Labours/Contractor	-Issues relating to wage parity, child labour etc.	During construction or when needed	½ Day	PIU/MST/Contractor/MWASH unit
4	Training on STDs/ HIV Aids issues by MST/PIU to labour/Contractor	-To increase the level of awareness about prevention and control of STDs/HIV Aids among communities.	During construction	1 Day	PIU/MST/Contractor/MWASH unit
5	Training on occupational Health by PIU/MST to labours/Contractor	-To ensure the safety health and welfare of labours and others who may be affected	During construction	1 Day	PIU/MST/Contractor/MWASH unit
6	Road safety by PIU/MWASH unit/MST to labours/contractor	-To raise road safety consciousness among the road users	During construction/During trench excavation along	1 Day	PIU/MST/Contractor/MWASH unit

			the road.		
7	Operation and Maintenance of the Facilities (O&M Manual)	-To train the O&M staff on the implementation of operation phase E&S measures	During the DLP	1 Day	PIU/MWASH unit

4.3 Summary of cost of ESMP activities

The summary of costs for Environmental and Social Management Plan (ESMP) activities during the construction and operation phases itemizes expenses under various subjects, as shown in Table 4. These costs exclude mitigation actions that are typically the contractor's responsibility. Most physical environmental impact mitigation costs are included in the project cost or associated with contract bids, with some measures being non-cost bearing.

Mitigation costs for operation phase activities, such as infrastructure rehabilitation and periodic maintenance of the Durgauli WSS Sub-Project are not included. The proponent will cover all environmental management costs beyond the contractor's legal liabilities and the legal roles & responsibilities of governmental institutions.

Table 10: Summary of costs of ESMP Activities

S.N.	Items & Headings	Unit	Qty.	Rate	Total, NPR	Reference
	Provisional Sum amount					
1	Water quality test	Samples	30	2000	60,000.00	Dhangadhi Lab
2	Air quality and Noise level monitoring	Samples	2	90,000	1,80,000.00	Consulting with the air, water and noise level monitoring lab. (Once in a year)
4	Greenery promotion	Job	LS	5,00,000	5,00,000.00	Consulting with Nursery.
5	Water Sprinkling	Job	LS	50,000	50,000.00	As per the site accessibility.
6	No horn sign installation	Job	LS	20,000	20,000.00	As per local market price
7	Waste collection bins	Job	LS	10,000	10,000.00	As per local market price
8	First Aid and medication	Job	LS	50,000	50,000.00	As per local market price
9	Environment and Social Awareness, Worker's & Community's Health and Safety and WASH Promotion (<i>Events will be conducted for workers as well as community</i>)					

(i)	Environmental and Social Awareness (during Pre-construction phase and construction phase; at least 30 participants/event)	Events	2	25,000	50,000.00	
(ii)	Occupational Health and Safety (including GBV, SEA/SH, HIV AIDS & Communicable diseases at least 35 participants in each orientation/training, during pre-construction and construction phase)	Events	2	25,000	50,000.00	
(iii)	Community level awareness on WASH and Sanitation and on SEA/SH	Events	2	20,000	40,000.00	
(iv)	Labour Camp management	Job	LS	1,46,000	1,46,000.00	
10	Stockpile/Construction Waste Disposal Management	Job	LS	1,40,000	1,40,000.00	
11	Environment & Social safeguards (grievance meetings, site monitoring, etc.)	Meetings /Events	18	8,000	1,44,000.00	
12	Information dissemination materials and medium					
	(a) Leaflets	Job	LS	10,000	10,000.00	Consulting with local press & media.
	(b) PSA (local media)	Job	2	25,000	50,000.00	Consulting with local press and media.
	Total				15,00,000.00	(In Words: Fifteen Lakhs Rupees Only)

Note: Environmental Mitigation will be covered from Provisional Sum A2 in Item no.2 of Contactor's BoQ & Community level awareness program will be conducted by PIU & MST

4.4 Environmental and Social Monitoring

Environmental monitoring is an essential aspect of environmental management. It consists of collection of data to measure environmental changes associated with implementation of the proposal. The purpose of monitoring is to investigate and understand the quality of the environment prior to implementation of the proposal and keep records of the impact of implementation of the proposal on the environmental quality so as to provide reliable information and scientific basis for environmental management. Therefore, environmental monitoring is a mechanism which evaluates whether the mitigation actions were actually carried out or not and evaluates the effectiveness of the implemented measures to curb the perceived impacts or identify unforeseen impacts for further corrective actions to avoid or minimize the impacts before it is too late.

Existing Environment Protection Act, 2076 and Environment Protection Rule, 2077 obliges the proponent to comply with the matters mentioned in the environmental management plan

and provides the responsibility to the concerned department or ministry; these are basically related with the projects requiring environmental studies pertaining to these laws. Rule 45 of Environment Protection Rule, 2077 indicates towards self-monitoring of environmental impacts of implementation of the proposal and submit the report to the concerned agency.

Basically, two types of environmental monitoring will be carried out for this project: Impact Monitoring and Compliance Monitoring.

Impact monitoring will be carried out to assess the actual level of impact due to project construction. The impact monitoring includes:

- Monitoring of the impacts of the project on physical, biological and socioeconomic and cultural environment of the area;
- Monitoring of the accuracy of the predicted impacts;
- Identification of the emerging impacts due to project activities or natural process and development of remedial action; and
- Monitoring of the effectiveness of mitigation measures.

Compliance monitoring will be conducted to monitor the compliance of the proposed mitigation measures and regular monitoring activities by the PIU/MST. The compliance monitoring will mainly focus on:

- Compliance of the mitigation measures and specification in accordance with the environmental and social management plan;
- Allocation of adequate budget for implementation of mitigation measures and monitoring;
- Compliance of existing act, regulation and guidelines and mandate relevant with the proposal; and
- Overall environmental and social performance of the project.

4.5 E&S Reporting

The MST is responsible for the day to day monitoring and reporting of the Contractor's E&S compliance. The MST will prepare monthly E&S progress reports and submit them to the PIU. The PIU will compile these monthly reports and, in coordination with MST, prepare a quarterly monitoring report. This quarterly report will then be submitted to the PMU, which will share it with the World Bank. In addition to these regular reports, the PMU, in coordination with the PIU, PST, and MST, will prepare an annual E&S monitoring report. This annual report will also be shared with the WB.

The monitoring plans have been presented in the form of matrix/table below. The plan includes the parameters to be monitored, the measurable indicators, the method, location and

schedule. The schedule of monitoring will be daily, weekly, monthly, quarterly, half yearly or annually depending on the parameter and type of monitoring.

Table 11: Compliance Monitoring Plan

Issues	Indicators	Method	Schedule	Location	Responsibility	Agencies to be consulted
Construction Phase						
Approval of operation plan of Janaki Rural Municipality with proposed intervention	Approval letter	Review of approval letter	Prior initiation of work or Prior procurement	Janaki Rural Municipality	PIU/MST	
Implementation of recommendations (mitigation and enhancement measures and monitoring requirements)	Inclusion of each of the environmental considerations from the tender documents in the contractor's or executor's work plan e.g. C-ESMP, Traffic management Plan, Earthwork Segmentation Plan, as applicable)	Review of proposed work plans, submitted by contractor or executing authority	During contract negotiations	Janaki Rural Municipality	PIU/RM	
Mitigation management (Compliance with ESMP)	Budget allocation for mitigation measures and monitoring	Review of project budget document	Annual	Janaki Rural Municipality	RM/PIU/ MST	
Implementation of construction phase monitoring	Monitoring report and budget allocation for corrective actions	Review of monitoring report and budget allocation for corrective	Annual	Janaki Rural Municipality	RM/PIU/ MST	

		actions				
Operation Phase						
Operation phase mitigation management	Budget allocation for mitigation measures for operation phase	Review of project budget document	Annual	Janaki Rural Municipality	RM/ MWASH Unit	
Implementation of operation phase monitoring	Monitoring report and budget allocation for corrective actions	Review of monitoring report and budget allocation for corrective actions	Annual	Janaki Rural Municipality	RM/MWASH Unit	

Table 12: Impact Monitoring Plan

Parameter	Indicators	Method	Location	Frequency & Schedule	Agencies to be consulted
Construction Phase					
Physical Environment					
Air quality	Dust and smoke	Field observation	Construction area and access road	Once in a Year	
Noise pollution	Noise level	Field observation and discussion	Construction site and access road	Once in a Year	
Land pollution	Open defecation and garbage disposal places	Direct observation	Disposal site	Daily	
Biological Environment					
Vegetation	No. of trees felled and area of site cleared	Site observation and record checking	Embankment site	Daily	
Socio-economic and Cultural Environment					

Existing infrastructure	Damages of road and culvert, access to houses	Observation and discussion with local people	Access road	Weekly during construction	
Law and Order	Incidents of different types of crimes in the project area; complaints in the local police	Discussions with the local people and the local police	Project area and surrounding	Monthly during construction	Local Police Office
Labor Issues	Number and type of grievances related to workers, number of grievances resolved, labor records	Site visits, visual inspections, reports and photographs, review of workers' grievances register		Regular	
Information disclosure, stakeholder engagements, GRM	-Number, type and topic of engagement activities Number, type and status of grievances -Number and type of engagement activities with vulnerable groups	Observation, discussion with the locals, GRM register and other reports/documents		Regular	
Occupational health and safety	Cases of accidents and injury	Observation and record checking	Active construction sites	Weekly	Health institutions
Traffic and road safety	Status of road for use; road accidents	Observation and record checking	Observation and record checking	Daily	
Gender, children and vulnerable group	Number of such people employed	Review of attendance and discussion	Construction site	Weekly	
Operation Phase					
Physical Environment					
Land pollution	Open defecation and garbage disposal places	Direct observation	Water Supply & Sanitation Project site and	Monthly	

			surrounding		
Biological Environment					
Vegetation	Survival of plantations	Site observation and counting	Plantation sites	Monthly for 5 years	
Socio-economic and Cultural					
Existing infrastructures	Damages of road and culverts	Discussion with local people	Access road	Monthly	
Law and Order	Incidents of different types of crimes in the project area; complaints in the local police	Discussions with the local people and the local police	Surrounding settlements	Monthly	Local Police Office
Gender and social inclusion	Involvement of women and vulnerable groups in tourism business	Interview with local people	Water Supply & Sanitation Project site and surrounding	Biannually	Municipality / Wards
Livelihood of local users	Involvement of users in commercial agriculture/tourism business/other related ventures	Interview with local people	Water Supply & Sanitation Project site and surrounding	Annually	Municipality / Wards

4.5 Implementation Schedule

The project is schedule for implementation after completion of tender process, which will be after the approval of all project documents (Design and drawing, cost estimate and ESMP) and completed within 18 month form the date of contract signing.

4.6 Project Environmental Management Framework and the Key Stakeholders

Overall project environmental management framework is the responsibility of the project proponent, Janaki Rural Municipality. The Janaki RM under its leadership will form a project implementation committee (PIC) including all other local level stakeholders. The PIC will procure construction contractor and oversee the overall construction activities. It will also monitor the performance of environmental and social safeguard measures.

The key stakeholders including the Janaki Rural Municipality, to be involved in the project management are:

- a) **World Bank:** Implementation of World Bank's Environmental and Social Framework (ESF), work plans, directives and guidelines as required, review monitoring report.
- b) **Project Implementation Unit (PIU):** The PIU will supervise the Municipality Support Team (MST) to aid in infrastructure development, construction oversight, and reporting. It will spearhead federal and provincial efforts to enhance sector governance, institutional capacity, and resilience of water supply and sanitation infrastructure through integrated watershed management, in collaboration with the municipalities.
- c) **Municipal WASH (M-WASH) Unit:** It include developing WASH governance, policy, and institutional arrangements, programming and regulation of municipality-wide water and sanitation services, as well as planning, managing, and monitoring the implementation of local water supply and sanitation services as provided for by the Constitutional provision and Local Governance Operations Act, 2017.
- d) **Project Support Team (PST):** The PST supports the Municipal Support Team by offering guidance on local project execution, capacity building, and community engagement, while also aiding the Project Management Unit (PMU) by providing essential data, reports, and on-the-ground insights to inform decision-making and ensure alignment with project objectives.
- e) **Municipal Support Team (MST):** MST offer specialized technical aid to the PIU, focusing on governance, institutional support, planning, design and construction supervision of infrastructure project. It aims to strengthen the M-WASH Unit's capacity in planning and managing water and sanitation services effectively. MST is also responsible for contractor's daily compliance monitoring.
- f) **Contractor:** The Contractor is responsible to plan, execute, supervise, inspect and direct a construction project from start to finish regardless of the scope of the project. The contractor ensures that the project complies with the ESMP and all the specifications as outlined in the contract documents.
- g) **Sub-Contractor:** Subcontractor/Supplier is an institution, awarded a portion of an existing contract by a principal or general contractor. Subcontractor/Supplier performs work under a contract with a general contractor. Essentially, a Subcontractor/Supplier will perform and abide by all the obligations of the principal or general contractor's contract, including compliance to ESMP and all specifications in the contract documents.

- h) E&S Specialist / E&S Consultant:** The E&S Specialist are there in PMU, PST and MST who carry out the required E&S assessments and prepare reports. They provide guidance to PMU and PIU for effective implementation of ESMP recommendations. The MST E&S Specialists support the PIU to carryout day to day compliance monitoring of the Contractor's responsibilities. The Contractor will hire its own E&S Specialists to implement its E&S responsibilities as per the contract. In the guidance of PST/PMU E&S specialist, E&S specialist of MST prepare the site-specific environmental and social management plan (ESMP) report. E&S specialist support and provide guidance to PIU to ensure that the relevant E&S instruments/ESMP/ESSR/ESCoP etc. and also effective implementation of these reports for the sub-projects.
- i) Affected Wards, Municipality and District Coordination Committee (DCC):** Provide recommendations to the proponent with comments and suggestions and assist proponent in the project implementation.

4.7 Social Accountability and Grievance Redress Mechanism

The stakeholders may raise any grievances related to the impacts on them or any other grievances. Such types of grievances need to be addressed through Grievance Redress Mechanism (GRM) for timely response on stakeholder's query and concerns. At first instance, the project-affected grievant should raise their grievance with the Grievance Committee of the project, and the Grievance committee 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 ward Level GRC has been formed at project's ward level. RM Level GRC has already been established under coordination of the Chairperson of the Janaki RM (Mr. Ganesh Chaudhary). At the RM level, the staffing of the Grievance Redress Committee (GRC) includes RM Vice Chairperson, Administrative officer, PIU Manager, MWASH Unit. (The details are provided in Annex 2). The notice regarding formation of ward Level GRC and RM Level GRC has been published and shared to the stakeholders.

The 2nd level GRC will be at the PMU level, comprising members from the PMU. This committee formed under the chairmanship of the Project Director (PD), the staffing of the Grievance Redress Committee (GRC) includes Social Development Expert of PMU and one other employee appointed by the PD. These three -member committee can also take the help of external experts or organizations if necessary to investigate and address complaints. Special project grievance mechanisms such as on site provision of complain hearings allows project affected persons to get fair treatment on time. The sub project 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.

Grievances about GBV

There is an existing GRM put in place for the project which will also be used for addressing GBV and SEA/SH-related issues at the PMU. In case of sub-project, there is Department of Women and Children (DWC) under social development unit of Janaki Rural Municipality to resolve the GBV/SEA/SH issues. The Janaki RM has nominated GBV and SEA/SH focal person (Mrs Yamuna Bist). However, the PIU/MST will also map out any GBV service providers in the project area so that the focal person can also access any support and timely advice in cases related to GBV and SEA/SH. The project will place its uppermost priority on handling and managing the GBV-related grievance by maintaining full confidentiality of the survivor. The first responders of the grievances in relation to GBV will be the GBV focal person and the focal person will be trained on managing and handling such grievances. GBV referral pathway will be established and communicated to both PMU at the DoWSSM and local level. Further, the GRM will also put in place a system to immediately notify both the PMU and the World Bank of any GBV complaints, with the consent of the survivor. As per the requirement of the World Bank, the PMU, in support of the World Bank, will prepare and implement the SEA/SH Action Plan before the implementation of the project.

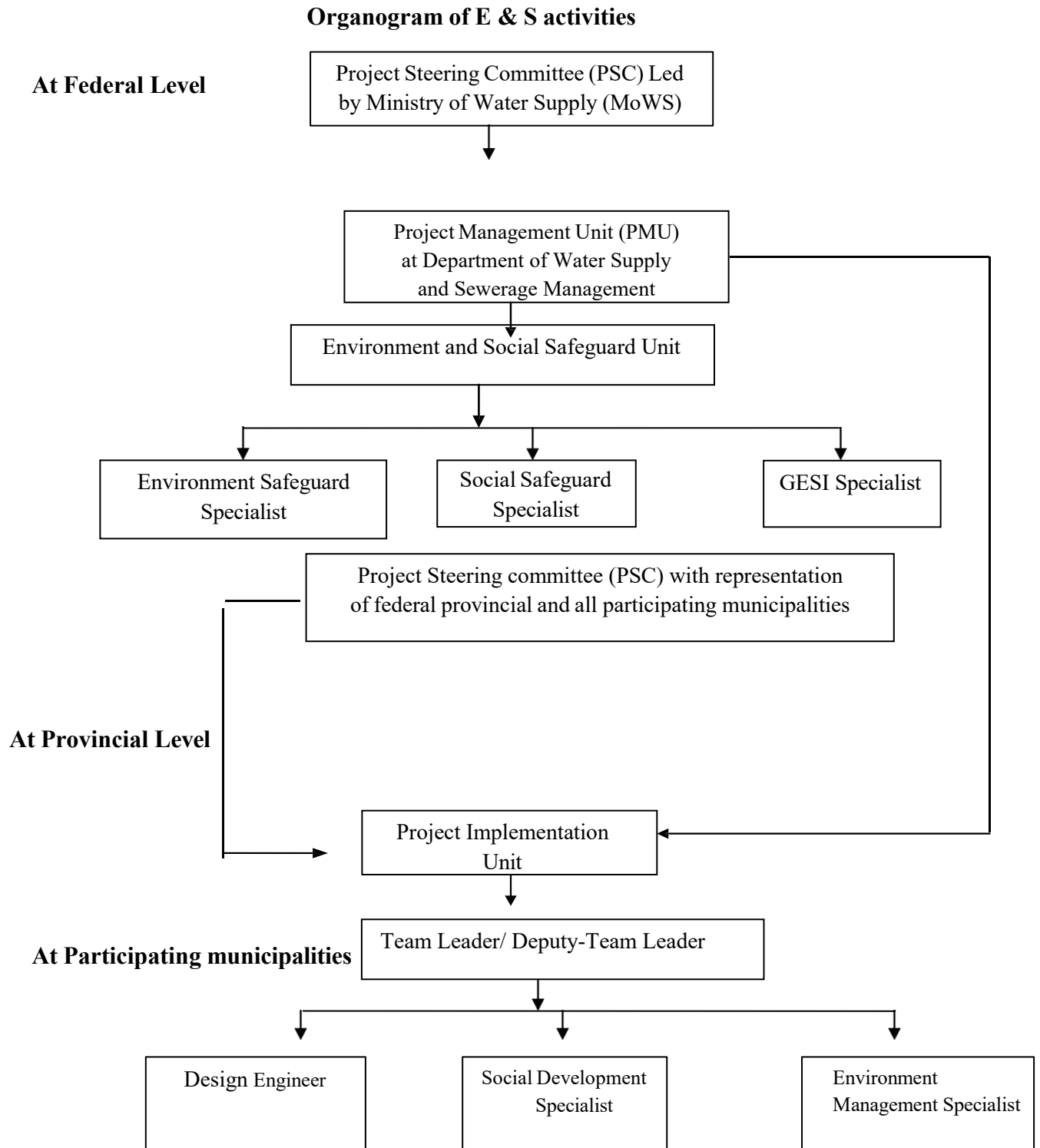


Figure 4: Organogram of E & S activities related to the project

5. STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE

5.1 Public Consultation

Public 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 sub project, social & environmental risk, and GBV aspects were discussed during the public consultations. Separate consultations with women, Dalits, and Tharu and other disadvantaged groups living in the service area were organized to discuss potential E&S issues related to proposed water supply sub-project. (Please see annex II for details) The major concerns discussed during the public consultations were as followings;

- Information regarding enhancement and construction of sub-project as well as about pipe laying work is given to the local people.
- Priority for sub-project construction was requested, and the locals also demanded for employment opportunities in the project's construction works as per their skill.
- The locals requested to provide subsidy tap and toilet construction for poor and marginalized households.
- A detailed discussion was held regarding the need for proper management and prior information in case of interruption of water supply and electricity during pipeline expansion.
- 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

For instance, the group of directly beneficial people is those living nearby WSS project area. The aim was to identify possible environmental and social impacts that might arise from the proposed project activities. Moreover, the applicable suggestions and recommendations have been incorporated in the proposed project design/ESMP preparation. According to the site survey during the ESMP, within the directly impacted area of Janaki Rural Municipality ward no.01, people expressed their concerns about various kinds of environmental impacts caused by the project. People around the selected site expressed some comments on construction at that site, citing noise and other impacts to the surrounding communities. Public concerns and corresponding mitigation measures are summarized in table;

Table 13: Public concern and Mitigation Measures

Public concerns	Mitigate measures
Dust during construction	Regular water sprinkling and speed limits
Noise during construction	Prepare reasonable construction program; Avoid night construction as much as possible;
Wastewater and solid waste from construction camps	Use existing living facilities as much as possible; Build septic tanks on Public Toilet construction sites; Transport solid waste to location or landfills designated by local environmental and sanitary authorities;
Noise generated during trench excavation work and other construction activities	Select low-noise equipment; Deploy acoustic barriers
Accident may occur during trench excavation	Immediately backfilling and placed the caution board at both side of excavated trench. Pre-inform to the

5.2 Stakeholder Consultations Plan for Implementation Phase

Consultations during implementation phase will include direct interactions with the Project Impacted Persons. PIU, MST and contractor will conduct regular consultations with PAPs as well as local user's committees, local unit of electricity office, and other stakeholders. All consultation on social and environmental issues carried out during implementation of sub projects 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. The stakeholder engagement plan will be as per the Table 12 below.

Table 14: Stakeholder Engagement Plan

During Construction				
Topic	Stakeholders	Engagement Method	Frequency	Responsibility
▪ Disclosure of ESMP (and updated ESMP), including C-ESMP ▪ ESMF, SEP, and LMP ▪ Delineate Labour Influx Management Procedures ▪ Activities planned for SEA/SH and GBV ▪ Awareness of HIV and other	▪ Janaki Rural Municipality and concerned officials of the Municipality and MWASH Units ▪ Project affected Ward chairs ▪ Tole Committees ▪ Local Community of the	▪ FGDs and targeted outreach activities with women, IP organizations, and other vulnerable groups, such as Dalits (Application of audio/visual communication techniques and other accessible formats) ▪ Community radio and local media ▪ Notice Boards ▪ Periodic information disclosure activities	Periodically throughout project implementation For planned construction activities, the community will be informed a week before the construction work and a day before construction work in the construction-planned areas.	PIU/MST Contractors

communicable diseases ▪ GRM for SEA/SH ▪ Project GRM ▪ Planned construction activities	project area ▪ Community Leaders ▪ Local CBOs and NGOs working on WASH and GBV			
▪ Beneficiary satisfaction survey	▪ Target beneficiaries of the project	▪ Beneficiary satisfaction survey	The first survey after two years of implementation, and last survey during the final year of operation	PMU/PST/MST

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 Project area people and interested stakeholders. In collaboration with the relevant local authorities 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 on-going and planned activities, to identify jointly appropriate protective or corrective measures. All the relevant E&S documents will also be published in the PMU website. 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 newspapers, radio and TV.
- Meeting/Workshops, Targeted FGDs, Notice Boards, social media, consultations
- Distribution of project documents, information leaflets and brochures: Certain project documents will be disclosed in Nepali (if necessary in 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, community leaders, Toile Committee, relevant CBOs and NGOs.

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, the municipality will unveil the information through its website. The information disclosure activities are as per the table below.

Table 15: Proposed Strategy for Information Disclosure

Target stakeholders	List of information to be disclosed	Methods and timing proposed activities
Project implementation phase		
- Government officials (Federal, provincial, and Municipality officials including the wards) - District line agencies	- Planned and ongoing activities - Regular updates on project status, including the implementation of ESMP, C-ESMP, ESMF, LMP, SEP - GRM - SEA/SH and GBV activities	- Sharing project update and reports through meetings - Consultation and face-to-face meetings - Information boards, leaflets, and brochures - PMU/PIU websites
- CBOs and NGOs working on WASH - Local NGOs and CBOs working on GBV - Community leaders - National & local Media - Local Community	- Project concept and planned activities - ESMF, IEE, SEP, Labour Influx management procedures - SEA/SH Activities and GRM procedures for SEA/SH - GRM procedure - Planned construction activities	- Information boards, leaflets, and brochures - PMU/PIU websites - Meetings and workshops
- Individuals and communities with a focus on vulnerable groups, including IPs, women, and Dalits - Local NGOs and CSOs working on WASH and GBV	- Project concept and activities - E&S procedures and management plans (ESMP, C-ESMP) - GRM procedures, ESMF and Labour Influx management procedures, SEP and - Planned construction activities - SEA/SH activities and GRM procedure for SEA/SH - Revised project information if any	- Regular release of public notices through mass media, community radio, television, and social media - Regular updates of information on the PMU/PIU website - Distribute information leaflets and brochures to public - Air project information/ messages through community radio - Periodic small group meetings with vulnerable and IP groups - Regular contacts with the representatives of IP and vulnerable groups through phone calls, emails, text messages (Application of audio/visual communication techniques, and other accessible formats)

6. Conclusion and Recommendation

DWSS sub-project in Janaki Rural Municipality aims to enhance water supply infrastructure while minimizing environmental and social impacts. The major construction work of this WSS sub-project has already been completed. The current intervention under DWSS sub-project include the enhancement of the existing OHT, construction of an additional 230 cum Balancing Ground Reservoir (BWR), laying 46 Km distribution pipeline, installation of 1,046 new HH connection, rehabilitation of 42 existing HH connections, construction of a 104 meter stone masonry wall at Bijuliya Kula, and other minor repair and maintenance works.. A key component of this sub-project is the installation of 46 kilometers of pipeline along existing roads..

The DWSS sub-project does not transverse any protected areas or private land. It does not involve any physical displacement. Therefore, the project is anticipated to have moderate environmental and social impacts and has been classified as Category III. The identified impacts are addressed through a site-specific Environmental and Social Management Plan (ESMP).

The ESMP outlines measures to obtain necessary consents, manage waste, and mitigate disruptions during construction. Occupational health and safety measures include personal protective equipment and first aid provisions. During operation, water quality and infrastructure maintenance will be monitored for long-term sustainability. Overall, the project exemplifies responsible development practices, ensuring community well-being and environmental protection. A total of NRs 15, 00,000.00 is allocated for mitigating construction and operation phase impacts. These costs are meticulously considered, ensuring financial feasibility and comprehensive coverage of environmental management responsibilities and legal liabilities.

In conclusion, the ESMP demonstrates the project's dedication to responsible environmental stewardship. Through compliance with environmental legislation and regulations, such as the Environment Protection Act and Environment Protection Rule, the project ensures accountability. The plan includes impact and compliance monitoring across various environmental and social aspects, reflecting a holistic approach. Additionally, the ESMP outlines the roles of stakeholders and emphasizes social accountability via a Grievance Redress Mechanism (GRM) at project and central levels. This comprehensive framework underscores the project's commitment to sustainable development and minimizing adverse environmental and social impacts.

Annex- I: Environmental and Social Screening Checklist

I- Sub-project Background

1	Name of the Sub Project	Durgauli Water Supply and Sanitation Project
2	Location	Municipality/ Rural Municipality: Janaki Ward No: 01 District: Kailali Province: Sudupaschim Altitude: 110
3	Co-ordinate (GPS)	Latitude: 28° 33' 26.05896'' N Longitude: 81°6'33.84036'' E
	Project's boundaries in four directions and the area of influence	East: Bijuliya Kula, West: Radha Krishna Temple North: Saraswoti Secondary School South: Sports Hall
4	Type of Sub-project	Water Supply
5	Proponent	Rural Municipality

II- Environmental and Social Screening

S.N.	Screening Checklist	Response (Yes/No)	Remarks/Comments (Provide information/ justification either for "Yes" or "No" if applicable)
A	Environmental Screening		
1	Is the sub-project site located within any National parks/ protected areas or any critical aquatic and terrestrial habitat area?	No	The sub-project will utilize existing major infrastructures of Durgauli WSS system and additional required infrastructures will be constructed within the premises of existing OHT. The proposed site is located at Janaki RM-01, which is barren land and far from Bardiya National Park.
2	Is the sub-project site located in the surrounding national parks or protected areas including buffer zone?	No	Sub-project is located at Janaki RM-01 which is far from Bardiya National Park.
3	Will the sub-project be located in areas surrounding forest or wildlife areas other than national parks and protected areas?	No	Existing OHT premises is already enclosed by boundary wall and it does not transverse in any protected area or wildlife area.
4	Will the sub-project be implemented in the areas surrounding water bodies, lakes and ponds and intend to use or depend on them for the Implementation?	No	Water bodies Bijuliya Khola which is about 0.37 km distance from sub-project area and It has proposed to construct protection wall to protect from it.

5	Will the sub-project be implemented in Areas located in high risk zone such as landslide prone area, steep slopes, highly degraded land in hills, riverine area susceptible to annually flooding, or in areas causing large-scale soil erosion?	No	Proposed site is flat land of Terai region. So, there is no risk of landslide, soil erosion prone area.
6	Will the sub-project involve land Clearance on very steep slopes?	No	The sub-project area is flat and barren land. So, no need of land clearance.
7	Will the proposed sub-project involve logging?	No	There is no history of water logging, hence the proposed sub-project does not involve logging.
8	Will the proposed sub-project endanger indigenous Plant species of ecological significance?	No	There is no any impact on plant species because major structures have already been constructed and additional structures will be constructed within the existing OHT premises which is barren land. The sub-project area don't bear flora/fauna species with ecological importance.
9	Is there any public infrastructure (School, hospital, health post) in the surrounding area of the project site? If yes, provide brief descriptions.	Yes	Radha Krishna Temple lies in West and Saraswoti Secondary School at north direction of the OHT premises, but there will be no impact on it.
10	Will the construction activities cause any damage to the existing local roads and other infrastructures/Utilities?	No	The construction activities will not cause any damage to the existing local roads and other infrastructures because major infrastructure has already completed. There is enough allocated land to construct required additional structures.
B	Social Screening		
	Land acquisition		
1	Does the sub-project require land acquisition?	No	There is enough land within the premises of existing OHT, which is already acquired by the existing Durgauli WSS system. Now. The land is belong to Rural Municipality. Similarly, land acquisition is not required for pipe laying. Access will be temporarily restricted during the process but the trench will be covered once the pipes are laid.

2	If Yes, please provide information about the types of land that will be acquired. Private land Government/Public land Forest land (specify ownership i.e private, Government)		The sub-project will use public land belonging to Rural Municipality. The available land is sufficient; hence private land acquisition is not required for this sub-project.
3	Has sub-project managed enough land for Construction? If Yes, how? explain briefly	Yes	The sub-project has managed enough land belonging to the Rural Municipality.
4	If the sub-project is planning to acquire private land, please provide information about the process of acquisition Voluntary donation Involuntary acquisition Negotiation	No	Private land acquisition is not required because the sub-project will utilize the existing Durgauli WSS site which is sufficient.
5	If private land acquisition is required, will there be a loss of productive land?	No	Private land acquisition is not required.
6	If private land acquisition is required, will there be any physical/economic displacement and impact on livelihoods?	No	Private land acquisition is not required. So that there is no any physical and economical displacement.
7	Will there be a temporary land acquisition for the sub-project?	No	Temporary land acquisition is not needed as there is enough land of RM for sub-project.
8	If “Yes”, please provide information about the types of land that will be temporarily acquired.	No	Ownership of the land is with Rural Municipality
9	Will there be any adverse impact on non- titleholders including loss of shelter and livelihood due to land acquisition?	No	The land is free of encroachers or non-titleholders/ illegal users, hence such impacts were not observed during field visit.
10	Will land acquisition result in loss of income loss of access to common property resources?	No	Since the proposed land is public land, no such impacts are anticipated.
	Cultural Heritage		
11	Will the proposed sub-project be implemented in or surrounding heritage site, religious temple and other religious site?	No	The proposed site is located at barren land. There is no any heritage site around it.
12	Will the sub-project cause encroachment on historical/cultural/religious areas?	No	No any impact on historical/cultural/religious areas.
13	Will there be any adverse impacts on cultural heritage due to sub-project activities? If “Yes”, please explain briefly	No	There will be not any adverse impacts on cultural heritage due to sub-project activities.
	Indigenous and vulnerable People		

14	Will the sub-project involve activities that are likely to make irreversible adverse impact on indigenous communities, women and vulnerable Groups?	No	Does not impact on vulnerable people.
15	Will the proposed sub-project include any activity that promotes or involves incidence of child labour?	No	Child labour is strictly prohibited.
16	Will the proposed sub-project benefit ethnic groups living in the service area?	Yes	The proposed sub-project will benefit all the local people irrespective of their caste and ethnicity and will be given priority to backward/ ethnic groups in construction activities.

SN	Screening checklist	Yes	No	Comments Provide information/justification either for “Yes” or “No” if applicable
	Labor and working conditions			
1.	How many workers are likely to be hired for the proposed works? How many workers are estimated to be women?	Total 35 numbers of workers are estimated for the proposed works 10 numbers of female workers are estimated		
2.	Will the project draw on migrant workers?	Yes		Some of the skilled manpower will be hired from outside the Janaki Rural Municipality
3.	How many workers are estimated to be hired directly from the project area?			
4.	Of the total workers, how many are estimated to be	Skilled:10 Semiskilled:10 Unskilled: 15 Engineers: 3 Technician/overseer:3 Security guards: 2 Others: 10		
5.	In terms of the categorization of the sub-project workers as the World Bank’s ESF, how many of them will be	Direct workers:10 Contracted workers:35 Primary suppliers’ workers: 10 Community workers: 15		

6.	Will there be a labor camp? Or any form of accommodation for workers	On their own (In the host community): In a labor camp to be managed/constructed by project: Will be constructed at OHT premises.		
7.	If the sub-project is planning to manage/construct a labor camp, provide the information on	Probable location (s) of labor camp: within OHT premises Drinking water, Electricity, LPG Gas for cooking. Status of basic facilities (power, water etc.):		
8.	Does the sub-project plan to maintain and regularly update a labor registry throughout the project life cycle?	Yes		Attendance register will be kept at construction site and daily attendance will be done.
9.	Is there a policy that ensures nondiscrimination in wages and other facilities?	Yes		There is Labour Act 2017 for nondiscrimination in wages and other facilities.
10.	Does the Project ensure that all persons working for the project are above minimum age as per national laws?	Yes		Child Labour will be strictly prohibited.
11.	Does the Project ensure it will abide by the national standards working hour rules and overtime?	Yes		As National Standards worker will work for 8 hours per day.
12.	Does the sub-project have plans to provide orientation to migrant workers about National labor laws, local tradition, culture, costumes, norms, and values?	Yes		One-day orientation to migrant workers about National labor laws, local tradition, culture, costumes, norms, and values has been scheduled prior to construction.
13.	Will heavy machinery (e.g. excavators, cranes, trucks, jack-hammers) be used for construction activities?	Yes		Excavators, truck and Jack Hammers will be used during construction period.
14.	Will the Project activities involve the handling of hazardous Materials/contaminants?		No	There is no any hazardous material required.
15.	Will the Project activities involve the handling of risky electrical equipment?	Yes		The 11 kVA three-phase line is already installed in the project area, but the remaining electrical works are also risky.
16.	Is there any safety concern to women once the migrant workers arrive in sub-project site?	Yes		The arrival of migrant workers at a sub-project site can raise concerns about the safety of women in the area. It is essential to address these concerns through a combination of policies, preventive measures, and community engagement.

17.	Does the sub-project plan to provide orientation to workers about the national laws and project policies on GBV & SEA/SH?	Yes		One day orientation to workers about the national laws and project policies on GBV & SEA/SH is planned.
18.	Does the sub-project plan to provide orientation to workers about the risks of communicable diseases such as STDs?	Yes		One day orientation to workers about the risks of communicable diseases such as STDs is planned.
10.	Does the sub-project plan to provide orientation to workers about COVID-19 related national and WHO protocols?	Yes		One day orientation to workers about communicable diseases is planned in which one class will be of COVID-19.
20.	Is there any history of conflict between the migrant workers and the local in any infrastructure projects in the local area?		No	There is no history of conflict between the migrant workers and the local during OHT construction in sub-project area and other projects in the local area.
21.	Is there any possibility of conflicts between migrant workers and the local community?		No	There is no possibility of conflict as the community of Janaki are peaceful.

Resource Efficiency and Pollution Prevention and Management

1.	Will construction activities result in production of waste that needs special treatment or disposal measures? If “Yes”, describe types and expected amount of waste, if known at the time of screening?	Waste produced from construction site are most of cement bags so there is no production of waste that needs special treatment or disposal measures		
2.	Will the sub-project generate substantial amount of wastewater (liquid waste) during construction and operation?		No	There is no generation of waste water during construction.
3.	Will it create dust pollution around the sites?	Yes		Due to transportation dust pollution will create in sites.
4.	Will be the sub project generate substantial amount of air emission during construction and operation?	Yes		During construction period there will be air emission from concrete mixture, generator.
5.	Will the sub-project create noise/vibration beyond the level permitted by the law?	Yes		Not regularly but while using generator, concrete mixture, metal cutter.
6.	If the sub-project plans to transport, storage, and use and/or disposal of materials that may create physical, chemical, and biological hazards? If “Yes”, please mention		No	Such hazardous creating material will not be used.

7.	Will it temporarily stop or impact/pollute the water supply and sanitation system in and around the site?		No	No water supply will not be affected.
8.	Will there be any solid waste generated by sub-project that needs to be transported off-site for reuse, recycle or disposal of?	Yes		Some amount of solid waste will be generated.
9.	Will any liquid waste, or an item containing liquids (including oils), needs to be transported off-site for reuse, recycle or disposal of?		No	Not any liquid waste, or an item containing liquids (including oils), needs to be transported off-site for reuse, recycle or disposal is needed.
10.	Will any explosive and hazardous chemicals be used within the project?		No	Not any explosive and hazardous chemicals be used.
11.	Will building materials containing asbestos be removed/disposed of?		No	Such asbestos containing materials are not disposed.
12.	Will any building materials be removed/disposed of that are coated with lead-based paint?		No	Old building will be removed but not any material are coated with lead-based paint.
13.	Will mercury-containing devices (switches, gauges, thermostats) be removed/disposed?		No	Such devices are not used.
14.	Will any building materials be removed/disposed of that contain lead, silver or chrome?		No	Old building will be removed but not any material contain lead, silver or chrome.
15.	Will the sub-project use batteries (lead-acid or nickel-cadmium) as its components?		No	No use of batteries.
17.	If “Yes”, please briefly explain how the Project plans safe transportation, storage and use and disposal of hazardous materials.			
18.	Will sub-project activities involve GHG emissions?	Yes		
19.	If “Yes”, please provide description of the activities that will contribute to the GHG emission.	During construction activities such as using of generator, concrete mixture etc.		
Potential Community and Occupational Health and Safety Impacts				

1.	Are there any community health and safety risks due to the use of equipment, machinery, or the activities at the sub-project?	Yes		To use such equipment Skilled manpower should be mobilized.
2.	Will the construction works disturb the normal functioning of other commercial/community/residential activities? If “Yes”, please mention the activities and period of disturbance.		No	There will not disturb due to construction works on commercial/community/residential activities.
3.	Are there any potential impacts to public health and safety due to changes in the landscape for sub-project?		No	Sub-project site is already finalized and some infrastructures are already constructed.
4.	Are there any risks to community safety due to accidental and natural hazards during sub-project construction and operation?		No	Sub-project site is already surrounded by a boundary wall. But during pipe laying there may be any risk.
5.	Is there any possibility of traffic congestion or rise in road accident in the project area due to project activities?	Yes		There may be possibility of traffic congestion and road accidents due to transport used in project.
6.	Is there any provision to control possible trespassing of non-project staff on the project site during construction and operation?	No		Such provision is not envisaged.
7.	Does the sub-project plan to provide orientation to surrounding communities about the risks of communicable diseases and COVID-19?	Yes		One day orientation for community level on STDs has been planned prior to construction.
Stakeholder Engagement				
8.	Have the stakeholders of the sub-project been identified?	Yes		Stake holder are already identified during survey
9.	If “Yes”, please name them along with their level of influence and interest in the sub-project	WB, RM, PIU, MWASH unit, Local people of Janaki RM		
10.	Have the stakeholders been categorized in terms of gender, age, and ethnicity?	No		
11.	Major issues raised by the stakeholders during the initial consultation?	-Job opportunity for local people -Delivery quality water as soon as possible		

12.	What are the main sources of information for the stakeholders? [Hint: radio, TV, newspapers]	Radio, social media and Bhalmansa the social leader in community they share information in society).		
13.	Is there is social institution/practice for community consultation on common issues in the area?			Not a social institution but there are Bhalmansa in all community to solve common issues.
14.	Is there any social/religious/cultural institution or practices for local dispute settlements?			Bhalmansa committee and Tole Sudhar & Durgauli Samaj committee is religious /cultural institution or practices for local dispute settlements.
15.	Are there any youth clubs, women groups or NGOs active in the project area and in the district? If “Yes” please provide top five such clubs/groups/	NGOs youth clubs, women groups and contact number 1.Jaceeys 2. Durgauli Samaj		
Contextual risk				
1.	Is there any history of community conflict in the sub-project area?		No	There is no history of community conflict in the sub-project area.
2.	Is there any history of protests against infrastructure projects in the area?	Yes		There is a history of protest against Hospital in project area.
3.	Provide a brief description about nature of crimes, if any, observed in the project area in last two years. [Hint: Source of information local police station]	Stolen, Household debate,		
4.	Which political parties won the last local election? [Municipal and the ward of the project site]			Both RM and Ward – Nagarik Unmukti Party
5.	Which political parties won the last last parliamentary election from the Constituency of the project site?			Nagarik Unmukti Party
6.	What are the major economic activities in the municipality? [Hint: Occupation, local exports, etc.]			Agriculture, vegetable, daily wages base labour, foreign employment

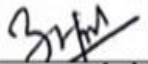
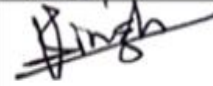
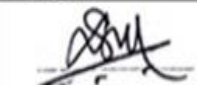
7.	Please name the major industries/institutions located in the municipality.	Brick industry, Rice mill		
8.	Which are the major market centers in the s sub-project area and how far are they?			Durgauli Bazar 50m, Toraiyapur 3 km Bhagatpur Bazar 150 m
9.	Is there a board community support for the sub-project? [Hint: Community perception based on stakeholder consultation]			All the community not only support they are excited for treated drinking water.
10.	Is there support from the local municipality for the project?	Yes		Sub-Project is under Janaki Rural Municipality.

III. Checklist for ESS7 and particularly to FPIC

ESS7: Indigenous	Yes	No	No Impact	Positive Impact	Negative Impact	Remarks
Does the project footprints lie in areas where indigenous people is present including (area of influence)	Yes		No impact			Durgauli Sub-Project is located in Janaki Rural Municipality ward no-01. The surrounding community is mixed with Tharu, Brahmin/Chhetri
Will the project lead to full or partial physical displacement of IPs (regardless of whether the IPs are recognized as IPs by the country's law)?		No	No Impact			The proposed site belongs to Janaki Rural Municipality and there is no any claim of IPs on this land. Thus, there will be no any physical displacement of IPs.
Will the project lead to full or partial economic (loss of assets/access to resources due to land acquisition and also access restriction—whether or not these affected are physically displaced or not) Displacement of IPs?		No	No Impact			The ownership of OHT premises land is with the Durgauli WSUC of Janaki RM and for distribution pipeline network will be carried along the existing road which are in public road. Private land is not required for sub-project, hence there is no any economic displacement.
Will the project impact land/restriction access to land subject to traditional use or under customary use or occupation (regardless of whether IPs possess legal titles to such areas, whether the project is located within or outside of the land and territories inhabited by IPs, or whether the IPs are recognized as IPs by the country's law)?		No	No Impact			All constructions works will be carried out within the existing water supply project premise and existing road width that is in public use. Thus, the sub-project will not impact on IP's community land nor lead to restriction

						access to land subject to traditional use or under customary use or occupation.
Will the project impact natural resources (timber and non-timber forest products, other forest product, medicinal plants /grazing or pasture lands/forest/cropping areas)/loss of access to such assets and resources subject to traditional use or under customary use or occupation (regardless of whether IPs possess legal titles to such areas, whether the project is located within or outside of the land and territories inhabited by IPs, or whether the IPs are recognized as IPs by the country's law)?		No	No Impact			The site is already acquired by Durgauli WSS and belongs to Janaki Rural Municipality which is vacant land. So, there is no any vegetation in or surrounding and it does not impact on natural resources using by the IPs.
Will the project lead to the utilization or commercial development of natural resources on lands and territories claimed by IPs?		No	No Impact			There is no territories claimed by IPs and the sub-project will not lead to the utilization or commercial development of natural resources on lands. This is a community water supply project directly benefiting the community.
Will the project have significant impact on tangible cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected community? (Tangible heritage may include movable or immovable objects, sites,		No	No Impact			There is no any impact on tangible cultural heritage.

<i>structures, group of structures, and natural features and landscape that have cultural significance like burial grounds/ritual spaces/stupas/shrines/places of worship)</i>						
Will the project have significant impact on intangible cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected community? <i>(Intangible cultural heritage may include practices, representations, expressions, knowledge, and skills, as well as associated instruments, objects, artifacts, cultural spaces that IP communities recognize as part of their heritage like traditional handicrafts such as Bamboo weaving, oral traditions, performing arts and so on)</i>	Yes		Slightly impact			- IP community groups have their own set of intangible heritages example, scared spaces, belief systems, knowledge and practices. But, during consultation with the IP community, it was reported that project footprints is unlikely to have a bearing on any intangible heritages. - OHT Pemises and Covard Hall ground are used by the IP people for the celebration of rituals like Lawaogi Puja (celebrated whole night). Snapshot in annex X.

Screening Team		Screening Date: 25 th May 2024	
	Name	Contact Number	Signature
Team leader	Jaya Raj Pant	9851192731	
Environmental expert	<u>Umesh Pratap Singh</u>	9843581535	
Social expert	Krishna Raj Pant	9848875708	
Other team Member(Design Engineer)	<u>Dhanraj Mandal</u>	9844251018	

Annex II: Minutes of meeting /Consultation Meeting Public Consultation Meeting

Date _____
Page _____

आज मिति २०८१ साल जेठ महिनाको १७ गतेको दिन यह
दुर्गौली खानेपानी उपमोवा तथा सरसर्वाई कामसमितिमा अध्यक्ष श्री
महेन्द्र बम ज्यूको अध्यक्षतामा बैठक बसि तपशिल बमोजिमका
प्रस्तावमाथि छलफल गरि निर्णयसहित निर्वापक पारित गरियो।

तपशिल

१. श्री महेन्द्र बम (अध्यक्ष)	
२. श्री नवल उपाध्याय (उपाध्यक्ष)	
३. श्री अमरबहादुर खत्री (सचिव)	
४. श्री सुमित्रा गिरी (कोषाध्यक्ष)	
५. श्री बपल रावल (सदस्य)	
६. श्री विरेन्द्र खत्री (सदस्य)	
७. श्री प्रकाश बम (सदस्य)	
८. श्री यशोधर चौधरी (सदस्य)	
९. श्री रेणु व. लुगा (सदस्य)	
१०. श्री उत्पल बोहरा (सदस्य)	

आमजितहरू

१. श्री. धारण गण्डन (इन्जीनियर) ९८५५२५१०१८	
२. श्री. उमेश प्रताप सिंह (एमडि) ९८५५२५१०१८	
३. श्री. कृष्ण राम पौडेल (सामाजिक विकास विभाग) ९८५५२५१०१८	
४. श्री. तारा प्रसाद तिमिल्सिना (इन्जीनियर)	
५. श्री. यशोधर बम (सामाजिक कार्यकर्ता)	
६. श्री. तिमल चौधरी (" " अध्यक्ष)	

प्रस्तावहरू

१. योजनाको स्वरूपको तथा विस्तार गर्ने सम्बन्धमा।

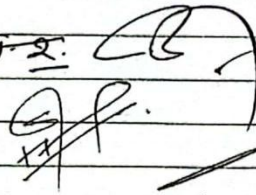
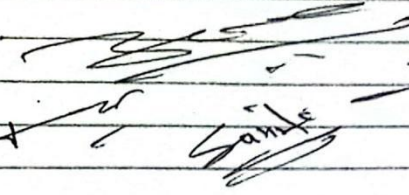
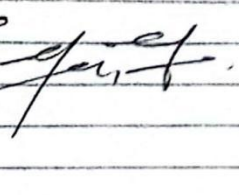
निर्णयः

प्रस्ताव प्र. १ माथि छलफल गर्दा यस दुर्गौली खानेपानी उपमोवा
तथा सरसर्वाई कामसमिति र काम सरोकारवालाको समुदाय बैठक बसि छलफल
गर्दा माथी माथिल्लो वडा नं. १ मा संचालित दुर्गौली खानेपानी उपमोवा

Date _____
Page _____

तथा सरसफाई समितिमा योजनाहरूको स्तर छुनति तथा विस्तार गर्दा
पनि खस्ने क्षातावरणीय तथा सामाजिक प्रभावहरूलाई न्यूनीकरणका
उपायहरूलाई अवलम्बनकास्ने गरि मातृकी गा.पा. वडा नं. १, दुर्गागाँ
को कार्यालयलाई ~~र~~ स्वातन्त्र्यपानी आयोजना निर्माण कार्य अगाडी बढाउन
सहयोगका लागि अपिल गर्ने गति सर्वसम्मतिबाट निर्णय पाति जानकारी

प्रस्ताव नं. २:

1. Land handover to Durgauli WSUC by Public general meeting

आज मिति २०७० अषाढ २० गते बिहीबारको दिन श्री राध कृष्ण मन्दिर व्यवस्थापन समितिका अध्यक्ष श्री तिलक बहादुर चौधरीको अध्यक्षता तथा उपस्थित वसन्तेश्वरको उपस्थितिमा बिहीबार प्रस्तावित माथि कलायत गरेर सर्व सम्मतिबाट निर्णय गरिने गरियो ।

उपाध्यक्ष

- १- अध्यक्ष - श्री तिलक बहादुर चौधरी
- २- उपाध्यक्ष - श्री जगन्नाथ चौधरी
- ३- सचिव - श्री हरि प्रसाद चौधरी
- ४- सहसचिव - श्री जित बहादुर चौधरी
- ५- सदस्य - श्री डम्बर चौधरी (मूल बहादुर बहादुर)
- ६- " - श्री फगुना कठरिया
- ७- " - श्री बाल बहादुर चौधरी
- ८- " - श्री विरवल चौधरी
- ९- " - श्री बाधु राम चौधरी
- १०- " - श्री शम्भु प्रसाद चौधरी
- ११- " - श्री बुद्धि राम चौधरी
- १२- " - श्री लाल राम दास चौधरी
- १३- " - श्री भागी राम दास चौधरी
- १४- " - श्री राम दयाल चौधरी
- १५- " - श्री प्रदीप चौधरी
- १६- " - श्री मोहन राज उपाध्याय
- १७- " - श्री सोन राम चौधरी
- १८- " - श्री निरवधि दास चौधरी (प्रदीप चौधरी)
- १९- " - श्री हनु दास चौधरी
- २०- " - " "

उपमहामन्त्री

स्वातन्त्रता तथा सरसफाई कार्यक्रमको लागि पदाधिकारी

उपमहामन्त्री समिति -

- १- अध्यक्ष - श्री रत्न बहादुर चौधरी
- २- उपाध्यक्ष - श्री प्रेम लाल चौधरी
- ३- सचिव - श्री दिल्ली राज उपाध्याय
- ४- सहसचिव -
- ५- उपाध्यक्ष - श्रीमती लक्ष्मी सुपनोरा
- ६- श्रीमती सुनिता देवी चौधरी

८ -	श्रीमति - आशादेवी चौधरी	
९ -	श्री रामजीवन चौधरी	राम
१० -	श्री भजनलाल दास चौधरी	
११ -	श्री सुना दास चौधरी	
१२ -	श्री जैन क चौधरी	
१३ -	श्री. देव कठरिया	
१४ -	श्री सुरेश चौधरी	
१५ -	श्री राम शरण चौधरी	
१६ -	श्री मोल सिंह चौधरी	
१७ -	श्री विष्णु चौधरी	
१८ -	श्री कल्याण चौधरी	

उसमानगेल वृद्धिनिवी व्यापारी र समाम सेवी

१ -	श्री मोहन राम व्यापार	
२ -	श्री डाबर बहादुर चौधरी (मूल्य कटार)	
३ -	श्री जगत बहादुर चौधरी (निर्माण कटार)	
४ -	श्री बप्पल रावल (डाबर कटार एमाले कटार)	
५ -	श्री राम बम (व्यापारी)	
६ -	श्री. चित बहादुर चौधरी (व्यापारी)	
७ -	श्री. लक्ष्मी चौधरी (व्यापारी)	
८ -	श्री - सुतोष चौधरी "	
९ -	श्री - लुङ्ग खज बम "	
१० -	श्री - देव विर चौधरी (व्यापारी)	
११ -	श्री - जगत बहादुर बम "	
१२ -	श्री - गया प्रसाद चौधरी (सुन)	
१३ -	श्री. राजु चौधरी (सुन)	
१४ -	श्री - भजन राम चौधरी (निर्माण)	
१५ -	श्री - महादेव चौधरी	
१६ -	श्री - ई. गणेश राज व्यापार (स्वर्णकारी योजना)	
१७ -	श्री - विरल चौधरी	
१८ -	श्री - देविलाल "	
१९ -	श्री - लक्ष्मण "	
२० -	श्री - सुना कठरिया	
२१ -	श्री - सुहाव चौधरी	

२३	की काम बम	
२४	" कुठु वम 'वि'का' प्रहा'स्य'...	
२५	" कालु वमाई	
२६	" कुलाहिहि वम	
२७	" केवल र्हा' (वि'का' क'का'का')	
२८	" इम'र क चन्द	
२९	" र' क वम	
३०	" महेन्द्र क वम	
३१	" गौपाल सिंह विहा	
३२	" कामा सिंह विहा	
३३	" रोक सिंह विहा	
३४	" आगी र' - प'...	
३५	" र' र' - प'...	
३६	" र' र' - प'...	
३७	" र' र' - प'...	
३८	" र' र' - प'...	
३९	" र' र' - प'...	
४०	" र' र' - प'...	
४१	" र' र' - प'...	
४२	" र' र' - प'...	
४३	" र' र' - प'...	
४४	" र' र' - प'...	

प्रस्ताव नं. १- रवानेपानी आयोजनाकालागि जग्गा उपलब्ध ग-
राउने सम्बन्धमा -

निर्णय नं. १- माणिकी प्रस्ताव नं. १मा व्यापक खलफल गर्दा रवानेपानी
आयोजनाकालागि आवश्यक जग्गा श्री राधाकृष्ण मन्दिर
हाल भित्र प्राविधिक हिसाबले उपयुक्त स्थानमा निर्माण गर्ने
जग्गा उपलब्ध गराउने भन्ने सर्व सम्मानिका निर्णय
पाएँ गरीएको ।

प्रस्ताव नं. २- श्री राधाकृष्ण मन्दिर र रवानेपानी योजनाको परिसर
छेउवा सम्बन्धमा -

निर्णय नं. २- माछिबो प्रस्ताव नं. १ मा छलफल गर्दा खानेपानी र
मान्देर पारेसर सुरक्षित र व्यवहारिय गर्ने परिसर
होला ठेक्का गर्ने ~~विषय~~ खानेपानी ~~प्रस्ताव~~ विषयमा
माछिबो विकास कार्यलयसँग ~~सम्बन्धित~~ माछिबो निर्णय राखे।
सम्मतिबाट पारित गरियो।

प्रस्ताव नं. ३- श्री राधाकृष्ण मन्दिर र खानेपानी आयोजनाका लागि
सावधान १६ फिटो बारी सम्बन्धमा -

निर्णय नं. ३- माछिबो प्रस्ताव नं. ३ माछिबो छलफल गर्दा आयोजनाका
न्याहेने १६ फिटो बारीको लागि विभिन्न वैकल्पिक उपाय
हनुमा छलफल गरी सोही अनुसार गर्ने निर्णय सर्वसम्मति
बाट पारित गरियो।

प्रस्ताव नं. ४- श्री बिलामा मन्दिर सुराई र खानेपानी आयोजनाको
पम्प अपरेटर सम्बन्धमा -

निर्णय नं. - ४- खानेपानी आयोजना सम्बन्धमा पञ्चास मन्दिर
परिसरको चौडिदार र पम्प अपरेटर मन्दिरका
कार्यक्रममा निरन्तर घाँगादान गरी रहेको भएतापनि मन्दिर
मन्दिर ~~सम्बन्धित~~ निर्णय दिने निर्णय सर्वसम्मतिबाट पारित गरियो।

2. Meeting regarding the handover of Durgauli WSS to Durgauli Rural Municipality at DWSSM Office, Dhangadhi; Kailali

आज मिति २०८०/११/२० गते आयोजना हस्तान्तरण गर्न खानेपानी तथा सरसफाई नि.डिभिजन कार्यालय, कैलालीका डिभिजन प्रमुख श्री गणेश प्रसाद उपाध्यायज्यूको संयोजकत्वमा गठित समितिको बैठक निम्न पदाधिकारीहरुको उपस्थितिमा बसी तपसिल अनुसार निर्णय गरियो ।

उपस्थिति	
गणेश प्रसाद उपाध्याय	संयोजक
गोबिन्द भाट	सदस्य
जयराज पन्त	सदस्य
भरत बहादुर बिष्ट	सदस्य
सञ्जय चालिसे	सदस्य
मदन बहादुर बडुवाल	सदस्य
मोहन सिंह मडै	सदस्य
सरु बस्नेत	सदस्य
अस्मित स्वार	सदस्य
कृष्ण राज पन्त	सदस्य
लक्ष्मी राज जोशी	सदस्य- सचिव
निर्णयहरु:	
	खा.पा.स.स.डि.का.कैलाली
	खा.पा.स.स.डि.का.कैलाली
	एम.एस.टि. जानकी गा.पा.
	जोशीपुर गा.पा.
	एम.एस.टि. बर्दगोरिया गा.पा.
	जानकी गा.पा.
	बर्दगोरिया गा.पा.
	एम.एस.टि. जोशीपुर गा.पा.
	सब-ईन्जिनियर
	एम.एस.टि. जानकी गा.पा.
	आयोजना व्यवस्थापक

१. प्रस्ताव: आयोजना हस्तान्तरण सम्बन्धमा:

जानकी गा.पा., जोशीपुर गा.पा तथा बर्दगोरिया गा.पा. प्रदेश सरकार अन्तर्गत संचालनमा रहेका आयोजनाहरु खानेपानी क्षेत्रगत सुशासन तथा पूर्वाधार सहयोग आयोजना, कैलाली अन्तर्गत संचालन हुने गरी सम्बन्धित पालिकाहरुलाई हस्तान्तरण गर्ने सम्बन्धमा निम्नानुसार गर्ने निर्णय गरियो:

- खा.पा.स.स.डि.का.कैलाली तथा सरसफाई डिभिजन कार्यालय, कैलालीबाट प्राप्त आयोजना हस्तान्तरण चेक लिष्ट तथा डि.पि.आर. हरूको अध्ययन गर्ने तथा परिमार्जन गर्नु पर्ने भए १ हप्ता भित्र परिमार्जन गरी हस्तान्तरण लिने ।
- सबै आयोजनाहरुको डि.पि.आर. तथा अन्य आवश्यक कागजातहरु सहित हस्तान्तरण लिने ।

१. 

3. Public Consultation meeting with Mukta Kamiya of Durgauli, 01, Janaki RM

Date _____
Page _____

आज मिति २०८१/०६/०९ गतेको दिन जानकी गाउँपालिका वार्ड १ मा स्थानीय
होली खोसानी उपखोला अर्गेति अमर्गत मुक्ता कमिया वार्डमा रहेका उपखोला धर्का
वैठक सम्पन्न भएको छ। उपखोला विभिन्न सुझाव दिएका छन्।

उपस्थित

१- गंगा प्रसाद थापा	गङ्गा
२- नरेश डोर्जा	पञ्च
३- सुदीप शर्मा डोर्जा	वर्षा
४- हरबोली डोर्जा	दुधौली
५- कौशल पौडेल थापा	कौशल पौडेल
६- फर्कुक थापा	फर्कुक थापा
७- सुदीप शर्मा डोर्जा	सुदीप शर्मा
८- पद्मा डोर्जा	पद्मा
९- रिहाय चौधरी	रिहाय
१०- विष्णु चौधरी	विष्णु
११- दलबारी डोर्जा	दलबारी
१२- कुमारी थापा	कुमारी थापा
१३- विष्णु डोर्जा	विष्णु
१४- अमरी डोर्जा	अमरी
१५- निरञ्ज डोर्जा	निरञ्ज

आयोजना

कुल खर्च पत्र सामाजिक विकास विभाग मास्ट जानकी माला
प्रशासन चौधरी वातावरण विभाग मास्ट जानकी माला

निर्णय ३.१. यस अगुडी गाउँपालिका वार्ड १ दुर्गेनी खोसानी पोखरा अर्गेति मुक्ता डोर्जा
वर्षा १९ वय धर्का दुर्गेनी अर्गेति रहेका र वर्षा खोला हाल धर्का २९ वय
धर्का निर्माण गरदा वर्षा खोला धर्का खोला नै नबिस्क्या बा-बालो आयोजना धर्का
वनाउने गरेका र वर्षा खोला खोसानी पोखरा लागी पार्थक लाई राखीने
प्रस्ताव गर्ने निर्णय गरियो।

Date _____
Page _____

निर्णय २. खातेपारी योजना अचलान् इहा भक्ष भिविगा रहेका ह्य २ अक्षर कागदा रहेका
= योजना केगालागा मजदुरी का अवसर दिन गण गर्ने निर्णय गरियो।

निर्णय-३. कोहीनी खातेपारी योजनाले सक्नेछ. धरणीमा पानी धाप जस्त गर्दा
लाग्ने खुल्का खुलेपत हुनसक्ने अवस्था रहेता भक्ष मुक्त क्षेत्र पारिवाला
अवस्थित गर्दा भ्रष्टाचार गर्ने निर्णय गरियो।

१) पक्ष
२) पुष्प साह
३) Pratika

रिडान
[Signature]
[Signature]

4. Minute of Formation of GRM (1st Level)

आज मिति २०८१/०६/१० गतेको दिन आगरी गाउँपालिकामा आयोजित स्थानीय क्षेत्रगत सुझाव तथा सुझाव (WSSUP) समितिको गुनाहो समितिको व्यवस्थापन गर्न यस आगरी गाउँपालिकाको अध्यक्ष र्हा गणेश चौधरी ज्यूको अध्यक्षतामा आयोजना गरिएको बैठकमा ईकाइ PFO मा व्यवस्थापन हुने गुनाहो व्यवस्थापन समितिको गठन गर्ने तयारिलो उपस्थितमा देहाय बमोजिम निर्णय गरियो।

१- गणेश चौधरी	गाउँपालिका अध्यक्ष	समिति
२- लालमती केसी कटारिया	" उपाध्यक्ष	समिति
३- चक्रु बहादुर विष्ट	२ नं वडा अध्यक्ष	समिति
४- दिनेश कुँ कटारिया	४ नं " "	समिति
५- प्रमोद चौधरी	प्रमुख प्राविधिक अधिकृत	समिति
६- योगेश्वर शाली	आगरी गाउँपालिका इन्जिनियर	समिति
७- लक्ष्मी राज जोशी	PIU Manager	समिति
८- जयशम पन्त	DATA MST Janaki	समिति
९- लखनाथ उपध्याय	सब इन्जिनियर	समिति
१०- अक्षित स्वार	PIU " "	समिति
११- धन राज मण्डल	WSS Design Engineer	समिति
१२- कृष्ण राज पन्त	सामाजिक विकास विभाग MST जानकारी	समिति
१३- नरनाथ चौधरी	वातवरण विभाग MST जानकारी	समिति
१४- दिनेश माझी	ल.अ.अ.	समिति
१५- गणेश चौधरी	ब्यापारिक परिवार MST जानकारी	समिति

संस्थापन : १- गुनाहो व्यवस्थापन समितिको गठन सम्पन्न

निर्णय नं १ : समिति नं १ माथि दलगत गर्दा यस आगरी गाउँपालिका मा आयोजित स्थानीय क्षेत्रगत सुझाव तथा सुझाव (WSSUP) समितिको गुनाहो समितिको व्यवस्थापन गर्न यस आगरी गाउँपालिकाको अध्यक्ष र्हा गणेश चौधरी ज्यूको अध्यक्षतामा आयोजना गरिएको बैठकमा ईकाइ PFO मा व्यवस्थापन हुने गुनाहो व्यवस्थापन समितिको गठन गर्ने तयारिलो उपस्थितमा देहाय बमोजिम निर्णय गरियो।

१- लालमती केसी कटारिया	(उपाध्यक्ष जानकारी)	समिति
२- चक्रु चौधरी	वडा अध्यक्ष	समिति
३- योगेश्वर शाली	(WSSUP माथि प्रमुख)	"
४- कृष्ण राज पन्त	डा. MST	"
५- लक्ष्मी राज जोशी	PIU Manager	सदस्य सदस्य

Annex III: Consent letter from Radha Krishna Temple

प.स. २०८०।०८९
चलानी न. ०९

श्री राधाकृष्ण मन्दिर व्यवस्थापन समिति
जानकी, ०९, दुर्गौली, कैलाली ।



दर्ता नं. १

मिति : २०८१/०२/१७

श्री अध्यक्ष ज्यू
दुर्गौली खानेपानी उपभोक्ता तथा सरसफाई समिति
जानकी, ०९, दुर्गौली, कैलाली ।

विषय : पत्र पठाएको बारे ।

उपरोक्त सम्बन्धमा यस श्री राधाकृष्ण मन्दिर व्यवस्थापन समितिले २०७० साल आषाढ महिनाको २० गतेको निर्णय बमोजिम दुर्गौली खानेपानी उपभोक्ता तथा सरसफाई समितिको प्रयोजनका लागि मन्दिर र शिवालय भएको स्थानबाट पुर्व दिशा तर्फैजग्गा उपलब्ध गराइएको व्याहारा जानकारी गरिन्छ ।

निलक बहादुर चौधरी

अध्यक्ष

श्री राधाकृष्ण मन्दिर व्यवस्थापन समिति
जानकी, ०९, दुर्गौली, कैलाली ।

Annex IV: Four Forts Proved by Rural Municipality Office



जानकी गाउँपालिका
१ नं. वडा कार्यालय

दुर्गौली, कैलाली

सुदूरपश्चिम प्रदेश, नेपाल

पत्र संख्या :- ०८०/०८१

सन्तानी नं १९००



मिति: २०८१/०२/२२

ने.सं. ११४४ वडलागा, १३ मंगलवार

श्री जो जससँग सम्बन्ध राख्दछ ।

विषय: चार किल्ला प्रमाणित ।

प्रस्तुत विषयमा जानकी गाउँपालिका वडा नं. १ (साविक दुर्गौली गा.वि.स. वडा नं.२) अन्तर्गत पर्ने श्री दुर्गौली खानेपानी उपभोक्ता तथा सरसफाई समिति जानकी १ दुर्गौली कैलालीको नाममा रहेको अनुमानित ०-२-०-० ऐलानी प्रति जग्गाको चार किल्ला निम्न विवरण अनुसार रहेको व्यहोरा प्रमाणित गरिन्छ ।

चार किल्ला विवरण

क्र.सं.	साविक गा.वि.स.	वडा नं.	कित्ता नं.	क्षेत्रफल	पूर्व	पश्चिम	उत्तर	दक्षिण	कै.
१.	दुर्गौली	२	-	अनुमानित ०-२-०-०	विजुनिया कुला	कि.नं.७७९ राधा कृष्ण मन्दिरको जग्गा	कि.नं.६७ मरस्वती माध्यमिक विद्यालय	कवर्ड हल	

(Signature)
२०८१/०२/२२

सुरेश कुमार चौधरी

वडा अध्यक्ष

सुरेश कुमार चौधरी

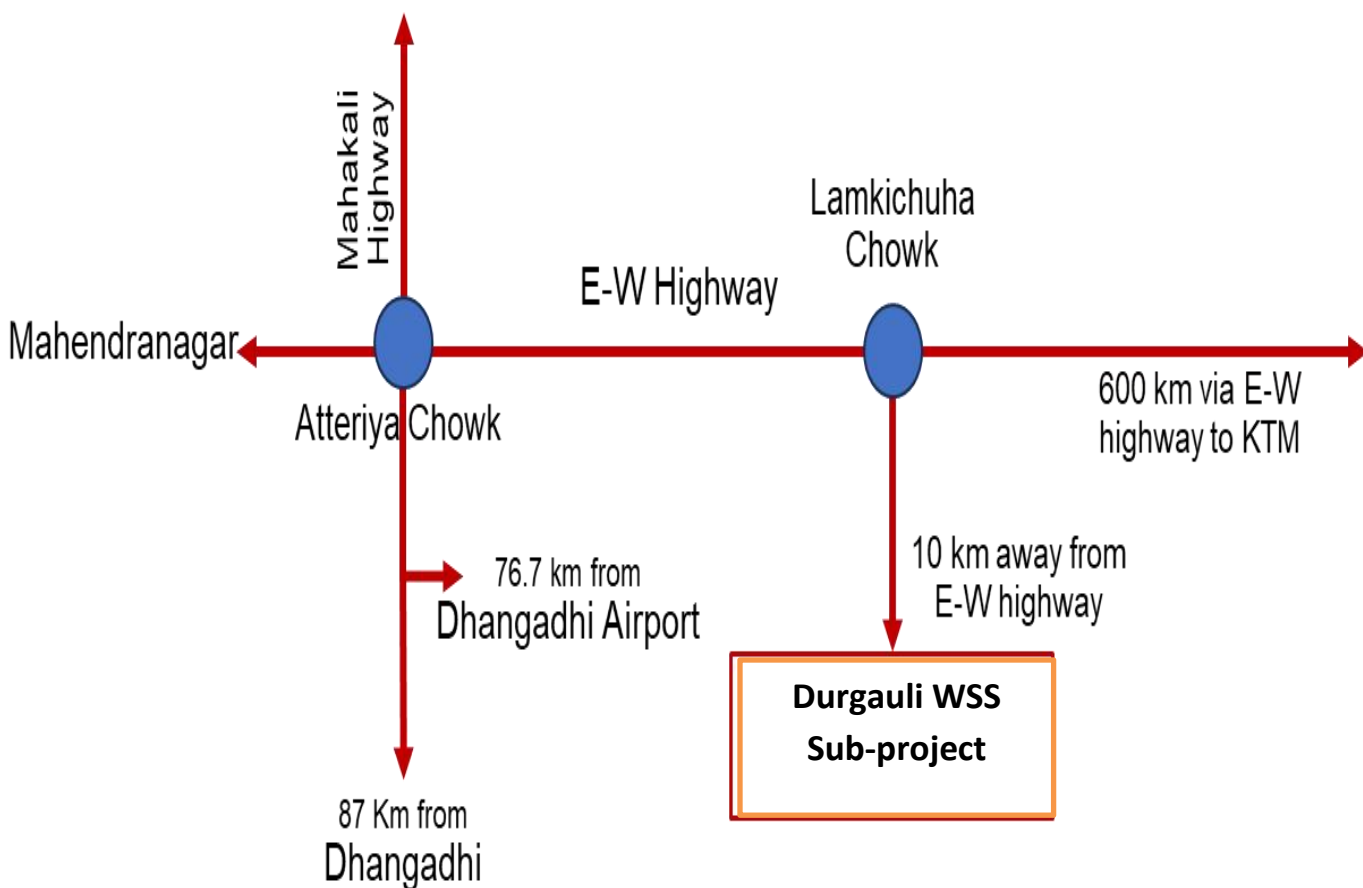
वडा अध्यक्ष

नजिशा, स्वास्थ्य, कृषि र वातावरणमैत्री पूर्वाधार : पहिचान सहितको जानकी गाउँपालिका विकासको मुल आधार

सम्पर्क नं. ९८२१६३०५८२, ९८६२०३६००

E-mail: janakimun.ward1@gmail.com

Annex V: Location map of Durgauli WSS sub-project



Annex VI: Water Quality Test Report




Government of Nepal
Ministry of Water Supply
Department of Water Supply and Sewerage Management
Federal Water Supply and Sewerage Management Project
Water Quality Testing Laboratory
Dhangadhi, Kailali

Water Quality Test Report

Sample Id: 188/080/081

Sender/Client: AARVEE-FBC-PARAGON, JV

Source: Under Ground

Sampling Point: Boring

Address: Janaki Ga Pa-01, Durgauli, Kailali

Sampled By _____ **Sender** _____

Sampling Date 2080/12/27

Reported Date 2081/01/06

Sample Condition: OK

S.N	Parameters	Unit	Observed Values	NDWQS, 2079 BS	Analyzed Methods
1.	Taste & Odor	-	Non-Objectionable	Non-Objectionable	Sense Observation
2.	pH	-	7.2 @25°C	6.5 - 8.5	4500-H*, APHA 22 nd Edition
3.	Turbidity	NTU	3	5	2130 B, APHA 22 nd Edition
4.	Total Dissolved Solid	mg/l	295	1000	TDS Meter
5.	Electrical Conductivity	µS/cm	441 @27°C	1500	2510 B, APHA 22 nd Edition
6.	Calcium	mg/l	64	200	3500 Ca- B, APHA 22 nd Edition
7.	Total Hardness as CaCO ₃	mg/l	192	500	2340 C, APHA 22 nd Edition
8.	Total Iron	mg/l	0.78	0.30 (3)	3111 B, APHA 22 nd Edition
9.	Arsenic	mg/l	<0.01	0.05	Arsenci Test Kit
10.	Manganese	mg/l	0.11	0.20	3111 B, APHA 22 nd Edition
11.	Ammonia	mg/l	<0.1	1.50	Ammonia Test Kit
12.	Nitrate	mg/l	0	50	4500-NO ₃ -B, APHA 22 nd Edition
13.	E. Coli	CFU/100ml	6	0	9222 D, APHA 22 nd Edition

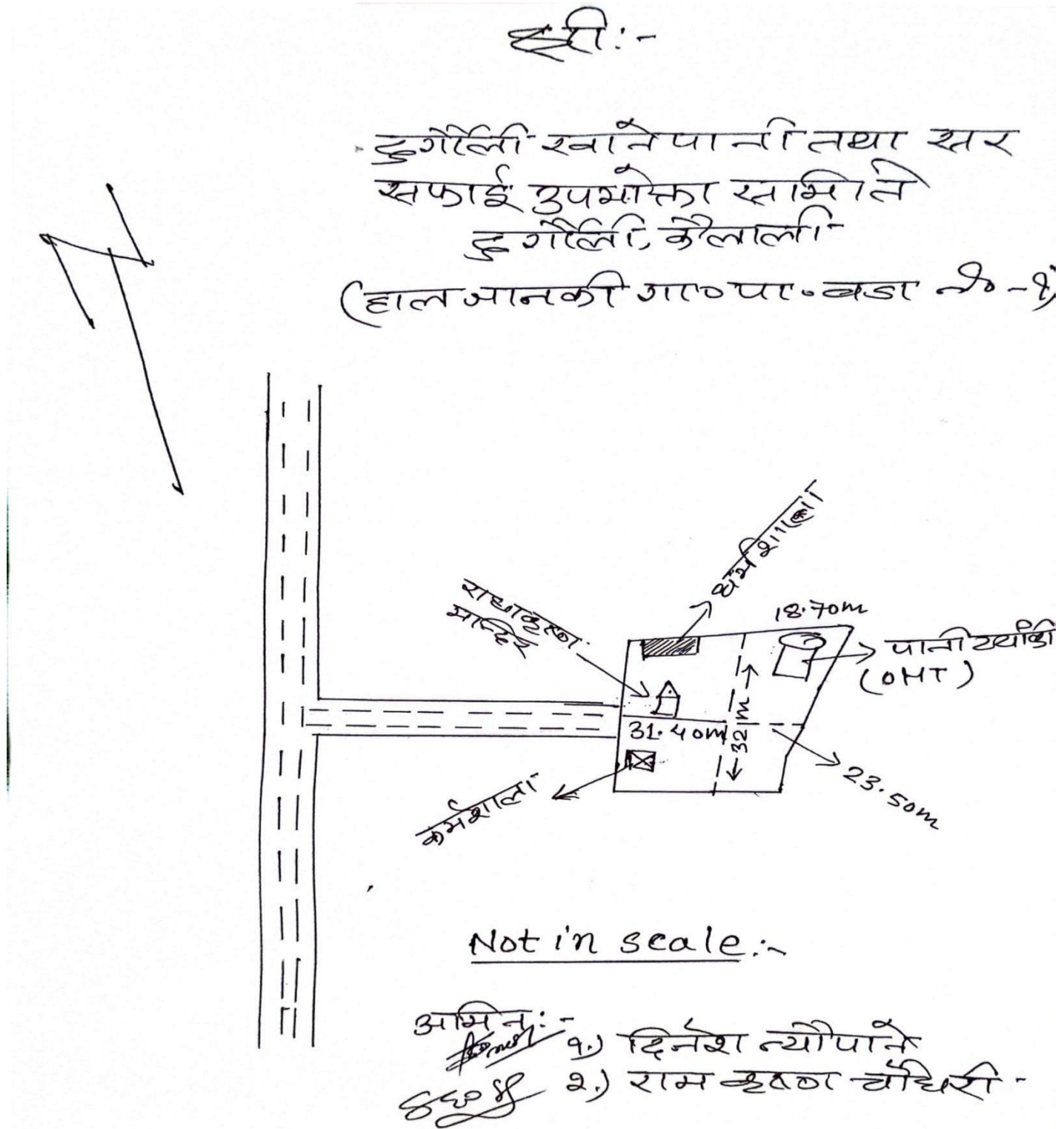

Analyzed by


Verified by

Notes

- This report is applicable to the sample received in the laboratory for analysis.
- This test report shall not be reproduced without the written approval of the laboratory.

Annex VII: Sketch of Land



Annex VIII: Code of Conduct for WSS Sub-project of Janaki Rural Municipality

कार्यस्थलमा हुने यौनजन्य दुर्व्यवहार (निवारण) आचार संहिता, २०८०

प्रस्तावना : सुरक्षित, स्वच्छ तथा मर्यादित वातावरणमा काम गर्न पाउने प्रत्येक व्यक्तिको अधिकारलाई सुनिश्चित गर्दै कार्यस्थलमा हुने यौनजन्य दुर्व्यवहारलाई निवारण गर्ने सम्बन्धमा आवश्यक व्यवस्था गर्न कार्यस्थलमा हुने यौनजन्य दुर्व्यवहार (निवारण) ऐन, २०७१ को दफा २१ ले दिएको अधिकार र स्थानीय सरकार संचालन ऐन २०७४ को दफा १०२(२) बमोजिम जानकी गाउँपालिकाले यो आचार संहिता बनाई लागू गरेको छ ।

परिच्छेद-१

१. संक्षिप्त नाम र प्रारम्भ:

- (क) यो आचार संहिताको नाम जानकी गाउँपालिकामा हुने यौनजन्य दुर्व्यवहार (निवारण) आचार संहिता, २०८० रहेको छ ।
- (ख) यो आचार संहिता जानकी गाउँ कार्यपालिकाले स्वीकृत गरेको मिति देखि लागू हुनेछ ।

२. परिभाषा: विषय वा प्रसंगले अर्को अर्थ नलागेमा यस आचार संहितामा

- (क) "कर्मचारी" भन्नाले जानकी गाउँपालिकामा कार्यरत कर्मचारी वा कामदार सम्झनुपर्छ ।
- (ख) "कार्यस्थल" भन्नाले जानकी गाउँपालिका र यस अन्तर्गत रहेका वडा कार्यालय र कार्यालयसंग सम्बन्धित सेवा प्रदान गर्ने इकाईहरूलाई सम्झनु पर्छ ।
- (ग) "यौनजन्य दुर्व्यवहार" भन्नाले कसैले आफ्नो पद, शक्ति वा अधिकारको दुरुपयोग गर्ने गरी, कुनै किसिमको दबाव, प्रभाव वा प्रलोभनमा पारी वा हतोत्साहित गरी कुनै कर्मचारी वा सेवाग्राहीलाई कार्यस्थलमा देहायको कुनै कार्य गरे वा गराएमा यौनजन्य दुर्व्यवहार गरेको सम्झनु पर्छ:
 - (ग १) यौनजन्य आशयले शरीरको कुनै अंगमा छोएमा वा छुने प्रयास गरेमा,
 - (ग २) अश्लील तथा यौनजन्य क्रियाकलापसंग सम्बन्धित शब्द, चित्र, पत्रपत्रिका, श्रव्यदृश्य, अन्य सूचना प्रविधि, साधन, वस्तु वा सामग्री प्रयोग वा प्रदर्शन गरेमा,
 - (ग ३) लेखेर, बोलेर वा इशाराले अश्लील तथा यौनजन्य आशय प्रदर्शन वा शारीरिक हाउभाउ मार्फत यौनजन्य आशय प्रकट गरेमा,
 - (ग ४) यौनजन्य क्रियाकलापको लागि प्रस्ताव गरेमा,
 - (ग ५) यौनजन्य आशयले जिस्क्याएमा वा हैरानी दिएमा ।

- (घ) “कार्यालय प्रमुख” भन्नाले कुनै कार्यस्थलको प्रशासनिक वा व्यवसायिक काम कारवाहीको सम्बन्धमा अन्तिम निर्णय गर्ने अधिकार प्राप्त व्यक्ति वा सो प्रयोजनका लागि प्रत्यायोजित अधिकार प्रयोग गर्ने अधिकारी सम्झनु पर्छ र सो शब्दले त्यस्तो कार्यस्थलको अन्यत्र शाखा तथा इकाई रहेको भए त्यस्तो शाखा वा इकाईको प्रमुख समेतलाई जनाउँछ ।
- (ङ) “सेवाग्राही” भन्नाले कुनै किसिमको सेवा प्राप्त गर्ने उद्देश्यले कार्यस्थलमा उपस्थित व्यक्ति सम्झनु पर्छ र सो शब्दले निजको साथमा कार्यस्थलमा आउने व्यक्ति समेतलाई जनाउँछ ।

परिच्छेद २

कार्यालय प्रमुखको आचरण

३. पदीय मर्यादा कायम गर्नुपर्ने:

- (१) कार्यालय प्रमुखले कार्यस्थलमा आफ्नो सेवा, शर्त सम्बन्धी प्रचलित कानुनले तोकेको सीमा वा व्यवसायिक आचरणको सीमाभित्र रही पदीय मर्यादा कायम गर्नुपर्नेछ ।
- (२) कार्यालय प्रमुखले कार्यस्थलमा हुन सक्ने यौनजन्य दुर्व्यवहारको सम्बन्धमा शुन्य सहनशीलताको नीति अबलम्बन गर्नु पर्नेछ ।

४. सम्मानजनक र समान व्यवहार गर्नुपर्ने:

- (१) कार्यालय प्रमुखले कुनै कर्मचारीलाई जात, जाति, धर्म, भाषा, लिङ्ग, उमेर, राजनीतिक वा सामाजिक हैसियत, भौगोलिकता, राजनीतिक दृष्टिकोण पहुँच वा सम्बन्ध, शारीरिक अवस्था, वैवाहिक स्थिति वा अन्य कुनै पनि आधारमा भेदभाव नगरी सबैलाई सम्मानजनक र समान व्यवहार गर्नुपर्छ ।
- (२) कार्यालय प्रमुखले उपदफा (१) मा उल्लेखित कुनै आधारमा कुनै कर्मचारी वा सेवाग्राहीलाई होच्याउने, अपमान हुने वा त्यस्तो कर्मचारीले असहज महसुस गर्ने गरी बोलाउनु वा सम्बोधन गर्नु वा गर्न लगाउनु हुँदैन ।
- (३) कार्यालय प्रमुखले कार्यस्थलमा कार्यरत कुनै कर्मचारीलाई यौनजन्य आशयले आफुसंग

नजिक राख्ने वा आफूसंग नजिक रहन बाध्य पार्नु हुँदैन ।

५. पारदर्शिता कायम गर्नुपर्ने:

- (१) कार्यालय प्रमुखले आफू कार्यरत कार्य स्थलबाट प्रदान गरिने सेवा सुविधा, त्यस्तो सेवा सुविधा प्रवाह गर्ने तरिका र प्रक्रियामा कुनै कर्मचारी वा सेवाग्राहीलाई भेदभाव नहुने गरी पारदर्शिता कायम गर्नु पर्नेछ ।
- (२) कार्यालय प्रमुखले यौनजन्य आशयले कुनै कर्मचारीलाई विशेष सुविधा उपलब्ध गराउनु वा उपहार दिन हुँदैन ।

६. सहज सम्पर्कमा रहनु पर्ने:

कार्यालय प्रमुख कार्यस्थलमा रहँदा सबै कर्मचारीको सहज पहुँचमा रहनु पर्छ । प्रमुखले सबैकर्मचारीको गुनासो सुन्ने सरल व्यवस्था मिलाउनु पर्छ ।

७. गोपनीयता कायम गर्नुपर्ने:

कार्यालय प्रमुखले कुनै कर्मचारीले निजमाथि यौनजन्य दुर्व्यवहार भएको भनी गुनासो गरेमा त्यस्तो गुनासो गर्ने वा त्यसरी यौनजन्य दुर्व्यवहार गरेको भनिएको कर्मचारी वा सेवाग्राहीको मान प्रतिष्ठामा आघात नपुग्ने गरी गोपनीयता कायम गर्नुपर्छ ।

८. कर्मचारीसंगको व्यवहार:

कार्यालय प्रमुखले आफ्नो पद वा अधिकारको दुरुपयोग गरी कुनै पनि कर्मचारीसंग देहायको व्यवहार गर्नु हुँदैन:

- (क) यौनजन्य आशयले कुनै कर्मचारीको शरीरको कुनै अंगमा छुने वा छुल्ने प्रयास गर्नु,
- (ख) विद्युतीय माध्यम (एस.एम.एस., ईमेल, फेसबुक, ट्वीटर वा अन्य त्यस्तै किमिमका सामाजिक संजाल) बाट अशिष्ट, अधील शब्द, चित्र, श्रव्य वा दृश्य सामग्री सम्प्रेषण गर्नु वा गर्न लगाउनु,
- (ग) यौनजन्य आशयले कर्मचारीसंग अनावश्यक हिमचिम बढाउनु वा जिस्काउनु,
- (घ) यौनजन्य आशयले कर्मचारीसंग अशिष्ट, अधील तथा यौनजन्य कुराकानी गर्नु,
- (ङ) यौनजन्य आशयले कर्मचारीलाई बिना काममा कार्यालय समय अघि वा पछि आफ्नो कार्यक्षमता राख्न वा बस्न बाध्य पार्नु,
- (च) यौनजन्य आशयले कर्मचारीलाई कुनै विशेष सेवा सुविधा दिने प्रलोभन देखाउनु,

(घ) कुनै कर्मचारीलाई यौनजन्य कार्यको लागि शारीरिक वा मानसिक दबाव दिनु वा हैरानी दिनु.

(ज) कुनै कर्मचारीलाई होच्याउने वा अपमान हुने खालका शब्दहरू प्रयोग गर्न वा यौनजन्य आशय झल्किने गरी कुनै संकेत गर्नु वा गर्न लगाउनु ।

परिच्छेद- ३

कर्मचारीले पालना गर्नुपर्ने आचरण

९. अधिकारको दुरुपयोग गर्न नहुने:

कर्मचारीले कार्यस्थलमा आफ्नो पद, अधिकार वा शक्तिको दुरुपयोग गरी, कुनै किसिमको दबाव, प्रभाव वा प्रलोभनमा पारी कुनै कर्मचारी वा सेवाग्राहीलाई यौनजन्य क्रियाकलापको प्रस्ताव राख्नु हुँदैन ।

१०. अधील शब्द प्रयोग गर्न नहुने:

कर्मचारीले कार्यस्थलमा आफूसंग कार्यरत महिला वा अन्य कर्मचारी वा सेवाग्राहीप्रति यौनजन्य दुर्व्यवहार हुने खालका अशिष्ट वा अधील शब्द प्रयोग गर्नुहुँदैन ।

११. परिचयपत्र र पोशाक लगाउनु पर्ने:

प्रमुख वा कर्मचारीले कार्यस्थलमा रहँदा कार्यालयले उपलब्ध गराएको परिचयपत्र र निर्धारित पोशाक लगाउनु पर्नेछ ।

१२. कार्यस्थलमा उचित दुरी कायम गर्ने सन्दर्भ :

(१) प्रमुख वा कर्मचारीले कार्यस्थलमा कार्यरत रहँदा एक आपसमा शारीरिक वा मानसिक रूपले असहज नहुने गरी उचित दुरी कायम गरी बस्नु पर्नेछ ।

(२) कार्यालय प्रमुखले कार्यस्थलमा रहने कार्यकक्षको खाका (लेआउट) तयार गर्दा यौनजन्य दुर्व्यवहार निवारणमा सहयोग पुग्ने गरी खुल्ला कोठा, कर्मचारीलाई एक आपसमा शारीरिक वा मानसिक रूपमा असहज नहुने गरीको दुरी कायम र सम्भव भएसम्म प्रमुखबाट एकैपटकमा सबैको निगरानी गर्न मिल्ने खालका कार्यकक्ष निर्माण गर्नु पर्नेछ ।

१३. जानकारी गराउनु पर्ने:

कसैले कार्यस्थलमा कार्यरत कर्मचारी प्रति यौनजन्य दुर्व्यवहार गरेमा वा त्यस्तो

व्यवहार गर्न सक्ने संकेत देखेमा सो कुराको तत्काल प्रमुखलाई जानकारी गराउनुपर्नेछ ।

१४. प्रयत्नशील रहनुपर्ने:

कर्मचारीहरू कार्यस्थलमा हुने वा हुन सक्ने यौनजन्य दुर्व्यवहारलाई नियन्त्रण गर्न मध्ये प्रयत्नशील रहनुपर्नेछ ।

परिच्छेद- ४

सेवाग्राहीले पालना गर्नुपर्ने आचरण

१५. यौनजन्य दुर्व्यवहार हुने खालका गतिविधि गर्न नहुने:

सेवाग्राहीले आफूले प्राप्त गर्ने सेवा सुविधासँग सम्बन्धित कार्यस्थलमा कार्यरत प्रमुख वा कर्मचारीहरू प्रति यस आचारसंहिता विपरित हुने गरी यौनजन्य आशयले जिस्काउन, यौनजन्य शब्द वा संकेत प्रयोग गर्न वा कार्यालयको ल्यापटप, कम्प्युटर र अन्य विधुतिय सामाग्रीमा अश्लिल चित्र, चलचित्र तथा तस्वीर देखाउन वा अन्य कुनै किसिमले अस्वभाविक, अवाञ्छित वा अमर्यादित व्यवहार लगायतका यौनजन्य दुर्व्यवहार हुने खालका कुनै प्रकारका गतिविधि गर्नु वा गराउनु हुँदैन ।

१६. अनावश्यक हैरानी दिन नहुने:

- (१) सेवाग्राहीले आफ्नो कामसँग सरोकार भएको विषयमा बाहेक कार्यस्थलमा कार्यरत कर्मचारीसँग यौनजन्य आशयले अनावश्यक गफ गर्ने, कर्मचारीको काममा बाधा पुग्ने, कर्मचारीलाई असहज अनुभव हुने खालका गतिविधि गर्नु हुँदैन ।
- (४) सेवाग्राहीले सम्बन्धित कर्मचारीको अनुरोधमा आफै उपस्थित भएर सेवा लिनुपर्ने अवस्थामा बाहेक कुनै पनि कर्मचारीको छेउमा गएर उभिने, बस्ने, कर्मचारीको शरीरको कुनै अंगमा छुने वा कुनै प्रकारले मानसिक तनाव दिने खालका गतिविधि गरी हैरानी दिने काम गर्नु वा गराउनु हुँदैन ।

१७. गुनासो/उजुरी गर्नुपर्ने:

सेवाग्राहीले कार्यस्थलमा कुनै कर्मचारीले आफूसँग यस आचारसंहिता विपरित हुने गरी कुनै प्रकारको यौनजन्य दुर्व्यवहार गरेमा वा गर्न खोजेमा त्यसको जानकारी तुरुन्त प्रमुखलाई लिखित वा मौखिकरूपमा दिनु पर्नेछ ।

परिच्छेद- ५

उजुरी सुनुवाई प्रक्रिया निर्धारण र घटना व्यवस्थापन

- गोपनीयता:
- समय सीमा:
- पीडितलाई संरक्षण र परामर्श:
- पीडक माथि निगरानी र छानविन:
- घटनाको गाम्भीर्यता हेरी अनुशासन सम्बन्धी कारवाही वा नियामक निकायमा प्रेषण
- आचार संहिताको पालनाको सुनिश्चितता
- सबैलाई जानकारी
- सबैलाई तालिम र अभिमुखीकरण
- सबैबाट पालना हुने प्रतिवद्धता
- अनुगमनको व्यवस्था
- अभिलेख (Vetting)

परिच्छेद-६

विविध

१८. यौनजन्य क्रियाकलापलाई प्रोत्साहन दिन नहुने:

कमैले पनि कार्यस्थलमा यौनजन्य क्रियाकलापलाई प्रोत्साहन गर्ने खालका गतिविधिलाई प्रोत्साहन दिनु हुँदैन ।

१९. सूचना वा पोष्टर लगाउनुपर्ने:

कार्यालय प्रमुखले कार्यस्थल परिसर, मुख्य प्रवेशद्वार वा कार्यस्थलभित्र सबैले देख्ने स्थानमा यौनजन्य दुर्व्यवहार निवारणमा सहयोग पुग्ने खालका सचेतनामूलक सूचना बोर्ड वा पोष्टर लगाउनु पर्नेछ ।

२०. सेवाग्राहीको लागि प्रतिक्षास्थलको व्यवस्था गर्नुपर्ने:

प्रमुखले कार्यस्थल परिसरभित्र उपयुक्त स्थानमा सेवाग्राहीको लागि प्रतिक्षास्थलको व्यवस्था गर्नुपर्नेछ ।

२१. सुरक्षा व्यवस्था मिलाउनुपर्ने:

कार्यालय प्रमुखले कार्यस्थलमा हुने यौनजन्य दुर्व्यवहार निवारणको लागि सवारी साधनको प्रयोग, कार्यालयको भौतिक अवस्था, कामको प्रकृति, कर्मचारीको संख्या, सेवाग्राहीलाई प्रदान गर्ने सेवा, सुविधा, उपलब्ध स्रोत र साधन समेतको आधारमा आवश्यक सुरक्षा व्यवस्था मिलाउनु पर्नेछ ।

२२. लैंगिक संवेदनशील भाषाको प्रयोग:

कार्यस्थलमा कर्मचारी र सेवाग्राहीहरूले लैंगिक संवेदनशील भाषाको प्रयोग गर्नुपर्नेछ ।

२३. कार्यक्षमा सि.सि.टि.भि.को प्रयोग:

कार्यस्थलमा हुने यौनजन्य दुर्व्यवहार निवारणको लागि सम्भव भएसम्म कार्यक्षमा सि.सि.टि.भि.को प्रयोग गर्नुपर्नेछ ।

२४. अनुगमन गर्नुपर्ने:

कार्यालय प्रमुखले कार्यस्थलमा यौनजन्य दुर्व्यवहार हुन नदिन र यौनजन्य दुर्व्यवहार निवारणको लागि लागू गरिएको आचार संहिता पालना भए नभएको सम्बन्धमा नियमित रूपमा अनुगमन गर्नुपर्नेछ ।

२५. गुनासो पेटिकाको व्यवस्था गर्नुपर्ने:

कार्यस्थलमा हुने यौनजन्य दुर्व्यवहार निवारणको लागि कार्यालयको उपयुक्त स्थानमा गुनासो पेटिकाको व्यवस्था गरी प्रत्येक १५ दिनमा उजुरी पेटिका खोल्नुपर्ने र प्राप्त उजुरीहरू माथि प्रमुखले नियमानुसार कारवाही गर्नुपर्नेछ ।

प्रतिबद्धता

१. लैङ्गिक तथा जातिय विभेदपूर्ण शब्द तथा व्यवहार गर्ने छैनौं, साथै अस्वभाविक व्यवहार तथा अरुलाई मन नपर्ने शब्द प्रयोग गर्ने छैनौं ।

२. ज्येष्ठ नागरिक यौनिक तथा अल्पमंड्यक महिला बालबालिका तथा अपाङ्गता भएका व्यक्ति प्रति सम्मानजनक तथा सकारात्मक व्यवहार गर्नेछौं ।
३. हिंसा जन्य व्यवहार दुर्व्यवहार(जातीय छुवाछुत , लैङ्गिक विभेद तथा अपमान) गर्ने छैनौं र अरुले गरेको पनि सहने छैनौं ।
४. लैङ्गिक तथा जातीयताको आधारमा अरुलाई पिडादायक र दुः ख दिने बोली बचन तथा व्यवहार साथै दोहोरो अर्थ लाग्ने गरी बारम्बार जिम्किने काम गर्ने छैनौं ।
५. आ-आफ्नो जिम्मेवारी इमान्दारिता पुर्यक पुरा गर्ने छौं र सेवा दिदा तथा लिदा विभेद गर्ने छैनौं ।
६. लैङ्ग तथा जातीयताको आधारमा कुनै पनि व्यक्तिको कार्य क्षमता प्रति शंका तथा उपशंका गरेर हतोत्साहित गर्ने छैनौं ।
७. कार्यलयमा कसैले कसैलाई दुर्व्यवहार गरेमा सम्बन्धित जिम्मेवार व्यक्तिलाई जानकारी गराउनेछौं र शुन्य सहनशिलताको नितिलाई अवलम्बन गर्नेछौं ।
८. सबैमा सम्मान सदभाव र सहयोगी व्यवहार गर्ने छौं र कार्यस्थलमा अरुको निजी कुरा कार्य सम्बन्ध बिगाने छैनौं ।
९. कार्यस्थलको वातावरण स्वस्थ सुरक्षित , पारदर्शी , निष्पक्ष र लैङ्गिक हिंसा मुक्त बनाउनेछौं ।
१०. लैङ्गिक दुर्व्यवहार सामाजिक रुपमा अमानविय र कानुनी र कानुनी रुपमा दण्डनिय भएकोले यसलाई पालना गर्नु हरेक नागरिकको कर्तव्य हो ।
११. अप्रत्यक्ष रुपमा जातीय विभेद झल्किने गरि सब प्रयोग अरुलाई निरुसाहित गर्ने छैनौं ।
१२. कार्यस्थलमा हुने यौनजन्य दुर्व्यवहार निवारण ऐन २०७१ अर्न्तगत तयार गरेको आचार संहिता २०८० पालना गर्ने प्रतिवद्धता गर्दछौं ।

प्रतिवद्धता हस्ताक्षर

Annex IX : Code of Conduct (CoC) on GBV for the Project

नेपाल शहरी शासकीय तथा पुर्वाधार आयोजना

कार्य स्थलमा हुने यौनजन्य तथा महिला हिंसा सम्बन्धी आचार संहिता

व्याक्तिगत आचार संहिता

म, यो आचार संहिता पालना गर्नु मेरो दाहिता हो भनी स्वीकार गर्दछु । म कुनै पनि यौनजन्य तथा महिला हिंसा जस्ता कार्यमा संलग्न हुने छैन । परियोजना को काम को शिलसिलामा यो आचार संहिता पालना गर्न सहमत छु ।

१. म जातजाति धर्म, भाषा, लिङ्ग, उमेर, राजनीतिक वा सामाजिक हैसियत, भौगोलिकता, पदच, वैवाहिक स्थिति वा अन्य कुनै पनि आधारमा भेदभाव नगरी सबैलाई सम्मानजनक र समान रुपमा व्यवहार गर्नेछु ।
२. सामाजिक सन्जालको प्रयोग गरी अश्लील शब्द, दुष्य सामग्री वा कार्यलय समय अघिपछी वार्तालाप मार्फत सहकर्म/ कामदार लाई यौन दुर्व्याहार गर्ने छैन ।
३. कार्यस्थलमा सिट्टी बजाउने, चुम्बन गर्ने ,व्याक्तिगत उपहार दिने आदि जस्ता कार्य गरी कर्मचारी, सहकर्म/ कामदार लाई यौन दुर्व्याहार गर्ने छैन ।
४. कुनै पनि प्रलोभन/ धम्की देखाई (जस्तै पदोन्नती लोभ देखाएर, जागीर नदिने धम्की दिएर शोषण गरेर आदि) यौन दुर्व्याहार पक्षमा संलग्न हुने छैन
५. कार्य समयवधि भित्र कुनैपनि मर्दिराजन्य तथा लागुपदार्थको सेवन गर्ने छैन ।
६. परियोजना सरोकारवाला वा वरपरका समुदायका सदस्यहरुलाई कुनैपनि म लैङ्गिक हिंसा तथा यौनजन्य दुर्व्याहार गर्ने छैन ।
७. कुनै पनि कर्मचारी/ श्रमिक विरुद्ध हिंसा गरिएको दोषी ठहरिएमा प्रचलित सधिय, प्रादेशिक, स्थानीय सरकार वर्ल्ड बैंक को कानून , निती नियम अनुसार सजाय/ दण्डित गरिबाना तिन तयार हुनेछु ।
८. कार्य गर्ने शिलसिलामा सम्मानजनक निर्देशनहरुको पालना गर्दछु । (वातावरणीय + सामाजिक)
९. मेरो जिम्मेवारी कृशलता 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 गतिविधि गर्न दिने छैन ।
१५. कार्यस्थलमा महिला तथा यौन हिंसा गतिविधिहरूलाई 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 शस्त्रापद व्यावहार गरेमा वा शस्त्रापद 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

.....
कर्मचारी / कामदार

Annex X: Photographs



1. During Public Consultation meeting at Durgauli WSUC office Janaki RM -01.



Existing structures of Durgauli WSS sub-project, OHT premises



Photo 3: Meeting with Mukta Kamaiya in Mukta Kamaiya Sibir, Janaki RM -01, 2024





Photo 4. Celebration of lawaogi Puja by Tharu community performed every year

Annex XI: Monitoring format

दुर्गौली खानेपानी आयोजनाको
वातावरणीय प्रभाव अनुगमन फारम (निर्माण चरण)

अनुगमन गरेको मिति		समय	
अनुगमनको स्थान			
अनुगमन गर्ने व्यक्तिको नाम			
अनुगमन गर्ने व्यक्तिको पद			

तलको तालिकामा उल्लेख गरिएका सूचकहरूलाई दिइएको विधि प्रयोग गरी अनुगमन गर्ने परिणाममा छ छैन वा निश्चित संख्या (परिमाण) आउने भए सो उल्लेख गर्ने

सूचक	विधि	परिणाम वा परिमाण		प्रतिकार्य वा सुधारात्मक कार्य (सल्लाह सुझाव निर्देशन केहि दिएको भए सो उल्लेख गर्ने)
धुवाँ धुलो उत्सर्जन	बाटो र कार्यस्थल अवलोकन गर्ने	छ	छैन	
ध्वनी प्रदुषण	बाटो र कार्यस्थल अवलोकन गर्ने	छ	छैन	
व्यक्तिगत सुरक्षा उपकरणहरू लगाईएको	कार्यस्थल अवलोकन गर्ने	छ	छैन	
खुला रुपमा दिशा पिसाब गरेको	कार्यस्थल अवलोकन गर्ने	छ	छैन	
फोहरमैला जथाभावी फालेको	कार्यस्थल अवलोकन गर्ने	छ	छैन	
काटिएको रुखको संख्या	ठुटाको संख्या गन्ने र अभिलेख हेर्ने			
सडकमा नयाँ खाल्टो परेको र हिलो भएको	बाटो अवलोकन गर्ने	छ	छैन	
कामदारका अभद्र व्यवहारका घटना	स्थानीयलाई सोध्ने	छ	छैन	
कार्य क्षेत्रमा दुर्घटना र क्षतिको विवरण (संख्या र किसिम)	ठेकेदारलाई सोध्ने र अभिलेख हेर्ने			
निर्माणमा स्थानीय व्यक्तिको सभागिता (संख्या)	अवलोकन गर्ने, सोध्ने र हाजिरी			

	हेर्ने		
निर्माणमा महिला सहभागिता (संख्या)	अवलोकन गर्ने, सोध्ने र हाजिरी हेर्ने		
निर्माणमा जनजातिको सहभागिता (संख्या)	अवलोकन गर्ने, सोध्ने र हाजिरी हेर्ने		
निर्माणमा दलितको सहभागिता (संख्या)	अवलोकन गर्ने, सोध्ने र हाजिरी हेर्ने		
निर्माणमा बालबालिकाको (१४ र १६ वर्ष मुनिको) सहभागिता (संख्या)	अवलोकन गर्ने, सोध्ने र हाजिरी हेर्ने		

अनुगमनको गर्ने व्यक्तिको समग्र क्रियाकलापको बारेमा थप र व्यक्तिगत टिप्पणी	
अनुगमनकर्ताको सुझाव	

जाँच/रुजु गर्ने अधिकारीको नाम र सही	
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दुर्गौली खानेपानी आयोजनाको

वातावरणीय प्रभाव अनुगमन फारम (संचालन चरण)

यस किसिमको अनुगमनलाई नियमित क्रियाकलापमा समावेश गर्ने, अवस्था हेरी मासिक, अर्धवार्षिक वा वार्षिक रुपमा अनुगमन गरी अभिलेख सुरक्षित राख्ने

अनुगमन गरेको मिति		समय	
अनुगमनको स्थान			
अनुगमन गर्ने व्यक्तिको नाम			
अनुगमन गर्ने व्यक्तिको पद			

तलको तालिकामा उल्लेख गरिएका सूचकहरूलाई दिइएको विधि प्रयोग गरी अनुगमन गर्ने परिणाममा छ छैन वा निश्चित संख्या (परिमाण) आउने भए सो उल्लेख गर्ने

सूचक	विधि	परिणाम वा परिमाण		सल्लाह सुझाव वा निर्देशन केहि भए सो उल्लेख गर्ने
धुवाँ धुलो उत्सर्जन	बाटो र सार्वजनिक शौचालय क्षेत्र अवलोकन गर्ने	छ	छैन	
ध्वनी प्रदुषण	बाटो र सार्वजनिक शौचालय क्षेत्र अवलोकन गर्ने	छ	छैन	
खुला रुपमा दिशा पिसाब गरेको	सार्वजनिक शौचालय क्षेत्र वरपर अवलोकन गर्ने	छ	छैन	
फोहरमैला जथाभावी फालेको	सार्वजनिक शौचालय क्षेत्र वरपर अवलोकन गर्ने	छ	छैन	
नियमित सरसफाई गरिएको		छ	छैन	
वृक्षारोपण गरिएको बिरुवा जागेको हुर्केको	संख्या गन्ने र रोपेको संख्यासँग दाँज्ने			
सडकमा नयाँ खाल्टो परेको र हिलो भएको	बाटो अवलोकन गर्ने	छ	छैन	
स्थानीय व्यक्तिद्वारा संचालित व्यवसाय	अवलोकन गर्ने र सोध्ने			

स्थानीय महिलाद्वारा संचालित व्यवसाय	अवलोकन गर्ने र सोध्ने		
स्थानीय जनजातीद्वारा संचालित व्यवसाय	अवलोकन गर्ने र सोध्ने		
स्थानीय दलितद्वारा संचालित व्यवसाय	अवलोकन गर्ने र सोध्ने		

अनुगमनको गर्ने व्यक्तिको समग्र क्रियाकलापको बारेमा थप र व्यक्तिगत	
जाँच/रुजु गर्ने अधिकारीको नाम र सही	

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Glossory

Accessibility refers to the identification and elimination of obstacles and barriers to provide access to the physical environment, to transportation, to information and communications and to other facilities and services.

Biodiversity is the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species, and of ecosystems.

Critical habitat is defined as areas with high biodiversity importance or value, including: (a) habitat of significant importance to Critically Endangered or Endangered species, as listed on the International Union for the Conservation of Nature (IUCN) Red List of threatened species or equivalent national approaches; (b) habitat of significant importance to endemic or restricted-range species; (c) habitat supporting globally or nationally significant concentrations of migratory or congregatory species; (d) highly threatened or unique system; and (e) ecological functions or characteristics that are needed to maintaining the viability of the biodiversity values described above in (a) to (d) .

Cultural heritage is defined as resources with which people identify as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions

Disadvantaged or vulnerable refers to those who may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project's benefits . Such an individual/group is also more likely to be excluded from/unable to participate fully in the mainstream consultation process and as such may require specific measures and/or assistance to do so . This will take into account considerations relating to age, including the elderly and minors, and including in circumstances where they may be separated from their family, the community or other individuals upon which they depend.

Habitat is defined as a terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the nonliving environment . Habitats vary in their sensitivity to impacts and in the various values society attributes to them

Land acquisition refers to all methods of obtaining land for project purposes, which may include outright purchase, expropriation of property and acquisition of access rights, such as easements or rights of way . Land acquisition may also include: (a) acquisition of unoccupied or unutilized land whether or not the landholder relies upon such land for income or livelihood purposes; (b) repossession of public land that is used or occupied by individuals or households; and (c) project impacts that result in land being submerged or otherwise rendered unusable or inaccessible . “Land” includes anything growing on or permanently affixed to land, such as crops, buildings and other improvements, and appurtenant water bodies.

Livelihood refers to the full range of means that individuals, families, and communities utilize to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource-based livelihoods, petty trade, and bartering.

Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.

Pollution refers to both hazardous and nonhazardous chemical pollutants in the solid, liquid, or gaseous phases, and includes other components such as thermal discharge to water, emissions of short and long-lived climate pollutants, nuisance odors, noise, vibration, radiation, electromagnetic energy, and the creation of potential visual impacts including light.

Pollution management includes measures designed to avoid or minimize emissions of pollutants, including short- and long-lived climate pollutants, given that measures which tend to encourage reduction in energy and raw material use, as well as emissions of local pollutants, also generally result in encouraging a reduction of emissions of short- and long-lived climate pollutants.

Greenhouse Gas (GHG) is a gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect. The greenhouse effect plays a huge role to maintain the average temperature of Earth's surface. The primary greenhouse gases in Earth's atmosphere are water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). The vast majority of anthropogenic carbon dioxide emissions come from the combustion of fossil fuels, principally coal, petroleum (including oil), and natural gas, with additional contributions from deforestation and other changes in land use which are called sources or the drivers of GHG.

Climate trends: Patterns in climate variables such as temperature and precipitation observed in historic datasets.

Hazard: The potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss of property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. In this report, the term hazard usually refers to construction-related physical events or trends.