

Table of Contents

LIST OF TABLES	IV
LIST OF FIGURES	IV
ABBREVIATIONS	V
1. INTRODUCTION	1
1.1 Background	1
1.2 Sub-Project Description	1
1.3 Rationale of the ESMP	7
1.4 Scope and Objective of Environment and Social Management Plan (ESMP)	8
1.5 Legal and Policy Framework	9
2. DESCRIPTION OF STUDY AREA	10
2.1 Location and Accessibility	10
2.2 Groundwater Availability	11
2.3 Physical Features	11
2.3.1 Topography and Land Use	11
2.3.2 Geology	12
2.3.3 Seismology	13
2.3.4 Climate	14
2.3.5 Climate Change and Disaster Vulnerability	14
2.3.6 Drainage Network	15
2.3.7 Air and Water Quality and Noise Level	15
2.3.8 Soil Type and Quality	16
2.4 Biological Features	16
2.4.1 Vegetation	16
2.4.2 Terrestrial and Avian Fauna	17
2.5 Socioeconomic and Cultural Features	17
2.5.1 Demographic Characteristics	17
2.5.2 Socio-economic Characteristics	18
2.5.3 Available Public Service Facilities	19
2.5.4 Places of Religious and Cultural Importance	19
2.5.5 Gender Based Violence (GBV) and Sexual Exploitation Abuse (SEA)/ Sexual Harassment (SH)	19
3. STUDY METHODS	21
3.1 Literature Review and Secondary Data Collection	21

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

3.2 Field Survey, Mapping and Verification of Secondary Data	21
3.3 Desk Work	22
4 ENVIRONMENT AND SOCIAL MANAGEMENT PLAN	23
4.1 Impacts and Mitigation	23
4.2 Capacity Development and Training	48
4.3 Cost of Environmental Mitigation	49
4.4 Environmental and Social Monitoring	50
4.5 Environmental and Social Reporting	52
4.6 Implementation Schedule	55
4.7 Project Environmental Management Framework and the Key Stakeholders	55
4.8 Social Accountability and Grievance Redress Mechanism	57
5. STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE	60
5.1 Public Consultation	60
5.2 Stakeholder Consultations and Information Disclosure Plan	61
5.3 Information Dissemination	62
6. CONCLUSION AND RECOMMENDATION	64
ANNEX- I: ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST	66
I- Sub-project Background	66
II- Environmental and Social Screening	66
III. Checklist for ESS7 and particularly to FPIC	75
ANNEX II: MINUTES OF MEETING /CONSULTATION MEETING	80
1. Public Consultation Meeting with the Ward member, Badhghar and general publi....	80
2. Meeting with Mukta Kamaiya at Mukta Kamiya Shibir	82
3. Minute of Formation of GRM (1 st Level)	84
4. Consultation meeting with Stakeholder, User committee, Badghar and general Public	85
5. Consultation meeting with the women	88
6. Meeting regarding the handover of Janakinagar WSS to Janakinagar Rural Municipality at DWSSM Office, Dhangadhi; Kailali	89
ANNEX III: FOUR FORTS PROVED BY RURAL MUNICIPLITY OFFICE	90
ANNEX IV: LOCATION MAP OF JANAKINAGAR WSS SUB-PROJECT	91
ANNEX V: A. WATER QUALITY TEST REPORT	92
B. WATER QUALITY TEST AFTER 12 HOURS OF PUMPING FROM THE TUBE WELL	93

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

ANNEX VI: SKETCH OF LAND	94
ANNEX VII : LAND OWNERSHIP CERTIFICATE (LAL PURJA) OF THE LAND	95
ANNEX VIII: FORMATION OF THE USER COMMITTEE	96
ANNEX IX: SETTLEMENT MAP OF WARD NO. 2 OF JANAKI RURAL MUNICIPALITY	97
ANNEX X: GIS MAPPING OF JANAKINAGAR WSS SUB PROJECT SETTLEMENT	98
ANNEX XI: CODE OF CONDUCT FOR WSS SUB-PROJECT	99
A) Code of conduct GBV of the project	99
ANNEX XII: PHOTOGRAPHS	101
ANNEX XIII: MONITORING FORMAT	104
LIST OF REFERENCE	109
GLOSSORY	110

List of Tables

Table 1: Salient Features of the Sub-Project	2
Table 2: Pipe used for distribution network (meter)	7
Table 3: Land Use Pattern of Janaki Rural Municipality	12
Table 4: Air Quality Monitoring Report	15
Table 5: Sound Monitoring Report (December 25, 2024)	16
Table 6: Ethnic Distribution of Population of Janakinagar	18
Table 7: Environmental and Social Management Plan Matrix	25
Table 8: Details of Proposed Training Program	48
Table 9: Mitigation Budget	49
Table 10: Compliance Monitoring Plan	52
Table 11: Impact Monitoring Plan	53
Table 12: Public Concern and Mitigation Measures	61
Table 13: Stakeholder Engagement Plan	61
Table 14: Proposed Strategy for Information Disclosure	63

List of Figures

Figure 1 : Location map of Janakinagar WSP, Ward no. 02	10
Figure 2 : Location of Janakinagr WSP in Google Map	11
Figure 3 : Modified Geological Map of Western Siwalik and Terai (Source: Dhital, 2015) .	13
Figure 4 : Seismicity Map of Nepal from 1964-2019 ⁴	14
Figure 5: Organogram of E & S activities related to the project.....	53

Abbreviations

BoQ	: Bill of Quantity
CBS	: Central Bureau of Statistics
CoC	: Code of Conduct
DHM	: Department of Hydrology and Meteorology
DLP	: Defect Liability Period
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
LPCD	: Liter per Capita per Day
MoWS	: Ministry of Water Supply
MWASH	: Municipal Water and Sanitation Hygiene
MSL	: Mean Sea Level
MST	: Municipal Support Team
NOC	: No Objection Certificate
OHS	: Occupational Health and Safety
OHT	: Over Head Tank
PAPs	: Project Affected Persons
PIU	: Project Implementation Unit
PMU	: Project Management Unit
PPE	: Personal Protective Equipment
RAP	: Resettlement Action Plan
RM	: Rural Municipality
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
WTP	: Water treatment plant

Unit	
%	Percent/ Percentage
CO ₂	Carbon dioxide
dB	Decibel
g	Gram
HHs	Households
Kg	Kilogram
Km	Kilometer
kV	Kilovolt
ltr	Liter
m	Meter
masl	Meter Above Sea Level
mm	Millimeter
NRs.	Nepalese Rupees
°C	Degree Centigrade
sq.m.	Square Meter
Cum	Cubic 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 **Janakinagar 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 not in operation. The primary water source for this sub-project is groundwater. A tube well has a pumping discharge capacity of 14 liters per second (lps), with a safe yield of 17.2 lps. However, the tube well requires 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. 2 and 5 settlements, including Janakinagar, Palkot, Khaireni, Kalikapur, Khargauli, Paragipur, Prakritinagar, Farenda, Badariya, Kathghar. It involves extending and upgrading existing infrastructure to meet the growing population's needs, projected to rise from 7166 in 2024 to 9714 by 2046, with an average growth rate of 1.48 %. The estimated water demand by 2046 is 1.23 MLD.

The project relies on groundwater, with an existing tube well requiring a minor rehabilitation and a new tube well to be constructed and used as production wells. The existing 225 cum overhead tank (OHT) is added to the water treatment plant to treat high amount of Iron and Manganese as refer to the NDWQS standards (2079). Water treatment will also incorporate pressure filters and automatic chlorination, with adjustments based on updated water quality tests. The system includes two District Metering Areas (DMAs) and a 45,665 m pipeline network, using polyethylene and ductile iron pipes for efficiency and durability.

The system design includes household connections for 1265 households, equipped with water meters and flow control valves for equitable distribution. The project also proposes minor rehabilitation of existing infrastructure, including Tube well, Overhead Tank, buildings, and electrical facilities.

The high voltage transmission line of the 11 kVA line and transformer of 100 kVA have been already installed in the OHT premises, the installed transformer matches the electricity demands.

SCOPE OF ESMP: The Environmental and Social Management Framework (ESMF), developed for the overall project, provides the guiding framework for site-specific environmental and social monitoring plans in conformance with World Bank policies and project-level standards. This ESMP is prepared in line with the requirements of Nepal's National Environmental Laws and Regulations, as well as the World Bank's environmental and social safeguards, considering the anticipated impacts associated with the proposed sub-project, such as air pollution and noise pollution. The ESMP study for this water supply sub-project will guide its implementation, ensuring that adequate measures are taken to minimize any potential adverse environmental and social impacts associated with construction activities. This ESMP outlines the necessary actions to manage and mitigate negative impacts and risks while enhancing the project's significant positive and beneficial outcomes.

Environmental and Social Management Plan: An Environmental and Social Management Plan (ESMP) matrix is included as part of this ESMP, detailing:

- Mitigation measures for environmental impacts during implementation.
- An environmental monitoring program and the responsible entities for mitigation, monitoring, and reporting.
- Public consultation and information disclosure mechanisms.
- A Grievance Redress Mechanism (GRM).

Total Cost of Project: The project cost is estimated at NRs 131270419.4 including a 23% allocation for contingencies and VAT. Unit costs and estimates are based on government norms and recent project data.

Environmental and social risk classification: Environmental and social risks are classified as 'moderate' (Category III) under the Environmental and Social Risk Management Procedures outlined in Chapter 6 of the Environmental and Social Management Framework (ESMF). Accordingly, an Environmental and Social Management Plan (ESMP) has been formulated to identify and mitigate potential risks and ensure adherence to World Bank Environmental and Social Standards (ESS).

Environmental approval requirements: As per Rule 3 (1) of the Environment Protection Act (EPA), 2019, Environmental Studies must comply with Schedule 1, 2, or 3

of the Environment Protection Regulation 2020 (amended on 2021/05/24). However, this sub-project does not fall under any of these categories, exempting it from a Brief Environmental Study (BES), Initial Environmental Examination (IEE), or Environmental Impact Assessment (EIA). The screening report confirms that the sub-project does not impact National Parks, protected areas, or critical aquatic and terrestrial habitats, with minimal environmental and social consequences and no physical displacement.

ESMP Implementation: 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 **1,500,000.00** is allocated for these measures. The ESMP highlights the project's commitment to community well-being, social accountability, and environmental protection.

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 Janakinagar WSS Sub-Project is located in Janaki Rural Municipality, Kailali district, in the Sudurpashchim Province. It is situated in Ward No. 2. Geographically, the OHT of the project lies at a latitude of 28°35'03.893" N and a longitude of 81°05'29.568"E, with an altitude of 112 meters above mean sea level (MSL). This area has a hot and humid climate. The Sub-project is surrounded by agricultural land. The project area is flat agricultural terrain having an irrigation facility from the branches of Kulariya canal. The Pathariya River separates its boundary with Lamki Chuha Municipality and Joshipur Rural Municipality. The project area is located 12 kilometers southwest of Lamki Chok. The Janakinagar Water Supply is an under-construction groundwater-based project. The settlement pattern of the project area is heterogeneous in terms of ethnic composition. The population of the service area is estimated at 7166 in the survey year 2024. By the end of the design period in 2046, it is expected to grow to 9714 at an average weighted population growth rate of approximately 1.48%.

The proposed Janakinagar WSS 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. The Janaki RM aims to further enhance the sub-Project with support from WaSGISP. Key infrastructure completed so far includes a 225-cubic-meter RCC overhead tank, boreholes, tube well, an office building, a compound wall, a toilet, an 11 kVA transmission line, a 100 kVA transformer, and a total of 15.28 km of distribution pipelines.

This sub-project involves rehabilitating the existing RCC overhead tank through waterproofing, cement panning, pressure grouting, and painting. The non-operational tube well will be rehabilitated and integrated into the new system by replacing the failed

borehole. Additionally, a concrete-sealed platform will be constructed for the tube well to address contamination by E. coli and total coliform, as identified in water samples (*refer to Annex V for the Water Quality Test Report*). This contamination is attributed to improper well sealing and storm water or wastewater leakage at the earth-contact point around the well perimeter.

A 45,665 m distribution pipeline will be installed, while the current 17,444 m pipe network will undergo leakage testing before being integrated into the new system. The total number of household connections required is 1,265. This includes 1,238 individual households, three public offices, six schools, and eighteen temples, Churches and private offices. The existing three-room office building will be adopted to serve as a guard room, billing counter, and storeroom with minor repairs. A new toilet block, water lab building, guard house and an electric control room are proposed for construction. The current temporary toilet building will be dismantled to manage the site's landscaping.

All proposed structures, except the distribution pipelines, valve chambers and fire hydrants will be accommodated within the OHT premises of the existing system. The proposed land for the sub-project is the existing Janaki WSS sub-project site, and the ownership belongs to Janaki RM (*the land ownership certificate is attached in Annex- VII*). The distribution pipelines will follow existing public road corridors like (Seti Lokmarga, Badariya-Kathaghar Road, Kalikapur- Fareda Road, Khaireni-Paragipur Road, Khareni-Janakinagar Road, Palkot-Badariya- Kalikapur Road,). As the pipe -aying 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 RM's priority needs for environmental and sanitation improvement and will contribute significantly to achieving environmental goals, enhancing the standard of living for the local residents, and ensuring conditions for sustainable economic development. The salient features of the Janakinagar WSS sub-project are given in table below.

Table 1: Salient Features of the Sub-Project

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

GENERAL INFORMATION		
1	Name of the Project	Janakinagr Water Supply and Sanitation Sub-Project
2	Location Area	
	Province	Sudurpaschim
	District	Kailali
	Municipality	Janaki Rural Municipality
	Ward	02
3	Coverage Village	Kathghar, Janakinagar,Badhariya, Palkot, Khaireni, Paragipur, Khargauli,Pragatinagar, Fareda, Kalikapur
4	Present Household (2024)	1265
5	Survey Year	2024
6	Base Year (Project Completion Year)	2027
7	Design Year	2047
8	Present Population (2024)	7166
9	Population Growth Rate %)(Weighted Average)	1.48 %
10	Design Population (2046)	9714
11	Beneficiary Institution	
	School	6
	Government Offices	3
	Temple and Private offices	18
12	Design Water Demand (lpcd)	1232828
Socio-economic Status ¹		
1	Ethnicity	Percentage (%)
	Tharu	59.74 (of 7166 population)

¹ Baseline Survey data:- 2024

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

	Bhrahmin/Chhetri	26.84
	Other Janajati	7.68
	Dalit	5.09
	Muslim	0.65
TECHNICAL ASPECT		
1	Type of Project	Ground Water Based Pumping,
2	Name/Type of Source	Ground Water
3	Source location	Khairani, Janaki RM-02 Latitude: 28°35'03.893" N Longitude: 81°05'29.568"E
4	Design Pumping Discharge(lps)	14 lps
5	Safe yield discharge	17.2 lps
Status Of Project		
1	Implementation Status	Partially completed by WSSDO, Kailali
2	Year of Implementation	Fiscal Year 2077/78
3	Operational Status	Not in operational
4	Project Components	
4(A)	Completed / Existing Component	
	OHT	225 Cum- (1)
	Tube Well	1
	Office Building	1 (three Room)
	Transformer	100 kVA (1)
	Boundary Wall	Complete boundary
	Gate	1
	Pipe laying	17,444 m existing, 45,665 m new (total 63,109 m)
	Toilet	1 (to be dismantled)
4(B)	New Components Proposed under WaSGISP	

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

1	Tube well Drilling	1
2	Household connection and institutional connection	1265
3	Water Treatment Plant	1
4	Distribution Pipeline works	45,665 m
5	Toilet Block	1
6	Fire Hydrant	8
7	Air valve	7
8	Generator Room	1
9	Total Length of Pumping Mains Pipe :	180 m
10	Total Length of Distribution pipe (km):	63,109 (existing 17,444 + planned 45,665) <i>Carried out along the existing road which is in public use</i>
11	Brick Chamber	42
12	RCC Chamber	8
13	Dosing Shed	1
14	Laboratory	1
15	Dosing House and Control Room	1
16	Guard House	1
Available Facilities		
1	Access Road	Durgauli Bazar :- 5 Km Lamki Chowk :- 12 Km Munuwa Bazar :- 5.4 Km
2	Local Construction Material	Crusher within 5-kilometer range
3	Water	Hand pumps
4	Electricity	11kVA High tension Line with 100 kVA transformer at site
Available Pipes and Proposed Pipes		
1	Available Pipes	
	Transmission Pipe	180 m

*Environmental & Social Management Plan (ESMP) ,
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	DI Pipe- 200 mm	180 m
	Distribution Pipe	
	HDPE (50 mm to 180 mm OD)	17,444 meter
2.	Proposed Pipes for distribution system (50 mm- 225 mm OD) PE pipes	45,665meter
FINANCIAL		
1	Total Cost of WS Component (Including all VAT and Contingency) NRs.	131270419.4

Table 2: Pipe used for distribution network (meter)

PIPE RATING	Pipe Diameter (mm)	Actual Pipe Length (Total)	Design length (Existing)	Design Length (New Pipeline)
6 KG PE/HDPE	75	7,975	3,324	4,651
	90	9,056	3,084	5,972
	110	2,485	1,830	655
	125	3,643	1,914	1,729
	140	2,418	1,870	548
	160	2,317	1,136	1,181
	180	2,315	713	1,602
	200	3,557		3,557
	225	509		509
	250	112		112
	Sub-Total	34,387	13,871	20,516
10 KG PE/HDPE	50	19650.00	1551.00	18,099
	63	8915.00	1985.00	6,930
	Sub-Total	28,565	3,536	25,029
DI PIPE (EXISTING)	150	19	19	0
	200	98	18	80
	Sub-Total	117	37	80
GI pipe	GI Medium Class 125 ND	40	0	40
	TOTAL	63,109	17,444	45,665

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 compliable to Schedule 1 or 2 or 3 and hence a detailed Environment Study (Brief Environmental Study (BES), Initial Environmental Examination (IEE) and Environmental Impact Assessment (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 are 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 objectives of this Environment and Social Management Plan (ESMP) is to mitigate environmental and social 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, roles and responsibilities environmental and social risk management, 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 Janakinagar 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. Five of the ten World Bank Environmental and Social Standards (ESSs) are relevant to this project, namely ESS1 on Environmental Assessments, ESS2 on Labor and Working Conditions, ESS3 on Resource Efficiency and Pollution Prevention and Management, ESS4 on community Health and Safety, and ESS10 on Stakeholder Engagement and Information Disclosure.

2. DESCRIPTION OF STUDY AREA

2.1 Location and Accessibility

The Janakinagar WSS Sub-Project is situated in Janaki Rural Municipality, Ward No.2, Kailali District, Sudurpaschim Province. The project area is located 12 kilometers south-west of Lamki Chok. The Janakinagar Water Supply is an under construction groundwater-based project. The settlement pattern of the project area is heterogeneous in ethnic composition.

Geographically, the OHT of the project lies at a latitude of 28°35'03.893" N and a longitude of 81°05'29.568" E, with an altitude of 112 meters above mean sea level (MSL). This area has a hot and humid climate. The sub-project is surrounded all direction by agricultural land. The project area is flat agricultural terrain having a irrigation facility from the branches of Kulariya cannal. The Pathariya River seperates its boundry with Lamki Chuha Municipality and Joshipur Rural Municipality.

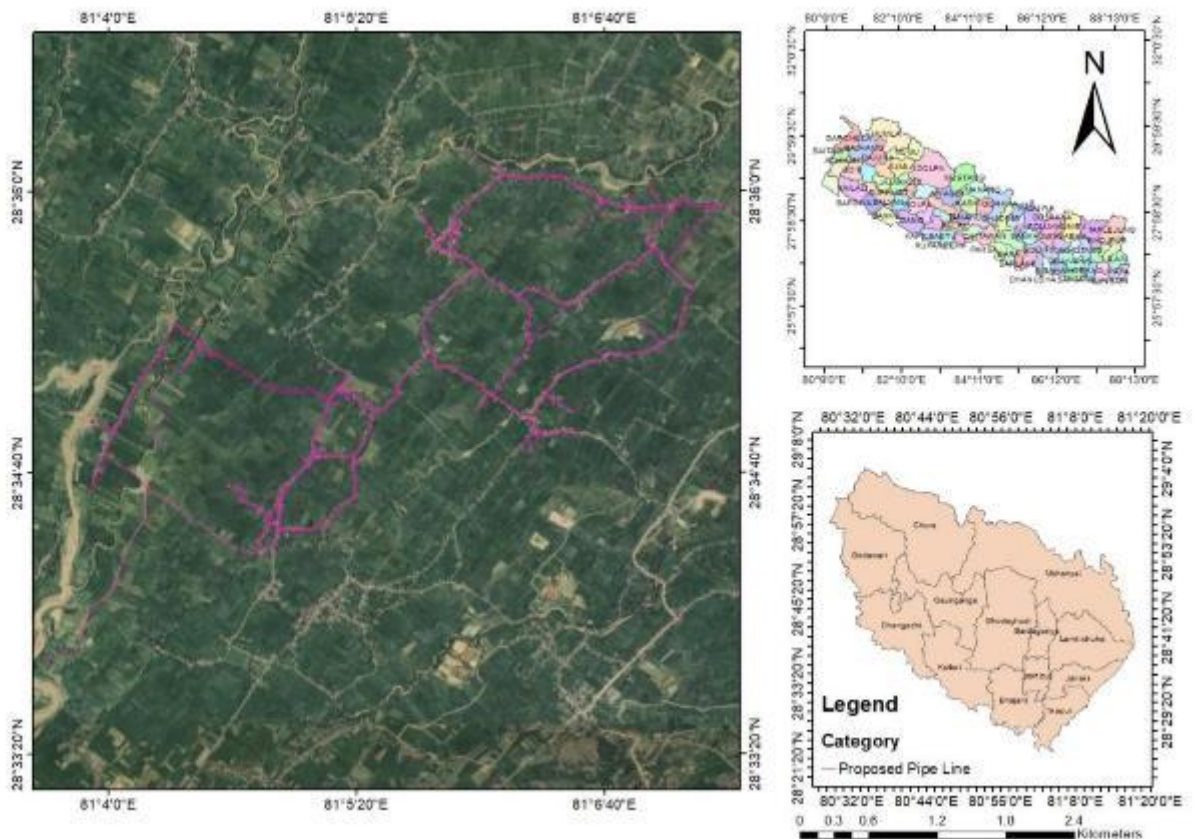


Figure 1: Location map of Janakinagar WSP, Ward no. 02



Figure 2: Location of Janakinagr WSP in Google Map

2.2 Groundwater Availability

The existing Janakinagar Water Supply and Sanitation (WSS) Project in Janaki RM was being implemented by the Federal Water Supply and Sanitation Division (WSSDO), Kailali. Tube well, Overhead Tank, distribution network and an 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 not operational and remaining works need to 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 design discharge capacity of 14 liters per second (lps), with a design safe yield of 17.2 lps and the depth of the submersible pump position is 57 meters below the ground. This indicates that the safe yield capacity exceeds the pumping rate, affirming that the current groundwater abstraction rate is within safe limits, which show sufficient yield to meet the projected demand without over-exploitation of the groundwater resource.

2.3 Physical Features

2.3.1 Topography and Land Use

The project area is situated in the Terai region, on the northern boundary of the Indo-Gangetic Plain, nestled in the foothills of the Chure Mountains, with an altitude ranging

from 110 m to 125 m above sea level. The Karnali River flows on the eastern border of the RM and across the river lies Bardiya National Park. The topography of the project area consists of flat lands moulded by Karnali River & perennial and ephemeral streams originating in the foothills (Chure) forming meandering gullies.

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 Forest Similarly, 4.8% of the land is covered by water, 4.5% by sandy area and the remaining are grazing area, bushes and garden. The existing land use pattern of the Janaki Rural Municipality is given below table.

Table 3: Land Use Pattern of Janaki Rural Municipality

S.N.	Land Use Pattern	Area (Sq.km.)	Percentage (%)
1	Cultivated land	79.81	74.4
2	Forest	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

2.3.2 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.

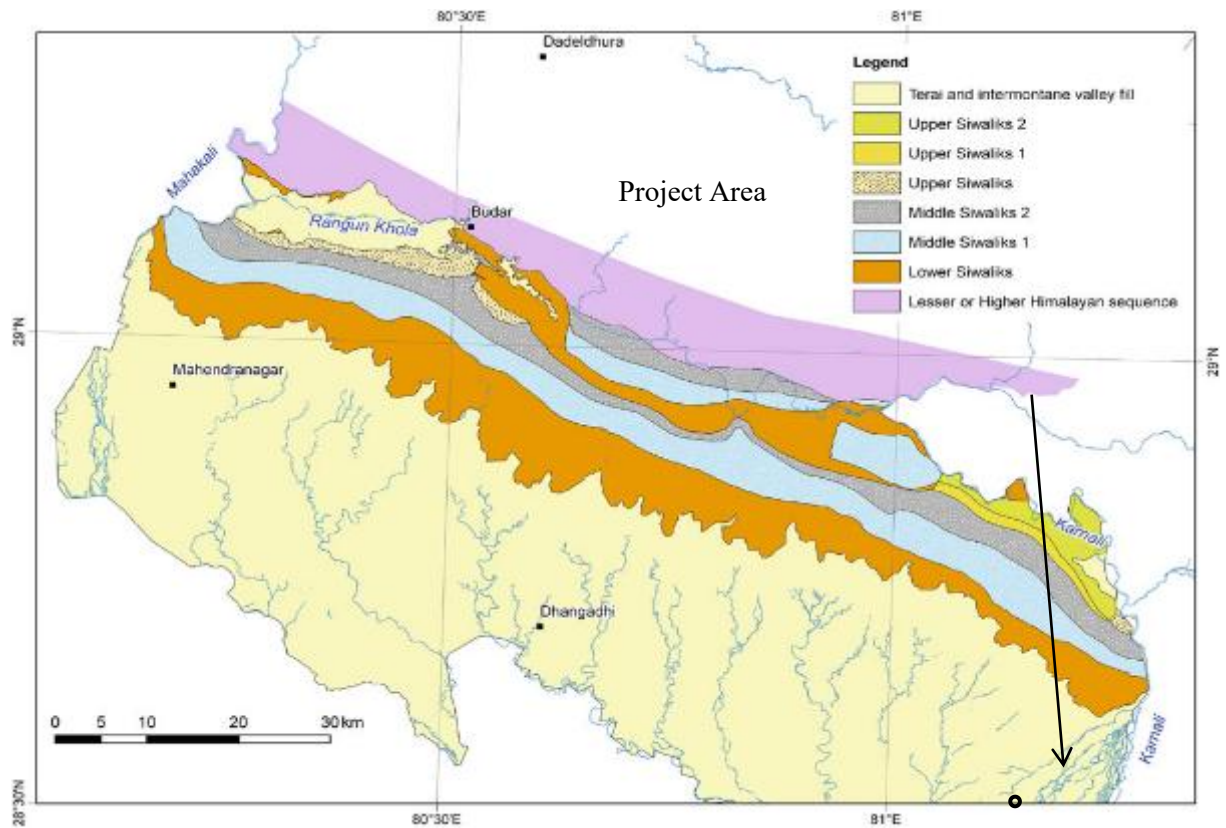


Figure 3: Modified Geological Map of Western Siwalik and Terai (Source: Dhital, 2015)

2.3.3 Seismology

The Federal Democratic Republic of Nepal lies in one of the active continental collision zone of the world, the Himalaya, where the probability of Earthquake occurrence is very high. According to National Seismological Center of Nepal several big earthquakes have been felt in Nepal, Many destructive Earthquakes have been reported in the historical records within the Himalayan arc. Out of which the 1934 Bihar-Nepal Earthquake (Magnitude 8) and the 2015 Gorkha Earthquake (Mw 7.8) occurred in the Nepal Himalaya. The earthquakes of magnitude 6 to 7 are mostly confined to the Main Himalayan Thrust (MHT) between the foothills and the Higher Himalaya. Moreover, earthquake generation is confined to the crustal depth of 20 km. However, shallow earthquakes at depths down to 6 km are generated because of strike slip faults. The project area is below the MFT line and where there is rare chances of earthquake even-though this Sub project will be designed and operated in accordance with seismic design requirements and best engineering practice. The seismic activity in Nepal between 1964 and 2019 as in IUSGS portal is shown in **Figure 4**.

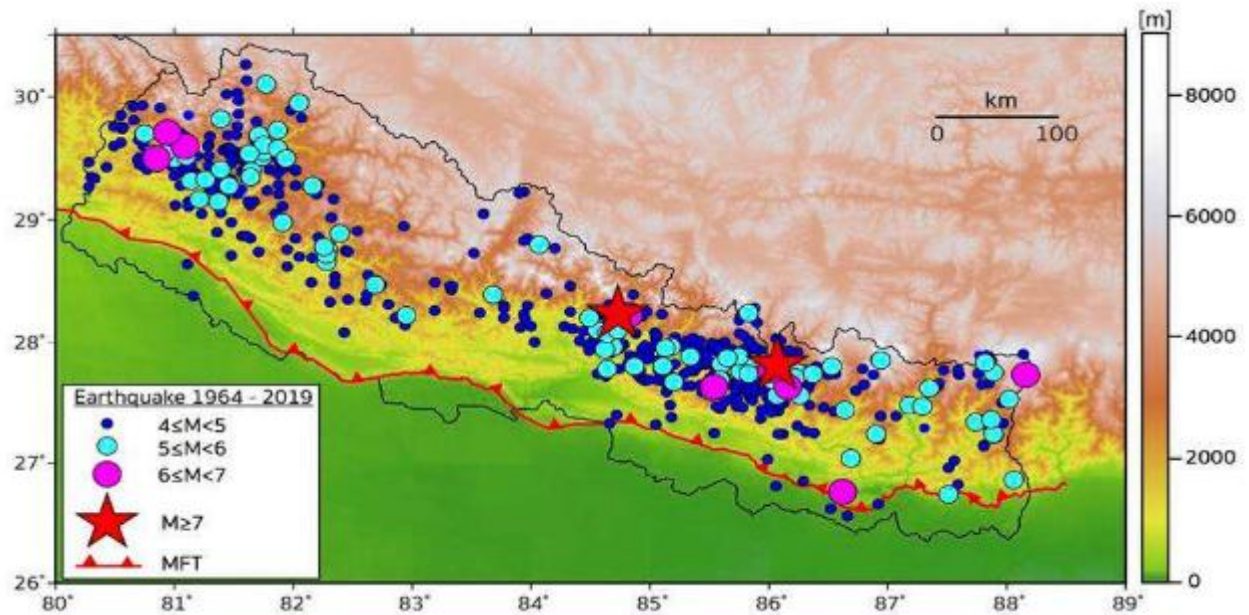


Figure 4: Seismicity Map of Nepal from 1964-20194

2.3.4 Climate

Temperature: The project area lies in Terai region with tropical climatic condition. The temperature rises as high as 38°C during summer and falls as low as 9°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.

2.3.5 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.

2.3.6 Drainage Network

The project area is drained by some locally originating ephemeral creeks drains into the Rora River, Pathariya Khola and Kulariya Nadi 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.

2.3.7 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 except iron and manganese are within 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 V*).

Human activities and vehicular movement plying along the Setilok Marga and Munuwa-Gaudi Tole road at the east 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, Khaireni to Gaudo Tole, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, Kalikapur Tole and agricultural land during the harvesting season are 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 in December 2024 to establish the baseline and the monitoring report data is given in table below.

Table 4: Air Quality Monitoring Report

National Ambient Air Quality Standards, 2012					location
S.N.	Parameter	units	Average time	Maximum concentration	OHT premises
1	TSP	µg/m ³	24-hr	230	-
2	PM _{2.5}	µg/m ³	24-hr	40	30

3	PM ₁₀	µg/m ³	24-hr	120	50
4	Carbon monoxide	µg/m ³	24-hr	10000	500

Table 5: Sound Monitoring Report (December 25, 2024)

S.N	Location	Noise level decibel (dB) (day time)			National Standards of Sound Level, 2069 Day Time Limits Leq (Decibel) dB (Day)
		Maximum	Minimum	Average	
1	OHT Premises	59.3	45.3	51.1	65
2	Ward office+ Health Post	70.2	48.3	51.7	65
3	Shree Rastriya Basic School	71.2	49	50.1	65

2.3.8 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).

2.4 Biological Features

2.4.1 Vegetation

The Janakinagar WSS Sub-Project is located in Janaki Rural Municipality Ward No. 2. In the subproject surroundings various types of plant species were observed during screening. The project site is adjacent to agricultural land and the plant species found around the WSP area 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*), Liptis (*Eucalyptus tereticornis*), Gulmohar (*Delonix regia*), and Teak (*Tectona grandis*). Similarly the fruit trees found in the sub-project area are Alubukhara (Plum), Amalaa (Gooseberry), Anaar (Pomegrante), Aru (Peach), Bayar (Indian Plum), , Bhogate (Pummelo), Bhuin Katahar (Pineapple), Chinia Naspaati (Chinese Pear), Haade Bayer (Bead 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), etc. However, the project site is far from forest

area and there is no vegetation on the site, the sub-project does not require any tree clearance.

2.4.2 Terrestrial and Avian Fauna

The sub-project area (OHT premises) is located adjacent to human settlements and activities. Terrestrial fauna is not observed in this area. As known from the local people, the sub-project area was occasionally visited by Jackal (*Canis aureus*), Monkey (*Cercopithecidae*) etc. However, the sub-project area is not a wildlife habitat.

The common bird species found in Kailai district are also found in the sub-project area. These are: 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, Partridge, Nightangle (*Luscinia megarhynchos*), Raven (*Corvus corax*) etc. are the variety of common avian species found in the project area. However, the sub-project area is not a designated bird habitat.

2.5 Socioeconomic and Cultural Features

2.5.1 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 outnumbers 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 the National Population Census 2021 and Janaki Rural Municipality Village Profile, the total population of Ward No.2 is 5503 (Population Census 2021) including 2595 males and 2908 females. This shows that the female population outnumbers male population in project area. But according to the baseline survey 2024, the total number of households is 1265 with population 7166. The baseline survey in this ward revealed the notable presence of Janajati/ethnic groups (Tharu) comprising approximately 59.74%, Brahmin/Chhetri 26.84%, Other Janajati 7.68%, Dalit groups about 5.09%, and Muslims about 0.65% in the project area. The Language spoken mainly depends on the caste/ethnicity. Tharu is the most

common language of the people, followed by the Nepali language and other adjoining hill languages. Tharu are the original inhabitants of this project area.

Table 6: Ethnic Distribution of Population of Janakinagar

Caste/Ethnic Status	Percentage (%)
Tharu	59.74
Brahmin / Chhetri	26.84
Other Janjati	7.68
Dalit	5.09
Muslim	0.65
Grand Total	100.0

Source: Field Survey 2024

2.5.2 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 and lentils like gram, red gram, black gram and pea, oil seeds like mustard, flax seed and sesame, vegetables like potato, onion, cauliflower, lady's finger, garlic. Livestock reared in the area include cow/oxen, buffalo, goat and pig, Poultry farming is also common in the area. Fisheries is also occupation of few people. Meat and dairy are the major livestock products.

Besides agriculture, people are involved in other occupations like Business, Service, Labor and Foreign Employment. As understood from discussion with local people, they have adopted more than one occupation. The business ventures besides commercial agriculture include retail shops of daily utilities, electronics and electrical, construction materials, dairy shop and agricultural inputs (fertilizer and seeds) etc.

People have engaged into different groups according to their subjective interest and involvement for the welfare to those interest groups. People are involved in co-operative savings groups, mothers group, youth clubs, civil awareness centers, committees.

2.5.3 Available Public Service Facilities

There is one existing Water Supply & Sanitation Project in Janaki Rural Municipality ward no.2 Janakinagar WSP which is not in operational phase. There are 6 educational institutions including higher secondary schools, and basic schools in service area. People including students, staffs and teachers. There is health post 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 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.

2.5.4 Places of Religious and Cultural Importance

Each specific caste/social groups in the project area have their own cultures based on their religion and traditions. There are many festivals which are specifically celebrated by specific types of social/caste groups. For instance, Maaghi or Mange Srakanti is the major festival celebrated by Tharu community in the area. It is also celebrated by other groups. 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, such as sacred 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.

In terms of tangible heritages, there are 5 places of religious and cultural importance in this ward. They are Shiv Mandir, Church, Gumba, Maruwa Ghar and Mosque.

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

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 type of physical or sexual violence have sought help to stop the violence. Out of the 15 most GBV prevalent countries in the

world, Nepal ranks 4th in domestic violence and violence by a partner and child marriage tops 2nd highest in South Asia (DHS, 2022). GBV in Nepal is prevalent due to unequal gender relations and discrimination towards women in both public and private spheres. It has direct implications on the reproductive health status of women and physical, emotional, and mental health of their children.

In case of project district, there is hospital-based One Stop Crisis Management Centre (OCMC) at Seti Zonal Hospital of Kailali district, In this OCMC a total of 433 cases have been registered in 2080/081 fiscal year. Out of them there are nine cases of child labour, one case of cyber-crime, 109 cases of denial resources, and 1 case of human trafficking, 53 cases of mental abuse, 95 cases of physical assault / violence, 123 cases of rape, 39 cases of sexual abuse and three cases of social discrimination.

In case of sub-project level there is Department of Women and Children (DWC) under social development unit of Janaki Rural Municipality to address the GBV/SEA/SH issues. The Janaki RM has nominated GBV and SEA/SH focal person (Ms. Yamuna Bista). As per the consultation carried out with the local women, there are no significant cases related to GBV and if any such cases happen, then those cases are settled under facilitation of the local social leader (Badhghar). In case, if such cases are not resolved even under facilitation of the local social leader then they are reported to Rural Municipality office.

The occurrence of such GBV issues in communities can be further triggered by the sub-project infrastructure work wherein it is expected that around 40 to 45 labours (20 local & 20-25 migrant) will be mobilized per day during the peak construction at the sub project sites. Therefore, potential risks of SEA/SH will be assessed and for which a code of conduct will be adopted to mitigate the SEA/SH impacts of the sub-project and the sample of personal code of conduct for WSS sub-project is attached in Annex VIII.

3. STUDY METHODS

The methods adopted to achieve the objective consists mainly of map reading to understand the frame of reference and field investigation of the Janakinagar WSP Sub-Project including collection of field based information and mapping. The methods included:

3.1 Literature Review and Secondary Data Collection

The assignment commenced with literature review and secondary data collection. The sources of relevant information included 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 reports relevant to the project, and climatological record of the project area from the Department of Hydrology and Meteorology (DHM).

3.2 Field Survey, Mapping and Verification of Secondary Data

The study was based on the on-site walkthrough of the Janakinagar WSS sub project area mainly focusing on the proposed location. It also included focused group discussions (FGDs), formal consultation meetings, and Key informant interview (KII) with the local stakeholders including the local government 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 II. 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 (Annex I) prepared after desk study, review of sub-project related documents, filing of different parameters and matters outlined in environmental and social screening checklist (such as feasibility studies, detailed engineering design reports, 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 walkthroughs, 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 work that included engineering design, drawing and mapping, analysis, quantification, 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 Janakinagar 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:

- I. Disruption of natural drainage and pavements:** The pipe-laying activities along the public road through Khaireni chowk, Seti Lokmarga, Badariya- Kathaghar Road, Kalikapur- Fareda Road, Khaireni-Paragipur Road. Khareni-janakinagar Road, Badariya- Kalikapur Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur Tole may disrupt the existing roadside drainage system. Construction tasks such as earthworks, back filling, 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. Khaireni, which is near the OHT premises will be affected most and construction will be sequenced to ensure that trenches are back filled promptly to minimize the drainage and pavement disruption.
- II. Disruption to traffic flow and accessibility:** The excavation and installation of pipelines (trenches 90 cm deep and 60 cm wide) along the public road in Khaireni chowk, Seti Lokmarga, Badariya- Kathaghar Road, Kalikapur- Fareda Road, Khaireni-Paragipur Road. Khareni-janakinagar Road, Badariya- Kalikapur Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur 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 back filling completed promptly, within a week.
- III. 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 Khaireni chowk, Seti Lokmarga, Badariya- Kathaghar Road, Kalikapur- Fareda Road, Khaireni-Paragipur Road. Khareni-janakinagar Road, Badariya- Kalikapur Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur 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 backfill promptly, typically within a week, following the completion and testing of pipe-laying work.

IV. 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 7 below.

Table 7: 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, clearances, no objection certificate (NOC), etc.	Failure to obtain necessary consents, permits, NOCs, etc. 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 on compliance all obtained consents, permits, clearance, NOCs, etc.	PIU/MST	Incorporated in final design and Communicated to contractors.		Prior to award of contract
Existing utilities	Disruption of services- Water supply and electricity supply 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 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 V</i>.	PST, PMU	Incorporated in final design and communicated to contractors	60,000.00	Prior to award of contract

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

		✧ The cumulative total daily water demand for the Janakingar Water Supply Sub-Project has been estimated to be 1.2 MLD by the end of the design period in 2046 and-the bore log data isnot available, but the depth of the submersible pump position is 57 meter below the ground and the safe yield 17.2 lps and pumping discharge capacity is 12 lps. ✧ Design to include basic treatment using lime dosing, pressure filter and disinfection using Ca(CIO)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 Khairenii, Janaki RM-02. ✧ Disposal areas are finalized barren area adjacent to Construction site and the ownership belongs to RM. ✧ 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	1,40,000.00	During detailed design phase
Waste Generation	Generation of solid waste, waste water and other construction waste may cause	✧ 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/War d Office	Contractor records. visual inspection		During detailed design phase

	pollution from work sites and workers camp (if 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						
Topography, landforms, geology and soils and/or river morphology and hydrology	Surface cutting and excavation works may cause erosions and impact on the local hydrology.	- Soil erosion will be minimized by taking precautionary measures such as: (i) reuse of excavated soil, (ii) immediate and proper backfilling of the trenches, and (iii) the excavated soil temporarily stored properly against erosion by using barriers or silt traps.	Contract or	Records of sources of materials and records of potential areas of soil erosion; Sites of reservoir construction, treatment plant construction, transmission mains and distribution pipelines.		Daily (or as often as necessary especially during monsoon or rains) by the Contractor. Monthly visual inspection by PIU and MST.
Community facilities	Disruption of natural drainage Damage to existing facilities like water supply and pavements (Khairani chowk, Seti Lokmarga, Badariya- Kathaghar Road, Kalikapur-Fareda Road, Khairani-Paragipur Road. Khareni-janakinagar Road, Badariya- Kalikapur	✧ 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.	PIU/RM/ Contract or	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

	Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur Tole)	✧ 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 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	✧ 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	Contract or/MST/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.	1,80,000.00 (air quality monitoring)	Daily monitoring by MST in coordination with PIU. Monthly visual inspection by PIU. Air quality monitoring, once a year.

	sites. Khaireni chowk, Seti Lokmarga, Badariya-Kathaghar Road, Kalikapur-Fareda Road, Khaireni-Paragipur Road. Khareni-janakinagar Road, Badariya-Kalikapur Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur Tole.	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. ✧ 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, Khaireni chowk, and Khaireni -Kanchanpur road, RM-02 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 Khaireni chowk, Seti Lokmarga, Badariya-Kathaghar Road, Kalikapur-Fareda	✧ 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	Contract or/ MST/PI U	-Results of monitoring noise levels (Maintain maximum sound levels not exceeding 70 decibels when		Daily monitoring in coordination with PIU Monthly visual

	Road, Khaireni-Paragipur Road. Khareni-janakinagar Road, Badariya-Kalikapur Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur Tole Temporary increase in noise level and vibrations may be caused by excavation equipment, and the transportation of equipment materials, and people.	unloading coarse aggregates. ✧ Horns should not be used unless it is necessary or unavoidable ✧ 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 peak construction stage at specified locations near schools, hospital and Khaireni chowk ,		measured at a distance of 10m or more from the construction sites) -Number of complaints from sensitive receptors		inspection by PIU in coordination with MST Noise level measurement, once a year.
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		Khargauli chowk and Rastriya Basic school of Janaki RM-02.				
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. ✧ 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	Contract or	On-site situation in campsites (if any), work sites and their vicinities	10,000.00	Monthly monitoring by PIU.

		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.				
Road safety & Community safety	<i>risk of accidents; traffic disturbances</i>	✧ ‘Drive slow’ messages will be placed along the active sites. ✧ Barricades will be placed to avoid any accidental falls. Hard barricades will be provided at temporary deep excavations and trenches for foundation works. ✧ Signboards with safety messages and warnings will be placed in local languages all along the alignment at the construction sites and at the trench excavation area. ✧ Construction works to consider elderly, women, child & differently able people (EWCD) requirements ✧ Trenches will be backfilled with immediate effect. ✧ Awareness activities will be conducted to inform & aware locals. ✧ Carry out site management practice such as the fencing around work area and road signage. ✧ Increase public awareness of safety, health and environmental issues by providing information directly and indirectly through campaign. ✧ Display appropriate signage, in Nepali language, for use during construction and	Contract or coordination of PIU		50,000.00	

		implementation of the project to enhance awareness creation on the potential hazards of the project. ✧ To minimize any negative impacts from operation of the labour camp, the contractor will manage the labour camp as per measures provided in SN 3 above ✧ The contractor will assign a safety supervisor and will monitor daily construction works in terms of health and safety. ✧ The Contractor will comply with the requirements of the Environmental, Health, and Safety (EHS) General Guidelines of the World Bank, April, 2007 and the statutory norms of safety during construction Awareness activities (at least two) will be conducted to inform & aware locals regarding potentials risks and proposed safety measures related to the project activities				
	B. Biological Characteristics					

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

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.	MST/PIU/Contractor	Area of greenery that has been cleared Number of trees cut (only if unavoidable) Complaints or grievances by the locals	5,00,000.00	Monthly monitoring by PIU.
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Impacts on Fauna	Disturbances to birds that occasionally visit the nearby tree nursery	✧ Horn prohibited sign will be placed in the OHT premises area to minimize the construction disturbance to birds. ✧ Establish, implement, and enforce a Worker Code of Conduct that expressly prohibits hunting, poaching, and collection of animal and plant species in general, including fines and dismissal for repeat offences. ✧ Implement a worker environmental awareness program as part of worker induction to inform personnel about the prohibition of hunting and poaching and the penalties associated therewith ✧ Restrict noise-generating construction activities to established working hours 8 hrs. (8 AM to 4 PM) as per the Labour Act 2017. For any work outside these hours, obtain a special permit in advance.	Contract or	- Number of complaints from sensitive receptors		Monthly visual inspection 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 Khaireni chowk, Seti Lokmarga,	✧ 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 Khaireni, Paragipur, Khargauli. ✧ 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	Contract or	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

	Badariya- Kathaghar Road, Kalikapur-Fareda Road, Khaireni-Paragipur Road. Khareni-janakinagar Road, Badariya- Kalikapur Road, Kathghar Tole, Janakinagar Tole, Badhariya Tole, Palkot Tole, Khaireni Tole, Paragipur Tole, Khargauli Tole, Pragatinagar Tole, Fareda Tole, and Kalikapur Tole	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 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.				PIU in coordination with MST
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	✧ 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	Contract or	✧ Daily entry-sheet of the work force in the camp sites. ✧ Number of local people versus outside workers in the subproject area will be regularly monitored	1,46,000.00	Monthly inspection at camp sites (if any) by PIU.

	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	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 & adequate fuel supplies of LPG . ✧ 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				
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		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 consuming alcohol. ✧ Camp shall not be in the vicinity of landslides and flood plains. ✧ Preference will be given to the local people in project related jobs and subsidiary opportunities				
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	Contract or	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

		of the work force should be trained to use the outfit. The contractor should also make provisions for an ambulance to take 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. ✧ Drivers with authorized license holders will only be allowed for the operation of construction vehicles. ✧ Workers and staff at the construction site will be provided with proper training to ensure that workers are trained on what to do				
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		in the event that an accident occurs on site. ✧ The contractor's supervisors will be instructed to conduct 'prework instructions' to the workers everyday - explaining them about the nature of works, condition of the site, and associated risks as well as safety measures. ✧ Agreement with nearby health institution will be in place by the contractor. ✧ Contractor will be responsible to maintain the records of each and every accident and incidence ✧ Contractor's team, staff and laborers can also make use of the GRM to raise complaints / grievances if any				
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 signed, oriented on the CoC to ensure it is understood by those signing, and strictly adhered to and monitored for all workers. Signed copies	PIU	✧ Regular monitoring and supervision of construction site/ camp ✧ Information related to SEA/SH, Human trafficking, GBV, HIV AIDS and Communicable diseases		Daily (or when there is a construction activity) by the Contractor. MST/ PIU Rural Municipality

		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-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				
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		local community including school children regarding these concerns. (ii) HIV AIDS & Communicable diseases ✧ Awareness creation and sensitization to workers and other persons post- project to reduce or eliminate chances of infections of HIV-AIDS and other sexually transmitted diseases ✧ 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	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

		✧ Copies of citizenship card or other valid personal ID card will be kept 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 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-02 . ✧ 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 environmental, health, or safety impacts, as well as the proposed prevention, mitigation, and emergency response measures.	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	1,00,000.00 40,000.00	✧ Daily by the Contractor/MST. ✧ Monthly visual inspection by PIU

		✧ 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.				
Others	- Information dissemination - Environment & Social safeguards	✧ Mechanism, and environmental & social safeguards aspects will be disseminated to the local through leaflets, and local media	Contract or (Coordinated by local authority and DSC)	(a) Leaflets (b) PSA (local media) (c) (grievance meetings, site monitoring, etc.)	60,000.00 144,000.00	
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	✧ 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	Contractor during DLP; WSUC	Visual inspection		Daily (or as needed) by the operator.

	sensation in the mouth and throat and spontaneous vomiting.	process during operation ✧ Ensure use of PPE while using chemicals ✧ Use of chlorine guideline as per 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.	or Operat or after DLP			
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*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

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 (v) Monitor water quality.	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.

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 2, Janaki Rural Municipality*

-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 safe place and stored in closed container.	Contractor during DLP; WSUC or Operat or 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.
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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 training and awareness programs have been planned and is given in Table. The PMU PST, PIU, MST can be consulted for such training. Experts/Consultants can also be the resource persons to impart training. These experts shall be appointed based on specific need for the training.

Table 8: Details of Proposed Training Program

S. N	Title	Objective	Time of training	Duration/ Days	Participants
1	Orientation on E&S by PMU/PST to 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 EMP 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 or	➤ Issues relating to wage parity, child labour etc.	During construction or when needed	1 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 labour/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 training by PIU/MWASH unit /MST to labour/contractor	➤ To raise road safety consciousness among the road users	During construction/During trench excavation along the road.	1 Day	PIU/MST/Contractor/MWASH unit
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 Cost of Environmental Mitigation

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 8. 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 Janakinagar 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 9: Mitigation Budget

S.N.	Items & Headings	Unit	Qty.	Rate	Total, NPR	Reference
	Provisional Sum amount					
1	Water quality test	Samples	30	2,000.00	60,000.00	Dhangadhi Lab
2	Air quality and Noise level monitoring	Samples	2	90,000.00	180,000.00	Consulting with the air, water and noise level monitoring lab.
3	Greenery promotion	Job	LS	500,000.00	500,000.00	Consulting with Nursery.
4	Water Sprinkling	Job	LS	100,000.00	100,000.00	As per the site accessibility.
5	No horn sign installation, road safety and awareness	Job	LS	50,000.00	20,000.00	As per local market price

6	Waste collection bins	Job	LS	10,000.00	10,000.00	As per local market price
7	PPE and First Aid	Job	LS	50,000.00	50,000.00	As per local market price
8	Environment and Social Awareness, Worker's & Community's Health and Safety and WASH Promotion (Events will be conducted for workers as well as community)					
(i)	Environmental and Social Awareness (during Pre-construction phase and construction phase; at least 30 participants/event)	Events	2	25,000.00	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	25,000.00	50,000.00	
(iii)	Community level awareness on WASH and Sanitation	Events	2	20,000.00	40,000.00	
(iv)	Labour Camp management	Job	LS	146000.00	146,000.00	
9	Stockpile/Construction Waste Disposal Management	Job	LS	140,000.00	140000.00	
10	Environment & Social safeguards (grievance meetings, site monitoring, etc.)	Meetings /Events	18	8,000.00	144,000.00	
11	Information dissemination materials and medium					
	(a) Leaflets	Job	LS	10,000.00	10,000.00	Consulting with local press & media.
	(b) PSA (local media)	Job	2	25,000.00	50,000.00	Consulting with local press and media.
	Total				15,00,000.00	(In Words: Fifteen Lakhs fifty thousand 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 monitoring activities. 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;
- The regular Contractor's E&S compliance monitoring by PIU/MST and
- Overall environmental and social performance of the project.

4.5 Environmental and Social 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 10: Compliance Monitoring Plan

Issues	Indicators	Method	Schedule	Location	Responsible	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.	Review of proposed work plans, submitted by contractor or executing authority	During contract negotiations	Janaki Rural Municipality	PIU/RM	

	C-ESMP, Traffic management Plan, Earthwork Segmentation Plan, as applicable)					
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 actions	Annual	Janaki Rural Municipality	RM/PIU /MST	
Operation Phase						
Operation phase mitigation management	Budget allocation for mitigation measures for operation phase	Review of project budget document	Annual	Janaki Rural Municipality	RM/PIU MWAS H 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/PIU MWAS H Unit	

Table 11: 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 infrastructures	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 surrounding	Monthly	
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 culvert	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

4.6 Implementation Schedule

The project is scheduled 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 months from the date of contract signing.

4.7 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.

4.8 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 grievance 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.

The 1st level (Rural Municipality level) GRM has been established, and Grievance Redress Committee (GRC) has been formed which includes RM Vice Chairperson, Administrative officer, PIU Manager, MWASH Unit chief. Likewise, ward Level GRC has been formed at project's ward. 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.

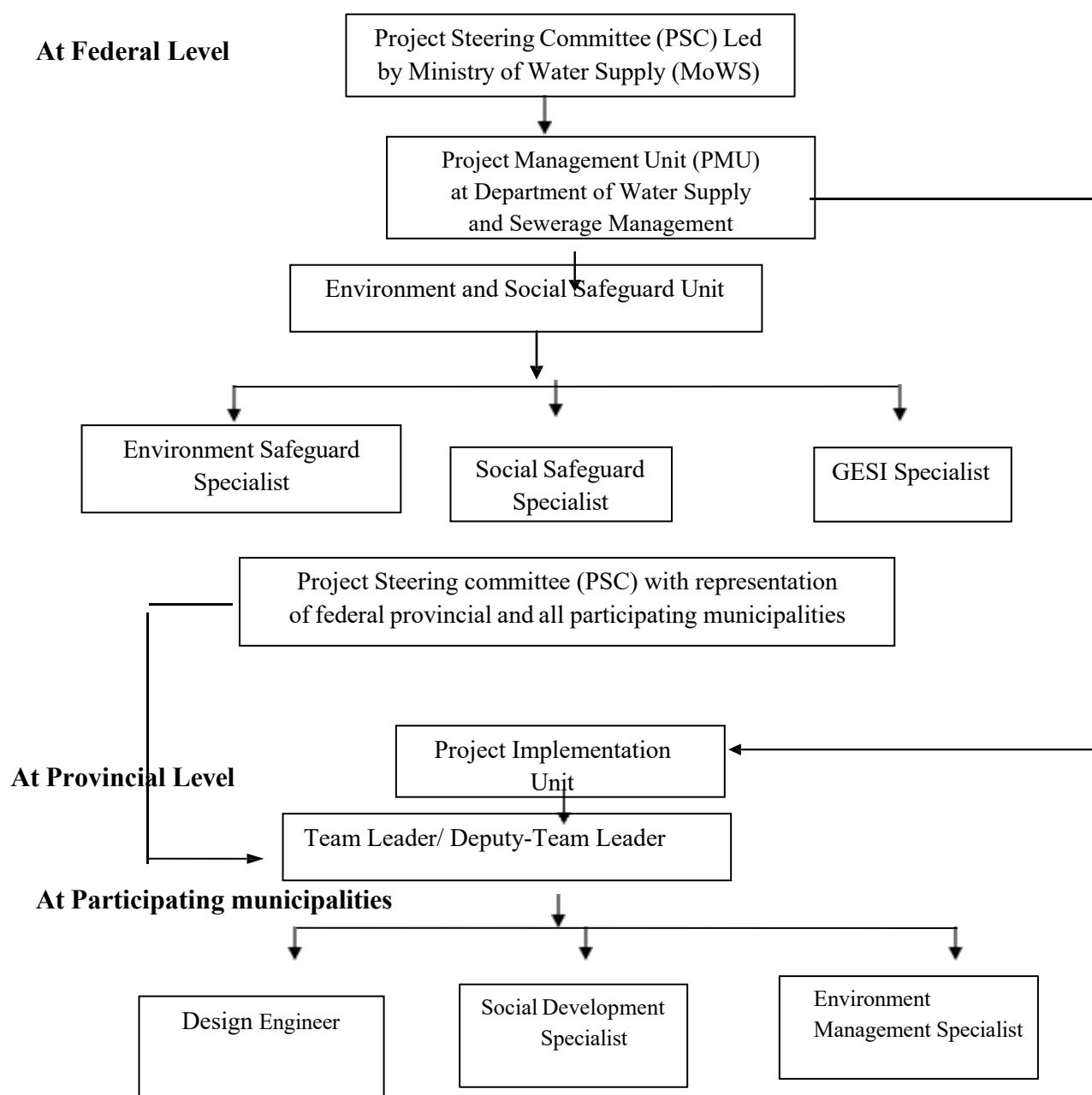


Figure 4: Organogram of E & S activities related to the project

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 areas 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.1, 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 12: 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;
Waste water 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 land fills 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 back filling and placed the caution board at both side of excavated trench. Pre-information to the local people

5.2 Stakeholder Consultations and Information Disclosure Plan

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 13 below.

Table 13: 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	▪ Janaki Rural Municipality and concerned officials of the Municipality and - MWASH	▪ FGDs and targeted outreach activities with women, IP organizations, and other vulnerable groups, such as Dalits (Application of audio/visual communication	- Periodically throughout project implementation - For planned construction activities, the community will be informed a week	- PIU/MST - Contractors

Labour Influx Management Procedures ▪ Activities planned for SEA/SH and GBV ▪ Awareness of HIV and other communicable diseases ▪ GRM for SEA/SH ▪ Project GRM ▪ Planned construction activities	Units ▪ Project affected Ward chairs ▪ Tole Committees ▪ Local Community of the project area ▪ Community Leaders ▪ Local CBOs and NGOs working on WASH and GBV	techniques and other accessible formats) ▪ Community radio and local media ▪ Notice Boards ▪ Periodic information disclosure activities	before the construction work and a day before construction work in the construction-planned areas.	
▪ 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, and community leaders, Tole 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 14: 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

Janakinagar WSS 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, laying 63,579.4 (63.57 km) meter distribution pipeline, installation of 1,265 new HH connection, other minor repair and maintenance works. A key component of this sub-project is the installation of 48,055.1 meters (48.05 km) of pipeline along existing roads which are in public use.

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 impact. .

Annex- I: Environmental and Social Screening Checklist

I- Sub-project Background

1	Name of the Sub Project	Janakinagar Water Supply and Sanitation Project
2	Location	Municipality/ Rural Municipality: Dugauli Ward No: 02 District: Kailali Province: Sudurpaschim Altitude: 112 Meter.
3	Co-ordinate (GPS)	Latitude: 28°35'03.893" N Longitude: 81°05'29.568"E
	Project's boundaries in four directions and the area of influence	South:- Agriculture Land West:- Agriculture Land North:- Agriculture Land East:- Agriculture Land
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 area lies in Janaki RM-2, so it does not lies in national park, protected area or any critical habitat area.
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-02 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	It does not transverse in any forest 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	No any surface water bodies in the project area. The project will extract ground water for distribution

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

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	The project lies in flat land so free from land slide, soil erosion. The project area has proper road networks and drain system so no flood susceptible 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	Pipelines are designed to bury below 90 cm depth, so there are no any activities to induce water logging.
8	Will the proposed sub-project endanger indigenous Plant species of ecological significance?	No	There is no any impact on plant species as the the project components requires minimum land surface.
9	Is there any public infrastructure (School, hospital, health post) in the surrounding area of the project site? If yes, provide brief descriptions.	No	There is no any infrastructure around the site which is adajacent to agricultural land
10	Will the construction activities cause any damage to the existing local roads and other infrastructures/Utilities?	No	There is enough allocated land to construct required additional structures, so does not cause damages to any infrastructures.
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 owned by the existing Janakinagar WS system of Janaki RM.
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)	No	
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	No	Private land acquisition is not required because the sub-project will utilize the existing Janakinagar WSP site which is

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

	Voluntary donation Involuntary acquisition Negotiation		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.

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

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.
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	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?	35 1) 10 Local 2) 25 Migrant	
4.	Of the total workers, how many are estimated to be	Skilled: 10 Semiskilled: 10 Unskilled: 15 Engineers: 1 Technician/overseer: 1 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: 5	
6.	Will there be a labor camp? Or any form of accommodation for workers	Labor camp will 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.):	

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

8.	Does the sub-project plan to maintain and regularly update a labor registry throughout the project lifecycle?	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		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 100 kVA 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.

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

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?	Yes		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.

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

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.

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

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. Contractor will develop (C-ESMP) before the commencement of construction work including Traffic management plan which will be followed and adhered accordingly during project implementation or execution.
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 stakeholder during initial consultation?	-Job opportunity for local people -Delivery quality water as soon as possible		

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

12.	What are the main sources of informationfor 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 issuesin the area?			Not a social institution but there are Bhalmansa in all community to solve common issues within their community
14.	Is there any social/religious/cultural institution or practices for local dispute settlements?			Bhalmansa committee and Tole Development committee is religious /cultural institution or practices for local dispute settlements.
15.	Are there any youth clubs, women groupsor NGOs active in the project area and in the district? If “Yes” please provide top five suchclubs/groups/	NGOs youth clubs, women groups and contact number 1.Jaceeys 2.Mahila Samuha		
Contextual risk				
1.	Is there any history of community conflictin 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?		No	There is no history of protest against infrastructure project.
3.	Provide a brief description about nature of crimes, if any, observed in the project areain last two years. [Hint: Source of information local policestation]		No	
4.	Which political parties won the last localelection? [Municipal and the ward of the projectsite]			Rural Municipally by Nagarik Unmukti Party and Ward – UML
5.	Which political parties won the last last parliamentary election from the Constituency of the project site?			UML
6.	What are the major economic activities in the municipality? [Hint: Occupation, localexports, etc.]			Agriculture, vegetable, daily wages base labour, foreign employment

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

7.	Please name the major industries/institutions located in themunicipality.	Brick industry, Rice mill		
8.	Which are the major market centers in the sub-project area and how far are they?			Durgauli Bazar :- 5 Km Lamki Chowk :- 12 km
9.	Is there a board community support for the sub-project? [Hint: Community perception based on stakeholder consultation]			All the community not only supportive 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 Peoples	No	No Impact	Positive Impact	Negative Impact	Remarks
Does the project footprints lie in areas where indigenous people is present including (area of influence)		No impact			Janakinagar Sub-Project is located in Janaki Rural Municipality ward no-02. The surrounding community is mixed with Tharu, Brahmin/Chhetri and other caste/ethnic groups. Tharus are the original inhabitants of this area.
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. The distribution pipeline network will be laid along the existing public road, which is public land. As such, the laying of water pipelines will not result in

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

					physical displacement or restrict access to private or community 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 land is with the Janakinagar Rural Municipality and the distribution pipeline network will be laid along the existing public road, which is public land. Private land or community land is not required for sub-project. Proposed interventions will not result in loss of assets or access restriction to communal resources nor any full or partial economic loss.
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 construction works will be carried out within the premises of the existing water supply project and the existing road width, which is in public use. Therefore, the sub-project will not impact the community land of Indigenous Peoples (IP) nor restrict access to land traditionally used or occupied under customary practices.
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	No	No Impact			The site is already acquired by Jankinagar WSP and belongs to Janaki Rural Municipality and the major infrastructure will be constructed in the premises itself.

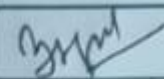
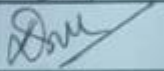
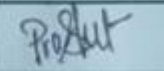
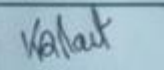
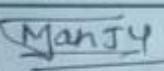
traditional use or under customary use or occupation (regardless of whether IPs possess legal titles to such areas, whether the project is located within or outside of the land and territories inhabited by IPs, or whether the IPs are recognized as IPs by the country's law)?					Major interventions under the project will be pipe laying work, but it will be limited within the existing road width that is in public use. Therefore, the impact on natural resources or loss of access to such resources is not anticipated.
Will the project lead to the utilization or commercial development of natural resources on lands and territories claimed by IPs?	No	No Impact			This is a community water supply project directly benefiting the community. Thus the sub-project will not lead to the utilization or commercial development of natural resources on lands.
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? <i>(Tangible heritage may include movable or immovable objects, sites, structures, group of structures, and natural features and landscape that have cultural significance like burial grounds/ritual spaces/stupas/shrines/places of worship)</i>	No	No Impact			There is no impact on tangible cultural heritage.
Will the project have significant impact on intangible cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects	No	No impact			There is no impact on intangible cultural heritage.

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>					
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*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

Screening Team

Screening Date: - 29/July/2024

Position	Name	Contact Number	Signature
Deputy Team Leader	Jay Raj Pant	9851192731	
Design Engineer	Dhanraj Mandal	9844251018	
Environmental Management Specialist	Prashant Chaudhary	9842229769	
Social Development Specialist	Krishna Raj Pant	99848875708	
Social Mobilizer	Manju Baidha	9863589764	

Annex II: Minutes of meeting /Consultation Meeting

1. Public Consultation Meeting with the Ward member, Badhghar and general public

Date _____ Page _____		
आम तारीख २०८१/०८/१४ गतेको दिन यस जनकी गाउँपालिका वडा नं. २ मा रहेको बड्ढा चिराकीहरूको बैठक बाट नं. २ का सदस्य श्री चक्र बड्ढा विष्टको अध्यक्षतामा बैठक वसी लक्ष्मीलाल उपस्थितिमा केही कमेन्टिङ निर्णय गरियो / उपस्थिति.		
१. चक्र बड्ढा विष्ट	वडा अध्यक्ष	चक्र
२. राम बड्ढा शाह	चिराकी	राम
३. भागीराम शाह	चिराकी	भागीराम
४. लक्ष्मीलाल जोशी	बड्ढा	(कांशी)
५. पतिराम शाह	चिराकी	पति
६. विश्वाम डोमरा	बड्ढा	विश्वाम
७. राम प्रकाश शाह	बड्ढा	रामप्र.
८. राम लाल शाह	चिराकी	रामलाल
९. चक्र बड्ढा चौधरी		
१०. बन्दी सिंह थापाभन्ज	बड्ढा	बन्दी
११. दल बड्ढा पुनमाल	समाधानकर्ता	दल बड्ढा
१२. राजचन्द्र उपाध्याय	समाधानकर्ता	राजचन्द्र
१३. मणिचन्द्र चेलाशर्मा	समाधानकर्ता	मणिचन्द्र
१४. लक्ष्मीलाल चौधरी	बड्ढा	(कांशी)
१५. कृष्ण शाह	बड्ढा	कृष्ण
१६. जोकराज शाह	चिराकी	जोकराज
१७. लक्ष्मीलाल चौधरी	वडा - चौकीवा	लक्ष्मीलाल
१८. राम प्रकाश व्यापारी	पार्टी प्रतिनिधि	रामप्रसाद
१९. प्रशान्त चौधरी	M&T जनकी गाउँपालिका	प्रशान्त
२०. कृष्ण लाल पन्त	समाधानकर्ता M&T जनकी गाउँपालिका	कृष्ण
२१. श्री राम		श्री राम
२२. रामलाल डोमरा		रामलाल
२३. श्री लक्ष्मीलाल जोशी	PIU Manager	लक्ष्मीलाल
२४. श्री जोहन लाल जोशी	राम Team leader	जोहन
२५. श्री लक्ष्मीलाल पन्त	Deputy Team leader	लक्ष्मीलाल
२६. श्री प्रवृत्त जोशी	financial Management specialist	प्रवृत्त
२७. श्री दलबहादुर प्रशान्त	Design Engineer (M&T)	दलबहादुर

प्रस्तावहरू

१. खानेपानी क्षेत्रगत अनुशासन तथा पूर्वाधार योजनाको जानकारी सारबन्धमा,
२. सामाजिक विशेषण लक्ष्य, सर्वे, डिजाइन सारबन्धमा
३. वडाको सौचालय भए नभएको सारबन्धमा
४. सरसफाई सारबन्धमा
५. जातकीनगर खानेपानी सरसफाई योजनामा निर्माण भएको हुँकी सारबन्धमा

निर्णय नं. १, प्रस्ताव नं. १ माथि दलफल गर्दा यस गाउँपालिका सञ्चालित खानेपानी क्षेत्रगत अनुशासन पूर्वाधार परियोजनाको बारेमा दलफल गरियो।

निर्णय नं. २, प्रस्ताव नं. २ माथि दलफल गर्दा यस वडाको सञ्चालित जातकीनगर खानेपानी उपभोक्ता समितिलाई सञ्चालित योजनाको ज्ञातवित्त वस्ती बढ्दुतीको बारेमा बड्दुवरहरू र चिराङ्गी तथा समाजसेवीसँग जानकारी तथा सर्वेको बारेमा जानकारी गरियो।

निर्णय नं. ३, प्रस्ताव नं. ३ माथि दलफल गर्दा डा. आफ्नो टोलमा बड्दुले आफ्नो टोलमा सौचालयको जानकारी आगामी बैद्वमा जानकारी गराउने निर्णय गरियो।

निर्णय नं. ४, प्रस्ताव नं. ४ माथि दलफल गर्दा डा. आफ्नो टोलमा सरसफाई गराउने र वडाको सरसफाई वडाको समिति चिताउने थ्यास गर्ने निर्णय गरियो।

निर्णय नं. ५, विगतमा निर्माण भएको हालझार पानी जग्गा गर्दा चुहिनै आएको खानेपानी क्षेत्रगत अनुशासन परियोजना कार्यालयलाई अनुगमन चेक जाँचगरी योजना संचालन गरिने हुने अनुरोध गर्ने निर्णय गरियो।

२०७०/७१
२०७०/७१
२०७०/७१

2. Meeting with Mukta Kamaiya at Mukta Kamiya Shibir

Date _____
Page _____

आज मिति २०८१/०६/१४ गतेका दिन जानकी गाउँपालिका
वार्ड नं २ मा संचालित जानकीनगर स्वनिपासी उपभागा
समितिको अवसरमा मुक्त कामैया बस्तीमा रहेका उपभोक्ताहरूको
बैठक बस्ती तथा बस्तीको उपस्थितिमा विभिन्न युवाको चारैमा
दलफल गरियो
उपस्थिति

१) राजकुमारी थारु	राजकुमारी
२) सन्त कुमारी थारु	सन्त कुमारी
३) जानकी देवी इगौरा थारु	जानकी
४) राज बहादुर चौधरी	राज
५) सन्ती थारु	सन्ती थारु
६) कुसुम थारु	कुसुम
७) सुरमिता चौधरी	सुरमिता
८) अरुन्धती थारु	अरुन्धती
९) निशा चौधरी	निशा
१०) पार्वती चौधरी	पार्वती
११) फाल्गुनी चौधरी	फाल्गुनी
१२) सितरानी चौधरी	सितरानी
१३) माया चौधरी	माया
१४) चित्र कला अहले मगर	चित्रकला

आमन्त्रितमा

१) फूलराज पन्त	सामाजिक विकास विभाग मन्त्रालय
२) प्रशान्त चौधरी	वातावरण विभाग मन्त्रालय
३) मन्जु वैद्य	सामाजिक परिचालिका मन्त्रालय
४) लक्ष्मी विक	

१५) कविता देवी तारामी मगर	कविता
१६) पद्मा तारामी मगर	पद्मा
१७) रञ्जिता चौधरी	Ranjita
१८) गंगा तारामी मगर	Ganga
१९) युना थारु	युना
२०) पुष्पा चौधरी	पुष्पा
२१) रञ्जिता थारु	रञ्जिता
२२) पार्वती थारु	पार्वती

Date _____
Page _____

निर्णय नं १ यस जनकी गाउँपालिका वार्ड २ जनकीनगर खानेपानी योजना अन्तर्गत मुक्त कमीया वस्तीमा २१ वटा घरधुरी कालिकापुर डोटी बेलमा रहेका र यस वस्तीमा हाल २१ वटा घर निर्माण भएको र नदिको किनारमा बस्तीबस गरिने आएका र भविष्यमा नदिले कयन नगरको खण्डमा खानेपानीका लागि धारा जडान गर्ने निर्णय गरियो ,

निर्णय नं २ खानेपानी योजना संचालन दुई यस वस्तीमा रहेका दश र अर्धश कामदार रहेका र योजना संचालनमा मजदुरीका अवसर दिन मात्र गर्ने निर्णय गरियो ,

निर्णय नं ३ जनकीनगर खानेपानी योजनाले प्रत्येक घरधुरीमा प्राप्तिद्वारा जडान बाढा लाग्ने सुक्का सुक्कोपत हुनसक्ने अवस्था रहेमा यस मुक्त कमीया परिवारलाई सहूलता गरीदिन अनुरोध गर्ने निर्णय गरियो ,
रात पापनी मात्रा

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

आज मिति २०८१/०६/१० गतेको दिन जानकी गाउँपालिकामा सेवाग्राहि रताग्राहि क्षेत्रगत सुझाव तथ्या प्रयोग प्रयोग आपोना (WASH) अन्तर्गत गुनासी समूहको व्यवस्थापन गर्न यस जानकी गाउँपालिकाको अध्यक्ष को गठित चौधरी प्रमुख अध्यक्षतामा आपोना कार्यालयमा ईकाइ २५० मा व्यवस्थापन हुने गुनासी व्यवस्थापन समिति गठन गर्ने तयारिलो उपस्थितको दशपत्रमा निम्न जस्तो गरियो।

१- जेष्ठ चौधरी	गाउँपालिका अध्यक्ष	प्रमुख
२- लालमती केसी कटारिया	" उपाध्यक्ष	उपाध्यक्ष
३- चक्र बहादुर लिम्बू	२ नं वडा अध्यक्ष	उपाध्यक्ष
४- दिनेश कु कटारिया	४ नं " "	उपाध्यक्ष
५- प्रमोद चौधरी	मुख्य प्रशासक अधिकृत	उपाध्यक्ष
६- प्रमोद खत्री	जानकी गाउँपालिका इन्जिनियर	उपाध्यक्ष
७- लक्ष्मी राज जोशी	DTU Manager	उपाध्यक्ष
८- जयशम पन्त	DTL MST Janaki	उपाध्यक्ष
९- लेखनाथ उपाध्यक्ष	सब इन्जिनियर	उपाध्यक्ष
१०- अरुण खत्री	DTU " "	उपाध्यक्ष
११- धन राज मण्डल	WSS Design Engineer	उपाध्यक्ष
१२- कृष्ण बज्र पन्त	आयोजक विभाग विश्व MST जानकी	उपाध्यक्ष
१३- नारायण चौधरी	वातावरण विश्व MST जानकी	उपाध्यक्ष
१४- दिनेश मास्ती	लक्ष्मी	उपाध्यक्ष
१५- अरुण चौधरी	आयोजक परिवार MST जानकी	उपाध्यक्ष

समापन : १- गुनासी व्यवस्थापन समिति गठन सम्पन्न

निर्णय नं १ सम्पन्न नं १ आर्थिक दलगत गर्दा यस जानकी गाउँपालिका मा सेवाग्राहि रताग्राहि क्षेत्रगत सुझाव तथ्या प्रयोग प्रयोग आपोना (WASH) अन्तर्गत गुनासी समूहको व्यवस्थापन गर्न यस जानकी गाउँपालिकाको अध्यक्ष को गठित चौधरी प्रमुख अध्यक्षतामा आपोना कार्यालयमा ईकाइ २५० मा व्यवस्थापन हुने गुनासी व्यवस्थापन समिति गठन गर्ने तयारिलो उपस्थितको दशपत्रमा निम्न जस्तो गरियो।

तयारिलो

१- लालमती केसी कटारिया (उपाध्यक्ष जानकी)	अध्यक्ष
२- जेष्ठ चौधरी	उपाध्यक्ष
३- प्रमोद खत्री	(WASH Unit) " "
४- कृष्ण बज्र पन्त	DTL MST " "
५- लक्ष्मी राज जोशी	DTU Manager सदस्य सदस्य

अध्यक्ष प्रमुख सदस्य

4. Consultation meeting with Stakeholder, User committee, Badghar and general Public

Date _____ Page _____			
आज मिति २०८१/०६/०६ गतेका दिन भए जानकी खानेपानी उपभोक्ता समितिको बैठक भए जानकी गाउँपालिका वार्ड २ को उपभोक्ता समितिको प्रमाधेकारी बडघर वडाका जनप्रतिनिधी र सरकारवालाहरुको बैठक तपथिलको उपस्थितिमा देहाम वमोजिम निर्णय गरियो ।			
तपथिल			
१.	चक्र बहादुर विष्ट	वडा अध्यक्ष	—
२.	शक्ति देवी कामी	वडा सदस्य	शक्ति
३.	मन्जिबहा चौलागाई	खा.पा. अध्यक्ष समिति	मन्जिबहा
४.	चन्द्रमान कुल	खा.पा. सदस्य	Chudhary
५.	मन्तु देवी चौधरी	" " "	मन्तु देवी
६.	आजिजुल हसन जाजा	" " "	आजिजुल
७.	राजु खम	" " "	राजु
८.	बाजिर सिद्ध थापा मगर	बडघर	बाजिर
९.	शेर बहादुर थापा मगर	सामाजसेवी	शेर
१०.	प्रवेश चौलागाई	"	प्रवेश चौलागाई
११.	लोक राज जोशी	बडघर	लोक
१२.	मेखराज जोशी	विद्यामलय	मेखराज
१३.	दम्बर बहादुर रावल	सामाजसेवी	दम्बर
१४.	जुगरानी चौधरी	जुगरानी	जुगरानी
१५.	सुबिला कठिया	सुबिला	सुबिला
१६.	फुलमती चौधरी	फुलमती	फुलमती
१७.	बेजगाथ चौधरी	बडघर	बेजगाथ
१८.	तेजबल्लाल चौधरी	तेजबल्लाल	तेजबल्लाल
१९.	भागिराम थारु	सामाजसेवी भागीराम	भागिराम
२०.	राम व थारु	कुल बडघर	राम
२१.	कविता देवी तारामी मगर	सामाजसेवी	कविता
२२.	जानकी देवी डगौरा थारु	जानकी	जानकी
२३.	विष्णु बेहरा धामी	विष्णु	विष्णु
२४.	परम भक्त झोका	परम	परम
२५.	धनश्याम उपाध्याय	धनश्याम	धनश्याम
२६.	भक्त बहादुर मगर	भक्त	भक्त
२७.	सिताराम चौधरी	सिताराम	सिताराम

28. दिप प्रकाश हमाल	बहाल	
29. तामुराम चौधरी	का.स	
30. विष्णुदास शाह		

आमन्त्रित,

१) कृष्णराज पट्ट	सामाजिक विकास वि.दा. महा. जन्की
२) प्रबालन चौधरी	वातावरण वि.दा. महा. जन्की
३) मञ्जु वैद्य	सामाजिक परिचालिका महा. जन्की
४) लक्ष्मण वि.क	गोडी चालक महा. जन्की

प्रस्तुतकर्ता, निर्णायक,

१) खानेपानी क्षेत्रगत सुधारसहित तथा सुव्यवहार सहयोग आयोजना। अन्तर्गत संचालित जानकी खानेपानी आयोजना। जानकी ३ मा सम्बन्धित सबै सरोकारवालाहरु जानकारी रहेको र इत्त आयोजना प्रभावशाली निर्माण। गुणस्तरी हुनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो। साथै खानेपानी को क्षेत्रमा ठाउँ अन्तर्गत विधि र प्रक्रिया बारेमा समेत जानकारी दिने कार्य गरियो।

२) खानेपानी योजना निर्माण ठाउँ रोजगारीको पहिलो प्राथमिक स्थानीय बासिन्दाहरुलाई दिनु पर्ने सम्बन्धमा विस्तृत छलफल गरियो।

३) यस जानकी ३ क्षेत्रमा धेरै सिला तथा लोडिङ बिमोद सम्बन्धित खासै समस्या त देखिएपनि पारिरी कामदार र स्थानीय समुदाय विच हुनसक्ने कठिनाई वा भविष्यत गतिविधिको सम्बन्धमा चालन। गर्नुपर्ने अप्चा संस्थाको बारेमा जानकारी दिई विस्तृत छलफल गरियो।

४) खानेपानी निर्माणका क्रममा हुनसक्ने खनी, वायु, प्रदूषण जस्ता समस्याहरु र यसको न्यमिकरण सम्बन्धमा विस्तृत छलफल गरियो।

(२) खानेपानी योजनाको निर्माण गर्दा यस योजनाको चाईप लाईन गाड्दा सबैभन्दा कुनै सार्वजनिक स्थल माथि विद्युत् लाइन र वास्तविक घरहरूलाई क्षति नहुनेगरी गाड्ने निर्णय गरियो ।

(३) खानेपानी योजना निर्माणगर्दा वातावरण रूखमा खासै असर पर्ने गरे खानेपानी चाईपलाई टुक्रा सगाडी कुनैपनी रुख विच्छा कट्नु नहुने अवस्था नरहेकोले साथै समाजिक रूपमा पनि कुनै असर पर्ने देखिने कति भन्दा सँगै खानेपानी योजना सम्पन्नगरी रक्ख खानेपानी उपलब्ध गराई दिनहुन अनुरोध गर्ने निर्णय सर्व सम्मत गरियो ।

६) जोगिपुर बिविरमा विद्युत्को खानेपानीको चाईप लाईन निाले जग्गामा हाल गाडिभैकोले सौ पाइपलाई सार्वजनिक जग्गामा स्थानान्तरण गर्नुपर्ने देखियो ।

सि. वि. वि. वि.

सि. वि. वि. वि.

सि. वि. वि. वि.

सि. वि. वि. वि.

सि. वि. वि. वि.

5. Consultation meeting with the women

Date _____
Page _____

आज मिति २०८१/०६/०६ गतेका दिन मसु जसकी स्वामिनी
उपभोक्ता समितिको बैठक मसु जसकी गाउँपालिका वार्ड
२ को उपभोक्ता समितिका महिलाहरू संग बैठक गरी
तपाईंको उपस्थितिमा देख्यो बसोबास निर्माण
गरियो ,

तपाईंको

(१)	शान्ति देवी कामी	का	शान्ति
(२)	मन्जु देवी चौधरी		मन्जु
(३)	जुगरानी चौधरी		जुगरानी
(४)	सुखिता चौधरी कठरिया		सुखिता
(५)	फुलमति चौधरी		फुलमति
(६)	कविता देवी तारामी मगर		कविता
(७)	जसकी देवी ढोरी शर्मा		जानकी
(८)	विष्णु चौधरी धामी		विष्णु

निर्णय

(१) स्वामिनी योजना निर्माण गर्दा रोजगारीको पहिलो प्राथमिकता
दिनु जस सम्बन्धमा विस्तृत छलफल गरियो ।

(२) मसु जसकी २ हेक्टरमा बरेलु हिंसा तथा लेकको बिच
सम्बन्धमा खासै समस्या नदेखियो भनी बाहिरै काम गरे
र स्थानीय समुदाय विच छुट्टैको के भन्दा वी
अवाञ्छित गतिविधिको सम्बन्धमा जानकारी गराउने आचार
संहिताको बारेमा जानकारी दिई विस्तृत छलफल गरियो ।

शान्ति

आमन्त्री,

(१)	कृष्णराज पन्त	सामाजिक वि.स मसु जसकी
(२)	प्रबाल चौधरी	वडावार्ड वि.स मसु जसकी
(३)	मन्जु देवी	सामाजिक परिचालिका मसु जसकी
(४)	लक्ष्मण वि.स (हित व. वि.स)	

[Signature]

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

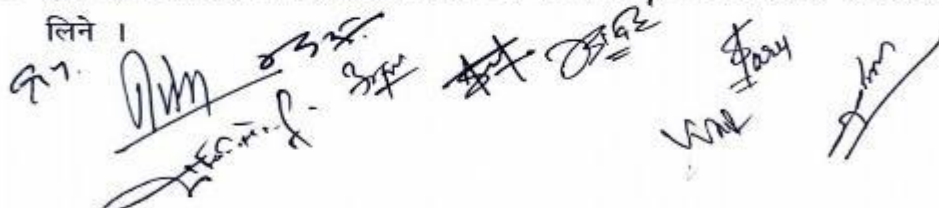
आज मिति २०८०/११/२० गते आयोजना हस्तान्तरण गर्न खानेपानी तथा सरसफाई नि.डिभिजन कार्यालय, कैलालीका डिभिजन प्रमुख श्री गणेश प्रसाद उपाध्यायज्यूको संयोजकत्वमा गठित समितिको बैठक निम्न पदाधिकारीहरुको उपस्थितिमा बसी तपसिल अनुसार निर्णय गरियो ।

<u>उपस्थिति</u>	
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:

- खानेपानी 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. 

Annex III: Four Forts Proved by Rural Municipality Office



जानकी गाउँपालिका २ नं. वडा कार्यालय



पत्र संख्या :- २०८१/०८२

चलानी नं. :- ४४५

श्री जो जस सँग सम्बन्ध राख्दछ ।

मिति:- २०८१/०८/०९

ने.सं. ११४४ जतागा, ८ बुधवार

विषय:- चार किल्ला प्रमाणित सम्बन्धमा ।

उपरोक्त विषय सम्बन्धमा कैलाली जिल्ला जानकी गाउँपालिका अन्तर्गत वडा नं २ मा रहेको जानकी खानेपानी तथा सरसफाई उपभोक्ता समिति जानकी गा.पा.२ कैलाली का नाम मा दर्ता थेस्ता कायम रहेको जिल्ला कैलाली साविक जानकीनगर गा.वि.स. वडा नं. ५ कि.नं. ६३० को ज.वि. ०-३-० जग्गा को निम्न अनुसार चार किल्ला रहेको हुँदा वडा कार्यालयबाट चार किल्ला प्रमाणित गरी पाउँ भनी यस वडा कार्यालय मा मिति २०८१/०८/०९ गते प्राप्त निवेदन अनुसार बुझ्दा उल्लेखित व्यहोरा बास्तविक रहेको भन्ने बुझिन आएकोले कैलाली जिल्ला जानकी गाउँपालिका अन्तर्गत वडा नं २ मा रहेको जानकी खानेपानी तथा सरसफाई उपभोक्ता समिति जानकी गा.पा.२ कैलाली का नाम मा दर्ता थेस्ता कायम रहेको जिल्ला कैलाली साविक जानकीनगर गा.वि.स. वडा नं. ५ कि.नं. ६३० को ज.वि. ०-३-० जग्गा को निम्नानुसार चार किल्ला रहेको व्यहोरा प्रमाणित गरिन्छ ।

चार किल्ला विवरण:-

क.स.	ठेगाना	कि.नं.	क्षेत्रफल	वाटो भएको/नभएको	पुर्व	पश्चिम	उत्तर	दक्षिण
१.	साविक जानकीनगर गा.वि.स. वडा नं. ५ कैलाली	६३०	०-३-०	वाटो नभएको	कि.नं. १५३ प्रभाकर शाह को जग्गा	कि.नं. ३३९ नरेश कुमार मल्ल को जग्गा	कि.नं. ३४२ राम लाल न्यौपाने को जग्गा	कि.नं. ६२९ नरेश कुमार मल्ल को जग्गा

(.....३५३५/५१.५)

चक्र बहादुर बिष्ट

वडा अध्यक्ष

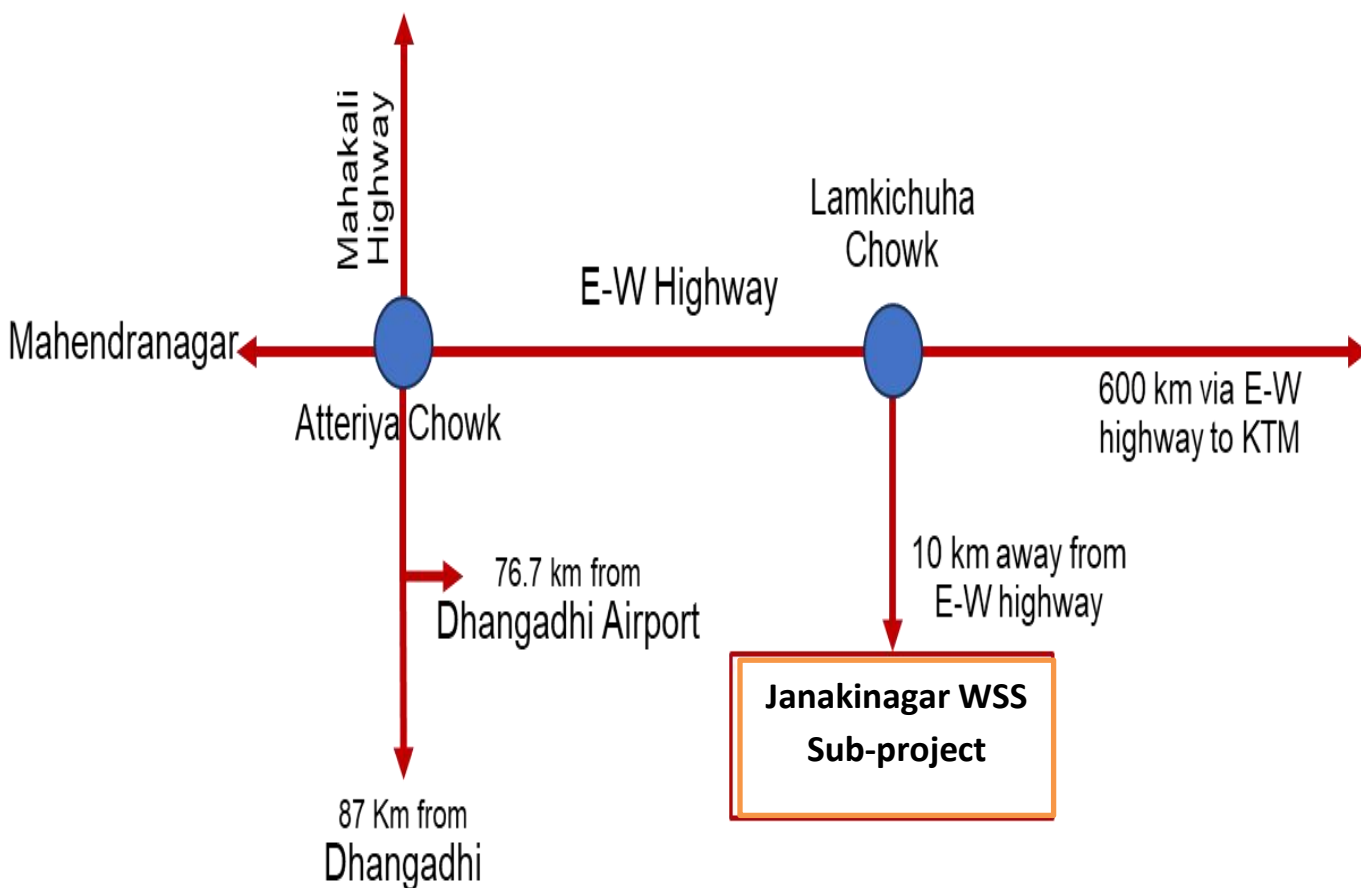
चक्र बहादुर बिष्ट

“शिक्षा, स्वास्थ्य, कृषि र वातावरणमैत्री पूर्वाधार : पहिचान सहितको जानकी गाउँपालिका विकासको मूल आधार”

सम्पर्क नं. ९८४८५१६५१४, ९८४९१०७५२०, ९८४८४६५६४१

E-mail: janakimun.ward2@gmail.com

Annex IV: Location map of Janakinagar WSS sub-project



Annex V: a. 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:	135/081/082	Sampled By	Sender
Sender/Client:	AARVEE-FBC-PARAGON, JV (Janaki Nagar WSP) (S3)	Sampling Date	2081/05/28
Source:	Under Ground	Reported Date	2081/06/07
Sampling Point:	Tube Well	Sample Condition:	OK
Address:	Janaki Ga Pa-02, Janaki Nagar, Kailali		

SN	Parameters	Unit	Observed Values	NDWQS, 2079 BS	Analyzed Methods
1.	Taste & Odor	-	Non-Objectionable	Non-Objectionable	Sense Observation
2.	pH	-	7.5 @25°C	6.5 - 8.5	4500-H ⁺ , APHA 22 nd Edition
3.	Turbidity	NTU	3.3	5	2130 B, APHA 22 nd Edition
4.	Total Dissolved Solid	mg/l	355	1000	TDS Meter
5.	Electrical Conductivity	µS/cm	535 @25°C	1500	2510 B, APHA 22 nd Edition
6.	Calcium	mg/l	88	200	3500 Ca- B, APHA 22 nd Edition
7.	Total Hardness as CaCO ₃	mg/l	260	500	2340 C, APHA 22 nd Edition
8.	Total Iron	mg/l	1.03	0.30 (3)	3111 B, APHA 22 nd Edition
9.	Arsenic	mg/l	<0.01	0.05	Arsenic Test Kit
10.	Manganese	mg/l	0.15	0.20	3111 B, APHA 22 nd Edition
11.	Ammonia	mg/l	0.27	1.50	Ammonia Test Kit
12.	Nitrate	mg/l	0	50	4500-NO ₃ -B, APHA 22 nd Edition

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.

[Signature]
Analyzed By
[Signature]

b. Water quality test after 12 hours of pumping from the tube well



SWAT/F/C/04
Version no: 01
Issue no: 02
Revision no: 04
Effective date: 2024/01/20

Soil Water and Air Testing Laboratories Pvt. Ltd.
VAT No: 605928743
Tel: +977-01 5349480
Email: swatlab2017@gmail.com
PO Box: 25752, Kathmandu, Nepal
Bulbule Marga 10, Thapagaun, Kathmandu, Nepal

WATER ANALYSIS REPORT

Name of Client:	AAIRVEE-FBC Paragon JV	Lab Code:	24/12-1740 (3)
Collector:	Manak Chaudhary	Location:	Kailali, Janaki, R.M
Source:	Boring Water (Janaki Nagar WSP Sample 3)	Sampled By:	Client
Sampling Date:	2024/12/25	Test Performance Date:	2024/12/26-2024/12/27
Receipt Date:	2024/12/26	Issued Date:	2024/12/29

Parameters	Results	Unit	NDWQS	Method
Physicals				
Conductivity	548	µS/cm	1500	Laboratory Method, 2510 B, APHA-AWWA-WEF, 24 th Edition, 2023
pH at 20°C	7.3		6.5-8.5	Electrometric method, 4500 H+ B, APHA-AWWA-WEF, 24 th Edition, 2023
Turbidity	15.76	NTU	5	Nephelometric method, 2130 B, APHA-AWWA-WEF, 24 th Edition, 2023
Chemicals				
Ammonia	0.11	mg/L	1.50	Phenate method, 4500 NH ₃ F, APHA-AWWA-WEF, 24 th Edition, 2023
Iron	0.97	mg/L	0.30	Direct Air Acetylene (AAS) Method, 3111 B, APHA-AWWA-WEF, 24 th Edition
Manganese	0.41	mg/L	0.20	Direct Air Acetylene (AAS) Method, 3111 B, APHA-AWWA-WEF, 24 th Edition
Arsenic	<0.001	mg/L	0.005	Hydride Generator, SDDC, MCAWW, EPA/600/4-79/020
Biological				
E. coli	0	CFU/100mL	0	Thermo tolerant membrane filtration procedure at 45.5°C±0.2, 9222 E, APHA-AWWA-WEF, 24 th Edition, 2023

NDWQS=National Drinking Water Quality Standard (2079), APHA=American Public Health Association, AWWA=American Water Works Association, WEF=Water Environment Federation, AAS= Atomic Absorption Spectrophotometer

Note:

- This report is based on the sample submitted to this laboratory by the client.
- The integrity of the sample and results are dependent on the quality of sampling. The results refer only to the parameters tested of the samples provided/collected for analysis.
- Statements of conformity have been made without taking Measurement Uncertainty into account except when specifically requested by the customer.

Remarks: Except for Turbidity, Iron, and Manganese, all the observed value of other tested parameters are within the limit of NDWQS, 2079.

Analyzed By
Aalekh Bhattarai

Checked By
Prabina Shrestha

Authorized By
Er. Lokesh Sapkota

The report shall not be reproduced except in full, without approval of the laboratory.

Annex VI: Sketch of Land



Annex VII : Land Ownership Certificate (Lal Purja) of the land

[illegible]

Annex VIII: Formation of the User Committee



जिल्ला जलस्रोत समिति कैलाली

दस्तावेज नं - २०७७-०३-०४
दस्तावेज - २०१५

उपभोक्ता संस्था दर्ता प्रमाण -पत्र

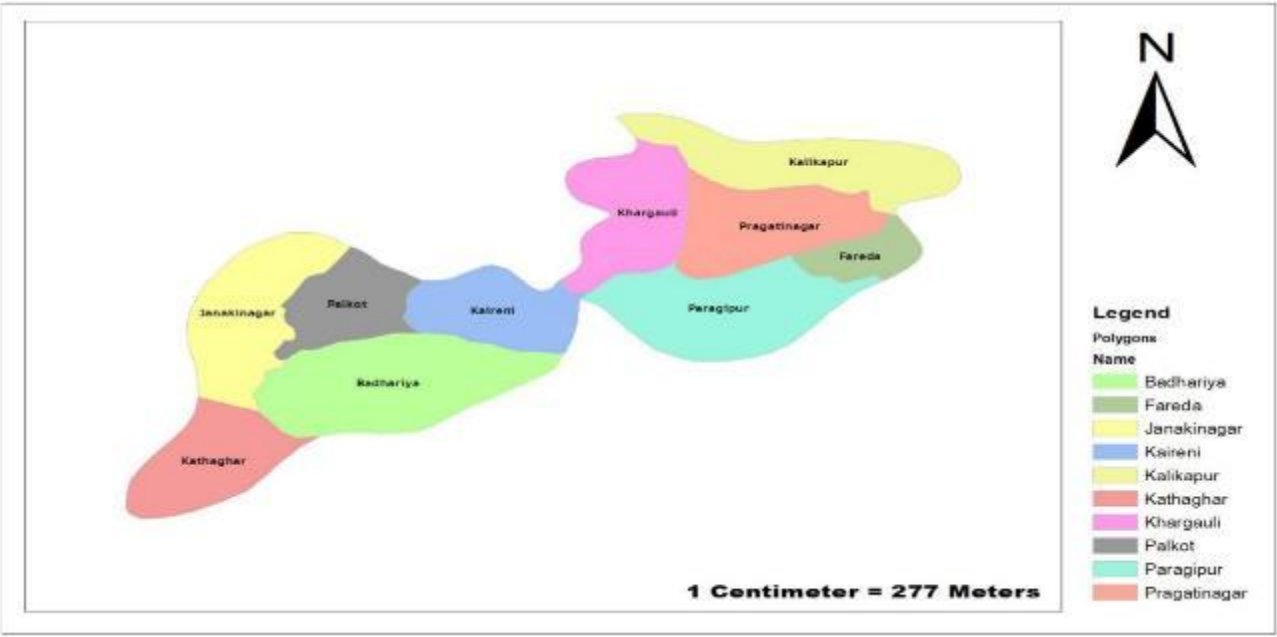
२०१०

श्री ज्ञानकि क्षेत्रीय उपभोक्ता तथा सरसफाई समिति
ज्ञानकि गा.पा.०२, कैलाली

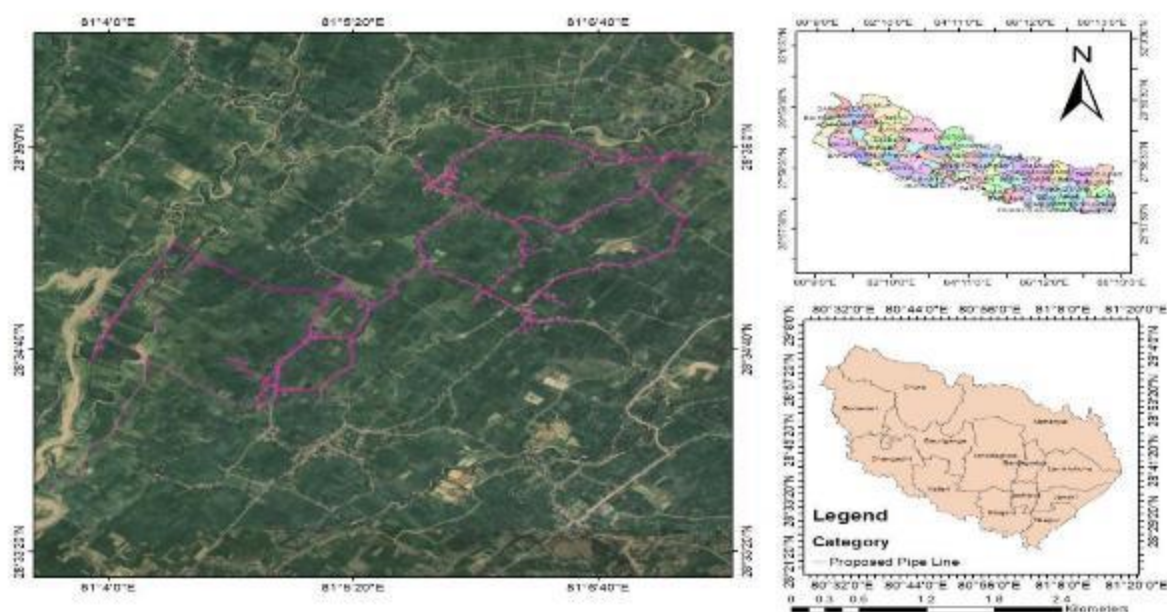
श्री ज्ञानकि क्षेत्रीय उपभोक्ता तथा सरसफाई समिति ज्ञानकि गा.पा.०२ /संस्था कैलाली जलस्रोत ऐन २०४९ को दफा १ को उपदफा (२) तथा जलस्रोत नियमावली २०१० को नियम ६ को उप-नियम (१) बमोजिम मिति २०७७/०३/०३ गते यसको जिल्ला जलस्रोत समिति कैलालीको निर्णयानुसार २०७७ साल असार महिना ०४ गते यस कार्यालय दर्ता गरी यो प्रमाण पत्र प्रदान गरिएको छ ।

नाम- सुनिल मागर जोशी
पद-नि. वि. म. अधिकारी
सदस्य सचिव
प्र. जिल्ला समन्वय अधिकारी

Annex IX: Settlement Map of Ward no. 2 of Janaki Rural Municipality



Annex X: GIS Mapping of Janakinagar WSS Sub Project Settlement



Annex XI: Code of Conduct for WSS Sub-project

A) Code of conduct GBV of the project

खानेपानी क्षेत्रगत सुशासन तथा पूर्वाधार सहयोग आयोजना
कार्य स्थलमा हुने यौनजन्य तथा महिला हिंसा सम्बन्धी आचार संहिता
व्यक्तिगत आचार संहिता

म, यो आचार संहिता पालना गर्नु मेरो दायित्व हो भनी स्वीकार गर्दछु । म कुनै पनि यौनजन्य तथा महिला हिंसा जस्ता कार्यमा संलग्न हुने छैन । आयोजनाको कामको शिलशिलामा यो आचार संहिता पालना गर्न सहमत छु ।

- म जातजाति धर्म, भाषा, लिङ्ग, उमेर, राजनितिक वा सामाजिक हैसियत, भौगोलिकता, पहुँच वैवाहिक स्थिति वा अन्य कुनै पनि आधारमा भेदभाव नगरी सबैलाई सम्मानजनक र समान रूपमा व्यवहार गर्नेछु ।
- सामाजिक सञ्जालको प्रयोग गरी अश्लील शब्द, दृश्य सामग्री वा कार्यालय समय अघिपछि वार्तालाप मार्फत सहकर्मी/कामदारलाई यौन दुर्व्यवहार गर्ने छैन ।
- कार्यस्थलमा सिट्टी बजाउने, चुम्बन गर्ने, व्यक्तिगत उपहार दिने आदि जस्ता कार्य गरी कर्मचारी, सहकर्मी कामदारलाई यौन दुर्व्यवहार गर्ने छैन ।
- कुनै पनि प्रलोभन/धम्की देखाई जस्तै पदोन्नती लोभ देखाएर, जागिर नदिने धम्की दिएर शोषण गरेर आदि) यौन दुर्व्यवहार पक्षमा संलग्न हुने छैन ।
- कार्य समयावधि भित्र कुनै पनि मदिराजन्य तथा लागुपदार्थको सेवन गर्ने छैन ।
- आयोजनाका सरोकारवाला वा वरपरका समुदायका सदस्यहरुलाई कुनै पनि म लैङ्गिक हिंसा तथा यौनजन्य दुर्व्यवहार गर्ने छैन ।
- कुनै पनि कर्मचारी, श्रमिक विरुद्ध हिंसा गरिएको दोषी ठहरिएमा प्रचलित संघिय, प्रादेशिक, स्थानिय सकार वर्ल्ड बैंकको कानून, नीति नियम अनुसार सजाय/दण्डित जरिवाना तिर्न तयार हुनेछु ।
- कार्य गर्ने शिलशिलामा सम्मानजनक निर्देशनहरुको पालना गर्दछु । (वातावरणीय+सामाजिक)
- मेरो जिम्मेवारी कुशलता र लगनशीलता पुर्वक पुरा गर्नेछु ।
- सम्बन्धित कार्यालय/कम्पनीले सञ्चालन गरेको विभिन्न प्रशिक्षण कार्यक्रममा सक्रिय रूपमा भाग लिनेछु ।
- आयोजनाका प्रत्यक्ष लाभदायक सदस्य/समुदायमा यौन दुर्व्यवहार/शोषण गर्ने छैन ।
- विश्वासनीयता नैतिक उल्लंघनको रिपोर्ट गरेमा कुनै कामदार विरुद्ध बदला लिने छैन ।
- कार्य स्थलमा लैङ्गिक सम्बेदनशिल भाषाको प्रयोग गर्ने छैन ।

- +४. कार्यस्थलमा महिला हिंसा तथा यौनजन्य क्रियाकलापलाई प्रोत्साहन गर्ने खालका गतिविधी गर्न दिने छैन
- +५. कार्यस्थलमा महिला तथा यौन हिंसा गतिविधीहरूलाई प्रोत्साहन गर्ने छैन ।
- +६. १८ वर्षभन्दा मुनिका बालिकाहरूमा कुनै डिजिटल मिडिया मार्फत वा कुनै माध्यमबाट स्वीकृति लिई वा नलिई यौनजन्य क्रियाकलाप सहभागी हुनेछैन, यदि नाबालिका स्वीकृति लिई यौनजन्य क्रियाकलाप गरेमा क्षमा हुँदैन ।
- +७. आयोजना कार्यान्वयनको बेलामा यौनजन्य दुर्व्यवहार/यौन शोषण भएमा वा आचार सहिता उल्लघन गरेमा वडा/नगरपालिका स्तरमा रहेको गुनासो सुनवाई सयन्त्रमा तुरुन्त निवेदन/जानकारी दिनेछु ।
- +८. कार्यस्थलमा कसैले यौनजन्य दुर्व्यवहार सम्बन्धी शंकास्पद व्यवहार गरेमा वा शंकास्पद 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 ।

.....

व्यवस्थापक/टोली प्रमुख

.....

कर्मचारी/कामदार

Annex XII: Photographs



1. Meeting with Municipal Authority, Ward Representative and Indigenous People of the Community, Oct. 2024



2. Existing structures of Janakinagar WSP Sub-Project, OHT premises



3. Field Visit at Janakinagar WSP, Khaireni -02, Janaki Rural Municipality



4. Collecting water sample for test, Janakinagar WSP, Khaireni -02, Janaki Rural Municipality



5. Meeting Mukta kamaiya in Mukta Kamaiya Shibir, Kalikapur ,Gauditole -02, Janaki Rural Municipality



6. Field visit of Janakinagar WSP for ESMP verification. Mr. Pranav Acharya , Environmental expert & Mr Nabin Rawal Social Safe Guard expert, PIU manager Laxmi Raj Joshi and Deputy team Leader Jay Raj Pant and MST team visited the project sites - Janaki RM Municipality

Annex XIII: Monitoring format

जानकीनगर 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 रूपमा दिशा पिसाब गरेको	कार्यस्थल अवलोकन गर्ने	छ	छैन	
फोहरमैला जथाभावी फालेको	कार्यस्थल अवलोकन गर्ने	छ	छैन	
काटिएको रुखको संख्या	टुटाको 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	अवलोकन गर्ने, सोध्ने			

*Environmental & Social Management Plan (ESMP) ,
Janakinagar WSS Sub-Project, Ward 02, Janaki Rural Municipality*

सभागिता (संख्या)	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

जानकीनगर खानेपानी आयोजनाको

वातावरणीय प्रभाव अनुगमन फारम (संचालन चरण)

यस किसिमको अनुगमनलाई नियमित क्रियाकलापमा समावेश गर्ने, अवस्था हेरी मासिक, अर्धवार्षिक वा वार्षिक रूपमा 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 रूपमा 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

जानकीनगर खानेपानी आयोजनाको

नियमपालन अनुगमन फारमको ढाँचा (निर्माणपूर्व वा निर्माण चरण)

अनुगमन गरेको मिति

समय

अनुगमनको स्थान

अनुगमन गर्ने व्यक्तिको नाम

अनुगमन गर्ने व्यक्तिको पद

सूचक	विधि	परिणाम वा परिमाण		कैफियत वा केहि थप टिप्पणी
प्रस्तावित विकासलाई समावेश गरी सामूदायिक वनको कार्ययोजना स्वीकृतिको पत्र	कार्ययोजना र स्वीकृतिको पत्र अध्ययन	छ	छैन	
ठेक्का सम्झौतामा वातावरण व्यवस्थापन सम्बन्धी बुँदा संलग्न	स्वीकृत प्रस्ताव वा ठेक्का सम्झौता अध्ययन	छ	छैन	
वातावरण व्यवस्थापनको लागि बजेट विनियोजन	बजेट दस्तावेज अध्ययन	छ	छैन	
प्रभाव अनुगमन गरे नगरेको	अनुगमन बजेट वा अनुगमन प्रतिवेदन अध्ययन र सुधारात्मक कार्यको प्रगति	छ	छैन	

स्थलगत अवलोकनको आधारमा न्यूनीकरणका क्रियाकलापको कार्यान्वयनको अवस्था

सूचक	परिणाम वा परिमाण		कैफियत वा केहि थप टिप्पणी (उपाय आवश्यक भए नभएको बारेमा समेत)
थोत्रा सवारीसाधनको प्रयोग	छ	छैन	
बाटो र कार्यस्थलमा पानी छर्केको	छ	छैन	
निर्माण सामग्री ढुवानीको क्रममा छोपेको	छ	छैन	
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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 constructions - related physical events or trends.