



**Government of Nepal**  
**Ministry of Communication and Information Technology (MoCIT)**  
**Digital Nepal Acceleration (DNA) Project**

**Environmental and Social Management Plan (ESMP)**  
**For**  
**Construction of Data and Internet Exchange Centre, Khumaltar,**  
**Lalitpur**

**September 2022**

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## ABBREVIATIONS AND ACRONYMS

BES	Brief Environmental Study
BOQ	Bill of Quantities
CoC	Code of Conduct
CFUG	Community Forest User Groups
DNA	Digital Nepal Acceleration
E&S	Environmental and Social
EIA	Environmental Impact Assessment
EPA	Environmental Protection Act
EPR	Environmental Protection Regulation
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESRS	Environmental and Social Review Summary
ESS	Environmental and Social Standards
GBV	Gender Based Violence
GoN	Government of Nepal
GM	Grievance Mechanism
IEE	Initial Environmental Examination
IEC	Information Education and Communication
LMP	Labour Management Procedure
MoCIT	Ministry of Communication and Information Technology
MOFE	Ministry of Forest and Environment
NITC	Nepal Information Technology Centre
NDWQS	Nepal Drinking Water Quality Standards
OHS	Occupational Health and Safety
PIT	Project Implementation Team

PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
WB	World Bank

# Environmental and Social Management Plan (ESMP)

**Name of Subproject: Establishment of Data and Internet Exchange Center, Khumaltar, Lalitpur**

**Address (Ward, Municipality, Province):** Khumaltar, Ward no.-5, Lalitpur Metropolitan City, Bagmati Province.

**Type of Subproject:-Data Centre Sub-project**

**Implementation unit:** National Information Technology Centre (NITC)

## 1. PROJECT INFORMATION

### 1.1. Background

The Government of Nepal (GON) is implementing the Digital Nepal Acceleration (DNA) Project with support from the World Bank, to expand inclusive access to broadband connectivity, and to strengthen the digital enablers to improve the resilience of businesses, governments, and households with the national coverage. The list of project development activities under this intervention is packaged in three components. The establishment of the data and internet exchange centre is one of the major interventions under the project component. Although the Project will not finance the construction of the data and internet exchange centres/facilities, the construction of these facilities has been planned and will be carried out contemporaneously with the project. These data and internet exchange centres are directly and significantly related to the project and are necessary for the project to be viable. Therefore, according to the Environment and Social Framework (ESF), these centers are considered "associated facilities" and Environment and Social Standards (ESSs) will apply to the construction of these centers and this has been explicitly mentioned in the Environment and Social Commitment Plan (ESCP). The National Information Technology Centre (NITC) has planned to construct the data and internet exchange centre at Khumaltar and a detailed engineering design has already been done. In line with the requirements of the ESF and Environment and Social Management Framework (ESMF) of the DNA, Environmental and Social Screening (*See Annex-1*) has already been completed for the proposed sub-project and recommended for ESMP preparation. This ESMP addresses the E& S risk and impacts triggered by the construction of the Data and Internet Exchange Centre, Khumaltar, Lalitpur.

### 1.2. Objective of the ESMP

This ESMP has been prepared to fulfill the requirements ESMF, ESCP and ESSs. It aims to identify the potential beneficial and adverse impacts of the subproject and suggest appropriate mitigation and enhancement measures to augment the benefits of the subproject based on field observation, community consultation (*see annex-2*) and review of documents.

### 1.3. Sub Project: Construction of Data and Internet Exchange Centre, Khumaltar, Lalitpur

Data and Internet Exchange Center, Khumaltar, Lalitpur is proposed to be constructed within the compound of Radio Nepal in ward no. 5 of Lalitpur metropolitan city. The design of proposed centre has included different components standardized structures to provide required services like data storage, sharing computing resources, email/ internet, and website hosting, which are general function of any data center, to all the government ministries and departments, and a physical location through which Internet infrastructure companies such as Internet Service Providers (ISPs) and CDNS connect with each other. The building is designed following applicable National Building code. The structural system chosen for the building is with ductile RCC structural walls with RCC steel moment resistant frame. Details of components features and location Google map is presented in as below:



Figure 1: Location Google Map of the proposed data Centre

### A. Salient Features; Subproject Components and Scale

Component of data & Internet Exchange Centre	Parameter (Specify if Length, Width, Area, Capacity, etc.)	Unit of Measure (km, m, kg, tons, etc.)
Total Land area	7631.10.	sqm
Total Built up area	6,228.26	sqm
<b>Major structures</b>		
Main Building-4 story having 44 rooms	1,777.56; 1,846.88; 1,846.88; and 151.68	sqm
Staff Building	1	n/a
Guard Post/Guard Quarter	1	n/a
Parking area	-	
Power backup/Generator house	1	N/a
Sentry Post	4	
Internal roads and gardens	NA	
<b>Total Cost</b>	NRs.	<b>1,188,445,194.26</b>

## B. Subproject Location

Component (Specify if Building, access Road, equipment, etc.)	Describe the site (Salient features such as topography, presence of/proximity with waterbody/drainage, vegetation, existing structures, roads, settlements, other locational issues, ownership status of lot, etc.)
Location and address of the Proposed Data and Internet Exchange Center	The proposed data and internet exchange center is located at Khumaltar, Ward no.-5, Lalitpur Metropolitan City, Bagmati province and within a longitude of 85°19'45" and latitude of 27°39'08".
Topography and Geology	The site location is on undulated land with highest point at the south and the lowest point at the north of the site. The proposed construction location is at the altitude of 1335m in height from the sea level. Sandy soil with alluvial deposits is found in the area.
Climate and Precipitation	Khumaltar's climate is classified as "Monsoon-influenced humid subtropical climate". The Köppen Climate Classification subtype for this climate is "Cfa" (source: climate-data.org). The climate of the location is mild, and generally warm and temperate. The summers here have a good deal of rainfall, while the winters have very little. The average annual temperature is 16.1°C (61.1°F). Precipitation here is about 2812 mm (110.7 inch) per year.
Hydrology/Water Bodies	Bagmati, Manahora, Bishnumati and Khodku Khola are major rivers/ streams in the area. No water bodies lie within the location and the nearest river is the Kodku Khola which is around 800m from the construction site. The location is comparatively raised; therefore, chances of flooding and water logging is very negligible.
Land use	The land originally belonged to Radio Nepal and thus the land has been used to host radio towers for radio transmission. The surrounding locality is mostly urban residential and some commercial area. The land within the proposed construction location is completely barren and fenced with brick wall. No community utilities are located that are being currently used. The land ownership has already been transferred to NITC.
Forest/Vegetation	No vegetation/forest area covered. Some pole size eucalyptus trees including bushes are present in the construction location, however, no any protected plant species are recorded in the location.
Wild Animals	The construction location is within human settlement and within the compound of Radio Nepal Tower, so the presence and mobility of wild animals are not reported.
Presence of vulnerable community	There is no presence of any particular vulnerable community at the adjoining area of the proposed data and internet exchange centre site.



## 2. ESMP MATRIX

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
<b>Physical Environment</b>						
Trenching/Excavation during foundation works and other construction	- Although the construction Surface is plain there may cause small scale erosions and slope failure and impact on surface drainage	- ESS 1	- 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 to prevent erosion by using barriers or silt traps. - Use of temporary fencing to enclose demolition area to protect from mobility	- E &S personnel of PMU and PIT- Contractor	During construction	- Included in the design/estimate report
Civil Construction activities producing waste, waste from establishment, and operation of labour camp	- Minimum impact/contamination is expected to downstream source; Kodku Khola at about 800m, by construction waste including e-waste-covered and packaging materials, lubricants, disposal and transport of sediments from worksites-trenching and excavation of the foundation for data and internet exchange centers - and construction camps	- ESS 3	- Earthworks will be undertaken in the dry season as far as possible to avoid the potential runoff. - Spoil disposal will be properly managed at designated sites - The location of stockyards for construction materials will be properly covered. - The place for storage of fuels and lubricants will be away from any drainage leading to water bodies. - Temporary silt traps or sediment basins along the drainage leading to the water bodies will be installed. - Establish a baseline and periodic water quality test of downstream major sources, complying with National Drinking Water Quality Standard (NDWQS), as required by annex-10 of ESMF.	- E&S personnel of PMU and PIT- Contractor	- During construction - Periodic Monitoring of water quality every 6 months	120,000 (for water quality test)
Ambient air-Construction activities particularly during the dry season,	Construction location is within the compound of Radio Nepal, Armed Police Force Camp and nearby private settlement in the south east location.	- ESS3	- Water sprinkling at the access road and dry exposed surfaces and stockpiles of aggregates as necessary - If re-surfacing of excavated portion requires movement of trucks for delivering aggregates and cement, ensure that the	- E&S personnel of PMU and PIT- Con	- Regular during construction - Water sprinkling-thrice a day	- Included in technical design/cost - Air quality monitoring-100, 000.

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
mobility of heavy and frequent vehicle	Therefore, there could be some chance of contaminating surrounding air quality. Further, it may create dust and increase the concentration of vehicle-related pollutants (such as carbon monoxide, Sulphur oxides, particulate matter, nitrous oxides, and hydrocarbons) which will affect people who live nearby access road and works at the site.		<ul style="list-style-type: none"> <li>trucks have tarpaulin cover.</li> <li>- Limit speed of construction vehicles on access roads to construction location maximum of 30kph.</li> <li>- All vehicles, equipment, and machinery used for construction to be regularly maintained. Follow applicable national emission standards for the use of equipment and vehicles.</li> <li>- Establish a baseline and regular monitoring of ambient air quality as per National Ambient Air Quality Standard, 2003 and WB's EHS guidelines (for details refer annex-10 of ESMF).</li> <li>- Put up signages for community health and safety along the road where the construction vehicles will ply.</li> </ul>		- Air quality monitoring- two times in the contract at every dry season	
Acoustic environment- activities particularly during day time, mobility of heavy and frequent vehicle producing horn and use of heavy machines	<ul style="list-style-type: none"> <li>- The location is nearby settlements, office areas, and areas with small-scale businesses so, it may cause temporary impact with increase in noise level and vibrations that may be caused by the movement of equipment and excavation.</li> <li>- Impact on workers and supervisors. Further it may create nuisance to the staffs of nearby office (APF &amp; Radio Nepal) due to noise above the standard limit</li> </ul>	- ESS3	<ul style="list-style-type: none"> <li>- Plan activities in consultation with local administration so that activities with the potential to generate noise are conducted during periods of the day which will result in the least disturbance.</li> <li>- Minimize drop heights when loading and unloading coarse aggregates.</li> <li>- Discourage the use of horns.</li> <li>- All vehicles, equipment, and machinery used for construction to be regularly maintained.</li> <li>- Sharing and Dissemination of plan and schedule to the affected people and (APF &amp; Radio Nepal) organization.</li> <li>- Regular monitoring of noise level every day at construction site complying with National Noise Standard Guidelines, 2012</li> </ul>	- E&S personnel of PMU and PIT- Contractor	<ul style="list-style-type: none"> <li>- Regular during construction</li> <li>- Noise level monitoring- daily using sound meter mobile apps</li> </ul>	- Considered in design estimate

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
Generation of hazardous waste and e-waste- Use of electric/electronic materials and machines and chemicals for the construction of the building	- Possible generation of e-wastes; covered and packaging materials, excess /unused electric wires/fittings and equipment, used battery and other chemicals and metals shall generate hazardous nature of waste	ESS3	- Introduce buy-back arrangements with the suppliers of electrical wires/fittings and other equipment at the end of construction and its useful life. - Appropriate formal arrangements for the disposal and management of hazardous and/or e-waste before the commencement of civil works will be ensured.	- E&S personnel of PMU and PIT- Contractor	- During Construction	- Specified in contract provisions - condition of contracts;
Construction activities and establishment and operation of labour camps	- Contamination of water and land resources, and cases of vector-borne diseases due to solid/construction/camp waste disposal to workers, office staffs of APF and Rdo Nepal and to the people of nearby settlement.	ESS3	- Measures for the management of demolition debris/construction/camp solid waste for subproject/ activity implementation is ensured - Install bins with labelling for careful waste segregation at camps - Regular collection, treatment, and dispose-off of solid waste at designated facilities - Ensure appropriate formal arrangements for the disposal and management of demolition debris before the commencement of civil works. - Clear unutilized construction materials, heavy equipment, and debris from the construction site.	- E&S personnel of PMU and PIT- Contractor	- During Construction	- Specified in contract provisions - condition of contracts;
The movement of vehicles will account for more traffic flow, congestion, and disruption	- Though the location is within compound of Radio Nepal Tower, it is in the middle of a cloud urban city having heavy movement of people therefore there could be a risk of accident and community safety in the construction area in the absence of	- ESS4	- Expedite and comply with all alternatives for maintaining traffic flow during construction works - Schedule a specific time for heavy vehicle (carrying construction material) movement - Comply hard barricading in the trenching and other construction areas - Provide proper information and awareness to the community in advance	- E&S personnel of PMU and PIT- Contractor	- During Construction	- Specified in contract provisions - condition of contracts

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
	awareness/notice and proper barricading					
<b>Biological Environment</b>						
- Impacts on Vegetation- site clearance, Influx activities during construction	- There will be required to cut about 30 <i>eucalyptus</i> trees and some bushes cover during the construction of data and internet exchange centres - There could be less possibility of influx access to forest resources	- ESS 6	- Proposed for greenery promotion around the construction area - Species of local economic significance and values will be planted - Providing alternative fuel to workers for cooking - Orientation to workers and contractors is provided - Close Monitoring of the performance	- E&S personnel of PMU and PIT- Contractor	- Construction period	- Specified in contract provisions - condition of contracts
Impacts on Fauna- Influx activities, vehicle mobility during construction	- There will be no any such impacts to wild habitat; fauna and however, influx shall involve in hunting of birds presents in the nearby greenery.	ESS 6	- Conducting environmental awareness activities for the workforce (especially with respect to the importance of conservation and protection of wildlife)	- E&S personnel of PMU and PIT- Contractor	- Construction period	- Specified in contract provisions - condition of contracts
<b>Socioeconomic and Cultural Environment</b>						
Social harmony in the area	- Poor sanitation practices by the workforce may cause pollution of the surrounding environment. - Social problems may arise due to anti-social behaviour of the workforce such as gambling, alcoholism, and disrespect to local people	- ESS 4, ESS 2, and ESS 10	- Ensure proper security fencing of the construction site - Security personnel will be employed to ensure the security of the work areas. - Provide detailed orientation to influx/workers on the procedures to be followed in work areas. - Orient the workers on the Code of Conduct and compliance with the Code of Conduct by the workers - Keep Information, Education, and Communication (IEC) material to sensitize the worker's adherence to proper housekeeping practices at worksites. - Prioritize local people for opportunities to work in the subproject which helps to	- E&S personnel of PMU and PIT- Contractor	- Construction Period	- Specified in condition of contracts

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
			<p>minimize the chances of cultural discrepancy and conflict due to increased outside workers.</p> <ul style="list-style-type: none"> <li>- Ensure that project GM is in place, put up on the project information board at site, and is managed effectively.</li> </ul>			
- Occupational Health & Safety- construction of civil work	<ul style="list-style-type: none"> <li>- Laborers involved in civil work may be exposed to different levels of health risks and accidents</li> <li>- Physical injuries from accidents—electric shocks and fall during construction of data and internet exchange centres.</li> </ul>	- ESS2	<ul style="list-style-type: none"> <li>- Require mandatory use of safety measures and PPE such as masks, helmets, hand gloves, and rubber boots with proper training to workers in respect to working at heights</li> <li>- Keep the first aid box in an appropriate and easily accessible place.</li> <li>- Provide safe drinking water for laborers and other facilities at the site.</li> <li>- Prohibit child labour in all construction activities by keeping records of their age which can be verified through some document (citizenship or any other document that verifies the worker's age).</li> <li>- Prohibit forced labour practices in construction activities</li> <li>- Ensure workers follow health and safe hygiene practices; precautions will be taken in response to the current risk of COVID-19.</li> <li>- Comply with COVID-19 protocols and keep a record of infections, if any.</li> <li>- Provide orientation and training to workers for maintaining social harmony, and prohibition of ill social behaviours (alcohol, gambling, etc.).</li> <li>- Engage local people in construction as per their skills and qualifications.</li> <li>- Establish and set up GM for direct and contract workers to raise workplace grievances.</li> </ul>	- E&S personnel of PMU and PIT- Contractor	- During Construction	- Specified in condition of contracts
Labour camp	- Impacts encountered	- ESS2	- Establish and operate a standard level of	- E&S personnel of	- During	- Specified in

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
management - construction of civil work	<p>through construction workers' camp include disposal of solid waste (i.e. organic waste, plastic and metal scraps, and domestic effluent)</p> <p>- Pressure on the existing public utilities (i.e. drinking water sources, health services) poor sanitation and transmission of communicable diseases, and conflict with local communities lead to fatal accidents and on-site/work accidents.</p>		<p>labour camp considering gender and disabilities</p> <ul style="list-style-type: none"> <li>- The camp shall be established within the hard barricading compound of construction area.</li> <li>- Construct separate toilets for man and women and maintain sanitation facilities</li> <li>- Maintain proper sanitation at camps with the provision of potable water and regular health check-ups of the construction crew.</li> <li>- Regular collection, treatment, and dispose-off of labour camp waste at designated places</li> <li>- Maintain a labour registry that should include contact details of the worker hired for project activities and update it regularly</li> <li>- Provide orientation and training to workers for maintaining social harmony, and prohibition of ill social behaviours (alcohol, gambling, etc.)</li> <li>- Provide first-aid training to construction workers for the safety of workers for all types of construction-related injuries.</li> </ul>	PMU and PIT- Contractor	Construction	contract provisions - condition of contracts

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
Community Health and Safety risks	- Transmission of COVID- 19 within the community	- ESS4	<ul style="list-style-type: none"> <li>- Proper awareness and orientation to workers and the community will be provided on OHS, community health and safety, and GBV.</li> <li>- The contractor will maintain adequate space and adequate lighting, temporary fence, barriers, and signage at worksites.</li> <li>- Children will be prohibited from active construction sites.</li> <li>- Proper fencing of the stockpile and other risk areas.</li> <li>- Awareness programs on communicable diseases and hygiene practices will be carried out throughout the project lifecycle.</li> <li>- Backfill all open trenches and excavated soon after completing construction works</li> <li>- Ensure GM is in place, well known, and is managed effectively.</li> <li>- Regular communication with the community in the vicinity about the procedures put in place to address the risks of COVID-19.</li> <li>- Different communication approaches and materials will be developed that are clear and designed to be easily understood, particularly by the vulnerable groups including indigenous people, and people with disability.</li> <li>- Make sure workers adhere to COVID-19 OH&amp;S precautions and protocols to minimize the risk of COVID-19 transmission.</li> <li>- are mandatory management requirements.</li> </ul>	- E&S personnel of PMU, PIT, and PIT- Contractor	- Construction Period	- Specified in contract provisions - condition of contracts

Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
SEA/SH-related risks	- Communities, especially women, girls and children living around project sites are at risk for different forms of gender-based violence.	- ESS 2 and ESS 4	- GBV/SEA/SH prevention measures will include awareness sessions for local communities on the prevention of GBV, workers will sign and abide by the Code of Conduct, local communities will be informed about the existing Code of Conduct, and GM to report on GBV complaints, and existing GBV service providers. - PMU/PIT to identify existing GBV service providers in the construction area to establish referral mechanism. - Preparation of awareness material on GBV and SEA/SH -	- E&S personnel of PMU, PIT (include PIT-contractor in all such campaigns)	- Consultation prior to mobilization of contractor and during construction period	- Rs. 300000 (three such campaigns per year including identification of service providers)
Labour influx and risk of illicit sexual relations with minors from the local community.	- Increase risk of GBV and SEA/SH	- ESS 2 and ESS 4	- Prepare, adopt, and implement measures to manage risks of SEA/SH through the implementation of SEA/SH prevention and risk mitigation plan. - Identify risks, key stakeholders, and available service providers to address and manage any incidences of SEA/SH. - Prepare a Code of Conduct (CoC) as part of the bid document for laborers, contractors, and also for project staff. - Conduct orientations on CoC to workers and require all workers to sign the CoC.	- E&S personnel of PMU, PIT through the PIT Contractor (The E&S personnel of PIT will make sure that the PIT contractor will sensitize the labours and that the CoC will be signed and adhered to)	- Before mobilization of labourers and when new labours are hired	- Rs. 400000
Physical and cultural heritage-Excavation works	- No such impacts are reported and observed. However, there could be loss or damage of physical and cultural resources from excavation activities	- ESS8	- In the unlikely event that a physical cultural heritage is identified or suspected, the contractor will immediately stop work to allow further investigation, in coordination with district-level authority and with the Department of Archaeology.	- E&S personnel of PMU, PIT, and PIT-Contractor	- During Construction	- Not required
Weak consultations and information disclosure	- Unfavourable public perception of the project - Although the location is within the urban city, there could be very less possibility	- ESS 10	- Undertake periodic stakeholder engagement activities under the SEP and inform them about project activities and opportunities. - Disseminate project-related information through culturally appropriate and locally	- E&S personnel of PMU, PIT, and PIT-Contractor	- Throughout the project cycle	- Rs. 300000 (once every 4 months for two years)



Key Activities	Key activities and Potential E&S Risks/ impacts	Relevant ESS	Management Measures	Implementation Responsibility	Timeline	Budget
	<p>of having people including the indigenous people and vulnerable people, are unable to access project-related information and project benefits.</p> <ul style="list-style-type: none"> <li>- Stakeholders are unable to participate in the planning process of mitigation measures.</li> </ul>		<p>available means, such as project websites, national and local media, and social media.</p> <ul style="list-style-type: none"> <li>- Establish a system through which the stakeholders can obtain project-related information.</li> <li>- Thoroughly brief the stakeholders about the possible risks and impacts of project activities and the mitigation measures. Seek their participation in designing and implementing the mitigation measures.</li> </ul>			
Lack of accessible mechanism for stakeholders to raise questions and concerns	<ul style="list-style-type: none"> <li>- Grievances and complaints not being addressed</li> </ul>	- ESS10	<ul style="list-style-type: none"> <li>- Establish a functioning grievance mechanism (GM) as envisaged by the SEP and raise awareness among stakeholders of the GM.</li> <li>- Regularly monitor GM to ensure grievances are being received and addressed, and that the GM is functioning as envisaged.</li> </ul>	- E&S personnel of PMU, PIT, and PIT-Contractor	- Construction Period	- Rs. 200000 per year
Participation in stakeholder engagement process and access to information on project and construction of data and internet exchange centre to indigenous people and disadvantaged groups including women	<ul style="list-style-type: none"> <li>- The construction location is in the urban settlement, and a particular Indigenous people and disadvantaged groups are not noticed. However women may remain uninformed about project activities and opportunities due to their distinct social conditions, including illiteracy and poverty.</li> </ul>	- ESS7	<ul style="list-style-type: none"> <li>- The project will ensure the inclusion and participation of IP groups, and vulnerable communities including women in stakeholder engagement process through targeted interventions such as:</li> <li>- Use of local language, pictures in communication materials and consultations,</li> <li>- advance notice and accessible meeting locations</li> <li>- focused groups discussions and others.</li> </ul>	- E&S personnel of PMU, PIT, and PIT (PIT contractor responsible personnel as participant from the project side)	- Throughout the construction period cycle	- Rs. 300000 (once every 4 months for two years)

### 3. IMPLEMENTATION OF MITIGATION MEASURES

The prime responsibility of implementing mitigation measures outlined in ESMPs will be of the Contractor on behalf of NITC with the support of PMU. The implementation of the E&S risk management plans starts with a process of procurement of concerned works and services. The corresponding plans will describe and prioritize mitigation measures, corrective actions, and monitoring measures necessary to manage the impacts and risks. The NITC with the technical support from PMU will ensure that all works contracts have included the ESMPs as an item in the Bill of Quantities (BOQ). Further, contract documents need to comply with the provision of OHS and labour camp management, and other precautionary measures for preventing SEA/SH and prohibiting child labour as stated in Annex-5 of ESMF. Implementation performance of mitigation measures will be reported to PMU by the NITC for its support and feedback. The detail of the Implementation Framework is presented as follows;

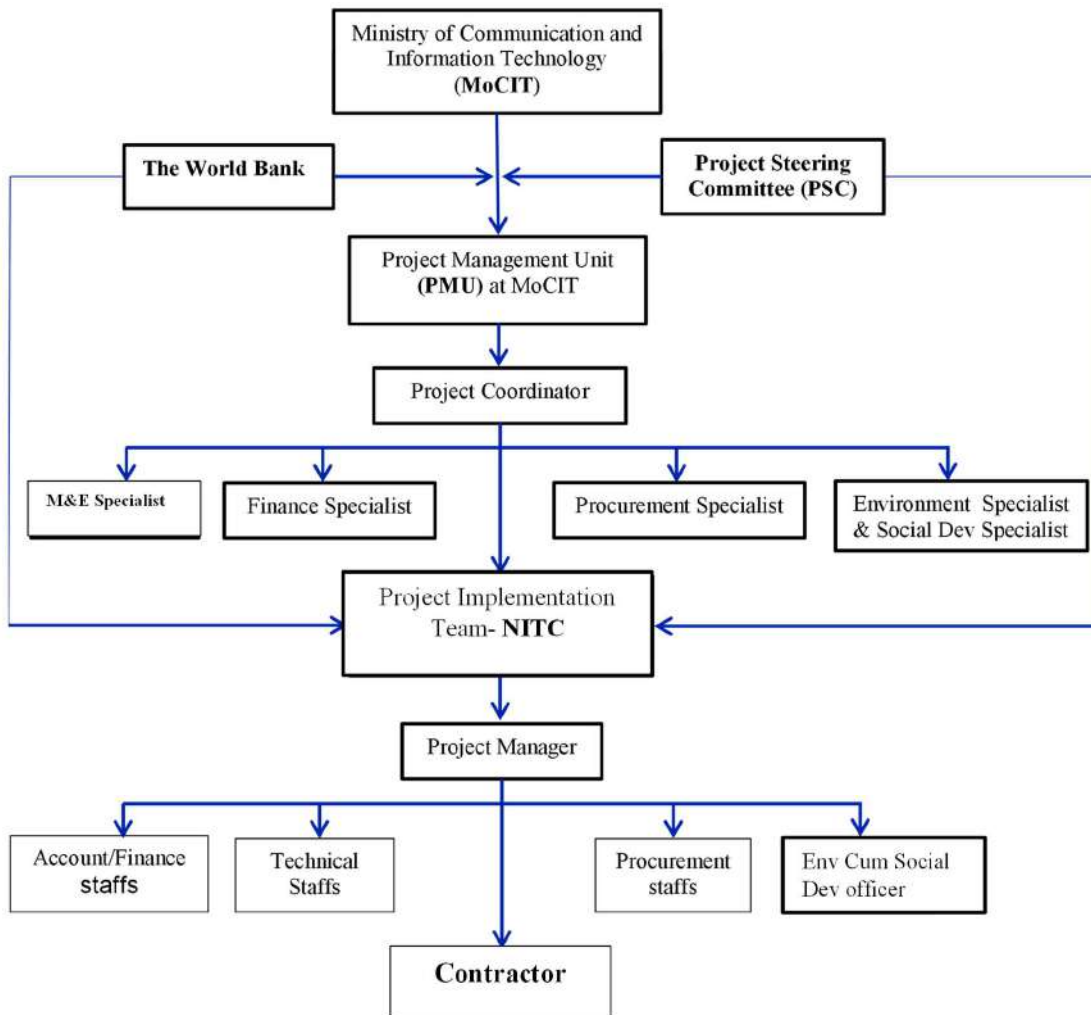


Figure: 2- Organogram of the E&S activities related to the Project

#### **4. MONITORING AND REPORTING PLAN**

The project planning and implementation will be regularly oversight by the Project steering committee chaired by the secretary of the MoCIT. The E&S officer of NITC will carry out implementation performance monitoring and will submit the implementation of a environment and social performance report quarterly (every three months) to the Project Management Unit (PMU) as outlined in ESCP/ESMF. The E&S specialist under PMU will compile the compliance reports received from the NITC and submit a consolidated compliance performance report to the WB. The Monitoring reports will be disclosed on the official project/PMU website. The regular monitoring report will cover the EHS performance of the project, and status of implementation of environmental and social mitigation measures, stakeholder engagement activities, and the functioning of the grievance mechanism, among others. The compliance report will be produced in a standard template as provided in Annex 4 of the ESMF.

#### **5. GRIEVANCE MECHANISM (GM)**

The project will put in place a responsive and functioning Grievance Mechanism (GM) to address the concerns and complaints of beneficiaries and project stakeholders by adopting an understandable and transparent process that is culturally appropriate and readily accessible to all the segments of affected communities. The main purpose of this system is to ensure there is a robust and transparent process, consisting of a sequential process of resolution available to swiftly address the complaints. A subsequent level of resolution is triggered if the complainant remains unsatisfied with the resolution made by the lower level or if it remains unable to provide a resolution within a given time. The SEP proposes the three-tiered GM system which includes the Sub-Project Level Grievance Committee, followed by PIU Level Grievance Committee and PMU Level Grievance Committee. (Refer to Annex 3).

**Grievance for Gender-Based Violence (GBV):** The GM put in place for the project will also be used for addressing GBV and SEA/SH-related issues and the PMU will oversee GBV-related complaints. The project will place its uppermost priority on handling and managing the GBV-related grievance by maintaining the full confidentiality of the survivor. The PMU will put in place necessary mechanisms for confidential reporting with safe and ethical documentation of GBV issues at the center and project level. GBV referral pathway will be established and communicated to both PMU and the local level. Further, the GRM will also put in place a system to immediately notify both the PMU and the World Bank of any GBV complaints, with the consent of the survivor. As per the requirement of the World Bank, the PMU, in support of the World Bank, will prepare and implement the SEA/SH Action Plan before the implementation of the project.

**Monitoring and Reporting of GM:** The safeguards focal person of each of the PITs will prepare the Quarterly Reports on the Grievance Redress issues of the project and report to the PMU. The Grievance Committee may review the nature of grievances that have been represented and if grievances are repeated, it may recommend suitable changes in implementation procedures and forward these to the PMU for implementation.

**Digital Nepal Acceleration (DNA) Project  
ENVIRONMENTAL AND SOCIAL SCREENING FORM**

Name of Subproject: **Establishment of Data and Internet Exchange Centre, Khumaltar, Lalitpur**  
 Type of Subproject (check): **Data and Internet Exchange Centre**  
 Location of Subproject: (Ward, Municipality, Province): **Khumaltar, Ward No: 5, Lalitpur Metropolitan city, Lalitpur.**

**A. Eligibility Criteria**

Criteria Question	Answer (Yes/No)
1. Does the Subproject contravene Nepal's obligations under its international commitments?	No
2. Is the Subproject going to encroach into national parks of protected area, including their buffer zone, wet land and special area for protecting biodiversity?	No
3. Is the Subproject going to displace, modify or restrict/block access to cultural heritage sites, historical monuments, religious structure and other sites considered sacred by the local community?	No
4. Is the Subproject going to convert or degrade critical natural habitats and critical habitats?	No
5. Would the subproject involve clearing of trees in larger number covering wider forest area?	No
6. Would the subproject involve in generating large volume of e-waste causing significant irreversible adverse impacts to human health and natural resources.?	No
7. Would the subproject require the acquisition of any private land by any government body/unit?	No
8. Is the subproject affect lands or rights of indigenous people or other vulnerable minorities?	No
9. Would the subprojects result in the exclusion/restriction of certain groups including IP who are traditional users, from accessing an otherwise open-access resource which they have traditionally accessed such as public forests, lakes or rangelands?	No

Note: If the answer of at least one of the questions above is "Yes", then the subproject is NOT ELIGIBLE FOR FUNDING.

**B. EPA/EPR Categorization** Please consult Schedule 1, 2 and 3 of EPR (2020) or the latest MoFE Screening/Scoping Protocol relevant to the Subproject, if any. Attach the completed protocol to this ES Screening Form.

What is the Subproject's type (Check)?	EA Process Requirements
Schedule 3?_ <b>NA</b>	The subproject would be required to undertake the national regulatory requirements of the EIA process and approved by MoFE or concerned provincial authority prescribed by provincial law.
Schedule 2?_ <b>NA</b>	The subproject would be required to undertake an IEE as per national requirements to be approved by appropriate agency
Schedule 1?_ <b>NA</b>	The subproject would be required to prepare a Brief Environmental Study and to be approved by appropriate provincial or local government agency

For potential sub-projects that do not fall under any Schedule due to their nature or cost, no environmental report will be required to be prepared under EPR 2020 requirements. **However, the subproject will still be required to prepare ESMP and other documents as stated in Para D following to the WB ESS requirements in terms of any assessments.**

**C. Issues**

Questions	(Yes/No)	Remarks
<b>1. Labor and Working Conditions</b>		
1.1 Is the number of labourers to be hired more than 50 at the peak of the activity/construction?	Yes	
1.2 Would the subproject during operations phase involve operation of equipment/ tools?	Yes	Equipment/tools related to data and internet exchange centres will be used
<b>2. Pollution Prevention and Resource Efficiency</b>		
2.1 Would the subproject involve substantial amount of earth works or hauling of materials?	No	Earth work spoil with minimal excavation will be used for filling of building height
2.2 Would the subproject when operational generate substantial amount of liquid waste?	No	
2.3 Would the subproject when operational generate substantial amount of air emission?	No	Operation of back up electricity plant shall generate minimal emission
2.4 Would the subproject when installation and operational generate substantial amount of e- waste?	Yes	Operation of data and internet exchange centre shall generate manageable e-waste
<b>3. Community Health and Safety</b>		
3.1 Would the subproject likely involve hiring/bringing in more than 10	Yes	

labourers from outside the community during construction?		
3.2 Are there endemic infectious or vector-borne diseases in the project community?	No	
3.3 community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.	No	Construction is to be carried out inside the compound of the centre and however, effect of accidental events of using machines and equipment/tools shall trigger the cause
<b>4. Biodiversity and Sustainable Management of Living Natural Resources</b>		
4.1 Would the subproject cause use of forest product like fuel wood and other encroachment to natural resources?	NO	No forest and wild life habitat located nearby the area
4.2 Would the sub project lead to illegal hunting/poaching ?	No	
4.3 Would the sub project lead to temporary use or clearance of vegetation?	Yes	About 30 eucalyptus trees and bushes are to be cleared
<b>5. Involuntary Resettlement and Restriction of Access</b>		
5.1 Are there residential structures within proposed site or right-of-way of the subproject?	No	Some Residential houses located at north east location of outside of the proposed data centre
5.2 Are there crops and privately-owned trees in the proposed subproject sites or rights-of-way?	No	-
5.3 is there any livelihood structures or resources to be impacted within proposed site or right-of-way of the subproject?	No	-
5.4 is there any public utilities or common assets to be impacted within proposed site or right-of-way of the subproject?	No	Two unused medium wave Radio Nepal towers are to be displaced
<b>6. Indigenous People*</b>		
6.1 Is there presence of indigenous people (as defined in the World Bank ESF*) within the direct influence area of the subproject?	No	-
6.2 Are there other ethnic minorities that have been marginalized from the mainstream in the project site?	No	-
6.3 Are there vulnerable households or households with vulnerable persons within the beneficiary community?	No	
<b>7. Cultural Heritage</b>		
7.1 Is there a cultural heritage site/structure within or adjacent to the proposed subproject site or along the right-of-way?	No	-

7.2 Would the subproject involve excavation and there is a high probability of encountering buried archaeological artifacts or objects paleontological value on the project site?	No	-
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Indigenous Peoples refer exclusively to a distinct social and cultural group possessing the following characteristics in varying degrees:

1. Self-identification as members of a distinct indigenous social and cultural group and recognition of this identity by others; and
2. Collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas; and
3. Customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; and
4. A distinct language or dialect, often different from the official language or languages of the country or region in which they reside.

The term still applies even if the group has already lost, within the lifetime of the members, collective attachment to distinct habitats or ancestral territories in the project area due to forced severance, conflict, government resettlement programs, dispossession of their land, natural disasters, or incorporation of such territories into an urban area. The term also applies to forest dwellers, hunter-gatherers, pastoralists or other nomadic groups, subject to satisfaction of the criteria above.

#### D. Summary of Screening Results

1. Eligibility (Base on item A above, please check those that apply below).

**This Subproject is eligible for funding as per eligibility criteria.**

2. Subproject will need to prepare the following instrument (Please check the ones that are required based on the answers in item B and C above):

- The civil construction work and establishment of data and internet exchange centre shall contribute in generating hazardous /e-waste. E-waste having hazardous natures shall be generated from different components of data and internet exchange centres; mechanical and electrical infrastructures, servers, networking and storage equipment. Coolants used in the centre are often made of hazardous chemicals and battery backups having lead, mercury, cadmium and beryllium at data and internet exchange centres contribute to generate hazardous waste while disposal of the toxic batteries after its lifecycle. Further, Large number of e-waste is generated during regular updating and refreshing the data and internet exchange centre and Server sub-systems such as compute, memory, fans, power supplies, and chassis, can replaced at different rates based on their independent lifecycle.
- There could be potential influx of labour and may trigger social risks to the host community related to sexual exploitation and abuse and sexual harassment (SEA/SH). Similarly, occupational health and safety including labour camp management, first aid, use of PPE is crucial and need to be managed during construction and operation. Physical injuries from accidental events on the potential route of digital network with damage of insulation cover within the digital network need to be mitigated through the preventing and precautionary measures such as placing appropriate signs and signals as part of occupational health and safety.
- The site specific ESMP including Hazardous/E-waste management plan and LMP specifying the corresponding mitigation measures to address the aforementioned issues and other scope as stipulated in the para 3 needs to be prepared. The mitigation measures are to be outlined in the

form of plan of action and code of practice and to be reflected in contract document and BOQ of the contract for its effective implementation.

### **3. Scope of the assessments.**

Based on the field observations and nature of the identified E&S issues through E&S screening using checklist it is recommended that ESMP needs to be prepared for this associated facility. ESMP describes/details the identified issues and its proposed mitigation measures aligning with the templates provided in ESMF and mitigation measures will be complied during the implementation. ESMP must include a mitigation measure of the following E&S risks.

- a. Labour and Working Conditions
- b. Occupational Health and Safety Risk
- c. Child Labour
- d. Pollution and Resource Efficiency- particular to e-waste
- e. Noise nuisance
- f. Waterway sedimentation- *Downstream source; Khodku Khola is nearby (800m) from construction site*
- g. e-waste
- h. Households with small children
- i. Community Health and Safety
- j. Risk of spread of diseases (Prevalence of HIV/AIDs, Other endemic infectious or vector borne diseases in the community).
- k. Exposure of residents to safety issues at construction sites- Construction will take place inside the compounded area of the centre
- l. Risk of migrant workers clash with local community culture
- m. Stakeholder Engagement and Disclosure
- n. Stakeholder engagement plan and disclosure
- o. Subproject level Grievance Mechanism system

#### **Prepared by:**

MS. Sulochana Aryal, Administrative Officer, National Information and Technology Center,  
Mr. Safal Shrestha, Director, National Information and Technology Center,  
Mr. Nabin Rawal, Social Safeguard Consultant, World Bank  
Mr. Sita Ram Kandel, Environmental Safeguard Consultant, World Bank.

**Date:** 19 Sep, 2022



**Annex:1 Land Ownership Certificate, Proposed Data and Internet Exchange Centre, Khumaltar, Lalitpur**

**जम्मा बराबरी**

**भूमि व्यवस्था, बाटवारी तथा जग्गी विवरण मन्त्रालय**

**भूमि व्यवस्था तथा अभिलेख विभाग**

**भूमि व्यवस्था तथा अभिलेख विभाग, काठमाडौं, काठमाडौं, ललितपुर**

DH0000231

**जग्गाधनी दर्ता प्रमाण-पत्र**

संस्थाको नाम: **रुकुन सुब्बा प्रोपर्टी केन्द्र लिमिटेड, काठमाडौं**

ठेगाना: **किल्के काठमाडौं गा.पा. / न.पा. / गा. वि. स. का.म.न.पा. वार्ड नं. २१**

दर्ता नं.: **२०७८**

जग्गी गर्ने कार्यलय: **नेपाल सरकार, काठमाडौं**

वेबसाइट: **डुनेस**

दर्ता मिति (दि.सं.): **२०७३/०८/२३**

संक्रमांक जि.ता.नं.	प्रमाण सकेत कारोबार स्थानीय	जिल्ला / गा. वि. स. / न.पा.	वार्ड नं. / नक्सा संकेत नं.	कित्ता नं. / खण्डे नं.	विवरण (घर, आवादी, इत्यादि)	जग्गाधनी को हकहिससा	मौजोको नाम घर	विधिमा नं. वर्ग	क्षेत्रफल/ र.मि.	कतिपय	प्रमाणित गर्नेको दर्तासत
	२०७३/१२/१९	ML0001212	ललितपुर	५	३	आवादी		घर/	१२-०-०-०		
	ललितपुर	ललितपुर ज.स.न.पा.	५४९	०	मजकरी	आवादी		घर	३१२१.१०		

जम्मा क्षेत्रफल: ३१२१.१० वर्ग मिटर

रुकुन सुब्बा प्रोपर्टी केन्द्र लिमिटेड, काठमाडौं  
सिन्ट गर्नेको दर्तासत

सिन्ट गर्नेको नाम: रुकुन सुब्बा  
सिन्ट मिति: २०७३/१२/१९

रुकुन सुब्बाको दर्तासत

**Annex 2: Summary progress made by NITC on establishing Data and Internet Exchange Centre- Khumaltar, Lalitpur**

<b>Types of Information</b>	<b>Data and Internet Exchange Centre, Khumaltar, Lalitpur</b>
Location/Address	Bagmati Province, Lalitpur, Metropolitan City, Ward no. 5, Khumaltar.
Ownership of Land	Government Land-Ownership Certificate to NITC (1 April, 2021)
Total Land area	7,631.10 sq. m.
Total Built up area	6,228.26 sq.m.
DPR; including structural design survey	Completed in 2019
Soil Test	Completed in 2019
Environmental Assessment (EA)	<b>No any EA carried yet. Claimed-</b> No need as per threshold of land coverage for building construction
Contract process	National Competitive Bidding procedure.
Budget Assurances	MoF has already provided budget assurance for its construction
<b>Present status</b>	LOI has been issued for the contract award

### **Annex 3: Field Consultation Summary**

**Sub Project Name: Khumaltar Data and Internet Exchange Centre**

**Field Visit date:** 14 April, 2022 & 23 June, 2022

**Field Visit Member:** Mr. Safal Shrestha, Director NITC & Mrs. Sulochana Aryal Administrative officer NITC

Mr. Nabin Rawal, Social Safeguards Consultant and Mr. Sita Ram Kandel, Environmental Safeguards Consultant from the World Bank.

Khumaltar, proposed data and internet exchange center site was visited for the purpose of E&S screening. As per the information provided to us by the NITC personnel, the Khumaltar site also belongs to the government. The land was being used by Radio Nepal and was later provided to Department of Information Technology (DoIT). However, the 15 *ropanis* (7630.8 meter square) was provided to NITC to build a data and internet exchange center along with other associated facilities. The legal ownership of land has been transferred to NITC already. The total area is sequestered by a boundary wall. During our observation, the team did not observe any dense settlements adjoining the data and internet exchange center. There were a few houses that lay across the other side of the road from the boundary wall.

#### **Annex 4: Grievance Mechanism of the DNA Project**

The project will put in place a responsive and functioning Grievance Mechanism (GM) to address the concerns and complaints of beneficiaries and project stakeholders by adopting an understandable and transparent process that is culturally appropriate and readily accessible to all the segments of affected communities. The project's GM is at no cost to complainants and guarantees that there will be no retribution for people who lodge complaints on project activities. Furthermore, the grievance mechanism will not impede access to judicial and administrative remedies.

#### **Grievance Implementation Procedure**

The project will develop a written grievance procedure/manual in consultation with project impacted parties and stakeholders. It will incorporate the following steps.

- Means and ways to inform and educate stakeholders about GM procedures
- Receive, register, and acknowledge the grievance.
- Review and investigate the grievance
- Develop resolution or escalate the grievance
- Report back on the grievance, and
- Implement, monitor, and evaluate the functioning of the GM.

#### **Grievance Mechanism (GM) System**

The main purpose of this system is to ensure there is a robust and transparent process, consisting of a sequential process of resolution available to swiftly address the complaints. A subsequent level of resolution is triggered if the complainant remains unsatisfied with the resolution made by the lower level or if it remains unable to provide a resolution within a given time. The SEP proposes the following GM systems.

**Subproject Level Grievance Committee (SLGC):** The first level and most accessible and immediate venue for the fastest resolution of grievances will be the site official. If any complaints arise, the project representative/official, the construction contractors, and with the assistance of municipalities/rural municipalities representatives will immediately resolve the complaint on-site. Any person with a grievance related to the project works can contact the project representative responsible for grievance handling or the respective ward office. The project representative will document the complaint and immediately address and resolve the issue at the field level with the construction contractor, representatives of the respective municipalities/rural municipalities, and the affected persons within 7 days of receipt of a complaint/grievances. If a grievance has also been filed at the ward office, then the project representative will also have to record that complaint. The project representative will fully document the following information: (i) name of the person, (ii) date of complaint received, (iii) nature of the complaint, (iv) location of the complaint, and (v) how the complaint was resolved. If the complaint remains unresolved at the field level, the project representative will forward the complaint to the respective PIUs.

**PIU Level Grievance Committee:** If the grievance remained unresolved or if the person filing the grievance is not satisfied, the person filing the grievance will be notified by the project representative at the sub-project level that the grievance will be forwarded to the PIU. PIU with the support of the project representative at the sub-project level, safeguards the focal person and the E&S officer will try to resolve the grievances through continuous interactions with the affected persons within 15 days of complaints forwarded by the project representative at the sub-project level. While trying to resolve the grievance the committee can also consult with the respective ward representatives of the municipality and the rural municipality.

**PMU level Grievance Committee:** If the complainant cannot be resolved at the PIU level grievance committee or the complainants are not satisfied with the resolution, the grievance will be forwarded to this level. This level will be headed by the chief of the PMU and it will function in close coordination with the grievance unit established at MoCIT. The project chief of the PIT, unit head and members of the Safeguard Unit of the PMU, focal person of the GM unit of the ministry, and representatives of construction contractor will be the members of the committee. In addition to the complainant, the committee can invite or consult with the concerned representatives of the Municipality, District Coordination Committee, and District Administration Office. This level will also try to resolve the grievances within 15 days of receiving the complaints from the PIU Level.

Key steps and procedures of the GM System

- Step 1: Receive, register, and acknowledge the grievance
- Step 2: Review and investigate the grievance
- Step 3: Develop resolution and respond to the complainant
- Step 4: Scale up the grievance if the complainant remains dissatisfied
- Step 5: Recourse to legal and other formal recourse

If the complainant rejects the proposed resolution, the complainant is free to utilize legal and other formal mechanisms in place at the local or national level.

### **Grievances for Gender-Based Violence (GBV)**

The GM put in place for the project will also be used for addressing GBV and SEA/SH-related issues and the PMU will oversee GBV related complaints. The project will place its uppermost priority on handling and managing the GBV related grievance by maintaining full confidentiality of the survivor. The PMU will put in place necessary mechanisms for confidential reporting with safe and ethical documentation of GBV issues at the center and project level. GBV referral pathway will be established and communicated to both PMU and the local level. Further, the GM will also put in place a system to immediately notify both the PMU and the World Bank of any GBV complaints, with the consent of the survivor. As per the requirement of the World Bank, the PMU, in support of the World Bank, will prepare and implement the SEA/SH Action Plan before the implementation of the project.

### **Building Grievance Mechanism Awareness**

The PMU Social Specialists will initially brief all staff of the project office, the Project Steering Committee (PSC), consultants, and contractors on the Grievance Mechanism and GBV complaints mechanism of the Project and explain to them the procedures and formats to be used including the reporting procedures. The PIU safeguards focal person along with the E&S officer will brief all project stakeholders on the Grievance Mechanism of the Project and explain the procedures and formats to be used including the reporting procedures. Awareness campaigns will be conducted targeting project stakeholders to inform them of the availability of the mechanism; various mediums will be used. The GM will also be published on the website of the implementing agencies on their project website. A project site board will be erected on the sites of sub-projects indicating the existence of the mechanism and a phone number, email, and address for further information.

**Annex 5: Some Photographs- Data and Internet Exchange Centre, Khumaltar, Lalitpur**



**Photo 1:** Location of Data and Internet Exchange Centre, Khumaltar, Lalitpur with adjacent settlement



**Photo 2:** Eucalyptus Trees to be cleared at Data and Internet Exchange Centre, Khumaltar, Lalitpur Location



**Photo 3:** Radio Nepal /FM tower adjacent to Data and Internet Exchange Centre, Khumaltar, Lalitpur location



**Photo 4:** Unused Medium Wave radio Nepal towers to be dismantled at Data and Internet Exchange Centre, Khumaltar, Lalitpur





**Photo 5:** Consultation with NITC officer at Data and Internet Exchange Centre, Khumaltar, Lalitpur