

Scaling-Up Water Supply, Sanitation, and Hygiene Project

IDA Project No.: SWSSHP (P-164901)

Contract Package: C1/W/24

**CONTRACTOR'S ENVIRONMENTAL AND SOCIAL MANAGEMENT
PLAN (C-ESMP)**

for

**Water Supply Systems (Nam Papa) in Namly Cluster of Samphan
District and Longnaikao Cluster of Bountai District**

Prepared by

Shanghai Construction Group Co., Ltd.

April 2025

GENERAL INFORMATION

Contract Package	C1/W/24 Construction of Water Supply Systems (Nam Papa) in Namly Cluster of Samphan district and Longnaikao Cluster of Bountai District in Phongsaly province
Contractor	Contractor: Shanghai Construction Group Co., Ltd. Address: No. 681. Xiaomuqiao Road, Shanghai, (200032) China Representative: Mr. Zhang Liang Position: Project Manager Mobile Phone: 020 58023479 Email: scg.huangxiao@gmail.com
Contract Duration	Contract signing date: 30 May 2024 Start Date:12 June, 2024; End Date:10 August 2025 Total days: 425days
Contractor's reviewer	Mr. Zhang Liang
Issuance Date	10 April 2025 27 June 2025
PMU/CSC Reviewer	Mr. Chanthepah, Project Manager Dr. Kulwant Singh, International Project Management and Monitoring Consultant Mr. Vilaysack, Construction Supervisor Ms. Sengdavanh Phongpaseuth, Environmental Safeguard Consultant. Mr. Sysouvanh Boubpha, Social Safeguard Consultant
Date of Approval	-
Distributed to	-PMU, PIU

CONTRACTOR'S COMMITMENT

We are Shanghai Construction Group Co., Ltd., the entity that will execute the C1/W/24 Construction of Water Supply Systems (Nam Papa) in Namly Cluster of Samphan district and Longnaikao Cluster of Bountai District in Phongsaly province.

At required by the Project, herewith we submit the Contractor's Environmental and Social Management Plan (C-ESMP) for the above-mentioned contract package for consideration and approval by the CSC/PMU.

We know that there are potential environmental, health and safety risks and negative impacts at the constructions sites and at places disturbed by the construction activities. There are also the risks of social impacts and disturbances to the local communities and the public caused by construction activities and the labor influx. We are committed to complying with the Project's ESMP and ARAP requirements, the Environmental, Social, Health and Safety provisions stated in the bidding documents and construction contract. We also commit to fully implement measures to mitigate impacts and manage environmental, social, health and safety risks as highlighted in this C-ESMP throughout the implementation of this package.

CONTRACTOR'S REPRESENTATIVE



Mr. Zhangliang

Project Manager

Shanghai Construction Group Co., Ltd.



Contents

1.	Legal Basis	1
2.	Contractor’s Policies on ESHS	1
2.1	Environmental Protection.....	1
2.2	Social Responsibility and Community Engagement.....	1
2.3	Occupational Health and Safety	1
3.	Work Contents of Contract Package.....	2
4.	Resource Mobilization	4
4.1	Machinery and equipment.....	4
4.2	Worker Mobilization	5
4.3	Worker Accommodation and Temporary Storage Area Arrangement.....	5
4.3.1	WSS Namly Cluster.....	5
4.3.2	WSS Longnaikao Cluster.....	6
4.4	Earth Work.....	7
4.5	Sand and Gravel	8
5.	Environmental and Social Impacts and Risks, and Mitigation Measures.	9
5.1	Environmental, Social, Health and Safety Structure and Responsibilities.....	10
4.1.1	Organization.....	10
4.1.2	Roles and Responsibilities for Environment Social Health and Safety.....	10
5.2	Site specific-Environmental and Social management Plan for WSS Namly Cluster in Samphan District.....	12
5.3	Site specific-Environmental and Social management Plan for WSS Longnaikao Cluster in Bountai District	33
6	Capacity Building and Awareness Rasing.....	55
7.	Grievance Redress Mechanism.....	55
7.1	Worker Grievance Redress	55
7.1.1	Grievance Unit	57
7.1.2	Grievance Redress Procedure	57
7.2	Grievance Redress Mechanism for Project Affected Person	58
7.2.1	Type of GRM	58
7.2.2	Grievance Resolution Process.....	58
8.	Monitoring and Reporting	61
8.1	Monitoring	61

8.2	Reporting.....	62
9.	Appendix	63
	Appendix 1 Agreement of House Rental in Namly Village and Longnaikao Village.....	64
	Appendix 2 Land levelling Agreement	65
	Appendix 3 Environmental and Social Codes of Practice (ES COP).....	67
	Appendix 4 Code of Conduct	73
	Appendix 5 Slope Erosion protection.....	77
	Appendix 6 Monthly Monitoring Report Template	84
	Appendix 7 Sand and Gravel supplier’s Business licenses.....	92
	APPENDIX 8 PERSONAL ORGANIZATION’S WORK PERMISSION	93
	APPENDIX 9 Minute Meeting for Allowing Disposal Wastes in The Village’ Landfill.....	96

List of Tables

Table 3-1	the WSSs Facilities and their key features	2
Table 4-1	Machinery and Equipment.....	4
Table 4-2	Excavated Material and Backfilling for WSS Namly Cluster in samphan District.....	8
Table 4-3	Excavated Material and Backfilling for WSS longnaikao Cluster in bountai District.....	8
Table 6-1	Training Program.....	55
Table 7-1	List of GRM contact person.....	60
Table 8-1	Environmental and Social Monitoring Plan for construction phase	61

List of Figures

Figure 3-1	Map of the WSS Clusters Location in Phongsaly Province.....	3
Figure 3-2	Aerial Picture of WSS Namly Cluster in Samphan District phongsaly Province	3
Figure 3-3	Aerial Picture of WSS Longnaikao Cluster in Bountai District phongsaly Province	4
Figure 4-1	Map the location of the site office and worker camps in Namly Village.....	6
Figure 4-2	Pictures of the site office and worker camp facilities in Namly village	6
Figure 4-3	Map the location of the site office and worker camps in Longnaikao Village.....	7
Figure 4-4	Pictures of the site office and worker camp facilities in Longnaikao	7
Figure 5-1	Personal Organization Chart for C1/W/24.....	10
Figure 7-1	GRM Procedure.....	60

1. Legal Basis

The Contractor's Environmental and Social Management Plan (C-ESMP) of the Contract package C1/W/24 has been prepared based on Lao's laws and legal regulations as listed in the Project's Environmental and Social Management Framework and the approved Environmental and Social Management Plan (ESMP) prepared for Namly Cluster of Samphan district and Longnaikao Cluster of Bountai District in Phongsaly Province. This plan will also comply with the Environmental, Social, Health and Safety (ESHS) requirements specified in the bidding document.

2. Contractor's Policies on ESHS

Shanghai Construction Group Co., Ltd. (SCG) is committed to integrating environmental integrity, social fairness, and economic feasibility into its business processes. Our ESHS policy for WSS Cluster Projects, and generally for all our operations, aligns with international best practices and the requirements of the World Bank Environmental and Social Framework (ESF).

2.1 Environmental Protection.

- Strict compliance with applicable environmental laws and regulations of Lao PDR and international standards.
- Implementing measures to minimize air emissions (dust, vehicle emissions), water pollution (wastewater discharge, runoff), and soil contamination.
- Proper management, storage, and disposal of hazardous and non-hazardous waste.
- Controlling noise and vibration levels to minimize disturbance to local communities and wildlife.
- Utilizing energy-efficient equipment and practices.
- Implementing water-saving measures in construction and camp facilities.
- Minimizing waste generation through reduction, reuse, and recycling.
- Recognize the importance of protecting biodiversity and natural habitats.
- Assess potential impacts on local ecosystems and implement mitigation measures to minimize harm to flora and fauna.

2.2 Social Responsibility and Community Engagement

- Carrying out our business under globally recognized social performance standards and will respect the community environment, culture, and customs in Phongsaly province.
- Conduct the engage with stakeholders in a timely, open, and transparent manner, including affected communities, local authorities, and non-governmental organizations.
- We will establish effective grievance mechanisms to address concerns and opinions.
- Provide the opportunities to maximize local benefits from the project, including local employment, procurement of local goods and services, and skills transfer.

2.3 Occupational Health and Safety

- The highest management goal is "zero death and zero injury." To compliance with the principle of "people-oriented, observing laws and regulations, and continuously ensuring the physical and mental health of all employees.

- Provide and maintain a safe working environment and conditions for all employees, including direct hires and subcontractors.
- Carry out comprehensive risk assessments and implement effective control measures to prevent accidents and occupational diseases.
- Provide necessary OHS training, information, and supervision to all employees to ensure they understand and follow safety procedures.
- Provide appropriate personal protective equipment (PPE) to all employees and supervise its proper use.
- Establish and maintain effective emergency response programs for potential accidents, including medical emergencies, fires, and natural disasters.
- Provide necessary health monitoring for employees and establish and improve health monitoring files, particularly for those exposed to specific occupational hazards.
- All accidents and incidents will be investigated in a timely and thorough manner to identify root causes and implement corrective actions to prevent recurrence.
- Promote equal employment opportunities regardless of gender, ethnicity, or other protected characteristics.
- Strictly prohibit forced labor and child labor in all our operations and supply chains. Comply with national labor laws and regulations regarding working hours, wages, and benefits. Establish and maintain an accessible and effective grievance mechanism for project workers to raise concerns without fear of retaliation.

3. Work Contents of Contract Package

The Subproject, under bid reference No. C1/W/24, involves constructing the Nam Papa water supply systems in the Namly Cluster of Samphan District and the Longnaikao Cluster of Bountai District, both located in Phongsaly Province. Each WSS will be constructed of the water supply system’s facilities are summarized in Table 3-1 below and the WSSs cluster location are shown in Figure 3-1 to Figure 3-3.

TABLE 3-1 THE WSSS FACILITIES AND THEIR KEY FEATURES

Facilities	Namly WSS cluster in Samphan District	Longnaikao WSS cluster in Bountai District
i. Water Intakes	Tyrolean Weir Elevation: 898mamsl; X=194928 and Y=2346515	Tyrolean Weir Elevation: 908mamsl; X= 799068 and Y=2354715
ii. Raw water pipes (HDPE) from intake to WTP	7.45km DN90-HDPE	7.35km DN110-HDPE
iii. Water Treatment Plan (WTP) (m²)	3,873	4,500
Capacity Treatment Units	170 m³/day Static mixer, steel clarifier tank, steel filter tank, steel reservoir, valve, pipe, and fitting	200 m³/day Static mixer, steel clarifier tank, steel filter tank, steel reservoir, valve, pipe, and fitting
Operation house/Laboratory	7.6 m x14.1 m x5.15m (BxLxH)	7.6 m x14.1 m x5.15m (BxLxH)
Clear water reservoir	60 m ³	70 m ³
Back wash water tank	yes	yes

Facilities	Namly WSS cluster in Samphan District	Longnaikao WSS cluster in Bountai District
Sludge lagoons	35m ³ (5mx7mx1m)	35m ³ (5mx7mx1m)
iv. Distribution pipes (HDPE) element (from source to taps)	6.78 km DN160, DN110, DN 90 DN63, DN50	15.48 km DN110, DN 90, DN63, DN50
v. Household Connection Pipes	4.30 km DN25. (215 HH connections)	4.84 Km DN25 (242HHs Connection)
vi. Office	9mx12mx7m (BxLxH)	9mx12mx7m (BxLxH)
vii. Access Road to the WTP	New access road Length: 147 m and width: 5m	New access road Length:670m and width: 5m
viii. Power Supply	Yes, 50kVA transformer	Yes, 50kVA transformer
ix. Service Areas Served Population	Namly Village Population: <u>1,242</u>	Longnaikao, Longnaimai and Bornoy Village Population: <u>1,443</u>

FIGURE 3-1 MAP OF THE WSS CLUSTERS LOCATION IN PHONGSALY PROVINCE



FIGURE 3-2 AERIAL PICTURE OF WSS NAMLY CLUSTER IN SAMPHAN DISTRICT PHONGSALY PROVINCE



FIGURE 3-3 AERIAL PICTURE OF WSS LONGNAIKAO CLUSTER IN BOUNTAI DISTRICT PHONGSALY PROVINCE



4. Resource Mobilization

4.1 Machinery and equipment

The construction machineries and equipment will be mobilization to the construction site upon the notice to process issued by the PMU. The appropriate and good condition of the construction machine and equipment for the WSS construction are listed in Table 4-1 below.

TABLE 4-1 MACHINERY AND EQUIPMENT

Items	Namly WSS cluster Samphan District		Longnaikao WSS cluster Bountai District	
	Quantity	Condition ¹	Quantity	Condition
Excavator (big size 18 tons)	1	80%	1	80%
Excavator (small size 3.5 tons)	1	80%	1	80%
Concrete mixing machine (big size 18 tons)	1	80%	1	80%
Concrete mixing truck (6-8 m ³)	1	80%	1	80%
Concrete pump truck (25 m)	1	80%	1	80%
Bulldozer	1	80%	1	80%
Dump truck (10wheels)	1	80%	1	80%
Dump truck (6wheels)	1	80%	1	80%
Generator	1	80%	1	80%
Concrete Vibrator	2	80%	2	80%

¹ Condition of machineries

Items	Namly WSS cluster Samphan District		Longnaikao WSS cluster Bountai District	
	Quantity	Condition ¹	Quantity	Condition
HDPE jointing machine	1	80%	1	80%
Pipe pressure test machine	1	80%	1	80%
Ford tractor	1	80%	1	80%

4.2 Worker Mobilization

Approximately 60 workers will be mobilized for the construction of both WSS facilities.

- **WSS Namly Cluster:** A total of 26 staffs will be hired for the project, comprising a project manager, a site manager, two site engineers, a foreman, seven skilled workers (two of whom are female), and 14 unskilled local workers.
- **WSS Longnaikao Cluster:** A total of 34 staff will be hired for the project, comprising a project manager, a site manager, two site engineers, a foreman, ten skilled workers (one of whom is female), and 19 unskilled local workers

4.3 Worker Accommodation and Temporary Storage Area Arrangement

Each worker camp will be constructed to ensure compliance with the requirements of the Environmental Codes of Practice (ECOPs), the ESCOP is provided in the appendix 1.

- First aid kits will be readily available in each worker accommodation
- Separate accommodation will be provided for male and female workers;
- Firefighting equipment and portable fire extinguishers will be provided and installed in all buildings.
- A perimeter security fence, at least 2 meters high, will be erected using suitable materials for site security.
- Sufficient natural light will be provided during the day, and adequate artificial lighting will be provided at night.
- Worker accommodations will have sufficient ventilation to ensure proper air circulation in all weather conditions;
- An adequate supply of safe potable water will be provided;
- Separate shower and toilet facilities for men and women will be provided, adjacent to the accommodation units.
- Adequate soap and hygienic paper will be provided.
- Garbage receptacles will be provided and periodically emptied to prevent disease outbreaks and maintain hygiene. Waste will be transported to the village landfill weekly for disposal. Company was allowed to use the landfill as agreement in Appendix 9.
- A separate canteen and kitchen will be installed.

4.3.1 WSS Namly Cluster

- A site office and main worker camp have been set up in a rented the old school of Namly village (The Rental House Contract is shown in the Appendix 1) and located along Road No. 1A. This facility will serve as the accommodation for our site engineers and surveyors.

- A temporary sub-camp for workers will be constructed at the area of Water Treatment Plan construction . This camp will accommodate 10 workers. It will also include a temporary storage area for stockpiled aggregate material, cement, and steel bars.



FIGURE 4-1 MAP THE LOCATION OF THE SITE OFFICE AND WORKER CAMPS IN NAMLY VILLAGE



FIGURE 4-2 PICTURES OF THE SITE OFFICE AND WORKER CAMP FACILITIES IN NAMLY VILLAGE

4.3.2 WSS Longnaikao Cluster

- A site office and main worker camp have been set up in a rented old hospital of Longnaikao Village (The Rental House Contract is shown in the Appendix 1) and located along the main road. This facility will serve as the accommodation for our site engineers and surveyors.
- A temporary sub-camp for workers will be constructed at the area of Water Treatment Plant (WTP) construction. This camp will accommodate 15 workers. It will also include a temporary storage area for stockpiled aggregate material, cement, and steel bars.

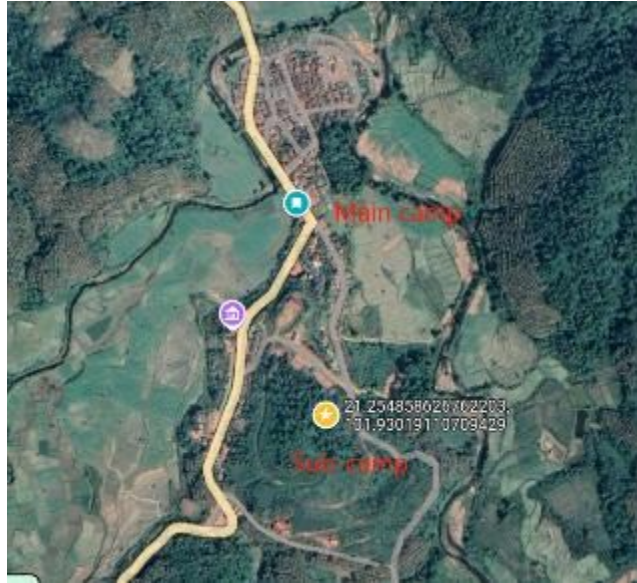


FIGURE 4-3 MAP THE LOCATION OF THE SITE OFFICE AND WORKER CAMPS IN LONGNAIKAO VILLAGE



FIGURE 4-4 PICTURES OF THE SITE OFFICE AND WORKER CAMP FACILITIES IN LONGNAIKAO

4.4 Earth Work

Given that the access roads and Water Treatment Plants (WTPs) for both Namly and Longnaikao Clusters are situated on elevated terrain, significant soil excavation is required for land leveling. This necessitates the acquisition of private land. Although the affected households have agreed to donate portions of their land, the contractor is committed to compensate them by leveling their remaining property. Importantly, all excavated soil will be reused as backfill material for leveling these impacted land plots (see the agreement in Appendix 2), thereby negating the need

for an external spoil disposal site for either subproject. The volumes of excavated and backfilling soil for the WSS Namly Cluster Tables 4-2 and Longnaikao Cluster are shown in Table4-3.

TABLE 4-2 EXCAVATED MATERIAL AND BACKFILLING FOR WSS NAMLY CLUSTER IN SAMPHAN DISTRICT

	Facility	Excavation (m ³)	Backfilling (m ³)
1	Intake	50	50
2	WTP sites	19,700	19,700
3	Office		
4	Access Road		
5	Raw water pipe	9077.64	9077.64
6	Distribution pipe		
Total		28827.64	28,827

TABLE 4-3 EXCAVATED MATERIAL AND BACKFILLING FOR WSS LONGNAIKAO CLUSTER IN BOUNTAI DISTRICT

	Facility	Excavation (m ³)	Backfilling (m ³)
1	Intake	47	47
2	WTP sites	54,800	54,800
3	Office		
4	Access Road		
5	Raw water pipe	13,759	54,800
6	Distribution pipe		
Total:		68,606	68,606

4.5 Sand and Gravel

(1) Namly Cluster:

Sand will be procured from Xinlilai Mineral Technology Sole Co., Ltd., located in Khoua District, Phongsaly Province.

Gravel will be sourced from Chanleunxay Stone Crushing Plant, located in Lakhouaysu Village, La District, Oudomxay Province.

(2) Longnaikao Cluster:

Sand will be procured from Xinlilai Mineral Technology Sole Co., Ltd., located in Khoua District, Phongsaly Province.

Gravel will be sourced from Chanleunxay Stone Crushing Plant, located in Lakhouaysu Village, La District, Oudomxay Province. The supplier's business licenses are provided in Appendix 7.

5. Environmental and Social Impacts and Risks, and Mitigation Measures.

Referring to the ESMP, the Contractor has identified the socio-environmental impacts and risks of the package as below:

- Generation of dust, exhaust gases, odors, noise, vibration Generation of solid waste from excavated soil, dredged sludge, construction waste and domestic waste from camps.
- Risks of pollution due to increased turbidity from stormwater runoff and wastewater emission.
- Soil erosion and sedimentation.
- Impacts and risks at quarries and borrowed land mines such as loss of vegetation and vegetation cover, soil slippage, erosion, safety risks, etc.
- Disturbance, damage to vegetation and greenery cover.
- Disturbances and increased traffic safety risks.
- Damage existing infrastructure and/or disrupt related services.
- Social disturbances, local insecurity and order related to worker concentration Risks to community and workers.
- Potential permanent and temporary impacts on private properties, specifically those related to land acquisition and access restrictions, have been identified. The anticipated impacts on properties for each WSS Cluster is summarized below:

WSS Namly Cluster

- The installation of the raw water pipe from the intake to the Water Treatment Plant (WTP) will temporarily impact the agricultural land of 32 households in Ban Namly.
- The construction of the access road to the Water Treatment Plant (WTP) will require land acquisition (agricultural land) from 1 household and communal land, total an area of 3,873 square meters.
- The installation of the main clean water pipeline will temporarily affect the private residential land of 10 households.
- The construction of electricity poles will be located along the side way of the access road to the WTP that will not have any impact.

WSS Longnaikao Cluster:

- The installation of the raw water pipe from the intake to the Water Treatment Plant (WTP) will temporarily impact the agricultural land of 18 households in Ban Longnaikao.
- The construction of the access road to the WTP will pass through private land plots of Mr. Khamxay and Ms. Teang (630 m²) for the rubber tree plantation, and Mr. Yot and Ms. Ly (600 m²) (fallow land) in Longnai-Kao village. These households have voluntarily contributed their land plots for the construction of the access road, as they will directly benefit from improved access to their properties the provision of free water supply system connections.
- The installation of the main clean water pipeline will not effect on any private land.
- Water Treatment Plant will be constructed on communal land which is bordered with the bamboo forest and cultivated land in the north, south, east and west .
- The construction of electricity poles will be located along the side way of the access road to the WTP that will not have any impact.

For the general impacts of construction activities listed above, the construction unit will organize the implementation of measures to reduce environmental, social, health and safety impacts and risks in

accordance with the Environmental and Social Codes of Practice (ESCOPS) in Appendix 1 and Appendix 3 and require workers to comply with the Code of Conduct presented in Appendix 8.

5.1 Environmental, Social, Health and Safety Structure and Responsibilities

4.1.1 Organization

The project management structure for the Water Supply System (WSS) construction within Namly Cluster of Samphan District and the Longnaikao Cluster of Bountai District by SCG will comprise of a Project Manager who will provide oversight for both WSS clusters. Each WSS construction site will be assigned a dedicated Site Engineer responsible for the supervision of civil works and overall site management. Furthermore, an Environment, Social, Health and Safety Officer (ESHSO) will be designated for both construction sites to manage and monitor the implementation of the Contractor Environmental and Social Management Plan (CESMP) and Environmental and Social Management Plan (ESMP).

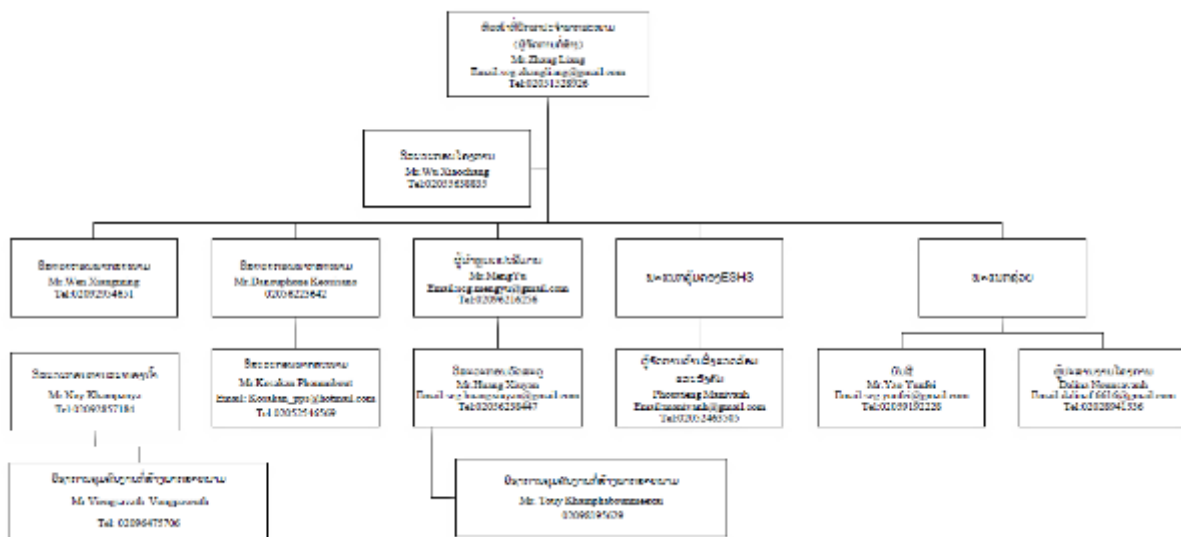


FIGURE 5-1 PERSONAL ORGANIZATION CHART FOR C1/W/24.

4.1.2 Roles and Responsibilities for Environment Social Health and Safety

a) Project Manager

- Responsible for the project's compliance to the Environmental and Social Management Plan (ESMP), Contractor's Environmental and Social Management Plan (C-ESMP), applicable national laws, and the World Bank safeguard policies.
- Provides leadership and ensures that ESHS is a priority throughout all phases of construction.
- Ensures adequate financial, human (including qualified ESHS personnel like the ESHO), and material resources are available for the effective implementation of ESHS measures.
- Makes critical decisions regarding ESHS issues, ensuring that corrective actions are promptly identified, implemented, and monitored.

- Ensures that all contractors and subcontractors understand and comply with their ESHS obligations as per their contracts and the C-ESMP.
- Serves as the primary point of contact for ESHS matters with the CSC, PIU and PMU and affected communities, as required.
- Reviews and approves the C-ESMP and ESHS Monthly reports from EHS Officers, ensuring timely submission to the PIU and PMU.
- Oversees the investigation of significant ESHS incidents or grievances, ensuring proper reporting, root cause analysis, and implementation of preventive measures.
- Manages the budget allocated for ESHS activities and mitigation measures.

b) Site Engineer

- The Site Engineer is responsible for the day-to-day operational implementation and supervision of environmental and social mitigation measures with their assigned cluster/ construction site with ESHO.
- Ensure that all construction activities with their cluster are carried out in strict accordance with the ESMP and C-ESMP and all relevant ESH procedures.
- Directly supervises construction teams and subcontractors to ensure they understand and apply required ESHS measures on the ground.
- Conduct daily site inspection to identify and address potential ESHS risks, non-compliances and opportunities for improvement.
- Conduct daily toolbox talks and regular ESHS briefings for the workforce to reinforce ESHS awareness and procedures.
- Identifies immediate ESHS issues on site and takes prompt corrective action, escalating significant issues to the Site Manager or EHSO as appropriate.
- Works collaboratively with the assigned Environment Health and Safety Officer (EHSO) to implement ESHS plans, resolve issues, and ensure compliance.
- Ensures that necessary ESHS equipment (e.g., PPE, spill kits, waste bins, warning signs) is available and properly utilized by the workforce.

c) Environmental, Social, Health, & Safety Officer (ESHSO)

The Environment Health and Safety Officer (EHSO) is the dedicated technical specialist responsible for the day-to-day implementation, monitoring, and reporting of all environmental, social, health, and safety (ESHS) aspects at their assigned construction site/cluster. They work under the direct supervision of the Site Engineer and report to the Site Manager on overall ESHS performance:


- Prepare the C-ESMP;
- Day-to-day implementation and supervision of CEMP.
- Works collaboratively with the Site Engineer and CSC to implement ESHS plans, resolve issues, and ensure compliance and conducting regular site inspections and internal environmental audits.

- Ensures the site-specific Contractor's Environmental and Social Management Plan (C-ESMP) is fully implemented by all site personnel, including subcontractors.
- Conduct regular ESHS briefings for all workers to cover ESCOPs, Codes of Conduct, and specific mitigation measures.
- Ensures that appropriate Personal Protective Equipment (PPE) is available, used correctly, and maintained by all workers;
- Oversees the proper segregation, storage, and disposal of all waste generated on site as per the C-ESMP;
- Provides regular updates on ESHS performance and any incidents or non-compliances to the Site Manager and ESHSO.
- Addresses immediate, minor community concerns related to construction activities, escalating more complex grievances to the Site Manager.
- Preparing monthly environmental, social, health and safety monitoring reports.
- Responding to environmental incidents and complaints.
- Ensuring environmental permits and licenses are obtained and maintained

d) All Staff and Worker

- Strictly follow all established ESHS rules, regulations, procedures and instructions provided by the Site Manager, Site Engineer and ESHSO.
- Immediately report any unsafe conditions, hazardous situations, equipment defects, accidents, incidents, or near-misses to the Site Engineer or the ESHSO. Properly segregate and dispose of waste materials in the designated bins and area.
- Comply with the requirement C-ESMP and ESMP.
- Properly use and maintain all provided Personal Protective Equipment (PPE).
- Be mindful of their impact on the environment and surrounding communities.
- Show respect for local communities, their customs, traditions, and property.
- Comply to codes of conduct related to behavior, interaction with local people, and prevention of sensitive issues like gender-based violence (GBV) or child labor.

5.2 Site specific-Environmental and Social management Plan for WSS Namly Cluster in Samphan District.


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
<p>1. Access Road to the WTP from main road, L = 180m; W = 5m</p>		<p>An access road to the Water Treatment Plant (WTP) will be constructed on 1,820m² of communal land and agricultural land belonging to one household.</p> <p>The existing ground elevation at beginning to the end point is from 792 mamsl to 802mamsl. The slope gradient is 7%.</p> <p>There are big trees, grasses, vines, bushes, plants, trees, ants, butterflies, birds, and mosquitoes observed along the alignment.</p>	<p>The 7 % slope, especially with vegetation removal and earthworks, presents a high risk of soil erosion. This can lead to sedimentation of the stream, impacting water quality and aquatic ecosystem.</p>	<ul style="list-style-type: none"> ▪ The excavation activities will be scheduled only during the dry season ▪ Install physical barriers and warning signs to alert the public to potential dangers. ▪ Clear and expose only necessary areas, working in phases to minimize open ground. ▪ Shape cut and fill slopes to mitigate landslide risks. ▪ Drainage systems such as culverts or ditches will be installed to divert water away from the road and prevent erosion ▪ Construct silt traps, trenches, or barriers to control material stockpile erosion. ▪ Initiate soil stabilization measures immediately following disturbance. ▪ Apply erosion control matting to disturbed soils and areas where vegetation has been removed. ▪ Heavy machinery and proper excavation techniques are used to excavate the hill; ▪ Grade and shape disturbed slopes before installing geotextiles and/or erosion control matting. ▪ The slope will plant the vetiver grass along the roadway to stabilize the hillside. ▪ Load materials and wastes carefully to prevent spills and restrict loading within designated boundaries.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Prohibit discharge of concrete washout, contaminated water, or construction waste into the stream
			Dust emission: Earthworks and vehicle movement will generate dust, impacting air quality for nearby houses and workers	<ul style="list-style-type: none"> ▪ Excavation work will be avoided in periods of high wind. ▪ Spray water on transportation road particularly roads near residences and through the town core area and construction site during dry weather conditions to control dust emission ▪ Impose speed limits on construction vehicles; ▪ Transport of materials that may generate dust shall be covered with canvass or similar. ▪ The burning of site clearance debris (trees, undergrowth) or construction waste material is prohibited. ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals
			Noise Pollution Construction machinery (excavator, trucks) will generate noise, disturbing nearby residents and potentially wildlife	<ul style="list-style-type: none"> ▪ Restrict noisy or vibration-generating construction activities during nighttime hours. ▪ Position noisy equipment, like diesel generators, away from sensitive areas such as homes or schools. ▪ Avoid using equipment that may result in high levels of vibrations. ▪
			Waste Generation	<ul style="list-style-type: none"> ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles




Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>during windy and rainy days or disturbance from stray animals.</p> <ul style="list-style-type: none"> ▪ Transport the spoil to disposal at approval disposition sites parallel with exaction work. ▪ Prohibit discharge of concrete washout, contaminated water, or construction waste into the stream ▪ Strictly manage all construction waste to prevent spillage or dumping onto crops or gardens. ▪ Implement segregation and proper disposal at approved.
		<p>The access road will be constructed on the cardamom plantation of 1 household</p>	<p>The access road's construction will directly affect 1 household, as it passes through their agricultural land. This will likely lead to damage to gardens and crops from excavated soil, construction waste, and material</p>	<ul style="list-style-type: none"> ▪ Coordinate with affected households to allow them to harvest existing crops before construction begins on their land. ▪ Schedule construction activities to avoid peak planting or harvesting seasons for critical crops where feasible. ▪ Complete the land leveling for one house's remaining impacted land. ▪ Clearly mark the approved Right-of-Way (RoW) with visible markers (e.g., ropes, flags) to prevent encroachment onto private agricultural land. ▪ Erect temporary fencing or barriers around sensitive garden plots or crop areas immediately adjacent to the construction zone to protect them from accidental damage or dust. ▪ Minimize disturbed areas, avoid damaging trees and vegetation cover ▪ Carefully remove and separately stockpile fertile topsoil from the road

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>alignment. This topsoil should be preserved for later rehabilitation of disturbed areas.</p> <ul style="list-style-type: none"> ▪ A retaining wall and/or interception ditch or settling ponds shall be built prior to the initiation of the construction activities. The surface runoff shall be retained and settled first before allowed discharge into the receiving water; ▪ Promptly revegetate all disturbed areas with appropriate local plant species, including grass or crops, to stabilize soil and prevent erosion. ▪ Provide fair and prompt compensation to affected household if their loss of crops and garden produce. ▪ Contractor will assist the project in measurement of remaining land plot size. ▪ The affected households will receive compensation and support in the issuance of new land use certificates for the remaining area of the affected plot at the cost of the Project.
			Occupational and community health and safety	<ul style="list-style-type: none"> ▪ Inform residential near by the construction site about construction schedule in advance ▪ Install clear warning signs, barricades, and fencing around active construction zones. ▪ Place clear and visible safety signs around the construction site to warn of potential hazards.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Use barrier tape or fencing to mark off dangerous areas ▪ Provide safety briefings to workers and, where appropriate, to local communities on construction hazards. ▪ Restrict access to construction sites after working hours. ▪ Scheduling Truck Movement to avoid truck movement during school opening and closing times to ensure the safety of children. ▪ Keep the construction site clean and free of debris to prevent tripping hazards. ▪ Equip the site with first aid kits and ensure that trained first aid personnel are always available. Provide anti-mosquito/insect spray to workers and advise them to use it. ▪ Provide adequate PPEs to the workers, advise them be observant to harmful insects ▪ Educate worker to wear the long sleeves, long pants, and insect repellent to minimize exposure ▪ Educate workers about insect hazards, prevention measures, and emergency procedures.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
2. Power Supply for the WTP		Vegetation observed along the alignment includes grasses, vines, bushes, plants, and trees. Fauna observed includes ants, butterflies, birds, and mosquitoes.	The impact and risk on occupational and community health and safety	<ul style="list-style-type: none"> ▪ Install clear and durable warning signs (e.g., "Danger: High Voltage") on poles and near the transformer. ▪ Only certified and experienced electricians and linesmen with high-voltage training shall perform electrical works. ▪ Testing structures for integrity prior to undertaking work; ▪ Mandate and enforce the consistent use of appropriate PPE, including insulated gloves, safety shoes, hard hats, fall arrest harnesses, and arc flash resistant clothing. ▪ Implement fall protection measures in climbing protection measures. ▪ Provide adequate work-positioning device system for workers. ▪ When operating power tools at height, workers should use a backup safety strap; ▪ Maintain strict minimum approach distances (MAD) to live electrical parts, as per national and international standards. ▪ Signs and other obstructions should be removed from poles or structures prior to undertaking work; ▪ An approved tool bag should be used for raising or lowering tools or materials to workers on structures. ▪ Clearly demarcate and cordon off all work areas with fencing, safety tape, and warning signs (in local language and symbols) to prevent

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>unauthorized entry, especially from children.</p> <ul style="list-style-type: none"> ▪ Conduct public awareness campaigns in collaboration with village authorities about the dangers of construction sites and electricity. Distribute safety leaflets. ▪ Implement traffic control measures (flag persons, temporary detours, cones) during pole installation and line stringing along the access road to ensure safe passage for vehicles and pedestrians. ▪ At the end of each workday, ensure all power line materials, tools, and equipment are securely stored and no open trenches or unfinished electrical connections are left exposed. ▪ Install the transformer at a safe height and location, with appropriate grounding and physical barriers/fencing to prevent public access. ▪ Collect and properly dispose of all construction waste, including packaging and cable off-cuts. Ensure no debris is left in the environment


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
<p>3. WTP site</p> <p>Land area = 2,500m² (50x50m)</p>	  	<p>The existing WTP area is the communal land on the top of the hill. The site and surrounding are well covered with small trees and bushes, banana tree cardamom and rubber trees.</p> <p>There may be ants, butterflies, mosquito are observed.</p> <p>The WTP is border with village fallow land in the north, National Road 1B in the south and east, cardamom plantation land in the west</p>	<p>Damage to existing trees and cropland surrounding the WTP site from excavated soil, construction waste, and material</p>	<ul style="list-style-type: none"> ▪ Conduct the tree survey and inventory of trees with a diameter greater than 20 cm and submit the results to the PIU/PMU for approval before cutting. ▪ Pegging/Fencing the construction area before starting construction work. ▪ Clearance outside of the approved construction area is prohibited. ▪ Coordinate with affected households to allow them to harvest existing crops before construction begins on their land. ▪ Schedule construction activities to avoid peak planting or harvesting seasons for critical crops where feasible. ▪ Minimize disturbed areas, avoid damaging trees and vegetation cover ▪ Carefully remove and separately stockpile fertile topsoil from the site. This topsoil should be preserved for later rehabilitation of disturbed areas. ▪ A retaining wall and/or interception ditch or settling ponds shall be built prior to the initiation of the construction activities. The surface runoff shall be retained and settled first before allowed discharge into the receiving water; ▪ Promptly revegetate all disturbed areas with appropriate local plant species, including grass or crops, to stabilize soil and prevent erosion. ▪ Provide fair and prompt compensation to affected households


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>if their loss of crops and garden produce.</p> <ul style="list-style-type: none"> ▪ Contractor will assist the project in measurement of remaining land plot size. ▪ The affected households will receive compensation and support in the issuance of new land use certificates for the remaining area of the affected plot at the cost of the Project
			<p>Soil erosion during the excavation</p>	<ul style="list-style-type: none"> ▪ Provide information to community on schedule of construction activities through billboard/signs ▪ Ensure stable cut and fill slopes are maintained, and minimize disturbance to areas beyond the designated work boundaries. ▪ Shape cut and fill slopes to mitigate landslide risks. ▪ Construct silt traps, deviation channels, mounting barriers or trenches around the stockpiles of materials ▪ Progressively stabilize exposed slopes immediately after excavation through compaction, re-vegetation, or temporary covering. ▪ Properly compact backfilled material in layers to achieve stability. ▪ Grade and shape disturbed slopes before installing geotextiles and/or erosion control matting (see detail in Appendix 4).

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Apply erosion control matting to disturbed soils and areas where vegetation has been removed. ▪ Heavy machinery and proper excavation techniques are used to excavate the hill; the slope will plant the vetiver grass along the roadway to stabilize the hillside. ▪ Drainage systems such as culverts or ditches will be installed to divert water away from the road and prevent erosion. ▪ Construct silt traps, deviation channels, mounting barriers or trenches around the stockpiles of materials ▪ Load materials and wastes within the WTP boundary, prevent spills to garden land. ▪ Implement landscaping and planting of trees/vegetation, using native plant species for greening at the WTP site.
			<p>Dust Emissions: Extensive earthworks (excavation, backfilling, material hauling) will generate substantial dust, impacting air quality for the adjacent demonstration field</p>	<ul style="list-style-type: none"> ▪ Excavation work will be avoided in periods of high wind. ▪ Impose speed limits on construction vehicles; ▪ Transport of materials that may generate dust shall be covered with canvass or similar. ▪ The burning of site clearance debris (trees, undergrowth) or construction waste material is prohibited. ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			and potentially nearby communities	during windy days or disturbance from stray animals <ul style="list-style-type: none"> ▪ Implement continuous watering of active excavation areas, spoil piles, access roads, and material stockpiles. Use dust screens, if necessary, especially near the demonstration field.
			Noise and Vibration: Heavy machinery operation will generate noise and vibration, disturb wildlife and potentially affect community	<ul style="list-style-type: none"> ▪ Position noisy equipment, like diesel generators, away from sensitive areas such as homes or schools. ▪ Avoid using equipment that may result in high levels of vibrations. ▪ Provide information to community on schedule of construction activities through billboard/signs. ▪ Maintain equipment in good working order. ▪ Limit noisy activities to daytime hours. Consider temporary noise barriers if impacts on the Agriculture Office or nearby sensitive receptors are significant.
			Occupational and community health and safety. Heavy machinery, excavation pits, and construction activities pose significant safety risks to anyone accessing the	<ul style="list-style-type: none"> ▪ Inform residential near by the construction site about construction schedule in advance. ▪ Install clear warning signs, barricades, and fencing around active construction zones. ▪ Place clear and visible safety signs around the construction site to warn of potential hazards. ▪ Use barrier tape or fencing to mark off dangerous areas


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			<p>communal land or demonstration field. High risks associated with large-scale excavation (collapse of trenches, falling objects), working on steep slopes, and handling heavy machinery.</p> <p>Presence of snakes, bees, and other insects poses a risk of bites/stings to workers and potential disturbance to their habitats.</p>	<ul style="list-style-type: none"> ▪ Provide safety briefings to workers and, where appropriate, to local communities on construction hazards. ▪ Posting of safety signs/reminders in strategic areas within the construction area. ▪ Restrict access to construction sites after working hours. ▪ Scheduling Truck Movement to avoid truck movement during school opening and closing times to ensure the safety of children. ▪ Keep the construction site clean and free of debris to prevent tripping hazards. ▪ Equip the site with first aid kits and ensure that trained first aid personnel are always available. Provide anti-mosquito/insect spray to workers and advise them to use it. ▪ Provide adequate PPEs to the workers, advise them be observant to harmful insects ▪ Educate worker to wear the long sleeves, long pants, and insect repellent to minimize exposure. ▪ Educate workers about insect hazards, prevention measures, and emergency procedures
4. Water Supply Office		The proposed location is an empty plot of land in Namly village.	<p>Safety risks for the workers and community.</p> <p>-</p>	<ul style="list-style-type: none"> • Provide information to community on schedule of construction activities through billboard/signs. • Fence off the construction site with gate.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> • Install barriers and signs to limit access to the construction site. • Provide adequate PPEs to the workers, advise them to be observant to harmful insects. • Conduct a pre-construction survey of nearby structures to document their condition and identify any pre-existing vulnerabilities. • Monitor compliance to Codes of Conduct, especially with regards to fuel handling and fire setting
			Dust during excavation	<ul style="list-style-type: none"> ▪ Install barricades/barriers and sturdy plate covers in open excavations during non-working time. ▪ Regularly spray water on excavation sites and roads to keep dust levels down. ▪ Erect dust barriers or screens around the excavation area to contain and reduce dust spread. ▪ Schedule and limit dust-generating activities during times when wind speeds are lower to reduce dust dispersion.
5. Transmission Pipelines The length L=7.45Km		Raw water pipelines will be laid along the brook, through the valley, crossing fallow communal land, private agriculture land of 32 households or running along the road side. Some sections are well covered with vines,	Soil erosion and sedimentation	<ul style="list-style-type: none"> ▪ "Cut-and-cover" method in short sections to minimize open trenches. ▪ Store topsoil separately from subsoil. Replace topsoil on top after backfilling to aid revegetation and soil fertility ▪ Backfill trenches immediately after pipe installation to reduce soil erosion. ▪ Ensure proper compaction of backfill material to prevent future settlement.


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
		<p>bushes, banana and other trees etc.</p> <p>The raw water pipeline will be laid underground at a depth of 0.7 to 1.2 meters. The width of pipe trenches ranges from 0.5 to 0.8 meters.</p>	<p>Laying pipes through agricultural land of 32 households will result in temporary loss of access and potential temporary or permanent damage to crops/land Risk of damage to crops from excavated spoil, construction waste, and machinery movement.</p>	<ul style="list-style-type: none"> ▪ Manage excess excavated spoil at approved, designated spoil sites with proper erosion control. ▪ Install silt traps and sediment fences near agricultural fields and water bodies. <ul style="list-style-type: none"> ▪ Coordinate with affected households to allow them to harvest existing crops before construction begins on their land. ▪ Coordinate with farmers to schedule pipeline work during off-peak agricultural seasons and compensate for crop damage. ▪ Clearly mark the Right-of-Way (RoW) and limit construction activities strictly to this area. Use temporary fencing where adjacent to active fields. ▪ The pipelines will be laid along the border of the field and avoid laying out the pipelines in middle of the field to the extent possible. ▪ Prioritize hand-digging in sensitive areas to avoid damaging trees and cutting roots. ▪ Use small-duty excavators to handle large rocks and underground obstacles. ▪ Preserve tree roots by careful excavation or rerouting the pipeline when feasible. ▪ Demarcate and preserve vegetation and trees, avoiding unnecessary clearing.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Keep equipment and materials away from protected vegetation areas. ▪ Avoid, minimize ground disturbance during peak cultivation period; ▪ Backfill trenches immediately after pipe installation. ▪ Support farmers to transport materials and products if construction affect accessibility to agricultural land; ▪ Disturbance to the ground will be kept minimal ▪ MOM of land restoration will be made with affected households after completed restoration.
			<p>Safety risks for the workers and the farmers</p>	<ul style="list-style-type: none"> ▪ Inform local residents about construction schedules and planned activities. ▪ Install signage to warn of construction areas and ensure safe pedestrian crossings. ▪ Provide workers with PPE, including helmets, gloves, boots, masks, and eye protection. ▪ Wearing of PPEs while working on-site will be a mandatory requirement for workers ▪ Conduct safety briefings to address risks and proper use of tools and machinery. ▪ Remove rocks and debris from the site promptly and dispose of them in designated areas. ▪ Conduct daily inspections of the pipeline route to identify and mitigate unanticipated impacts.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
6. Distribution Pipelines.		<p>The distribution pipelines will be laid underground along the main road and village roads. Houses and shops are located on both sides of these roads</p>	<p>Block or disrupt access to house.</p>	<ul style="list-style-type: none"> ▪ Re-inform community about construction schedules two days in advance; ▪ Request families to keep their children away from construction sites; ▪ Create safe temporary path if access is disrupted ▪ Backfill as soon as the pipe installation is completed ▪ Provide temporary access to the roadside house where access is disturbed ▪ Back fill the pipe trenches as soon as possible
			<p>Traffic disruptions and safety risks due to construction activities near roads and residential areas.</p>	<ul style="list-style-type: none"> ▪ Avoid loading construction materials and waste within 20m from school gate and health centers, markets or any popular publicly accessible locations Install support in the pipe trenches at sections near the house foundation; ▪ Remove the waste from the site in parallel with excavation/pipe installation; ▪ Place warning signs and speed limit at 10 km/h along road sections where construction is on-going. • Transport the excavated materials away within 24 hours since excavation.
			<p>Health impacts due to dust and noise</p>	<ul style="list-style-type: none"> ▪ Clean up the road, watering dusty areas during working shifts




Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Carry out construction in stages to minimize community exposure to open pipe trenches; ▪ water the road section passing the school and health care center if the weather is hot and dry, windy ▪ Avoid parking trucks, loading and unloading materials and wastes during peak traffic hours ▪ Inform the public in advance if construction takes place at nighttime ● Protect temporary materials and waste loads to prevent spills;
			<p>The installation of the distribution pipeline poses significant safety risks to both workers and villagers due to open trenches, active equipment, and construction materials</p>	<ul style="list-style-type: none"> ▪ Designate clear, separate access routes for construction vehicles and personnel, distinct from public thoroughfares. ▪ Implement appropriate trench shoring, sloping, or benching systems based on soil conditions, depth, and duration of the trench opening, as per engineering standards. ▪ Regularly inspect trench integrity, especially after rain or ground disturbance. ▪ Post prominent, highly visible warning signs (in local language and pictograms) around trenches and hazardous areas, especially at night. ▪ Provide adequate lighting for all open trenches and active work areas, especially during evening or night work. ▪ Provide safe, well-marked, and sturdy crossings (bridges or ramps with handrails) over trenches for workers



Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>and, where absolutely necessary, for villagers, ensuring these are well-maintained.</p> <ul style="list-style-type: none"> ▪ Limit the length of open trenches at any given time to the shortest feasible sections. ▪ Mandate and enforce the consistent use of appropriate PPE for all workers (hard hats, safety boots, high-visibility vests, gloves, eye protection, hearing protection, etc. • Do not park vehicles or temporarily load material in front of the market and shop unless construction is on-going at these sites.
			<p>The installation of the main clean water pipeline will temporarily affect the private residential land of 10 households.</p>	<ul style="list-style-type: none"> ▪ If there is any damage to the front yard, the contractor should repair it to its original condition. ▪ Fully reinstate the excavated area as soon as possible. ▪ Disturbance to the ground will be kept minimal. ▪ Clearly mark the construction zone to prevent equipment or materials from unnecessarily encroaching on unaffected areas of the slabs. ▪ Where slabs are temporarily crossed by light equipment or used for staging, consider laying down protective sheeting, plywood, or steel plates to distribute weight and prevent direct contact damage. ▪ For areas directly over or adjacent to the slabs, prioritize manual digging where possible to minimize the risk of mechanical damage.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Implement temporary repairs for any damage that might pose a safety hazard or cause further deterioration during construction. ▪ For minor damage, professional repair should be undertaken using matching materials. For significant or irreparable damage, the affected section of the slab must be completely replaced. ▪ Ensure that all repairs and replacements meet or exceed the quality and finish of the original cement slabs. ▪ After restoration, conduct a joint inspection with each of the 73 affected households and 8 shops and schools • Obtain formal sign-off from the household representatives confirming their satisfaction with the restoration work. This could be a simple form acknowledging completion and acceptance. • MOM of land restoration will be made with affected households after completed restoration.
<p>6. Water Intake site.</p>		<p>Houay Ly is a small stream originating from spring water. It flows through forested areas, agricultural land, and villages before discharging into the River. The stream generally has a shallow water level and</p>	<p>The construction of the weir foundation may pollute the downstream water source.</p> <p>River bank erosion and sedimentation.</p>	<ul style="list-style-type: none"> • Excavation weir foundation will be conducted in January 2025 • Install diversion earth dikes, drainage swales, and a sediment pond below the proposed water intake structure to minimize turbidity in the downstream water flow and maintains water flow in the downstream area.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
		<p>clear water. The stream has no significant aquatic life. This stream serves as a source of water for livestock and is also used for bathing and washing.</p>	<p>Excessive disturbance to the streambed will negatively impact aquatic habitats.</p> <p>No water flow in downstream area.</p> <p>Fish, wildlife caught by the workers</p>	<ul style="list-style-type: none"> • install a temporary culvert to maintain stream flow during intake construction; • Carefully conduct construction activities to minimize dropping of mortars into the stream. • Limiting disturbance to the steam bed as much as possible • Disturbed riverbanks will be rehabilitated immediately to minimize the risk of bank erosion and soil erosion into the stream. • No fish/wildlife catching, keeping allowed

5.3 Site specific-Environmental and Social management Plan for WSS Longnaikao Cluster in Bountai District


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
<p>1. Access Road to the WTP from main road</p>	  	<p>The ground elevation from starting point to the end point is from 732 mamsl to 836mamsl. The slope gradient is 16%.</p> <p>Construction of the access road to the WTP will be construction on agriculture land of of Mr. Khamxay and Ms. Teang (630 m²) for the rubber tree plantation, and Mr. Yot and Ms. Ly (600 m²) (fallow land) in Longnai-Kao village. These households have voluntarily contributed their land plots for the construction of the access road, as they will directly benefit from improved access to their properties the provision of free water supply system connections</p>	<p>The 16% slope, especially with vegetation removal and earthworks, presents a high risk of soil erosion. This can lead to sedimentation of the stream, impacting water quality and aquatic ecosystem.</p>	<ul style="list-style-type: none"> ▪ The excavation activities will be scheduled only during the dry season ▪ Install physical barriers and warning signs to alert the public to potential dangers. ▪ Clear and expose only necessary areas, working in phases to minimize open ground. ▪ Shape cut and fill slopes to mitigate landslide risks. ▪ Drainage systems such as culverts or ditches will be installed to divert water away from the road and prevent erosion ▪ Construct silt traps, trenches, or barriers to control material stockpile erosion. ▪ Initiate soil stabilization measures immediately following disturbance. ▪ Apply erosion control matting to disturbed soils and areas where vegetation has been removed. ▪ Heavy machinery and proper excavation techniques are used to excavate the hill; ▪ Grade and shape disturbed slopes before installing geotextiles and/or erosion control matting. ▪ The slope will plant the vetiver grass along the roadway to stabilize the hillside.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Load materials and wastes carefully to prevent spills and restrict loading within designated boundaries. ▪ Prohibit discharge of concrete washout, contaminated water, or construction waste into the stream
			<p>Dust emission: Earthworks and vehicle movement will generate dust, impacting air quality for nearby houses and workers</p>	<ul style="list-style-type: none"> ▪ Excavation work will be avoided in periods of high wind. ▪ Spray water on transportation road particularly roads near residences and through the town core area and construction site during dry weather conditions to control dust emission ▪ Impose speed limits on construction vehicles; ▪ Transport of materials that may generate dust shall be covered with canvass or similar. ▪ The burning of site clearance debris (trees, undergrowth) or construction waste material is prohibited. ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals.
	<p>Noise Pollution Construction machinery (excavator, trucks) will generate noise, disturbing nearby residents and potentially wildlife</p>		<ul style="list-style-type: none"> ▪ Restrict noisy or vibration-generating construction activities during nighttime hours. ▪ Position noisy equipment, like diesel generators, away from sensitive areas such as homes or schools. ▪ Avoid using equipment that may result in high levels of vibrations. 	


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Provide information to community on schedule of construction activities through billboard/signs.
			Waste Generation	<ul style="list-style-type: none"> ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles during windy and rainy days or disturbance from stray animals. ▪ Transport the spoil to disposal at approval disposition sites parallel with exaction work. ▪ Prohibit discharge of concrete washout, contaminated water, or construction waste into the stream. ▪ Strictly manage all construction waste to prevent spillage or dumping onto crops or gardens. Implement segregation and proper disposal at approved.
			Tree cutting, removal of vegetation cover	<ul style="list-style-type: none"> ▪ Minimize disturbed area to minimize erosion risks, tree cutting and removal of vegetation cover; ▪ Conduct a tree survey and inventory of trees with a diameter greater than 20 cm and submit the results to the PIU/PMU for approval before cutting. ▪ Pegging/Fencing the construction area before starting construction work. ▪ Clearance outside of the approved construction area is prohibited. ▪ Clearance outside will be compensated by biodiversity offset or re-plant the trees with tall more than 1 meter and with appropriate amount for clearing land.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			<p>Traffic safety risks at junction with the main road</p>	<ul style="list-style-type: none"> ▪ Place warning signs at the junction with the main road, provide lighting at night at this spot ▪ Place Construction Site, speed limit signs before the entrance to the access road ▪ Install signs about construction site, speed limit and warning signs at the junction with village road. ▪ Arrange flag man to guide traffic when project vehicle density is high or trucks carrying bulky items enter the project sites. ▪ Fence off the construction site and install gates, barricades, and barriers to restrict access Provide PPE, including helmets, gloves, safety boots, high-visibility vests, masks, and ear protection, to all workers.
			<p>The access road's construction will directly affect 2 households, as it passes through their agricultural land. This will likely lead to damage to gardens, rubber trees and crops from excavated soil, construction waste, and materials</p>	<ul style="list-style-type: none"> ▪ Coordinate with affected households to allow them to harvest existing crops before construction begins on their land. ▪ Schedule construction activities to avoid peak planting or harvesting seasons for critical crops where feasible. ▪ Clearly mark the approved Right-of-Way (RoW) with visible markers (e.g., ropes, flags) to prevent encroachment onto private agricultural land. ▪ Complete the land leveling for the 2 house's remaining impacted land. ▪ Erect temporary fencing or barriers around sensitive garden plots or crop areas immediately adjacent to the

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>construction zone to protect them from accidental damage or dust.</p> <ul style="list-style-type: none"> ▪ Minimize disturbed areas, avoid damaging trees and vegetation cover ▪ Carefully remove and separately stockpile fertile topsoil from the road alignment. This topsoil should be preserved for later rehabilitation of disturbed areas. ▪ A retaining wall and/or interception ditch or settling ponds shall be built prior to the initiation of the construction activities. The surface runoff shall be retained and settled first before allowed discharge into the receiving water; ▪ Strictly manage all construction waste to prevent spillage or dumping onto crops or gardens. Implement segregation and proper disposal at approved. ▪ Promptly revegetate all disturbed areas with appropriate local plant species, including grass or crops, to stabilize soil and prevent erosion. ▪ Provide fair and prompt compensation to affected households if their loss of crops and garden produce and MOM will be made after compensation. ▪ Contractor will assist the project in measurement of remaining land plot size. ▪ The affected households will receive compensation and support in the issuance of new land use certificates

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
<p>2. Power Supply for the WTP 670 m length of 22KV power lines will be built along the access road to connect to the grid network. A 50 KVA hanging transformer will be installed</p>		<p>Vegetation observed along the alignment includes grasses, vines, bushes, plants, rubber trees and trees. Fauna observed includes ants, butterflies, birds, and mosquitoes.</p>	<p>Safety risks for the workers</p>	<p>for the remaining area of the affected plot at the cost of the Project.</p> <ul style="list-style-type: none"> ▪ Install clear and durable warning signs (e.g., "Danger: High Voltage") on poles and near the transformer. ▪ Only certified and experienced electricians and linesmen with high-voltage training shall perform electrical works. ▪ Testing structures for integrity prior to undertaking work; ▪ Mandate and enforce the consistent use of appropriate PPE, including insulated gloves, safety shoes, hard hats, fall arrest harnesses, and arc flash resistant clothing. ▪ Implement fall protection measures in climbing protection measures. ▪ Provide adequate work-positioning device system for workers. ▪ When operating power tools at height, workers should use a backup safety strap; ▪ Maintain strict minimum approach distances (MAD) to live electrical parts, as per national and international standards. ▪ Signs and other obstructions should be removed from poles or structures prior to undertaking work; ▪ An approved tool bag should be used for raising or lowering tools or materials to workers on structures. ▪ Clearly demarcate and cordon off all work areas with fencing, safety tape, and warning signs (in local language

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>and symbols) to prevent unauthorized entry, especially from children.</p> <ul style="list-style-type: none"> ▪ Conduct public awareness campaigns in collaboration with village authorities about the dangers of construction sites and electricity. Distribute safety leaflets. ▪ Implement traffic control measures (flag persons, temporary detours, cones) during pole installation and line stringing along the access road to ensure safe passage for vehicles and pedestrians. ▪ At the end of each workday, ensure all power line materials, tools, and equipment are securely stored and no open trenches or unfinished electrical connections are left exposed. ▪ Install the transformer at a safe height and location, with appropriate grounding and physical barriers/fencing to prevent public access. ▪ Collect and properly dispose of all construction waste, including packaging and cable off-cuts. Ensure no debris is left in the environment.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			<p>Electric wires will effect on rubber trees alongside the access road in the future if improper installation of power supply poles</p>	<ul style="list-style-type: none"> ▪ Conduct public consultation with village authorities and households along the access road to select the suitable area for installation of power supply poles. ▪ Inform the village authorities and households along the access road prior installation 7 days.
<p>3. WTP site</p>		<p>Land area: 2,500m² (50x50m), on communal land. The ground elevation is from 836 to 849mamsl, slope gradient is 26%. Currently covered with small trees and bushes. It is currently village land, covered by vines, bush, small tree and big trees (less than 50 Centre meter). There may be some snakes, bees, ants, insects, small birds, etc. No invasive plant species identified</p>	<p>Excavation work may result in soil falling into nearby villagers' gardens, potentially damaging crops.</p>	<ul style="list-style-type: none"> ▪ Provide the community with information on the construction schedule through billboards or signs. ▪ Ensure stable cut and fill slopes are maintained, and minimize disturbance to areas beyond the designated work boundaries. ▪ Shape cut and fill slopes to mitigate landslide risks. ▪ Construct silt traps, deviation channels, mounting barriers or trenches around the stockpiles of materials ▪ Progressively stabilize exposed slopes immediately after excavation through compaction, re-vegetation, or temporary covering. ▪ Properly compact backfilled material in layers to achieve stability. ▪ Grade and shape disturbed slopes before installing geotextiles and/or erosion control matting (see detail in Appendix 4). ▪ Apply erosion control matting to disturbed soils and areas where vegetation has been removed.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Heavy machinery and proper excavation techniques are used to excavate the hill; the slope will plant the vetiver grass along the roadway to stabilize the hillside. ▪ Drainage systems such as culverts or ditches will be installed to divert water away from the road and prevent erosion. ▪ Construct silt traps, deviation channels, mounting barriers or trenches around the stockpiles of material. ▪ Load materials and wastes within the WTP boundary, prevent spills to garden land. ▪ Implement landscaping and planting of threes/vegetation, using native plant species for greening at WTP site. ▪ Remove the falling rock and soil out of the garden of the nearby private land as soon as possible. ▪ Provide fair and prompt compensation to affected households if their loss of part of land, crops and garden produce and MOM will be made after compensation.
			Dust Emissions: Extensive earthworks (excavation, backfilling, material hauling) will generate substantial	<ul style="list-style-type: none"> ▪ Excavation work will be avoided in periods of high wind. ▪ Impose speed limits on construction vehicles; ▪ Transport of materials that may generate dust shall be covered with canvass or similar.


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			dust, impacting air quality for the adjacent demonstration field and potentially nearby communities	<ul style="list-style-type: none"> ▪ The burning of site clearance debris (trees, undergrowth) or construction waste material is prohibited. ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals ▪ Implement continuous watering of active excavation areas, spoil piles, access roads, and material stockpiles. Use dust screens, if necessary, especially near the demonstration field.
				<ul style="list-style-type: none"> ▪ Fence off the construction site with gates and install barricades/barriers to restrict access. ▪ Install physical barriers to limit access to the construction site. ▪ Place warning signs at construction sites to alert people to potential dangers. ▪
			Noise and Vibration: Heavy machinery operation will generate noise and vibration, disturb wildlife and potentially affect the community nearby	<ul style="list-style-type: none"> ▪ Position noisy equipment, like diesel generators, away from sensitive areas such as homes or schools. ▪ Avoid using equipment that may result in high levels of vibrations. ▪ Provide information to community on schedule of construction activities through billboard/signs. ▪ Maintain equipment in good working order. ▪ Limit noisy activities to daytime hours.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			<p>Waste Generation: Significant volumes of excess excavated soil (approx. 28,381 m³), as well as general construction waste (concrete, rebar, packaging, cleared vegetation). Improper disposal can lead to land contamination and visual blight.</p>	<ul style="list-style-type: none"> ▪ Require drivers to minimize honking and adhere to a speed limit of 10 km/h when driving in community areas. ▪ Excavated material will be utilized to backfill the trench and/or ground leveling at the construction sites such as the WTP, access roads and pipe trenches. The contractor is required to properly reinstate the excavated trench after completion of pipe laying. ▪ Surplus excavated material/cut soil from construction of the WTP will be used as backfill material for low-lying areas that have been identified by the village authority. ▪ Non-hazardous construction waste shall be disposed of at a designated disposal site with the necessary environmental compliance certificate, as agreed with District Authorities. ▪ The contractor will segregate solid waste into hazardous and non-hazardous waste on a daily basis, and then further segregate into recyclable and non-recyclable waste. Recyclable waste includes plastic bottles, cans, and metal. Non-recyclable waste is likely to include wrappings, packaging, and construction waste. The waste fractions will be stored temporarily in bins or in fenced-off and covered enclosures. ▪ The contractor will bring recyclable waste to the local recycling dealer or


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<p>shop - if there is one. If there is no local recycling dealer, the recyclables (still segregated) shall be brought to the waste disposal site as specified by the District Authorities for possible recycling by dealers operating there or disposed together with non-recyclable waste at that site.</p> <ul style="list-style-type: none"> ▪ Disposal of waste (that is not recycled) is only allowed at the solid waste disposal site specified by the District Authorities. ▪ Open burning or burial of any form of waste or materials is strictly prohibited both onsite and offsite. ▪ Littering of waste is strictly prohibited.
			<p>Occupational and community health and safety. Heavy machinery, excavation pits, and construction activities pose significant safety risks to anyone accessing the communal land or demonstration field. High risks associated with large-scale excavation (collapse</p>	<ul style="list-style-type: none"> ▪ Inform residential near by the construction site about construction schedule in advance. ▪ Install clear warning signs, barricades, and fencing around active construction zones. ▪ Place clear and visible safety signs around the construction site to warn of potential hazards. ▪ Use barrier tape or fencing to mark off dangerous areas ▪ Provide safety briefings to workers and, where appropriate, to local communities on construction hazards. ▪ Posting of safety signs/reminders in strategic areas within the construction area.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			of trenches, falling objects), working on steep slopes, and handling heavy machinery. Presence of snakes, bees, and other insects poses a risk of bites/stings to workers and potential disturbance to their habitats.	<ul style="list-style-type: none"> ▪ Restrict access to construction sites after working hours. ▪ Scheduling truck Movement to avoid truck movement during school opening and closing times to ensure the safety of children. ▪ Keep the construction site clean and free of debris to prevent tripping hazards. ▪ Equip the site with first aid kits and ensure that trained first aid personnel are always available. ▪ Provide adequate PPEs to the workers, advise them be observant to harmful insects ▪ Educate worker to wear the long sleeves, long pants, and insect repellent to minimize exposure ▪ Educate workers about insect hazards, prevention measures, and emergency procedures. ▪ Provide anti-mosquito/insect spray to workers and advise them to use it.
4. Water Supply Office		The proposed location is in Longnai Kao village	Safety risks for the workers and community	<ul style="list-style-type: none"> ▪ Provide information to community on schedule of construction activities through billboard/signs. ▪ Fence off the construction site with gate and install barricades/barriers to restrict access. ▪ Install physical barriers to limit access to the construction site. ▪ Install barricades/barriers and sturdy plate covers in open excavations during non-working time. ▪ Install barriers and signs to limit access to the construction site.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			<p>Dust Emissions: Extensive earthworks (excavation, backfilling, material hauling) will generate substantial dust, impacting air quality for the adjacent demonstration field and potentially nearby communities</p>	<ul style="list-style-type: none"> ▪ Place warning signs at construction sites to alert people to potential dangers. ▪ Construct silt traps, deviation channels, mounting barriers or trenches around the stockpiles of materials. ▪ Provide adequate PPEs to the workers, advise them to be observant to harmful insects. ▪ Regularly spray water on excavation sites and roads to keep dust ▪ Excavation work will be avoided in periods of high wind. ▪ Impose speed limits on construction vehicles; ▪ Transport of materials that may generate dust shall be covered with canvass or similar. ▪ The burning of site clearance debris (trees, undergrowth) or construction waste material is prohibited. ▪ Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals ▪ Implement continuous watering of active excavation areas, spoil piles, access roads, and material stockpiles. Use dust screens, if necessary, especially near the demonstration field.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
<p>5. Transmission Pipelines The length L = 7.35Km</p>		<p>Raw water pipelines will be laid along the brook, through the valley, crossing fallow land, agriculture land or running along the roadside. Some sections are well covered with vines, bushes, banana and other trees etc.</p> <p>The raw water pipeline will be laid underground at a depth of 0.7 to 1.2 meters. The width of pipe trenches ranges from 0.5 to 0.8 meters.</p>	<p>Soil erosion and sedimentation</p> <p>Trenching (0.5-0.8m width, 0.7-1.2m depth) will disturb significant lengths of soil. On slopes (hillsides/valleys), this poses a risk of soil erosion and sedimentation into Houay Viey.</p>	<ul style="list-style-type: none"> ▪ “Cut-and-cover” method in short sections to minimize open trenches. ▪ Store topsoil separately from subsoil. Replace topsoil on top after backfilling to aid revegetation and soil fertility ▪ Backfill trenches immediately after pipe installation to reduce soil erosion. ▪ Ensure proper compaction of backfill material to prevent future settlement. ▪ Manage excess excavated spoil at approved, designated spoil sites with proper erosion control. ▪ Install silt traps and sediment fences near agricultural fields and water bodies. ▪ Cover soil stockpiles with to prevent erosion
		<p>Raw water pipelines will pass through the community land, the edge of paddy land of 18 HHs in Longnai Kao village.</p>	<p>Raw water pipelines will pass through the community land, the edge of paddy land of 18 HHs in Longnai Kao village will result in temporary loss of access and potential temporary or permanent damage to crops/land Risk of damage to crops from excavated</p>	<ul style="list-style-type: none"> ▪ Coordinate with affected households to allow them to harvest existing crops before construction begins on their land. ▪ Coordinate with farmers to schedule pipeline work during off-peak agricultural seasons and compensate for crop damage. ▪ Clearly mark the Right-of-Way (RoW) and limit construction activities strictly to this area. Use temporary fencing where adjacent to active fields. ▪ The pipelines will be laid along the border of the field and avoid laying out the pipelines in middle of the field to the extent possible.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			spoil, construction waste, and machinery movement. -	<ul style="list-style-type: none"> ▪ Prioritize hand-digging in sensitive areas to avoid damaging trees and cutting roots. ▪ Use small-duty excavators to handle large rocks and underground obstacles. ▪ Demarcate and preserve vegetation and trees, avoiding unnecessary clearing. ▪ Keep equipment and materials away from protected vegetation areas. ▪ Avoid, minimize ground disturbance during peak cultivation period; ▪ Backfill trenches immediately after pipe installation. ▪ Support farmers to transport materials and products if construction affect accessibility to agricultural land; ▪ Disturbance to the group will be kept minimal. ▪ Provide fair and prompt compensation to affected households if their loss of crops and garden produce and MOM will be made after compensation. ▪ MOM of land restoration will be made with affected households after completed restoration.
			Safety risks for the workers and the farmers -	<ul style="list-style-type: none"> ▪ Inform local residents about construction schedules and planned activities. ▪ Install signage to warn of construction areas and ensure safe pedestrian crossings.


Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ Provide workers with PPE, including helmets, gloves, boots, masks, and eye protection. ▪ Wearing of PPEs while working on-site will be a mandatory requirement for workers ▪ Conduct safety briefings to address risks and proper use of tools and machinery. ▪ Remove rocks and debris from the site promptly and dispose of them in designated areas. ▪ Conduct daily inspections of the pipeline route to identify and mitigate unanticipated impacts.
<p>6. Distribution Pipelines The length L = 15.48 Km</p>		<p>There are houses along the road in the villages of the core service area. The pipeline will be laid out along the right-of-way of the road.</p>	<p>Block or disrupt access to house.</p> <p>Traffic disruptions and safety risks due to construction activities near roads and residential areas.</p>	<ul style="list-style-type: none"> ▪ Reinform community about construction schedules two days in advance; Request families to keep their children away from construction sites; ▪ Create safe temporary path if access is disrupted ▪ Backfill as soon as the pipe installation is completed ▪ Provide temporary access to the roadside house where access is disturbed ▪ Back fill the pipe trenches as soon as possible ▪ Avoid loading construction materials and waste within 20m from school gate and health centers, markets or any popular publicly accessible locations Install support in the pipe

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				trenches at sections near the house foundation; <ul style="list-style-type: none"> ▪ Remove the waste from the site in parallel with excavation/pipe installation; ▪ Place warning signs and speed limit at 10 km/h along road sections where construction is on-going. • Transport the excavated materials away within 24 hours since excavation.
			Health impacts due to dust and noise	<ul style="list-style-type: none"> ▪ Clean up the road, watering dusty areas during working shifts ▪ Carry out construction in stages to minimize community exposure to open pipe trenches; ▪ water the road section passing the school and health care center if the weather is hot and dry, windy ▪ Avoid parking trucks, loading and unloading materials and wastes during peak traffic hours ▪ Inform the public in advance if construction takes place at nighttime ▪ Protect temporary materials and waste loads to prevent spills; • Topsoil will be reserved and loaded in separate areas for reuse at the end of the disposal operation as cover material for the rehabilitation of the disposal site.
			The installation of the distribution pipeline poses significant safety	<ul style="list-style-type: none"> ▪ Designate clear, separate access routes for construction vehicles and personnel, distinct from public thoroughfares.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			risks to both workers and villagers due to open trenches, active equipment, and construction materials	<ul style="list-style-type: none"> ▪ Implement appropriate trench shoring, sloping, or benching systems based on soil conditions, depth, and duration of the trench opening, as per engineering standards. ▪ Regularly inspect trench integrity, especially after rain or ground disturbance. ▪ Post prominent, highly visible warning signs (in local language and pictograms) around trenches and hazardous areas, especially at night. ▪ Provide adequate lighting for all open trenches and active work areas, especially during evening or night work. ▪ Provide safe, well-marked, and sturdy crossings (bridges or ramps with handrails) over trenches for workers and, where absolutely necessary, for villagers, ensuring these are well-maintained. ▪ Limit the length of open trenches at any given time to the shortest feasible sections. ▪ Mandate and enforce the consistent use of appropriate PPE for all workers (hard hats, safety boots, high-visibility vests, gloves, eye protection, hearing protection, etc. • Do not park vehicles or temporarily load materials in front of the market and shops unless construction is on-going at these sites
			Damage to private properties,	<ul style="list-style-type: none"> • Avoid laying out of the pipeline in the front yard. Contractor should layout

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
			including house foundations, fences, and crops.	the pipeline in Right of Way (ROW) between the road and front yard. If there is any damage to the front yard, the contractor should repair it to its original condition. <ul style="list-style-type: none"> • Fully reinstate the excavated area as soon as possible. • Disturbance to the ground will be kept minimal. Establish the boundary of construction materials. • Provide fair and prompt compensation to affected households if their loss of crops and garden produce and MOM will be made after compensation. • MOM of land restoration will be made with affected households after completed restoration.
			The construction may be temporarily affect on the private lands	<ul style="list-style-type: none"> ▪ Clearly mark the construction zone to prevent equipment or materials from unnecessarily encroaching on unaffected areas of the slabs. ▪ Where slabs are temporarily crossed by light equipment or used for staging, consider laying down protective sheeting, plywood, or steel plates to distribute weight and prevent direct contact damage. ▪ For areas directly over or adjacent to the slabs, prioritize manual digging where possible to minimize the risk of mechanical damage. ▪ Implement temporary repairs for any damage that might pose a safety hazard or cause further deterioration during construction.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
				<ul style="list-style-type: none"> ▪ For minor damage, professional repair should be undertaken using matching materials. For significant or irreparable damage, the affected section of the slab must be completely replaced. ▪ Ensure that all repairs and replacements meet or exceed the quality and finish of the original cement slabs. ▪ After restoration, conduct a joint inspection with each of all affected households. • Obtain formal sign-off from the household representatives confirming their satisfaction with the restoration work. This could be a simple form acknowledging completion and acceptance. • Provide fair and prompt compensation to affected households if their loss of crops and garden produce and MOM will be made after compensation. • MOM of land restoration will be made with affected households after completed restoration.

Element and location	Photos, maps	Existing Condition.	Impacts, Risks	Specific Mitigation Measures
<p>7. Water Intake site.</p>		<p>Houay Viev is a small stream, lined with small bushes, vines, shrubs, and small trees ranging in diameter from about 3 to 20 centimeters and bamboo. There are rocks, gravel and stone in the streambed and along the stream bank.</p> <p>The proposed water intake is in Houay Viev on village fallow land of LongNai Mae village. Currently water is being used for small gardens.</p> <p>The water intake site can be accessed via a walking trail, and there are no local houses in the vicinity of the water intake, ensuring a pristine (in its natural state and unpolluted,) and undisturbed environment around the area.</p>	<p>The construction of the weir foundation may pollute the downstream water source.</p> <ul style="list-style-type: none"> -River bank erosion and sedimentation. - Excessive disturbance to the streambed will negatively impact aquatic habitats. - No water flow in downstream area. 	<ul style="list-style-type: none"> • Excavation weir foundation will be conducted on December.2024 • Install diversion earth dikes, drainage swales, and a sediment pond below the proposed water intake structure to minimize turbidity in the downstream water flow and maintains water flow in the downstream area. • install a temporary culvert to maintain stream flow during intake construction; • Carefully conduct construction activities to minimize dropping of mortars into the stream. • Limiting disturbance to the stream bed as much as possible • Disturbed riverbanks will be rehabilitated immediately to minimize the risk of bank erosion and soil erosion into the stream.

6 Capacity Building and Awareness Raising

To ensure effective implementation and supervision of the Contractor’s Environmental and Social Management Plan (C-ESMP), the capacity of contractor staff will be strengthened. All personnel will receive training to ensure a comprehensive understanding of project environmental and social management goals, methods, and practices. Construction Supervision Engineer The contractor’s Health, and Safety (EHS) officer will conduct training sessions covering environmental management, Environmental Control and Operating Procedures (ECOPs), occupational health and safety, emergency response procedures, and the Code of Conduct. Capacity building will be achieved through pre-construction training and daily safety briefings. The training program details are summarized in the Table 6-1 错误!未找到引用源。 .

TABLE 6-1 TRAINING PROGRAM

Training	Attendees	Contents	Times	Duration
Understanding of C-ESMPs Implementation and monitoring	employees and workers	Mitigation measures defined in C-ESMP, ECOPs, Code of Conduct, Roles and Responsibilities, Monitoring.	Once before construction starts, repeated as needed	1 day
Occupation Health and Safety and Emergency response procedures	employees and workers	Construction site safety, first aid, PPE usage, firefighting.	Once before and, repeated as needed	0.5 day
Safety talk	Workers	Construction site safety awareness	Daily, before start of work	15 minutes
Sexual exploitation and abuse (SEA) training	employees and workers	Prevent Sexual exploitation and abuse	Once before construction starts, repeated as needed	0.5 day

7. Grievance Redress Mechanism

7.1 Worker Grievance Redress

The Grievance Redress Mechanism (GRM) for the workers has been established to provide a transparent, accessible, and efficient process for workers to raise concerns, complaints, or grievances related to their employment or working conditions. This mechanism aims to:

- Ensure that all workers are treated fairly and equitably, regardless of their position or background.
- Provide a structured process for resolving disputes between workers and management in a timely and amicable manner.
- Minimize the escalation of conflicts by addressing issues promptly and effectively.

- Foster positive and harmonious relationships between workers and management.
- By addressing grievances, the GRM can boost employee morale and productivity.
- Use the feedback from grievances to identify areas for improvement in workplace practices and policies.

Any worker employed on the WSS Namly and Longnaikao Cluster construction such as workers directly employed by the main contractor and subcontractors are entitled to lodge complaints regarding any aspect of the working condition, well-being etc. these may include:

Workplace Safety:

- Unsafe working conditions
- Lack of safety equipment
- Inadequate safety training

Fair Wages and Benefits:

- Unpaid wages or delayed payments
- Incorrect calculation of wages or overtime
- Non-payment of benefits (e.g., social security, health insurance)

Working Hours:

- Excessive working hours
- Forced overtime
- Lack of rest breaks

Discrimination and Harassment:

- Discrimination based on race, gender, religion, or other factors
- Sexual harassment
- Bullying or intimidation

Contractual Issues:

- Breach of contract terms
- Unfair termination
- Non-compliance with Labour laws

Other Issues:

- Poor living conditions for workers
- Lack of access to clean water and sanitation
- Inadequate food provisions

7.1.1 Grievance Unit

The contractor will appoint a designated Grievance unit responsible for handling worker complaints. The grievance unit members are shown in table below

Name	Position	Contact Number
Mr. Wu	Site manager	020 55638835
Mr. Tang	EHS Officer	020 29987691

7.1.2 Grievance Redress Procedure.

- **Step 1: Informal Resolution:**
 - Encourage workers to discuss concerns directly with their supervisor or foreman. Their concerns shall be solved within 2 days.
- **Step 2: Formal Grievance:**
 - If the issue remains unresolved, workers can submit a written grievance to the Grievance Unit. The grievance should include:
 - Worker's name and contact information
 - Date of the incident
 - Clear description of the grievance
 - Names of any witnesses
- **Step 3: Investigation:**
 - The Grievance Unit conducts a thorough investigation, interviewing relevant parties and reviewing documentation.
 - Maintain confidentiality throughout the process.
- **Step 4: Resolution:**
 - Based on the investigation, the Grievance Unit proposes a resolution, which may include:
 - Mediation between the worker and the supervisor
 - Corrective action for the supervisor or other involved parties
 - Compensation or other remedies for the worker
- **Step 5: PIU and PMU level**

If the worker is dissatisfied with the resolution at the contractor level within 5 days, they can appeal to PIU and PMU level. The PIU and PMU GRM focal point is shown in table below.

Name	Position	Contact Number
Mrs. Sompauthana Dethoudom	Deputy Project Manager	020 92 895 919
Mr. Khao Kham	Head of PIU	02023909222
Mr. Ouhdaet	PIU Khoua District	02028765430
Mr. Chommany	PIU Mai District	02055033435

7.2 Grievance Redress Mechanism for Project Affected Person

The Grievance Redress Mechanism (GRM) for project affected persons will adhere to the Scaling-Up Water Supply, Sanitation, and Hygiene Project (SWSHP) GRM, which was developed as part of the Environmental and Social Management Plan (ESMP) and Abbreviated Resettlement Plan (ARP) to meet the GRM requirements stipulated in the Environmental and Social Management Framework (ESMF) approved by the World Bank. This mechanism will address grievances related to environmental and social issues associated with the project, including issues related to land acquisition, and compensation.

All affected persons will be fully informed of their rights, and the detailed grievance redress procedures will be disseminated through a comprehensive public information campaign. An aggrieved affected person (AP) or affected household (AH) will be exempt from any fees associated with lodging and resolving complaints, as these costs will be borne by the Project Implementation Unit (PIU)/Project Management Unit (PMU) and contractor.

The grievance mechanism is based on key principles that will protect the rights and interest of project participants; ensure that their concerns are addressed in a prompt and timely manner, and that entitlements are provided in accordance with GoL and Bank safeguard policies. PIU/DPWT will ensure that communities directly affected by the Project have a full understanding of the GRM and ways to access it especially on (i) compensation for any involuntary acquisition of land and/or assets, and (ii) ensuring environmental and social mitigation measures in the ESMP's are implemented as planned. APs are entitled to lodge complaints regarding any aspect of the environmental and social impacts associated with the Project. The AP's complaints can be made verbally or in written form to the GRC or, alternatively, raise his/her voice in a public or individual meeting with project staff.

7.2.1 Type of GRM

Complainants are entitled to lodge complaints regarding any aspect of the project. Any affected person will be able to submit a grievance if they believe a practice is having a detrimental impact on the community, the environment, or on their quality of life. Eligible grievances or complaints include:

- Negative impacts on a person or a community (e.g. financial loss such as from loss of water, loss of roadside trees, health and safety issues, nuisances, etc.).
- Dangers to community health and safety or pollution of the environment.
- Hazards due to construction activities (e.g. noise, dust, disruption of access, etc.)
- Impacts on community infrastructure such as roads, road side drainage, etc.
- Failure to comply with standards or legal obligations.
- Improper conduct or unethical behaviour of contractor leading to nuisance of affected person(s).
- Misuse of funds and other irregularities.
- Grievances due to land acquisition, resettlement, compensation, relocation and unaddressed losses.
- Complaints related to gender issues.

7.2.2 Grievance Resolution Process

1. Complaints can be made verbally or in written form. It is recognized that in many cases, complainants do not have the writing skills or ability to express their grievances verbally, however, complainants are encouraged to seek assistance from family members or village heads, to have their grievances recorded in writing and to ensure that where disputes do occur and all the details have been recorded accurately enabling all parties to be treated fairly. In the case of verbal complaints, a written

record of the complaint will be made during the first meeting with the complainant. Complainants who present their complaints within the prescribed procedures will be exempt from all administrative fees incurred. In addition, complainants who lodge complaints and appeals to district courts will be provided with free legal representation. The procedures for the grievance resolution process for the subproject are detailed as below.

Stage 1: In the first instance, Aps will address complaints on any aspect of compensation, relocation or unaddressed losses to the Village Grievance Redress Committee (VGRC) or other designated village grievance officers. The VGRC will organize a meeting with the complainants to resolve the issue using its traditional methods of conciliation and negotiation; the meeting will be held in a public place and will be opened to other Aps and villagers to ensure transparency. The VGRC aims at clarification and amicable solution agreed with the subproject.

Stage 2: If after 10 days of lodging the complaint, no understanding or amicable solution can be reached or no response is received from the Village Grievance Redress Committee, the complainant can bring the complaint to the District/Provincial GRC. The District/Provincial GRC will be involved to meet with the complainant and VGRC to discuss the complaint and provide a decision at mutual arrangement within 15 days of receiving the appeal.

Stage 3: If the AP is still not satisfied with the decision of the PGRC, or in the absence of any response within the stipulated time, the complainant can submit his/her grievance to Department of Water Supply. The DWS will act on behalf of the MPWT. It may consider seeking external opinion on this matter and the appeal must be resolved within 20 days of receiving the appeal.

Stage 4: As a last resort, the AP may submit his/her case to the Court of Law. The complaint will be lodged with the Court of Law; the decision of the Court will be final.

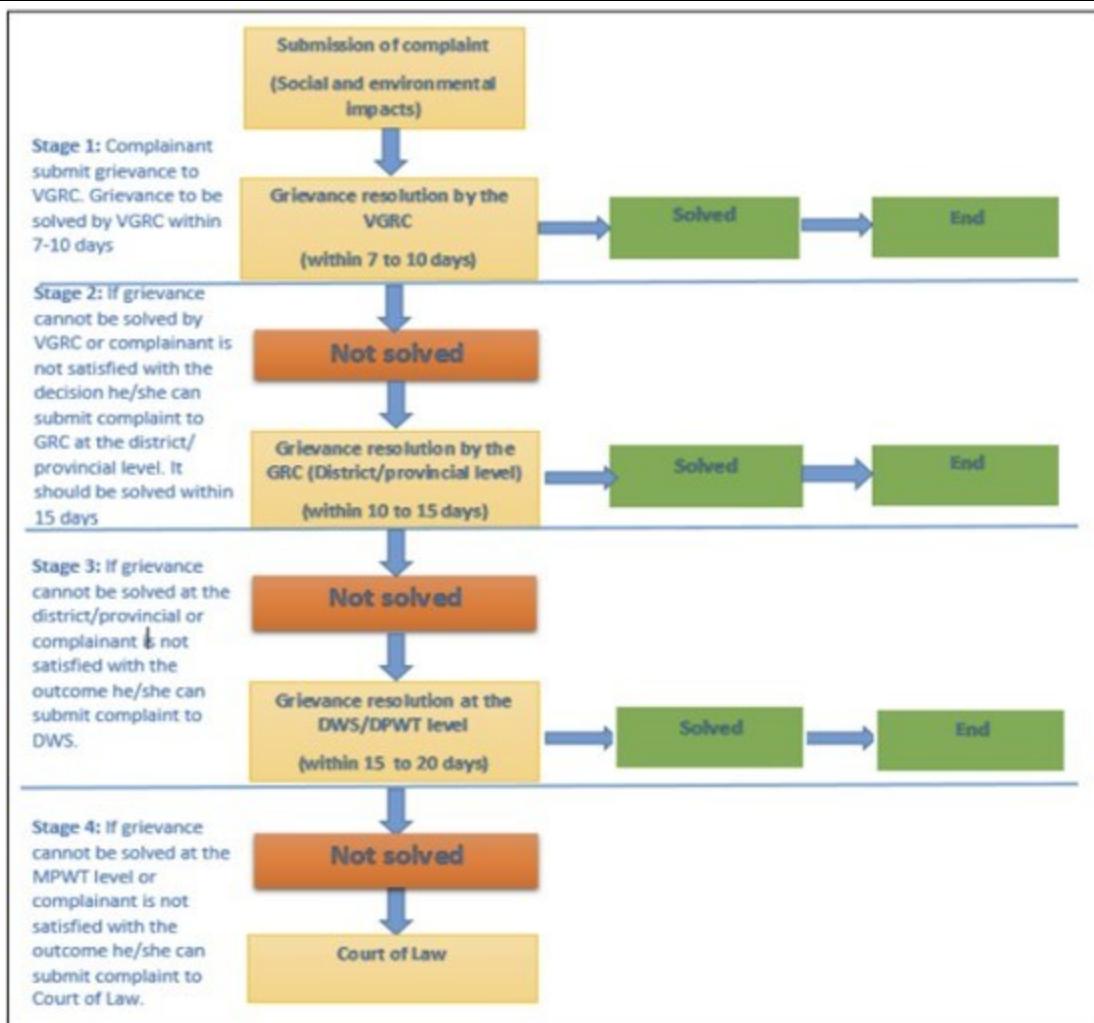


FIGURE 7-1 GRM PROCEDURE

The list of contact person for grievance procedures is summarized in the following Table 7-1

TABLE 7-1 LIST OF GRM CONTACT PERSON

No.	Name	Position	Phone Number
Contractor' staffs			
1	Mr.Fang	Site Manager	020 54100823
2	Mr.Wu	Site Manager	020 55638835
3	Mr. Tang	Environment, Social, Health and Safety Officer	020 29987691
District and Provincial focal person			
1	Mr. Khao Kham	Head of PIU	02023909222
2	Mr. Ouhdaet	PIU Khoua District	02028765430
3	Mr. Chommany	PIU Mai District	02055033435

8. Monitoring and Reporting

8.1 Monitoring

Throughout the WSS construction period, the contractor will ensure adherence to the mitigation measures specified in the Environmental and Social Management Plan (ESMP) and Environmental and Codes of Practices (ESCOP) for the pre-construction and construction phases. Furthermore, the contractor will conduct continuous monitoring of the environmental consequences arising from the construction activities. The objective of the monitoring plan is to assess the efficacy of the prescribed mitigation measures and to identify any unanticipated environmental effects of the WSS project. The monitoring program encompasses the scope of monitoring and supervision, environmental media, monitoring parameters, monitoring frequency and schedule, and implementation roles.

The Contractor will be mobilized, full time, an Environmental, Social, Health and Safety Officer (EHSO) to follow up daily the construction activities, both the WSS construction sites.

TABLE 8-1 ENVIRONMENTAL AND SOCIAL MONITORING PLAN FOR CONSTRUCTION PHASE

Environmental and Social Issue	Location, Parameters Monitoring Technique	Responsibility and Frequency
Soil Erosion	Method, Location: Visual inspection of Access Roads, WTP, Water supply Office, Transmission Pipes Parameters: (i) adequacy of soil erosion prevention measures; (ii) adequacy of soil contamination prevention techniques; (iii) evidence of excessive soil erosion or soil contamination	EHSO -Daily CSC-Weekly
Vegetation/Trees	Method, Location: Visual inspection of all construction sites Parameters: adequacy of vegetation protection measures; evidence of damage to vegetation; compliance with approved tree removal and landscaping plan	EHSO -Daily CSC-Weekly
Dust, Noise and Vibration	Method, Location: Visual inspection of all construction sites Parameters: adequacy of dust, noise and vibration prevention and mitigation measures implantation.	EHSO -Daily CSC-Weekly
Construction site health and safety	Method, Location: Visual inspection and interviews with construction workers and contractors at all construction sites, check the record Parameters: (i) adherence to the approved ESCOP and C-ESMP; and (ii) worker complaints and concerns and reported accidents/incidents	EHSO -Daily CSC-Weekly
Community Health and Safety	Method, Location: Visual inspection of all construction sites, informal interviews with nearby residents	EHSO -Daily CSC-Monthly

	<p>Parameters: (i) adherence to specific mitigation measure for traffic safety risk; (ii) adequacy of construction site signage and fencing; (iii) adequacy of temporary noise mitigation measures; (iv) accidents involving public and workers; (v) emergencies and responses; (v) public complaints about noise, air pollution, construction site safety etc.</p>	
Private and community property disturbance	<p>Method, Location: inform and consult with the affected permanent and temporary households from WTP, access road, transmission waterpipes and distribution pipelines construction site. Visual inspection of restoration of the affected sites to original condition. Project will compensate and issue land title for the remaining land. Contractor compensation if any more impact than in ARAP and ESMP.</p> <p>Parameter: (i) evidence of compensation agreement; (ii). evidence of issue land title deeds for the remaining land; (iii) evidence of restoration of the affected sites</p>	ESHO-Weekly
Induced traffic disturbance	<p>Method, Location: Visual inspection along construction sites and transportation roads, informal interviews with affected people, consultation of local traffic police</p> <p>Parameters: (i) adequacy of, and compliance with specific mitigation measures for traffic safety risk; (ii) satisfaction of affected people; (iii) warning and traffic signs were installed adequate and properly.</p>	ESHO-Weekly CSC-Monthly
GRM Monitoring	<p>Method, Location: Recorded complaints and resolutions, availability of ant pending issues</p> <p>Parameters: complaint register, number of received and resolved grievances</p>	EHSO -Daily CSC-Weekly

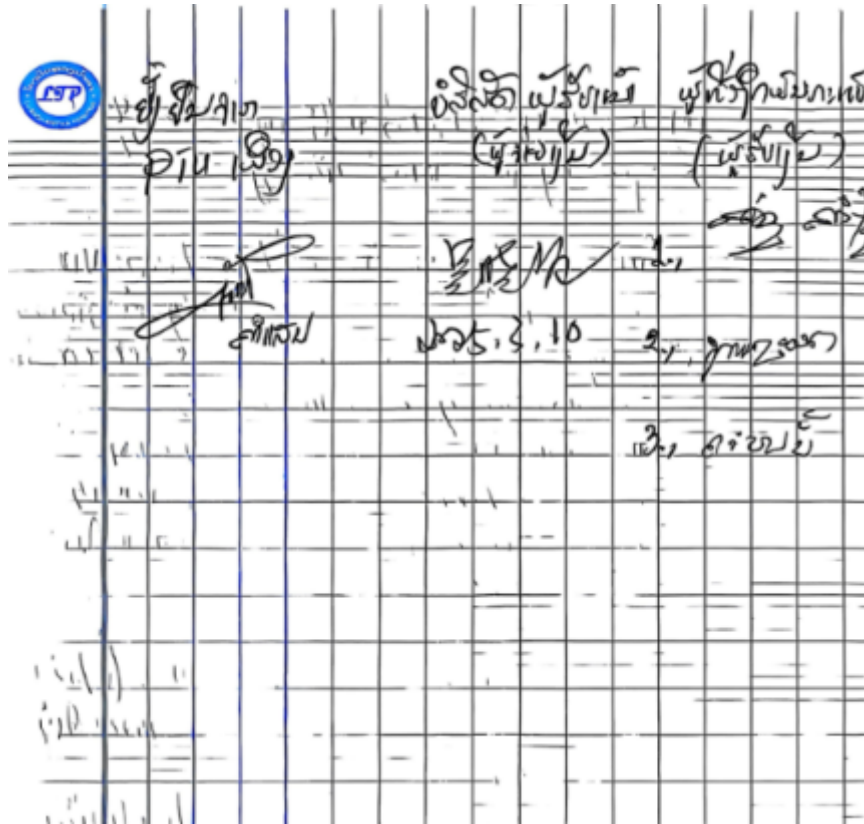
8.2 Reporting

Contractor's Environmental, Social, Health, and Safety (ESHS) performance at construction sites will be directly monitored and supervised by the Site Construction Supervision Engineer. This engineer will prepare a monthly ESHS monitoring report for submission to the Project Implementation Unit (PIU).

The Construction Supervision Engineer will submit a monthly progress report that includes an ESHS section (see the template in Appendix 4). This section will summarize compliance with ESMP/C-ESMP requirements, implementation of mitigation measures, monitoring activities, received complaints and responses, and any Health, Safety, and Environment (HSE) accidents.

In the event of any accident, the Construction Supervision Engineer shall report to the PIU/Project Management Unit (PMU) within 24 hours. A detailed accident report shall be submitted to the PMU within one week.

9. Appendix



APPENDIX 3 ENVIRONMENTAL AND SOCIAL CODES OF PRACTICE (ESCOP)

Impacts/Risks	Mitigation Measure	Responsibility	
		Implementation	Supervisor/approval
1. Soil Erosion and Sedimentation	<ul style="list-style-type: none"> Excavation works shall be scheduled during the dry season to the extent practical to avoid carrying out excavation works during heavy rainfall periods. Construction activities shall be carefully planned to minimize disturbed areas and to preserve existing vegetation, which minimizes the potential of removing existing trees that protect soil from erosion. Diversion structures, such as earth dikes and drainage swales, shall be installed along paved surfaces, the top of slopes and below areas where runoff starts to concentrate, to divert off-site water runoff during construction and limit the exposure of disturbed sediments to moving water. Silt traps/sedimentation basins/settlement pond to capture and detain construction site runoff shall be installed. Slope failure protection should be considered during construction and after construction (operation). All works at or near the river must be rehabilitated immediately, to minimize the risk of bank erosion and soil being washed into the river. The contractor will be prohibited from quarrying materials directly from any river. Construction materials will be procured from Government-permitted sources/ suppliers only. Construct silt traps, deviation channels, mounting barriers or trenches around the stockpiles of materials. 	Contractor	Social Safeguard and - Environment Specialists; PMU and PIU
2. Air Quality reduction, dust generation	<ul style="list-style-type: none"> Spray water on access roads and construction sites during dry weather conditions to control dust emission, particularly roads near residences and through the town core area. Impose speed limits on construction vehicles. Excavation work will be avoided in periods of high wind. The contractor will comply with a 10 km/h speed limit when in the community area. Transport of materials that may generate dust shall be covered with canvass or similar. Install temporary fens or barriers around the subproject facility construction site. The burning of site clearance debris (trees, undergrowth) or construction waste material is prohibited. Keep the stockpile of aggregate material covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals. Regularly maintain the construction machines to ensure they are in good condition. 	Contractor	Social Safeguard and - Environment Specialists; PMU and PIU
3. Noise and Vibration	<ul style="list-style-type: none"> Limit construction activities, particularly operation of noise/vibration generating equipment at night. Position any stationary equipment that produces high noise levels such as diesel generators as far as practical from sensitive receptors. 		

Impacts/Risks	Mitigation Measure	Responsibility	
		Implementation	Supervisor/approval
	<ul style="list-style-type: none"> Install temporary fences or barriers around the subproject facility construction site especially near schools, healthcare stations and houses. Require drivers to minimize honking and to comply with speed limits of 10 km/h when driving in community area. Provide information to community on schedule of construction activities through billboard/signs. Avoid using equipment that may result in high levels of vibrations 		
4. Impacts and risks to biodiversity	<ul style="list-style-type: none"> The contractors will prohibit activities such as cutting wood for cooking, harvesting and hunting, or wildlife trade. Cutting of trees will be undertaken as per approved design and only upon approval of relevant authorities. Avoid the cutting of trees as much as possible and minimize damage to native vegetation. The width of roads and paths to the intakes and the WTPs, will be kept to a minimum, only to accommodate the construction. The use of vehicles/equipment will be kept to a minimum to reduce the land acquisition required. Manual labor will be utilized in sloping terrain where use of heavy equipment would cause unnecessary damage. Steep exposed slopes will be graded and covered with bush and grass to minimize erosion. Implement landscaping and planting of trees/vegetation, using native plant species for greening at the WTP site 	Contractor	Social Safeguard and - Environment Specialists; PMU and PIU
5. Impact and Risks on Private and community assets	<ul style="list-style-type: none"> Build access roads to minimum necessary width. installation of pipelines within the Right-of-Way when feasible. Protect slopes where excavation potentially affect existing housing/shop structures. 	Contractor	Social Safeguard and Environment Specialists; PMU and PIU
6. Disruption to traffic and pedestrians' access to properties	<ul style="list-style-type: none"> Prepare and implement measures for temporary traffic management prior to construction to ensure road safety. The plan should include provisions for diverting or scheduling construction traffic to avoid morning and afternoon peak traffic hours. Walking access will be maintained to affected properties and access routes will be temporarily lined with suitable material. Particular attention will be given to ensuring safety along roads and paths used by pedestrians, including school children. Side street parking of construction vehicles on prolonged basis will not be allowed. Install barriers and safety warning signs on road sections and, if necessary, deploy traffic aides/ flag persons at affected locations. Information boards at blocked roads will provide information about the temporary closure of roads, schedule of works, and the traffic-rerouting plan. Ensure the contractor immediately rehabilitates excavated or disturbed areas and any damaged road and path sections or any other existing infrastructure and the related services. 	Contractor	Social Safeguard and Environment Specialists; PMU and PIU

Impacts/Risks	Mitigation Measure	Responsibility	
		Implementation	Supervisor/approval
<p>7. Risks on Relics and artifacts exposure Chance Find Procedures</p>	<ul style="list-style-type: none"> • The Contractor will ensure that the workforce is briefed that in the event of accidental finds relics they should immediately cease any works in the area and promptly report the find to their supervisor. • If the contractor discovers archeological sites, historical site, remains and objects, including graveyards, and/or individual graves during excavation or construction, the Contractor will carry out the following steps²: <ul style="list-style-type: none"> ▪ Stop the construction activities in the area of the chance find; ▪ Delineate the discovered site or area; ▪ Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities, or the National Culture Administration take over; ▪ Notify the project engineer, supervisor (CSC), and/or PSC who in turn will notify the responsible local authorities and the provincial Culture Department immediately (within 24 hours or less); ▪ Responsible local authorities and the provincial Culture Department would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of ▪ National Culture Administration. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values. ▪ Decisions on how to handle the finding shall be taken by the responsible authorities and the provincial Culture Department. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage; ▪ Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and ▪ Construction work could resume only after permission is given from the responsible local authorities or the provincial Culture Department concerning safeguard of the heritage. 	Contractor	Social Safeguard and Environment Specialists; PMU and PIU
<p>8. Generation Solid Waste</p>	<ul style="list-style-type: none"> • Excavated material will be utilized to backfill the trench and/or ground leveling at the construction sites such as the WTP, access roads and pipe trenches. The contractor is required to properly reinstate the excavated trench after completion of pipe laying. • Surplus excavated material/cut soil from construction of the WTP will be used as backfill material for low-lying areas that have been identified by the village authority.³ 	Contractor	Social Safeguard and Environment Specialists; PMU and PIU

² Refer to the Table 6-3 Environmental and Social Codes of Practices is based on ESMP

³ Refer to table 6-3 Environmental and Social Codes of Practices is based on ESMP

Impacts/Risks	Mitigation Measure	Responsibility	
		Implementation	Supervisor/approval
	<ul style="list-style-type: none"> • Non-hazardous construction waste shall be disposed of at a designated disposal site with the necessary environmental compliance certificate, as agreed with District Authorities. • The contractor will segregate solid waste into hazardous and non-hazardous waste on a daily basis, and then further segregate into recyclable and non-recyclable waste. Recyclable waste includes plastic bottles, cans, and metal. Non-recyclable waste is likely to include wrappings, packaging, and construction waste. The waste fractions will be stored temporarily in bins or in fenced-off and covered enclosures. • The contractor will bring recyclable waste to the local recycling dealer or shop - if there is one. If there is no local recycling dealer, the recyclables (still segregated) shall be brought to the waste disposal site as specified by the District Authorities for possible recycling by dealers operating there or disposed together with non-recyclable waste at that site. • Disposal of waste (that is not recycled) is only allowed at the solid waste disposal site specified by the District Authorities. • Open burning or burial of any form of waste or materials is strictly prohibited both onsite and offsite. • Littering of waste is strictly prohibited 		
9. Occupational Health and Safety	<p>The Contractor will appoint a Site Manager or his/her representative with the appropriate qualifications in environmental and occupational health and safety associated with the implementation of the ECOP, the Labor Management Plan and Environmental, Health and Safety of IFC (http://www.ifc.org/ehsguidelines).</p> <p>Site sanitation</p> <ul style="list-style-type: none"> • The contractor will install the Worker Camp in an area far enough from water sources, houses and sensitive areas and in consultation with the community; • The contractor will be responsible for reinstatements of temporary disturbed areas by camp and site offices work completion. • Provide an adequate number of latrines and other sanitary arrangements at the site and work areas, and ensure that they are cleaned and maintained to a hygienic standard; • The contractor should make separate arrangements for men and women workers. • Provide garbage receptacles at the construction site and camps, which will be periodically cleared to prevent the outbreak of diseases and maintain hygiene; and • Collect and treat camp wastewater before discharge into the environment. There is no existing wastewater treatment in this area, but it is proposed to make the septic tank system at worker camp to collect, treat camp wastewater before discharge. <p>Occupational Safety</p> <ul style="list-style-type: none"> • Provision of first-aid facilities readily accessible by workers. 	Contractor	Social Safeguard and Environment Specialists; PMU and PIU

Impacts/Risks	Mitigation Measure	Responsibility	
		Implementation	Supervisor/approval
	<ul style="list-style-type: none"> Contractors should include an emergency management plan in case of an accident, and safety drills. Workers must be made aware of the emergency management plan. Provisions of personal protection equipment (PPE), such as safety boots, helmets, gloves, protective clothing, goggles, and ear protection, in accordance with relevant health and safety regulations for workers. All workers must be trained in the use of the required equipment. Wearing PPEs while working on-site will be a mandatory requirement for workers. Posting of safety signs/reminders in strategic areas within the construction area. Installation of sufficient lighting at night. Contractors should provide training to the workers for awareness and measures to prevent sexually transmitted diseases (STD). <p>Food Safety</p> <ul style="list-style-type: none"> Provide a clean and sufficient supply of fresh water. Inspect and supervise food hygiene in canteens on site regularly. Canteen workers must have valid health permits. If food poisoning is discovered, implement effective control measures immediately to prevent it from spreading. <p>Disease prevention and safety awareness</p> <ul style="list-style-type: none"> Construction workers must have a physical examination before starting work on site. If an infectious disease is found, the patient must be isolated for treatment to prevent the disease from spreading. Provide induction and training by local health departments on the prevention and management of communicable diseases. Implement STIs/HIV/AIDS and other communicable diseases awareness and prevention programs. Provide training on the specific hazards associated with the work, as well as training on basic sanitation and health care issues, and general health and safety. <p>Security:</p> <ul style="list-style-type: none"> Regular attendance and a controlled time keeping of all employees; Restriction of un-authorized persons to the residential and work areas; Restriction of carrying weapons and control hunting by employees; and <p>Provision of boundary walls/fence with proper exits to the camp</p>		
10. Community Health and Safety	<ul style="list-style-type: none"> Install barricades/barriers and sturdy plate covers in open excavations during non-working time. The contractor must install the physical barrier to limit access to the construction site. 	Contractor	Social Safeguard and Environment Specialists; PMU and PIU

Impacts/Risks	Mitigation Measure	Responsibility	
		Implementation	Supervisor/approval
	<ul style="list-style-type: none"> • Install signs at construction sites warning people of potential dangers. • Erect construction billboards, which include construction contents, schedule, responsible person and complaint phone number, at the entry to each construction site and construction staging area. • Construction works with noise and dust will be prohibited during the nighttime. • Liaise with PIU to inform the community about the upcoming construction work and important precautions to protect the community. • Coordinate with Village Authority Committee and share the work plans and number of workers who will stay in the camp. 		
11. Disposal of Sludge generated from sludge lagoon	<ul style="list-style-type: none"> • The selected contractor shall work with the PMU/PIA and relevant local authorities to identify disposal sites for the sludges and get approval/agreement with landowner before dumping. • The disposal site should be empty and lower land that needs to fill up and it shall be located far enough from water sources, residential areas and sensitive areas. • Do not located in forest areas, cultivation areas and other sensitive areas. • Do not allow reuse of sludge for filling food crop land. • Do not dump the sludge in the natural water sources/natural drainage courses. • Do not located within the • Install barrier and safety waring sings around the disposal area. • Land levelling shall be completed before handover to landowner. 	PNP staff	DPWT

APPENDIX 4 CODE OF CONDUCT

WORKERS CODES OF CONDUCTS

Each employee shall be informed of the Code of Conduct and bound by it while in the employment of the Client or its Contractors. The Code of Conduct shall be available to local communities at the project information centers or other places easily accessible to the communities.

The Contractor is responsible for providing appropriate training to all staff according to their level of responsibility for environmental, health and safety matters.

The Code of Conduct shall address the following measures (but not limited to them):

- All of the workforces shall abide by the laws and regulations of the Lao PDR;
- Illegal substances, weapons and firearms shall be prohibited;
- Pornographic material and gambling shall be prohibited;
- Fighting (physical or verbal) shall be prohibited;
- Creating nuisances and disturbances in or near communities shall be prohibited;
- Disrespecting local customs and traditions shall be prohibited;
- Smoking shall only be allowed in designated areas;
- Maintenance of appropriate standards of dress and personal hygiene;
- Maintenance of appropriate standards hygiene in their accommodation quarters;
- Residing camp workforce visiting the local communities shall behave in a manner consistent with the Code of Conduct; and
- Failure to comply with the Code of Conduct, or the rules, regulations, and procedures implemented at the construction camp will result in disciplinary actions.

Security. Some security measures shall be put into place to ensure the safe and secure running of the camp and its residents. Some of these security measures include:

- The list of workers must be registered to local authorities in accordance with existing regulations of Lao PDR;
- Children under 14 years of age will not be hired under the Project;
- Adequate, day-time night-time lighting shall be provided;
- Control of camp access. Access to the camp shall be limited to the residing workforce, construction camp employees, and those visiting personnel on business purposes;
- Prior approval from the construction camp manager for visitor's access to the construction camp;
- A perimeter security fence at least 2m in height constructed from appropriate materials;
- Provision and installation in all buildings of firefighting equipment and portable fires extinguishers.

Any construction worker, office staff, Contractor's employees or any other person related to the project found violating these prohibitions will be subject to disciplinary actions that can range from a simple reprimand to termination of his/her employment depending on the seriousness of the violation.

Prohibitions:

The following activities are prohibited on or near the subproject sites:

- Cutting of trees for any reason outside the approved construction area;
- Hunting, fishing, wildlife capture, or plant collection.
- Buying of wild animals for food;
- Having caged wild animals (especially birds) in camps;
- Poaching of any description;
- Explosive and chemical fishing;
- Disturbance to any thing with architectural or historical values;
- Building of fires;
- Use of unapproved toxic materials, including lead-based paints, asbestos, etc.; Use of firearms (except authorized security guards);
- Use of alcohol by workers in office hours;
- Driving in an unsafe manner in local roads;
- Washing cars or machinery in streams or creeks;
- Maintenance (change of oils and filters) of cars and equipment outside authorized areas;
- Creating nuisances and disturbances in or near communities;
- Disposing garbage in unauthorized places;
- Indiscriminate disposal of rubbish or construction wastes; Littering the site;
- Spillage of potential pollutants, such as petroleum products;
- Collection of firewood;
- Urinating or defecating outside the designated facilities; and
- Burning of waste and/or cleared vegetation.

MANAGEMENT REQUIREMENTS OF CONSTRUCTION SITES AND WORKERS CAMPS

The contractor will be responsible to comply with, but not limited to the following:

- Temporary workers' camps will be required to accommodate 5-6 engineers and skilled workers at each site.
- Camp will be installed at the site of allocated land for the WTP.
- After the construction is completed, the temporary camp will be unfabricated and the sites will be cleaned.
- The contractor shall install the Worker Camp in an area far enough from water points, houses and sensitive areas in consultation with the community. Good quality sanitary equipment should be installed in the Worker Camp.
- The contractor shall manage all activities in compliance with laws, rules and other permits related to site construction regulations and will protect public properties. Degradation and demolition of private properties will be avoided. Paying compensation to damage to the public facilities and/or private property will be required.
- The contractor is responsible for the protection of the local environment against dust, air, noise, vibration, exhaust fuels and oils and other solid residues generated from the work site. The contractor shall manage waste properly and do not burn it on site and will also provide proper storage for construction materials, organize parking and displacement of the machines in the site. Used oil and construction waste materials must be appropriately disposed and adequate waste disposal and sanitation services will be provided at the construction site next to the generated area. In order to protect soil, surface and ground water the Contractor must avoid any wastewater discharge, oil spill

and discharge of any type of pollutants on soils, in surface or ground water, in sewers and drainage ditches.

- The contractor shall be responsible for maintaining good hygiene, safety, and security of the work sites, including protection of health and safety of staff and workers. The contractor will prevent standing water in open construction pits to avoid potential contamination of the water table and the development of a habitat for disease-carrying vectors and insects.
- The contractor shall be prohibited from quarrying material directly from the river.
- The contractors shall procure construction materials from government-permitted sources/suppliers only.
- During construction, the contractor must be taking serious action to control dust by using water or through other means and the construction site will be cleaned on a daily basis.
- The Contractor will work with local authority and management local traffic effectively and ensure traffic access of road safety of local residents and road users during the works. Speed limits at work sites and community areas will be applied to all vehicles and cars. All vehicles and their drivers must be identified and registered and the drivers are properly trained.
- Install barriers and safety warning signs on road sections and if necessary, deploy traffic aids/flag persons at affected locations. Information boards at blocked roads will provide information about the temporary closure of roads, schedule of works and the traffic-rerouting plan.
- The contractor should install signaling of work, ensure no blockage of access to households during construction and/or provide alternative access.
- The contractor must immediately rehabilitate the excavated areas and any damaged road and path sections.

House Keeping

The Contractor will follow a 'good housekeeping' policy at all times. This will include, but not necessarily be limited to the following:

- Ensure considerate site behavior of the Contractor's staff;
- Open fires will be prohibited at all times;
- Ensure that appropriate provisions for dust control and road cleanliness are implemented;
- All site areas will be kept in clean and tidy condition, rubbish and food waste will be removed frequently;
- Wheel washing facilities will be brushed or sprayed clean frequently;
- Storage sites, fixed plant and machinery, equipment and temporary buildings will be located to limit adverse environmental effects
- Frequently inspect, repair and re-paint as necessary all site hoardings to comply with the local conditions and local regulations, all flying post/board is to be removed as soon as reasonably practicable and within 24 hours of notice;
- Adequate toilet facilities will be provided for all site staff;

Working Hours

Core working hours will be from 08:00 to 16:00 on weekdays and 0800 to 1300 on weekends. Individual site requirements which differ from the above will be considered on a site-by-site basis. Noisy operations shall not take place outside these hours without prior approval from delegated agencies and local authorities.

In the case of work required in response to an emergency (or which if not completed would be damaging and unsafe), the relevant local authority will be advised as soon as is reasonably practicable of the reasons for and likely duration of such works.

Workers Camps

Workers Camp and Site Installation Requirement. Potential sites of workers' camps must be discussed with and proposed by local communities and authorities during consultations and prior to their establishment. If additional camps and ancillary construction sites are selected, the following criteria must be used:

- minimize the land occupation;
- Site offices shall be located at least 200 meters from any existing residential settlements
- Camp facilities should not be located in steep slopes;
- Site offices and camps be located at least 100 meters from any watercourses and be operated so that no pollutants enter watercourses. Camp areas shall be located to allow effective natural drainage;
- The workforce shall be provided with safe, suitable and comfortable accommodation. They have to be maintained in clean and sanitary conditions;
- In every site adequate and suitable facilities for washing clothes and utensils shall be provided and maintained for the use of contract labor employed therein;
- Potable water for human consumption shall be provided at camps, site offices.
- Adequate sanitation facilities (toilets and washing areas) shall be provided for workers to use. Toilets should be provided with adequate supplies of running water, soap, and toilet paper. Such facilities shall be conveniently accessible and shall be kept in clean and hygienic conditions;
- At every construction camp, there must be at least one septic tank. The wastewater from the tank shall not be discharged into any watercourses. The wastewater shall be periodically transported away by a water tank to the nearest treatment plant;
- *Medical Facilities.* A medical and first aid kit shall be provided at each camp area. All consumables in the first aid kit should be checked and recharged regularly.

Scaling-Up Water Supply, Sanitation and Hygiene (WSSH) Project (Project ID No: P164901; IDA Credit No. 6375-LA)

Propose the Slope erosion protection methods by using the Geotextiles and Mats

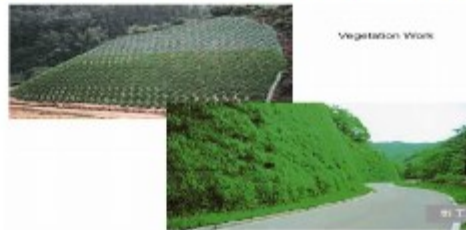
Project Owner:		PMU: Department of Water Supply
Funded By:		The World Bank
Consultant:		PISECCON (Lao) Co., Ltd JV SLS

AGENDA

1. Descriptions
2. Applications
3. Installations and implementation requirements
4. Considerations
5. Inspections
6. Maintenance
7. Typical drawings for geotextiles and mats construction methods.
8. Recommendation for some manufacturer of the turf reinforced mats

1. Descriptions:

Natural or synthetic mats are roll-type materials used for temporary or permanent soil stabilization and protection from rain, wind erosion.



2. Applications

- Stabilize drainage ditches, channels, and stream banks.
- Stabilize steep slopes with high protection by erosion.
- Stabilize slopes until vegetation is established.
- Hold water near surface to assist in vegetable growths.
- Protect stockpiles from the erosion.
- Provide temporary cover for bare areas that idle.

3. Installations and implementation requirements

- Apply matting to disturbed soils and areas where vegetation have been removed.
- Installation matting immediately after the areas is seeded and fertilize.
- Minimize disturb of the slop greater than 15% in grade.
- Phase disturbances and use stabilization techniques designed for steep grades if disturbance the steep slope is unavoidable.
- Grade and shape disturbed slopes to installing geotextiles and/or erosion control mattings.
- Prepare area by remove rocks, vegetation and other obstructions that will inhabit contact with soil.

3. Installations and implementation requirements (continued)

- Entrench or anchor material at top and bottom of the slope in a 6-inches x 6-inches trench or per manufacturer's specifications, whichever is more stringent. The trench should be placed on minimum 12 inches from the top of slope.
- Intermittent check slots can also be installed for large or long length of the mat areas to increase stabilization of the area.
- Do not stretch matting. Maximize mat contact with soil by loosely laying blankets and securing to slope with stakes.
- Ensure matting maintains direct contact with soil to prevent rills, gullies, and undermining.
- Follow manufacturer's specification on overlapping and stake spacing requirements. Steep slopes may require additional staking requirements.
- If geotextile matting is to be installed on steep slopes greater than 15% space stake every 2 feet.
- Organic matting provides temporary protection until permanent vegetation has been established or construction activities recommence. Organic matting materials include the following:
 - Jute matting
 - Straw matting

3. Installations and implementation requirements (continued)

- Synthetic matting provides temporary or post construction stabilization in both vegetated and non-vegetated areas. Synthetic matting materials include the following:
 - Excelsior "matting"
 - Glass fiber matting
 - Stakes
 - Mulch netting
 - Plastic sheeting/covering

3. Installations and implementation requirements (continued)

- Key in temporary plastic sheeting at top of slope and weight down by gravel bags no more than 6 feet apart.
- Install erosion control measure or devices at top of the slope to filter sediment-laden runoff and decrease storm water velocity.
- Other proprietary devices may be used per manufacturer's recommendation.
- The contractor shall immediately initiate soil stabilization measure earth disturbing construction activities on exposes areas have been completed or will be temporary inactive for 14 or more calendar days.

4. considerations

- Minimize use of matting to areas where other erosion control measure are not applicable such as channel or steep slopes since matting is costly compare to erosion control measure.
- Seed germination maybe delayed due to decrease soil temperature.
- Extensive soil preparation is needed before installation for adequate contact with slope.
- Mats made of natural material have a limited life and low shear strength.
- High material cost and extensive manpower needed.
- Generally, the slope needs to be smooth and free of large rocks.
- Plastic sheeting results in 100% runoff and is easily torn/damaged.

5. Inspection

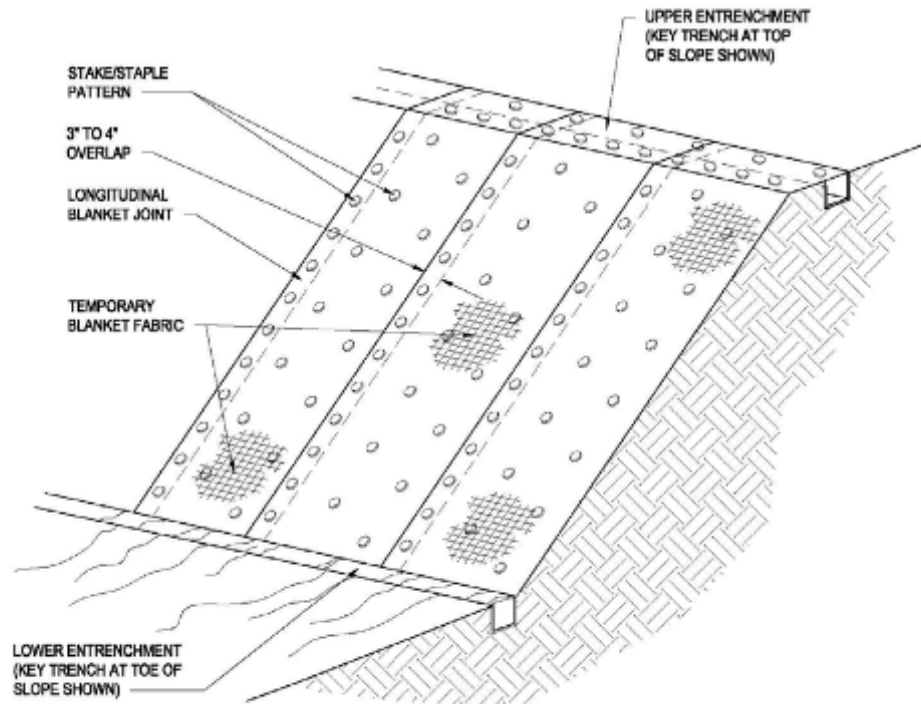
What to Inspect

- Is there evidence of undercutting at the top of slope?
- Is the slope eroding beneath the blanket?
- Are blankets firmly anchored and trenched in at top and bottom of slope?
- Are blanket segments properly overlapped?
- Are stakes properly spaced and driven into the soil to prevent the blanket from lifting away from soil?
- Is matting free from any defects or tears?
- Are there areas not adequately growing vegetation?

6. Maintenance

- Repair undermining or erosion.
- Repair/replace damaged blankets.
- Replace stakes and sandbags as needed.
- Reseeded and fertilizer areas not adequately growth.

7. Typical drawings of geotextiles and mats construction methods.

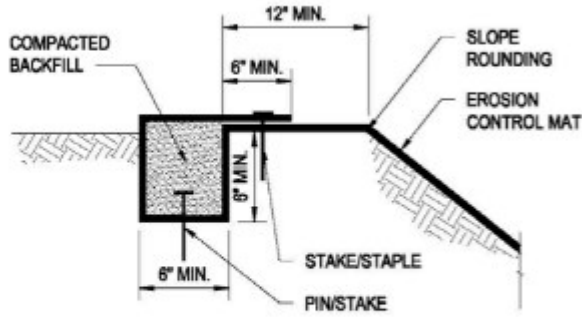


TEMPORARY EROSION CONTROL BLANKET ON SLOPE

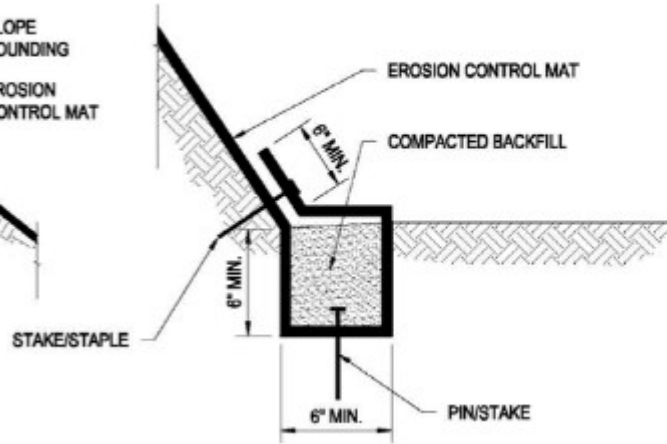
NOT TO SCALE

NOTES:

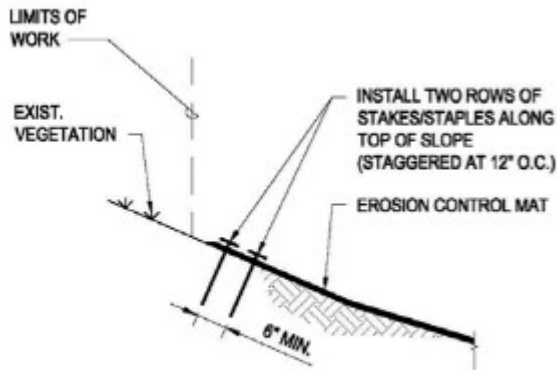
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. SOIL CONTACT SHALL BE MAXIMIZED.
2. LAY BLANKETS LOOSELY AND STAKE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
3. INSTALLATION MAY VARY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. APPLY THE MORE STRINGENT REQUIREMENT.



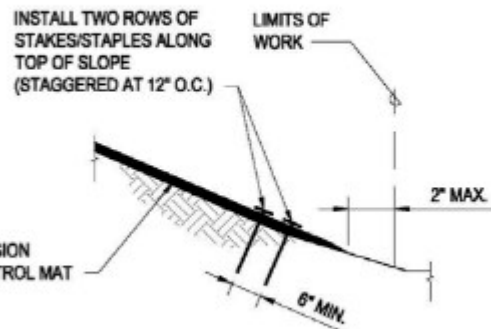
**KEY AND TERMINAL
ANCHOR TRENCH**
NOT TO SCALE



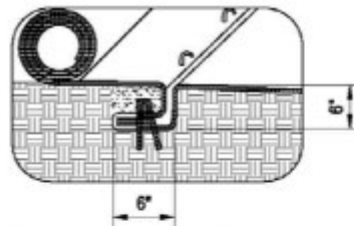
**KEY TRENCH AT TOE
OF SLOPE**
NOT TO SCALE



MID-SLOPE
NOT TO SCALE



TOE OF SLOPE
NOT TO SCALE



INTERMITTENT CHECK SLOT
NOT TO SCALE

**GEOTEXTILES AND MATS INSTALLATION
DETAIL FOR SLOPES**

Scaling-Up Water Supply, Sanitation, and Hygiene Project
IDA Project No.: SWSSHP (P-164901)

Contract Package:

ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY (ESHS)

MONTHLY MONITORING REPORT

for

Water Supply Systems (Nam Papa)

In [name of village cluster], [name of district]

[name of province]

[Month Year]

I GENERAL INFORMATION

- PMU (name, address, contact number):
- Construction Supervision (CS) Entity (name, address, contact number):
- Environmental, Social, Health and Safety (Safeguard) Officer of the CS ((name, address, contact number):
Phone No.: _____ Email: _____
- Date of report submission to PMU: ...

II PROGRESS OF CIVIL WORKS CONTRACTS

Status of Civil Works contract

- **Bidding package:**
- **Contract signing date:**
- **Contract end date:**

III IMPLEMENTATION PROGRESS

3.1 Key summary of construction activities

- Pipe installation: 500m (from where to where or put coordinate)

3.2 Capacity building and Training

Table 1 – Summary of Training Activities

<i>Date</i>	<i>Contents/Topics covered</i>	<i>Delivered by</i>	<i>Number of Participants, organisation</i>

3.2.1 Safety Briefings -table listing all safety briefings during the month including date, time, location and number of participants

3.3 The key mitigation measure implemented during the reporting month

Table 2 – Monthly summary of key impacts and implementation of mitigation measures

Key impacts	Description of impacts	Mitigation measure	Progress of mitigation measure	Due date
<i>Environmental aspects</i>				
<i>Flow/Flood control/ sedimentation prevention</i>	<i>[drainage creation and maintenance, embankments, flow diversion etc]</i>	Create and maintain drainage; build and reinforce embankments; install flow diversion channels.		
<i>Biological impacts management</i>	<i>[avoid, minimize disturbance to vegetation covers, trees, etc.]</i>	Mark and avoid sensitive vegetation areas; minimize tree felling; replant if necessary.		
<i>Dust, emission</i>	<i>[Demolition of structure, soil extraction, and concrete mixing under dry weather conditions, and material transporting trucks passing by people residence or shops and public entities are likely to generate fugitive dust, emission and noise]</i>	Watering roads; cover trucks; control timing of dust-generating activities.		
<i>Noise and Vibration</i>	<i>[Using Powered Mechanical Equipment (PME), heavy equipment, and certain hand tools and vehicles may generate intruding noise that will disturb the village people]</i>	Limit working hours; use silencers; notify affected communities.		
<i>Solid Waste from head works, pipe alignment, water treatment plant, and water storage tank.</i>	<i>[The solid waste will mainly consist of construction waste (wood, concrete, bricks, metal, used bags, sweepings) excavated soil and a small amount of domestic waste]</i>	Segregate waste; reuse and recycle where possible; proper site cleanup.		
<i>Pollution control in work camp</i>	<i>[implementation of ESCOP, Sanitation condition, waste management, dust and noise control,</i>	Implement ESCOP; ensure toilets, sediment traps, waste bins, dust control, fuel management.		

	wastewater collection, drainages with sedimentation traps, toilets, waste bins, watering dusty roads, dust fences, clean up and disposal of the wastes, management of fuels and oils/gas etc.]			
Materials Management	[Stockpiles of materials (cement, sand, gravel, other construction materials)]	Store materials in designated areas; cover with tarpaulin; ensure runoff control.		
Social aspects				
Community Health and Safety	[Potential risk to the health and safety of adults and children traveling across the forest where the pipe alignment is located]	Put up signs; install fences or barriers; communicate risks to locals.		
Occupational Health and Safety	Eg: - Some labors do not familiar with PPE - Dust generation from soil excavation [Site sanitation Occupational safety: Provision and Usage of the PPEs, slope protection measures, traffic control, fences, barriers, warning signs, lighting, flag man, forbid unauthorized access, cover the holes, protect material loading related activities, truck load	Provide PPE and enforce usage; conduct safety training and site briefings; enforce access control.	PE has been provided bycontractor. Additional training provided to 15 workers. Completed.	- Since 3/3/2025

	control, safe access to deep holes and high above structures, etc.]			
Land acquisition, If any	-	-	-	-
Temporary impact on access and land restriction	<p><i>Eg:</i></p> <ul style="list-style-type: none"> - <i>Temporaty blocking the access of 2 houses on 22/3/2025</i> - <i>Temporary blocking access to 2 form lands</i> 	<p>Refill trenches quickly; water dust-prone ground; inform households in advance.</p>	<p><i>Eg:</i></p> <p><i>Complted: Refilled 500 m of trenches under pipeline installation activities</i></p>	<p><i>Complted on 23/03/2025</i></p>
Chance Find Procedures	Unlikely event of encountering archaeological or cultural materials.	Establish chance-find protocol; stop work and notify heritage authority if discovered.		

3.3.1 Labour force, Resource allocation for ESHS monitoring and supervision

Table 3 – Labour force, Contractor’s Site ESHS Supervisors

Package	Nos. of workers mobilised	Nos. of Females	Name of ESHS staff	Tel

3.3.2 Emergency response team- names and contacts

3.3.3 Inspections, meeting with stakeholders

[List the inspects, meetings with various stake holders, their feedbacks and follow up actions]

4. **HSE incidents** – table listing any reportable incidents during the month and status of corrective actions; if none, write "none"

5. Grievance Redress

[List the complaints/complaints received by the community, local authorities or workers during the month and the previous unresolved complaints/complaints by date, method of receipt of complaints, who must be resolved, solution and date of completion (if completed), report settlement information to the complainant (Cross-reference with other departments if necessary)]

Table..... Summary of Worforce compaints

Case ID and Date	Name of Grievant	Description of Issue/Compliant	Outcome of Investigation	Current Status	Date of Resolution

Table..... Summary of project affected person compaints

Case ID and Date	Name of Grievant	Description of Issue/Compliant	Outcome of Investigation	Current Status	Date of Resolution

Annex1: Construction Site Photos

[add the photos of the construction site at all typical locations of each package with comments on the measures that have been implemented well and measures to be overcome. These photos must be returned to .jpeg and limited in capacity]

Annex2: Incident Reports: must be prepared as soon as possible after an incident has happened and attach to the monthly reports. Provide details about:

- Affirming any violation to current legislation or international treaties.
- Any fatal accident or serious accident.
- Serious impacts or damage to personal property such as traffic accidents, damage to people's houses, roads and other incidents.
- Seriously polluting surface or groundwater.
- Any allegations related to sexual harassment or sexual misconduct, child abuse, child labor, or other violations involving children.

Appendix 8 Personal Organization's Work Permission

1: Mr. Tang's Work Permission



2: Mr. Wu's Work Permission



3: Mr. Fang's Work Permission



APPENDIX 9 MINUTE MEETING FOR ALLOWING DISPOSAL WASTES IN THE VILLAGE' LANDFILL.

1. Namly village

ສາທາລະນະລາຍ: ສົດ ປະຊາກິດ: 7 ຕຳບົນ: ຊຸມຊົນລາວ
 ສົມ ດີ ພາບ ເອກະລາດ ປະຊາກິດ: 7 ຕຳບົນ: ພາບວັດທະນາຊາດ
 099

11 ຂອງ ວັງ ສາລີ
 ເລີ່ມ ສຳພັນ
 ບັນ ສາລີ

ເລກທີ 01
 ລາຍເລກທີ 10.2.2025


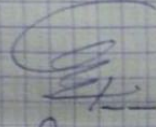
ບົດ ບັນທຶກ
 ເລີ່ມ ສຳພັນ ຂອງ ບັນ ສາລີ ກັບ ສາທາລະນະລາຍ
 ປະ ປະຊາກິດ ບັນ ສາລີ

ລະ ຫວ່າງ ອຳນາດ ການ ບັນ ສາລີ ພາມ ແລະ ບັນ ສາລີ
 ອຳ ນາດ ການ ບັນ ສາລີ ທາງ ສາທາລະນະ ເທັມ ດີ ເປັມ
 - ສາທາລະນະ ພາບ ທາງ ສາທາລະນະ ອຳນາດ ຊຸມຊົນ ຊຸມ
 ເທັມ ດີ ທາງ ສາທາລະນະ ແຫ່ງ ຊຸມ ທາລະນະ: 810 800 ແລະ
 ດັ່ງ ສາທາລະນະ ບັນ ສາລີ ແລະ ອຳນາດ ການ ບັນ ສາລີ
 ທາງ ສາທາລະນະ ດັ່ງ ສາທາລະນະ ບົດ ບັນທຶກ ຂອງ ລາຍເລກທີ 10.2.2025
 ເວລາ 8 ຄົງ ເຊິ່ງ
 ດັ່ງ ສາທາລະນະ ບັນ ສາລີ ທາງ ສາທາລະນະ ບົດ ບັນທຶກ
 ກ່ຽວ ເທັມ ດີ ເປັມ ສາທາລະນະ
 ບົດ ບັນທຶກ ສາທາລະນະ ບັນ ສາລີ ສາທາລະນະ ບັນ ສາລີ ແຕ່ ສາທາລະນະ
 ສາທາລະນະ ເປັມ ທາລະນະ

ມາ ພາບ ບັນ ສາລີ

ບັນ ສາ ສາທາລະນະ

ເລີ່ມ ສຳພັນ

ເລີ່ມ ສຳພັນ

