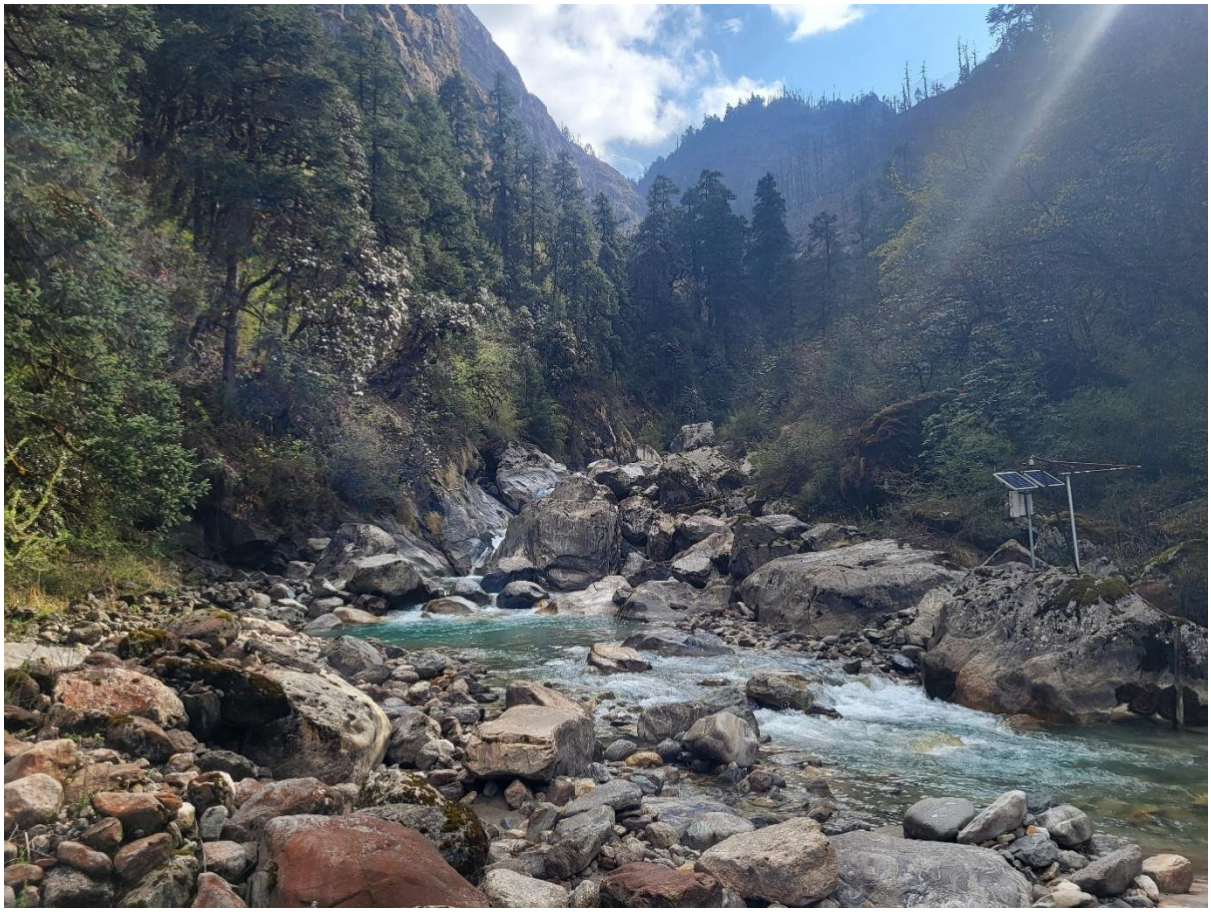
NYADI PHIDI HYDROPOWER PROJECT (21.4 MW)

MONTHLY PROGRESS REPORT



Construction of Nyadi Phidi Hydropower Project (21.4 MW)

Prepared By:

North Summit Hydro Ltd.

Babarmahal, Kathmandu

APRIL 2026

General Information

Project Name	Nyadi Phidi Hydropower Project (21.4 MW)
Project Number	
Client's Name	North Summit Hydropower Limited
Report	Monthly Progress Report
Remarks	

Preparation, Review and Authorization

Date	Prepared by	Reviewed by	Approved for Issue by
6th May 2026	Sangam Malla	Niroj Phuyal	

Issue Register

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Institutional Arrangement

Client	North Summit Hydro Limited
Design Consultant	Hydro-Consult Engineering Limited (HCE) and Innovative Engineering Services Pvt. Ltd (IES) JV
Civil Contractor	Kalika-SAI-Karna JV
HM Contractor	Machchhapuchhre Metals and Machinery Pvt. Ltd.
EM Contractor	Flovel Energy Pvt. Ltd.

Executive Summary

The Nyadi-Phidi Hydropower Project, being developed by North Summit Hydro Limited is located in Lamjung District of Gandaki Province. The project will utilize the perennial flow of the Nyadi River for power generation. The project has secured major statutory approvals including the grid connection agreement, power purchase agreement and generation license, and has achieved financial closure. The contracts for the civil works, hydromechanical works and electromechanical works have been awarded to Kalika–SAI–Karna JV, Machhapuchhre Metal and Machinery Works Pvt. Ltd. and Flovel Energy Pvt. Ltd., respectively.

This report presents an overview of the construction activities carried out at the project site. Works across various project components are progressing in line with the planned schedule. At the **Intake** Area, site clearance has been completed and the first-stage river diversion for cofferdam construction has been successfully carried out and the concreting works of structure in undersluice has been started. In the **Desander** Area, site clearance has been completed and excavation works, including drilling and controlled blasting is on progress.

At the **Headrace Tunnel,** inlet portal excavation has been completed and the necessary labor camp facilities have been established. The tunnel excavation is on progress with drilling blasting. For the **Penstock Tunnel**, excavation works totaling 253 meters, including the required widening for the **vertical shaft**, have been successfully completed and the excavation of **vertical shaft** with raise climber is on progress. Along the **Penstock Alignment**, excavation from Anchor Block (AB) 8 to AB 12 has been completed and the foundation excavation and binding PCC for Anchor Block 12 have also been completed.

For the **Hydromechanical Works**, site workshop and camp facility has been completed. Fabrication of steel penstock pipe has been continued at Pokhara Shop. In total, 423 nos of variable sizes (2.5 m each) pipe and two bends have been transported to site workshop and welding of 198 nos of variable size (2.5m each) and AB 12 bend have been completed and welding works are currently in progress at the site.

Regarding the **Ropeway** system, the erection of all three towers has been completed. The main track rope and pulling rope have been shifted from the base station to Top anchor point and rope tensioning is also completed. **Construction Power** has been successfully extended to both the Headworks and Powerhouse area. The **Access Road** leading to the Headworks has been completed and the access road towards the Powerhouse has been constructed up to the top level of the powerhouse area.

For the **Bailey Bridge Structure**, the bridge was not feasible in previous alignment due to continuous mass falling, so excavation of the left abutment has been completed in new alignment and the concreting works up to raft of left abutment have been completed. In addition, the **Army Camp** infrastructure, including the superstructure and bunker facilities has been completed.

Overall, the project construction activities are progressing steadily across multiple fronts, with several key preparatory and structural works already completed and subsequent construction stages being actively pursued.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 Introduction

1.1 Project Description

Nyadi-Phidi Hydropower Project (NPHPP) is located in Lamjung district of Gandaki Province. The project site is located in Marshyangdi Rural Municipality. Geographically, the project area is located in between latitudes 28º24'27" - 28º26'12" N and longitudes 84º30'10" - 84º31'43" E.

The project site can be reached from Kathmandu via a 189 km paved road to Besisahar, the district headquarters of Lamjung. From Besisahar, the site is approximately 52 km further, mostly along an earthen road.

The hydropower scheme includes a 15m length boulder lined weir with a crest elevation of 2950.6 masl. The intake is located on Nyadi River near Jaluchhe village at an elevation of 2950.1 masl, capturing flow from a catchment area of 54.03 km2. The project utilizes flow of Nyadi and two downstream Kholsis during dry months and the head created by tunnel and penstock between headworks and powerhouse site to generate power.

1.2 Accessibility to Project Site

The Project site is accessible from Kathmandu by a 189 km long asphalt road up to Besisahar, the district headquarters of Lamjung. The site is approximately 52 Km from Besisahar. The access road follows the alignment through Naiche, Kafaldada, and Dahare before reaching the project location. Besisahar is the nearest town to the site, while the closest Indo-Nepal border point is Raxaul.

Kathmandu – Besisahar – Nyadi – Thulibeshi – Naiche- Kafaldanda – Dahare- Project Site

1.3 Salient Features of the Project

The salient features of the project are presented in Table 1.

Table 1: Salient features of the project

S. N	Description	Detail Design Report
1	**Project Location**	
	Province	Gandaki Province
	District	Lamjung
	Intake Site	Jaluchhe Village, Marsyangdi Rural Municipality, Ward No-7
	Powerhouse Site	Confluence of Nyadi and Phidi River, Marshyangdi Rural Municipality, Ward no. 7
	Geographical Co-ordinates	
	Latitude	28º 24’27” N- 28º 26’12” N
	Longitude	84º 30’ 10” E- 84º 31’ 43” E
2	**General**	
	Name of River	Nyadi River

S. N	Description	Detail Design Report
	Nearest Town	Besisahar
	Type of Scheme	Run-of-River
	Gross Head	690.10 m
	Head loss at Design Discharge	10.18 m
	Net Head at Design Discharge	679.92 m
	Installed Capacity	21.40 MW
	Average Annual Energy after Outage	122.94 GWh
3	**Hydrology**	
	Catchment Area (Nyadi)	54.03 Km2
	Mean Annual Discharge (Nyadi)	4.66 m3/sec
	Design Discharge	3.60 m3/sec
	Riparian Release (Nyadi River)	0.11 m3/sec
	Design Flood Discharge (100 years flood)	123.45 m3/sec at Intake site
	Design Flood Discharge (100 years flood)	188.42 m3/sec at Powerhouse site
	Average Annual Precipitation	3316 mm
4	**Diversion Weir & Undersluice**	
	Type of Weir	Boulder Lined Weir
	Length of Weir	15 m
	Crest Elevation	2950.60 masl
	Spillway type	Free overflow
	Undersluice Opening (W X H)	2.50 m x 2.50 m
	Undersluice Invert Level	2946.49 masl
5	**Trash passage**	
	Size of trash passage (W x H)	1.5 m x 2.5 m
	Invert level of opening	2950.10 masl
	Length of trash passage	12.0 m
6	**Intake and Gravel Trap**	
	Type of Intake	Side Intake-Submerged orifice type
	No. of Openings	2 nos.
	Size of Intake (W x H)	2.0 m x 1.6 m
	Intake Sill Level	El. 2950.10 masl
	Intake Invert Level	El. 2948.50 masl
	Length of Gravel Trap	4.0 m
	Width of Gravel Trap	4.8 m
	Particle size to be trapped	5 mm
	Flushing Orifice size (W x H)	0.8 m x 0.8 m
	Flushing Culvert size (W x H)	0.8 m x 1.0 m

S. N	Description	Detail Design Report
7	**Approach Culvert**	
	Type	RCC Culvert
	No. of culverts	1 no.
	Length	105.0 m
	Bed slope	1 in 400
	Size (W x H)	1.6 m x 1.5 m
8	**Approach Culvert (Diverged)**	
	Type	RCC Culvert
	No. of culverts	2
	Length of each culvert	25.0 m
	Bed slope	1 in 600
	Size (W x H)	1.1 m x 1.5 m
9	**Settling Basin**	
	Type	Concrete, Double Bay Dufour
	Dimension (L x B x H)	35.0 m x 6.5 m x 4.1 m
	Inlet Transition Length	12.70 m
	Particle Size to be settled	0.15 mm
	Trapping Efficiency	80% (Vetter's Method)-100 % (Camp's method)
	Sediment Flushing Orifice size (W x H)	1.0 m x 1.2 m
10	**Headrace culvert**	
	Type	RCC box
	Culvert size (W x H)	2.2 m x 2.2 m
	Length	59.5 m
11	**Headrace Tunnel**	
	Type	Inverted D-shaped
	Excavation Size (W x H)	2.5 m x 2.9 m
	Minimum Finished Size (W x H)	2.2 m x 2.5 m
	Length	2020 m
	Type of Lining	Shotcrete/concrete lined as per rock class
12	**Surge Shaft**	
	Type	Simple Cylindrical
	Total Height	25 m
	Finished Diameter	4.5 m
	Up Surge Level	2956.73 masl
	Down Surge Level	2941.88 masl
	Normal Operation Level	2950.60 masl
13	**Drop Shaft**	

S. N	Description	Detail Design Report
	Type / Pipe Material	Circular / Steel pipe
	Internal Diameter-Steel Pipe	1.2 m
	Minimum Finished Diameter	2.2 m
	Excavation Diameter	2.4 m
	Backfill Concrete (M15 Self compacting concrete)	50 cm (Varying)
	Length	255 m
14	**Penstock Tunnel**	
	Type	Inverted D-shaped
	Excavation Size (W x H)	2.9 m x 3.1 m
	Length	253 m
	Type of Lining	Shotcrete/concrete lined as per rock class
15	**Steel Penstock Pipe**	
	Type	Steel Pipe
	Internal Diameter	1.2 m
	Length (Before bifurcation)	1490 m
	Diameter-Length (After bifurcation)	0.85 m dia. of 15 m each
	Steel Thickness	8 mm to 40 mm (IS 2062 E350B0 or Equivalent)
16	**Powerhouse**	
	Type	Surface
	Size (L x W)	28.85 m x 19.50 m
	Height	14.65 m
	Powerhouse Machine Floor Level	El. 2259.00 masl
17	**17 Tailrace Culvert**	
	Type	RCC Box
	Size (W x H)	1.50 m x 1.50 m
	Maximum Tailwater Level (Considering 10% COL)	2256.78 masl
	Minimum Tailwater Level (Considering 20% of design discharge on each unit)	2256.31 masl
	Tailrace Water Level	NA
18	**Turbine**	
	Type	Pelton-Horizontal Axis
	Number	2 nos.
	Rated Output Capacity per unit	11.05 MW + 10 % COL
	Turbine Axis Level	2260.50 masl
	Net Head	679.92 m
	Discharge per Unit	1.8 m3/sec

S. N	Description	Detail Design Report
	Efficiency	91.5%
19	**Governor**	
	Type	Digital Electronic Governor with PID
	Adjustment for Speed Drop	Up to 10 %
20	**Generator**	
	Type	Three phases, Synchronous
	Rated Output Capacity per Unit	12.60 MVA + 10 % COL
	Power Factor	0.85
	Voltage	11 kV
	Frequency	50 Hz
	No of Units	2 nos.
	Excitation System	Brushless Excitation
	Efficiency	97.5%
21	**Transformer**	
	Type	Three phase-Oil Immersed, Outdoor
	Rated Capacity	13.9 MVA
	Voltage Ratio	132/11 kV
	No of Units	2 nos
	Vector Group	YNd11
	Efficiency	99%
22	**Transmission Line**	
	Voltage level	132 kV
	Length	13.5 Km
	Conductor Type	BEAR
	From	Nyad- Phidi HPP's Switchyard
	To	Nyadi HPP'S Switchyard (Connection Point)
23	**Access Road**	
	Naiche to Kharka (Zero Point)	15 Km
	Kharka to Powerhouse	11 Km

2 Resources and Facilities

The project is supported by essential resources and facilities required for its successful implementation. Key infrastructure including access roads and communication systems is in place. Necessary construction equipment, materials and storage areas are being arranged near the site, with provisions for worker accommodations and site offices. Detailed information regarding the available resources and supporting facilities is presented in the sections below.

2.1 Resources from Client

The resources provided by the client under various categories are described below.

2.1.1 Human Resources

Human resources available are listed below.

Table 2: Human resources of Client

S. N	Designation	Nos	Remarks
1	Resident Engineer	1	
2	Sr. Mechanical Engineer	1	
3	Project Engineer	1	
4	Civil Engineer	1	
5	Geologist	1	
6	Sub Engineer	1	
7	Site Supervisor	1	
8	Driver	2	
9	Cook	1	

2.1.2 Facilities

The facilities of the client are listed in the table below.

Table 3: Facilities of Client

S. N	Description	Nos	Remarks
1	Vehicle	2	
2	Motor bike	1	
3	Total Station	1	
4	Computer set	1	
5	Printer	1	
6	Office building	1	
7	Staff quarter	2	
8	Guest house	1	
9	Kitchen building	1	

2.2 Explosive

Table 4: Stock of Blasting materials

S. N	Description	Unit	Quantity	Remarks
1	Emulsion	Kg	8589.3	Remaining
2	Electric Detonator	Nos	10761	
3	Non-Electric Detonator	Nos	11459	
4	Deto- Cord	m	3743	

2.3 Resources from Contractor

2.3.1 Human Resources

Human resources available are listed below

Table 5: Human Resources of Civil Contractor

S. N	Designation	Nos	Remarks
1	Project Manager	0	
2	Site In-charge	1	
3	Engineer	2	
4	Geologist	1	
5	Accountant	1	
6	Surveyor	2	
7	Lab Technician	1	
8	Supervisor	3	
9	Blaster	1	
10	Electrician	3	
11	Welder	1	
12	Drilling Supervisor	1	
13	Driller	1	
14	Driller's helper	2	
15	Driver	6	
16	Operator	5	
17	Helper	4	
18	Cook	2	
19	Vertical Shaft manpower	11	
20	Penstock Alignment manpower	9	
21	HRT Inlet Manpower	13	
22	Ropeway manpower	8	
23	Bridge Manpower	13	

Table 6: Human Resources of HM Contractor

S. N	Designation	Nos	Remarks
1	Site Engineer	1	
2	Supervisor	1	
3	Site Supervisor	1	
4	Excavator Operator	1	
5	Driver	1	
6	Welder	5	
7	Fitter	4	
8	Grinder	2	
9	Helper	2	
10	Store Keeper	1	
11	QC Technician	1	
12	Electrician	1	
13	Sand blasting team	4	
14	Cook	1	

2.3.2 Equipment

The equipment of the contractor are listed in the table below.

Table 7: Equipment of Civil Contractor

S. N	Description	Nos	Remarks
1	Excavator	5	
2	JCB Backhoe Loader	2	
3	6-Wheeler Tipper	2	
4	10-Wheeler Tipper	1	
5	Tractor	3	
6	Bolero	4	
7	Motorcycle	2	
8	Diesel Generator	5	
9	Petrol Generator	1	
10	Compressor	5	
11	Shotcrete Machine	1	
12	Grouting Machine	1	
13	Water Pump	3	
14	Welding Machine	2	
15	Jack Hammer	10	
16	Chainsaw Machine	2	

17	Muck Loader	1	
18	Batching plant	1	
19	Transit Mixture	1	
20	Loader	1	
21	Monkey Jumper	1	
22	Self-loading Mixture	1	

Table 8: Equipment of HM Contractor

S. N	Description	Nos	Remarks
1	Excavator	1	
2	Welding Machine	9	
3	Tractor	1	
4	Compressor	1	

2.3.3 Material

Table 9: Material Stock of Civil Contractor

S. N	Description	Unit	Quantity	Remarks
1	Diesel	Ltr	2000	
2	Cement	Bag	900	

3 Activities at Site in March 2025

Activities carried out during this period are briefly described hereunder:

3.1 Infrastructure Development

For the success of the project, most of the required infrastructures are been constructed and few are been ongoing.

3.1.1 Internal Approach Road

To Headworks:

Towards the headworks, internal approach road has been completed. 5+100.00m of the road which equals to almost 100 % of the total road is completed and widening and upgrading of the road is also completed.

To Powerhouse:

No work in this month. Upto the date, excavation of the internal approach road to powerhouse is completed up to 0+680 m chainage and about 220 m of the road section is remaining for excavation.

3.1.2 Ropeway Construction

All the equipment for the construction of the ropeway has arrived at the project site. The accessories for tower erection have been shifted to all respective towers from the base location. The construction of the all three towers has been completed and the main track rope and pulling rope have been shifted from base location to the Top anchor. The tensioning of rope has been completed and the transportation of winch is on hold due to insufficient quantity of pulling rope.

3.1.3 Construction Power

Construction power from NEA has been made available at the project site. Construction power of NEA is being supplied to both headworks and powerhouse areas.

3.2 Civil Works

The civil works of this project involve the construction of key infrastructure components such as the headworks, diversion weir, intake, approach culvert, settling basin, headrace tunnel, surge shaft, penstock alignment and powerhouse. These works are essential for guiding and controlling the flow of water to generate electricity efficiently. Activities under the civil works include excavation, concreting, tunnelling, slope stabilization and construction of hydraulic structures.

3.2.1 Penstock Tunnel and Vertical Shaft Construction

The penstock tunnel is a component that conveys pressurized water through penstock pipe from surge shaft to the powerhouse turbines. The tunnel alignment is carefully selected to minimize hydraulic losses while ensuring structural stability. The penstock tunnel and vertical shaft have a total designed length of 253 meters and 255 meters.

Excavation of the Penstock Tunnel has been completed and the widening of the tunnel for raise climber is also completed. The construction of vertical shaft has been started at end of this month. The excavation is being carried out with a strong emphasis on ensuring safety and maintaining structural integrity throughout the process. The excavation of vertical shaft has been started and 77.75m excavation have been completed up to this month.

3.2.2 Penstock Alignment

The site clearance and excavation for track opening from AB 9 to AB 12 have been completed and excavation for Anchor Block 12 is been completed. The PCC work along with plum infill concrete and first stage rebar work of AB 12 is also completed.

3.2.3 Headworks

In Headworks area, site clearance in intake area and layout of different structures is completed. The first-stage river diversion for cofferdam construction has been completed and the

earthwork excavation in undersluice also has been completed. The concreting works in u/s cutoff wall of undersluice u/s panel has been completed this month.

Also, in Desander area, site clearance works have been completed and the excavation work is ongoing.

3.2.4 Inlet HRT

Camp construction works for sub-contractor is completed and portal preparation works have been completed. 19.2m excavation of headrace tunnel have been completed up to this month and excavation work is on progress.

3.3 Hydromechanical Works

The hydromechanical works for the project are progressing now. A total of 208 steel plates, equivalent to approximately 1,180 tons have been arrived and stored at the mechanical yard in Pokhara for further fabrication and assembly. These materials are a key component for the hydromechanical works, including penstock and associated structures. The construction of three staff camps at the project site to accommodate personnel for the ongoing and upcoming works has been completed.

A team from the hydromechanical contractor has been mobilized to the site, the construction of the workshop is completed. Also, pipe transportation to the site is ongoing and 423 nos. of pipes of variable sizes and AB-11, AB-12 bends have been transported which is almost 1062.5 m. Furthermore, welding of 208 nos of variable size (2.5m each) and AB 12 bend have been completed and testing of 176 nos of pipes have been completed. Welding and testing of pipes is ongoing.

3.4 Electromechanical Works

The electromechanical works for the project are in the preliminary phase. The process for selecting a qualified company for the supply and installation of electromechanical equipment has been completed which includes evaluation of proposals from potential contractors to ensure compliance with technical specifications, quality standards and project timelines. The contract has been awarded to Flovel Energy Pvt. Ltd. The selected company will be responsible for the procurement, delivery, installation, testing and commissioning of key components such as turbines, generators, control systems and auxiliary equipment essential for the successful operation of the hydropower plant. The contractor is currently preparing the documents for the LC process.

3.5 Transmission Line Works

For the transmission line works, the Initial Environmental Examination (IEE) has been completed and the survey license has been obtained. The bidder pre-qualification process has been successfully completed and the tendering process is currently underway.

3.6 Other Works

3.6.1 Laboratory Setup

The construction of the on-site laboratory and the installation of the Los Angeles Abrasion testing machine and the Compressive Strength testing machine (CTM) has been completed. The calibration of CTM has been also completed and the mix design process have been completed.

3.6.2 Health and Safety

Health and safety measures have been implemented to ensure the safe execution of project activities. Personal Protective Equipment (PPE) has been provided to all the staff and workers in road construction and tunnel excavation and its use is strictly enforced on site. Additionally, instruction signboards have been installed at both the construction and project areas to promote awareness and compliance with safety protocols.

3.6.3 Quality Control

Quality control at the project site is being closely monitored to ensure all construction activities meet the required standards. Site engineer and supervisor are observing the quality of work on a regular basis, with particular attention to material handling and workmanship. Material testing is planned to commence as soon as the on-site laboratory setup is completed and the testing machines are properly calibrated. This will enable systematic verification of construction materials, further strengthening the overall quality assurance process.

3.6.4 Regular Meeting

Regular meetings are held once a week following the submission of the weekly progress report. These meetings serve as a platform to review the current status of work, discuss challenges, and plan upcoming activities. Participation from key personnel ensures effective coordination, timely decision-making and smooth progress at the project site.

3.7 Project Progress

A summary of the project's progress is presented in the table below.

S. N.	Description	Unit	Total Qty	Till Previous Month	This Month Progress	Completed Till Date	% Completed
A	**Infrastructure Development**						
1	Internal Approach Road						
	To Headworks	Km	5.10	5.10	0.00	5.10	100%
	To Powerhouse	Km	0.90	0.68	0.00	0.68	75.56%
2	Ropeway						

S. N.	Description	Unit	Total Qty	Till Previous Month	This Month Progress	Completed Till Date	% Completed
	Supply and delivery of equipment and accessories	LS	1	1	0	1	100%
	Shifting of equipment and accessories	LS	1	0.95	0	0.95	95%
	Tower erection, testing and commissioning	LS	1	0.7	0	0.7	70%
3	Construction power						
	Up to Powerhouse	LS	1	1.0	0.0	1.0	100%
	Up to Headworks	LS	1	1.0	0.0	1.0	100%
4	Army Camp						
	Foundation work	LS	1	1.0	0.0	1.0	100%
	Superstructure	LS	1	1.0	0.0	1.0	100%
	Plumbing and electrical work	LS	1	1.0	0.0	1.0	100%
	Fencing and finishing work	LS	1	1.0	0.0	1.0	100%
B	**Civil Work**						
1	Mobilization	%	100%	50%	0%	50%	50%
	Underground works						
2	Penstock tunnel	rm	253	253.75	0.0	253.75	100%
3	Vertical Shaft Tunnel	m	255	4.35	73.40	77.75	34.56%
4	Headrace Tunnel	m	2020	5.5	13.7	19.2	0.95%
	Surface works						
5	Headworks						
a	River diversion works	LS	1	0.5	0	0.5	50%
b	Undersluice						
	Excavation	LS	1	1	0	1	100%
c	Desander						
	Excavation	LS	1	0.6	0	0.6	60%
6	Penstock Alignment						
	Excavation CAB-8 to CAB-12	rm	0+560 to 0+800	240	0	240	

S. N.	Description	Unit	Total Qty	Till Previous Month	This Month Progress	Completed Till Date	% Completed
C	**Hydromechanical Work**						
1	Mobilization	%	100%	50%	0%	50%	50%
2	Steel plate reached at Pokhara shop	Ton	1180	1180	0	1180	100%
3	Fabrication of pipe		Started from 28th Nov 2025 at Pokhara shop				

	Size (mm)	**36**	**32**	**28**	**25**	**22**	**20**	**18**	**16**	**14**	**12**	**10**	**8**
	Edge Preparation	54	132	93	18	12	12	12	18	10	7	6	49
	Rolling	54	132	93	18	12	12	12	18	10	7	6	49
	LS Welding (2.5m)	36	78	4	17	12	12	11	17	10	3		8
	NDT (2.5m)	28	72		17	11	8	11	15	7	3		4
	Site Reached	54	132	93	18	12	12	12	18	10	7	6	49

D	**Electromechanical Work**					
1	Bid Submission	LS	1	1	0	1	100%
2	Contract award	LS	1	0	1	1	100%
E	**Transmission Line Work**					
1	PQ process	LS	1	1	0	1	100%
2	Tender Process	LS		Ongoing			

4 Expected Progress for April 2026

The work throughout the all fronts will be continued and the expected progress for the month of March is hereunder.

4.1 Internal approach to Powerhouse

Track Excavation of the internal access road to top of powerhouse is almost completed. Furthermore, layout of the powerhouse area and excavation is expected to start in the month.

4.2 Ropeway Construction

The transportation of winch up to top station will be started and expected to complete this month and handover within the end of the month.

4.3 Headworks

In Headworks area, excavation of the undersluice have been completed and concrete works of two panel will be continued in undersluice. Also, in Desander area, excavation of desander will be continued.

4.4 Inlet HRT

Tunnel excavation will be continued targeting 60 m for this month.

4.5 Penstock Tunnel Construction

Tunnel excavation will be continued targeting 75 m for this month.

4.6 Hydromechanical works

Hydromechanical team is transporting the fabricated pipe to site and welding works will be continued. The AB-12 bend will be erected in this month.

4.7 Penstock Alignment

The construction of AB 12 will be continued and the excavation in AB 9 and AB 10 will be started.

5 Appendices

5.1 Appendix 1: Photographs

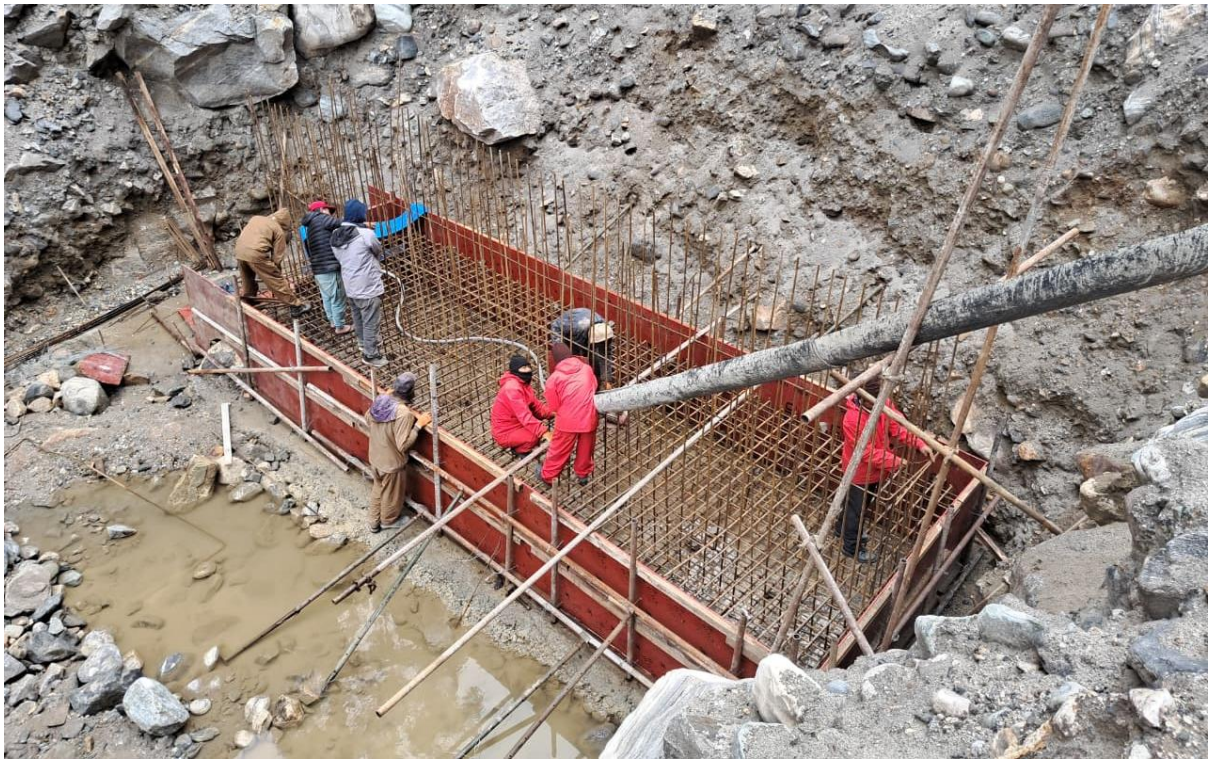

Figure 1: Preparation for concreting in Undersluice u/s cutoff

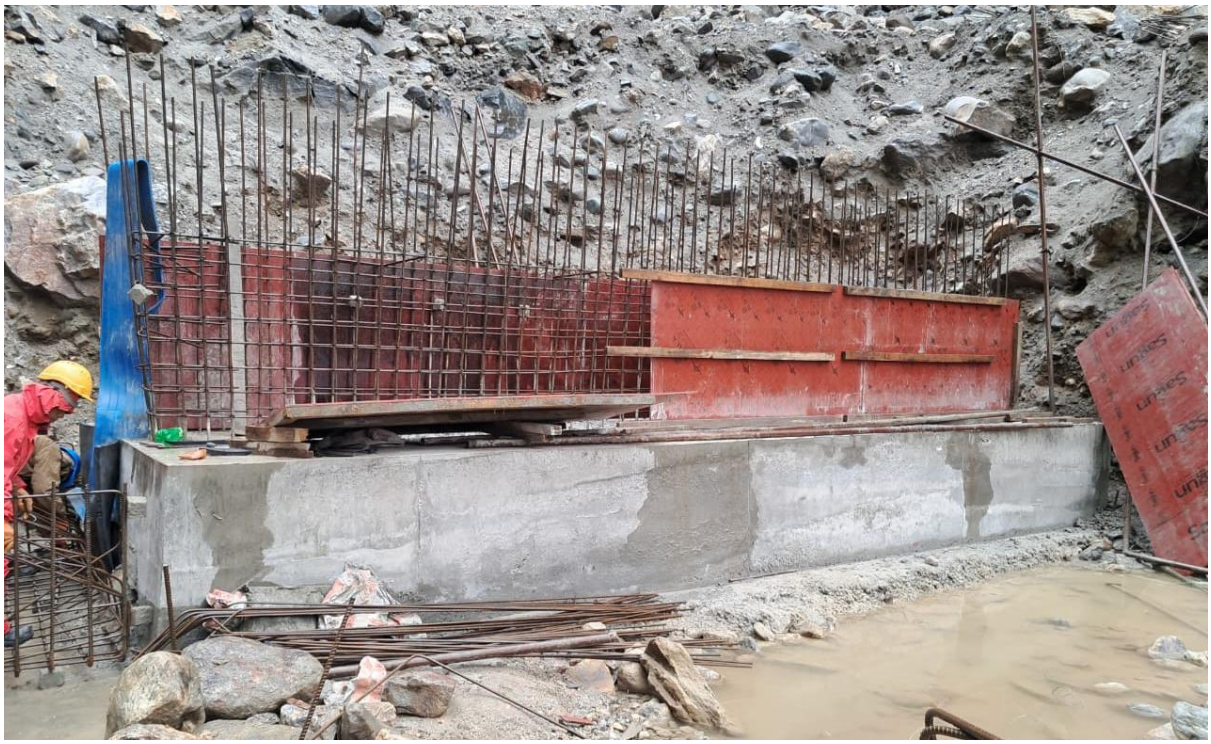

Figure 2: Rebar and formworks in Undersluice u/s cutoff in Headworks

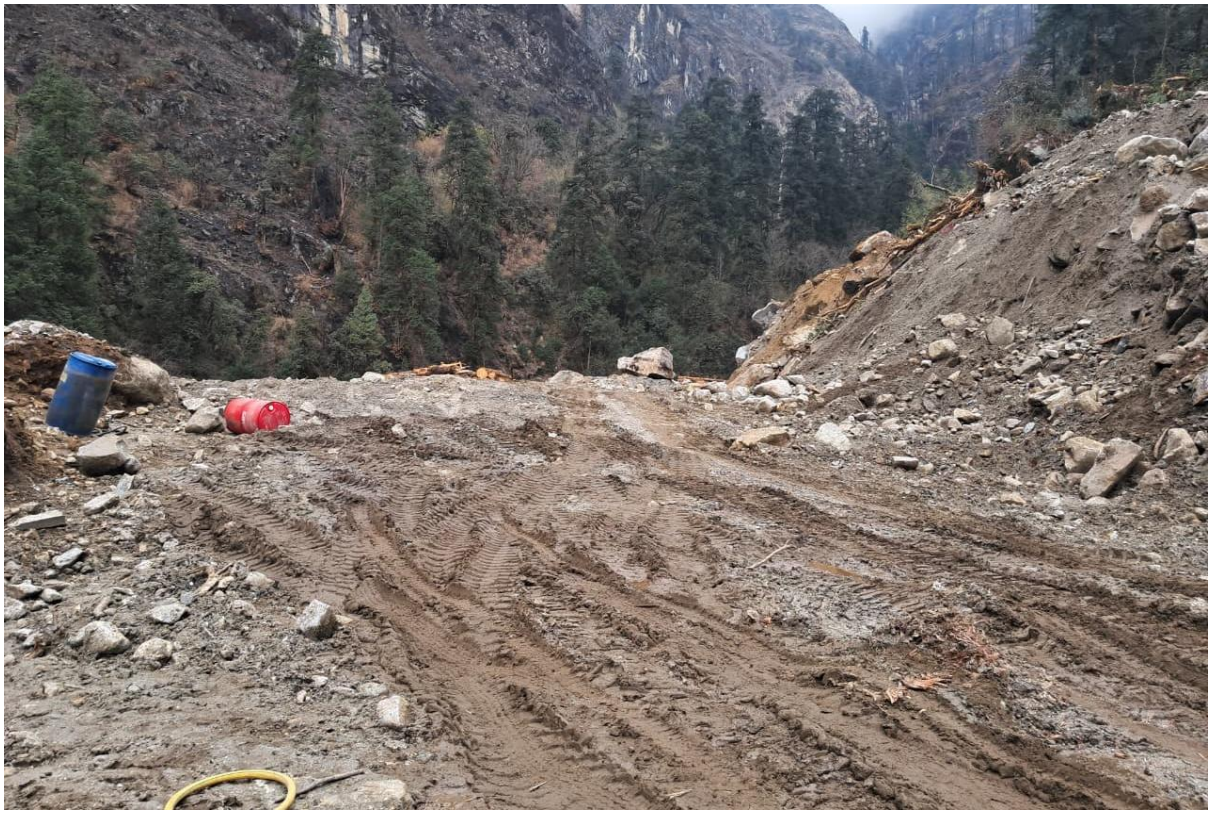

Figure 3: Earthwork excavation in Desander and Approach culvert area

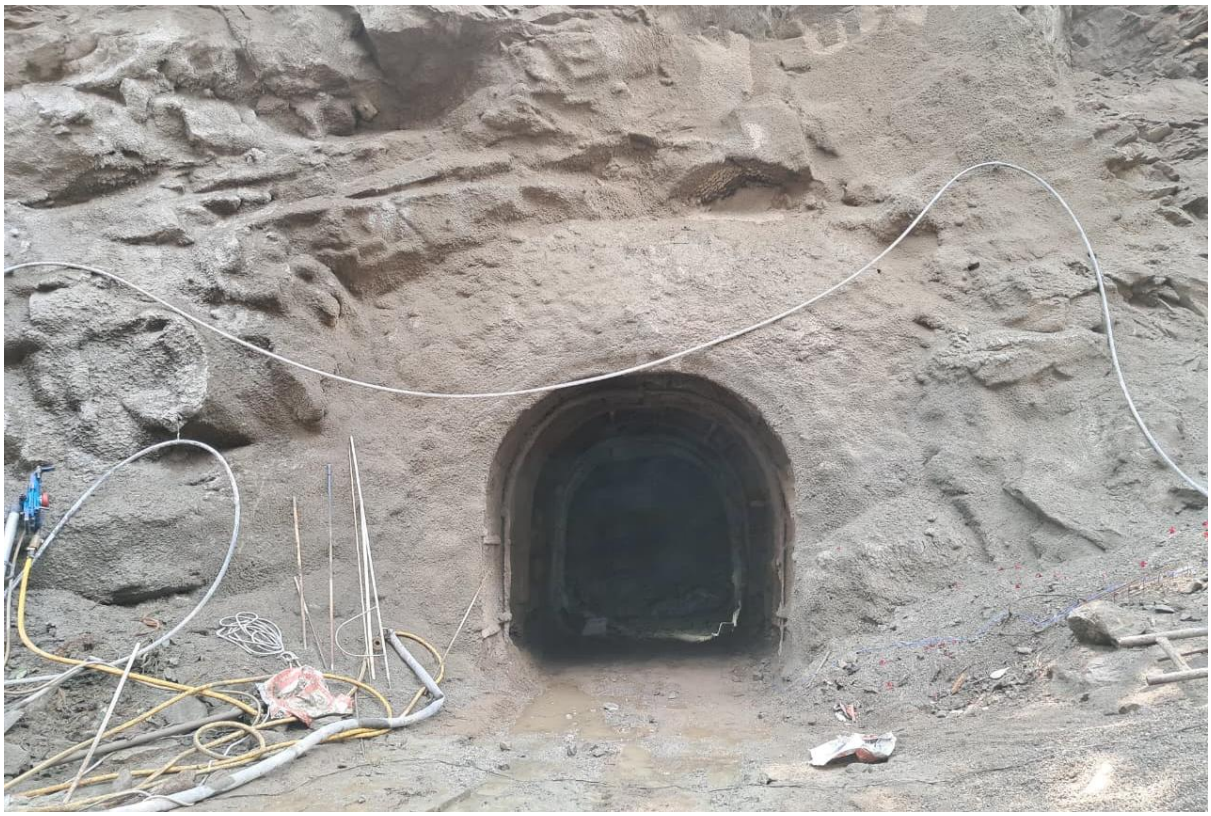

Figure 4: Shotcreting in Inlet Portal

Figure 5: Inlet tunnel face at ch 0+010.20m

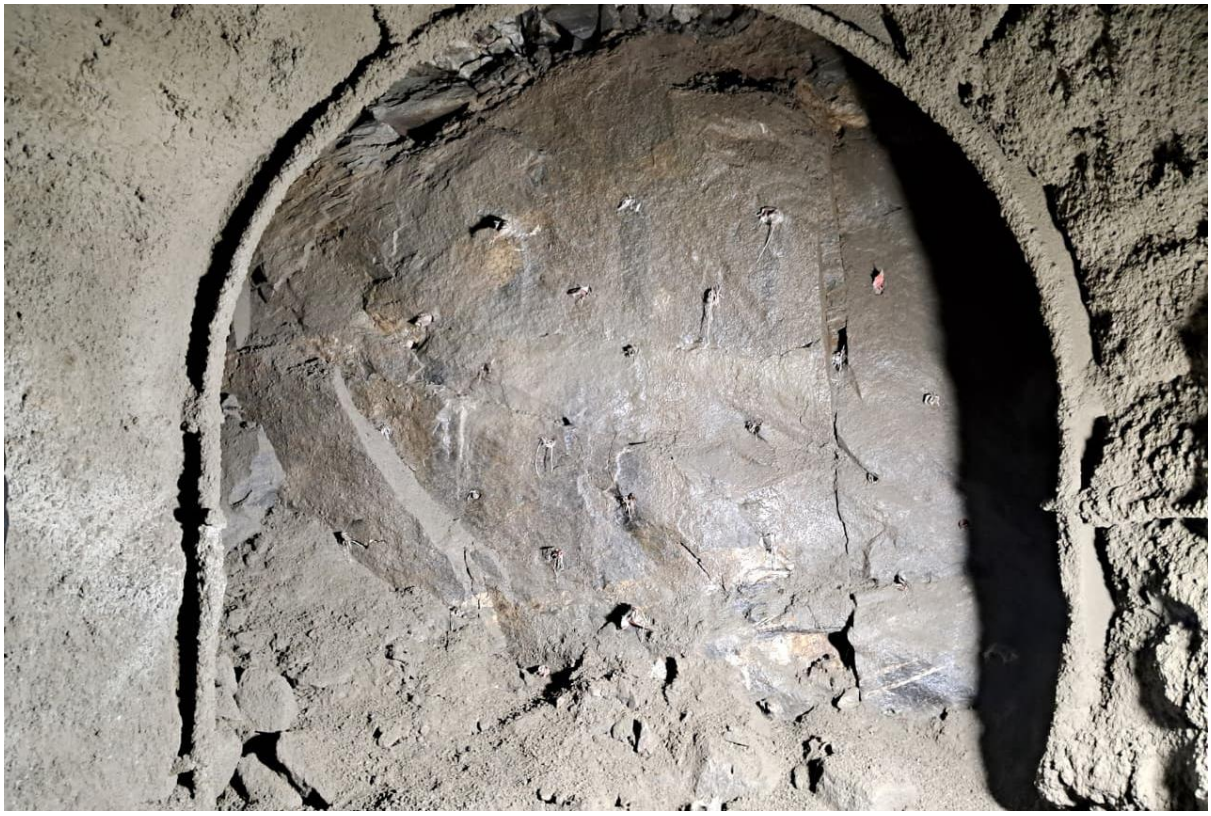

Figure 6: Inlet tunnel face at ch 0+017.40m

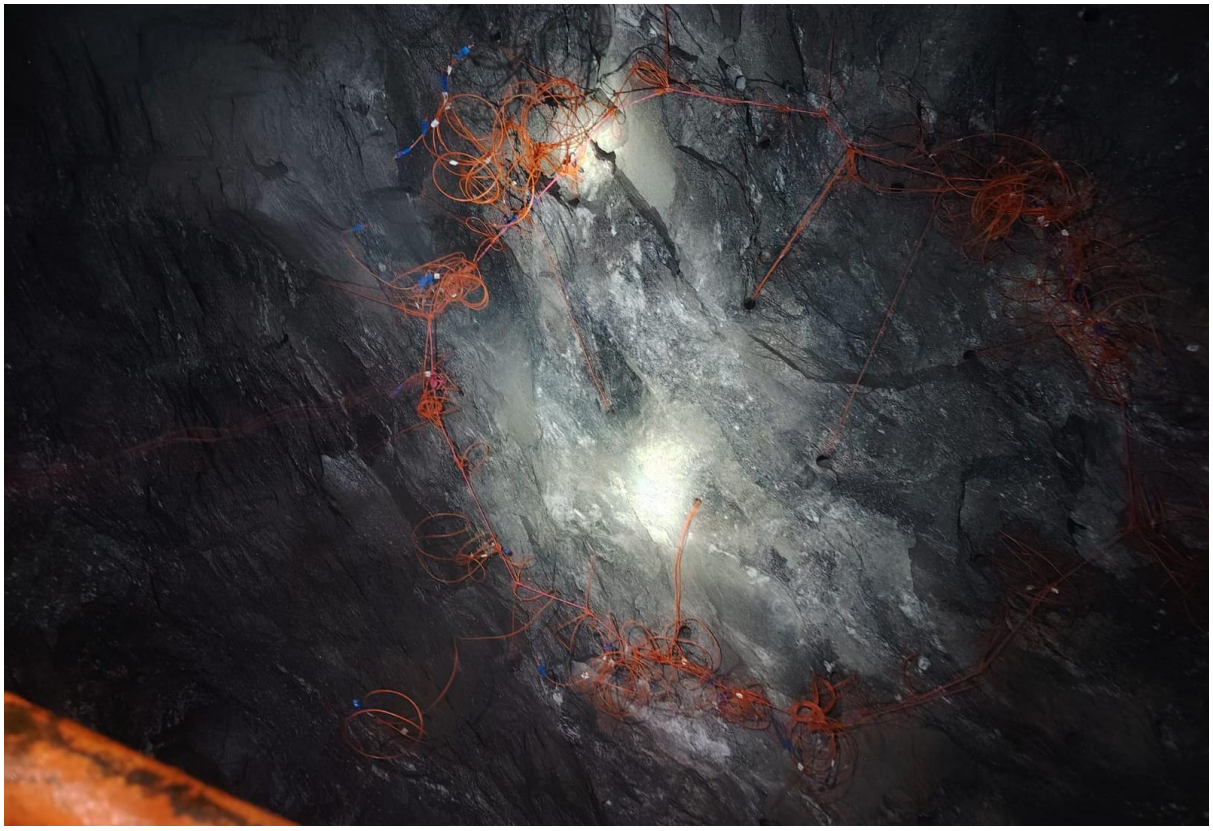

Figure 7: Preparation for blasting in Vertical Shaft

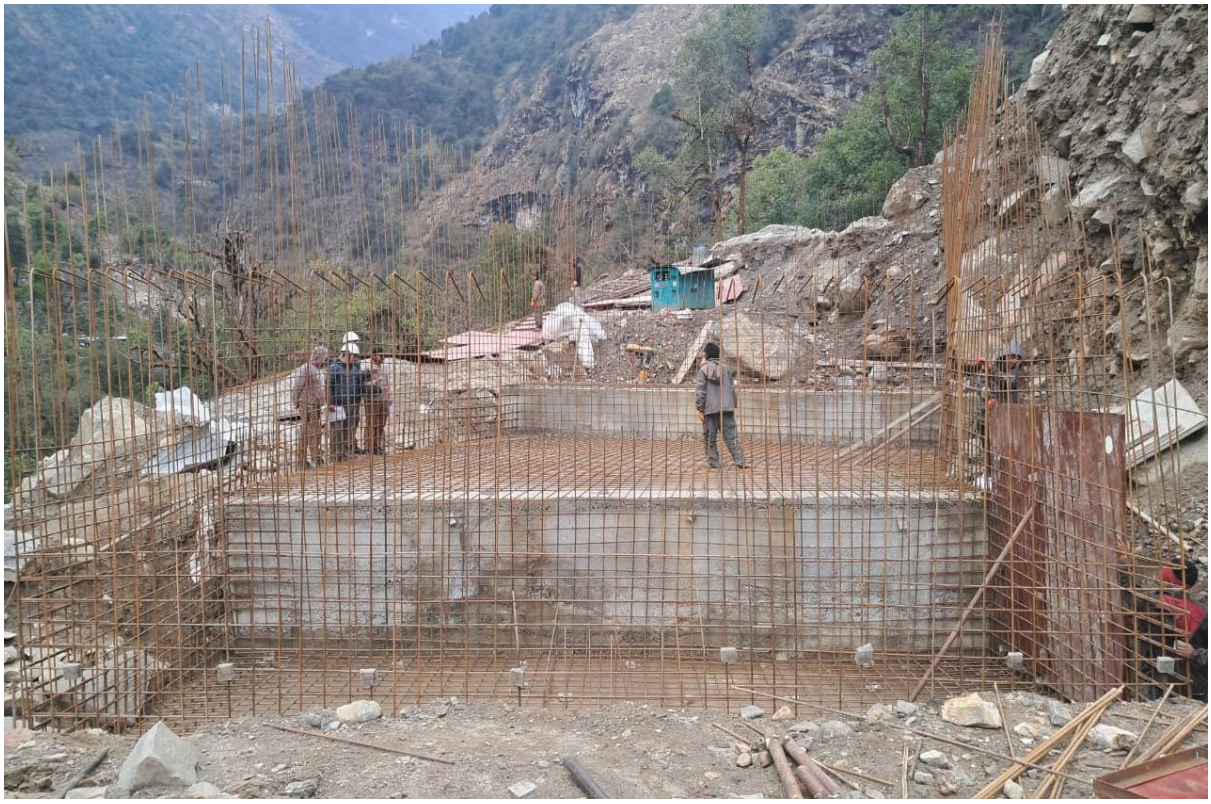

Figure 8: Rebar work in AB 12

Figure 9: Formwork in AB 12

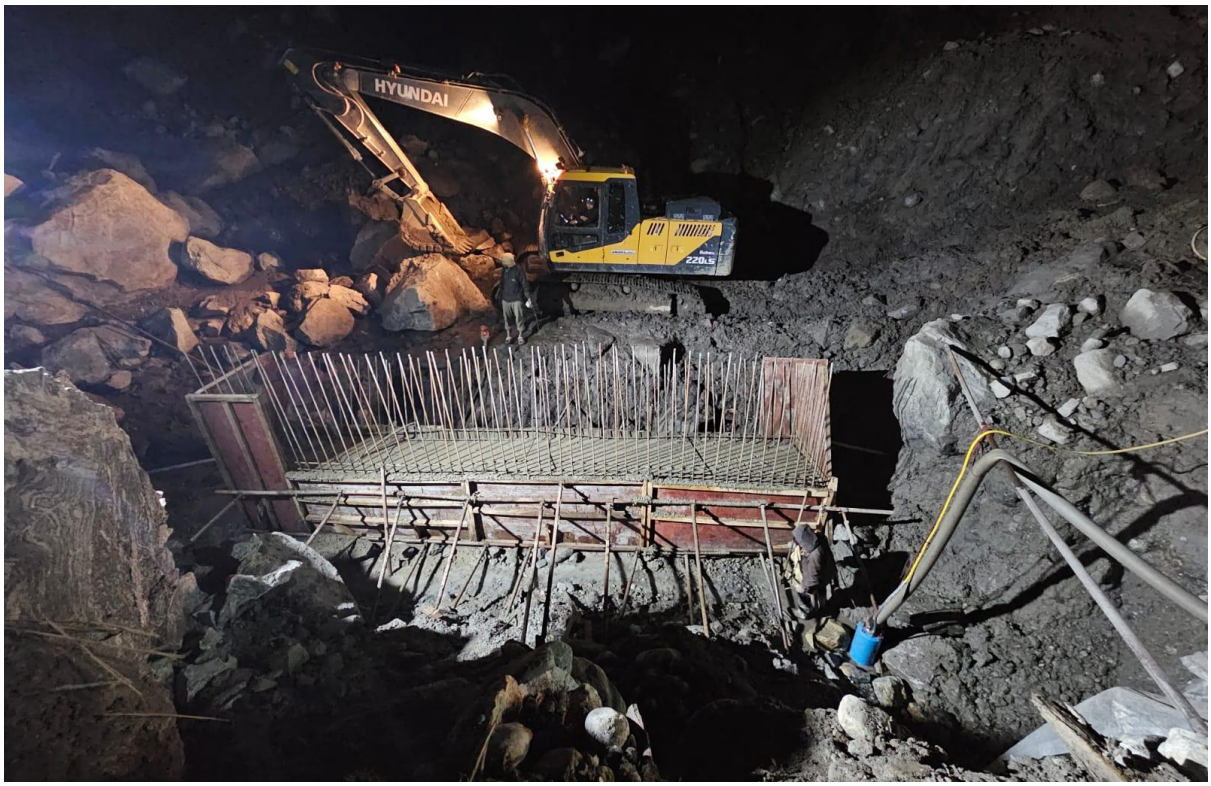

Figure 10: Concreting in key part of bridge left abutment

Figure 11: Rebar work in Bridge left abutment

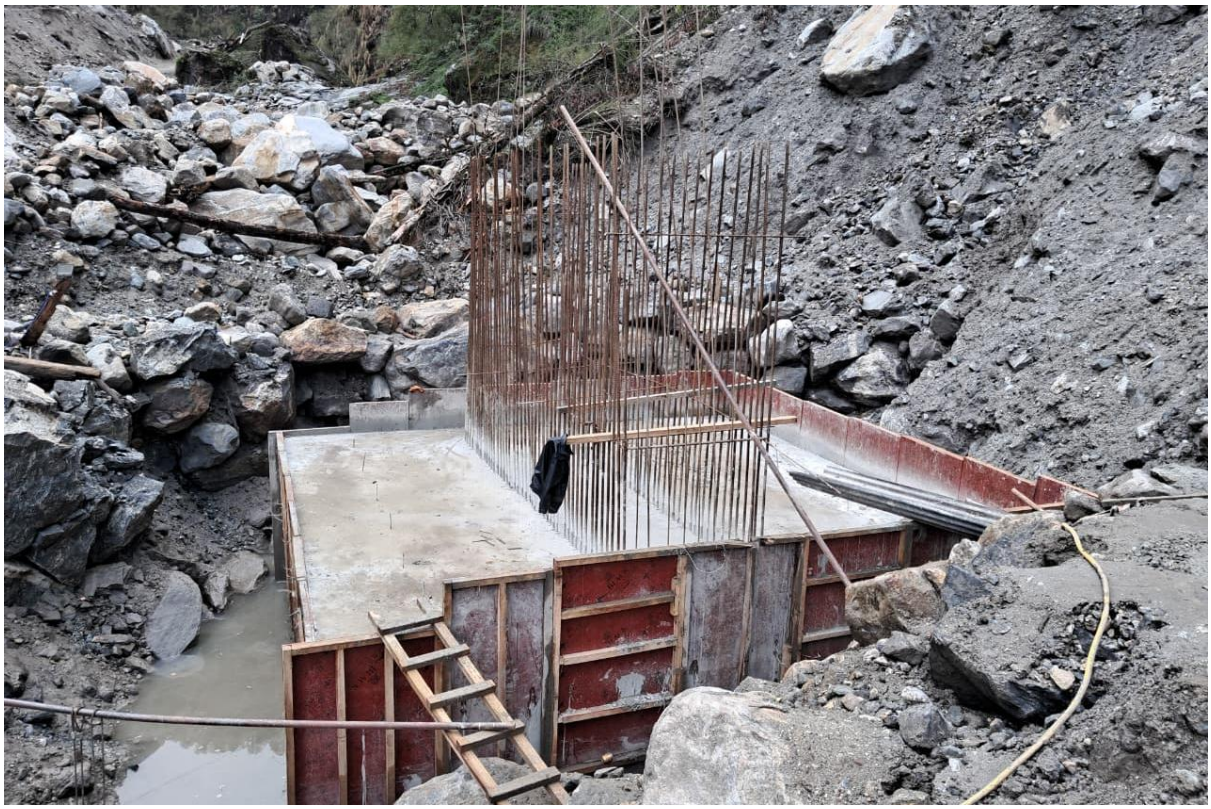

Figure 12: Base concreting in Bridge left abutment

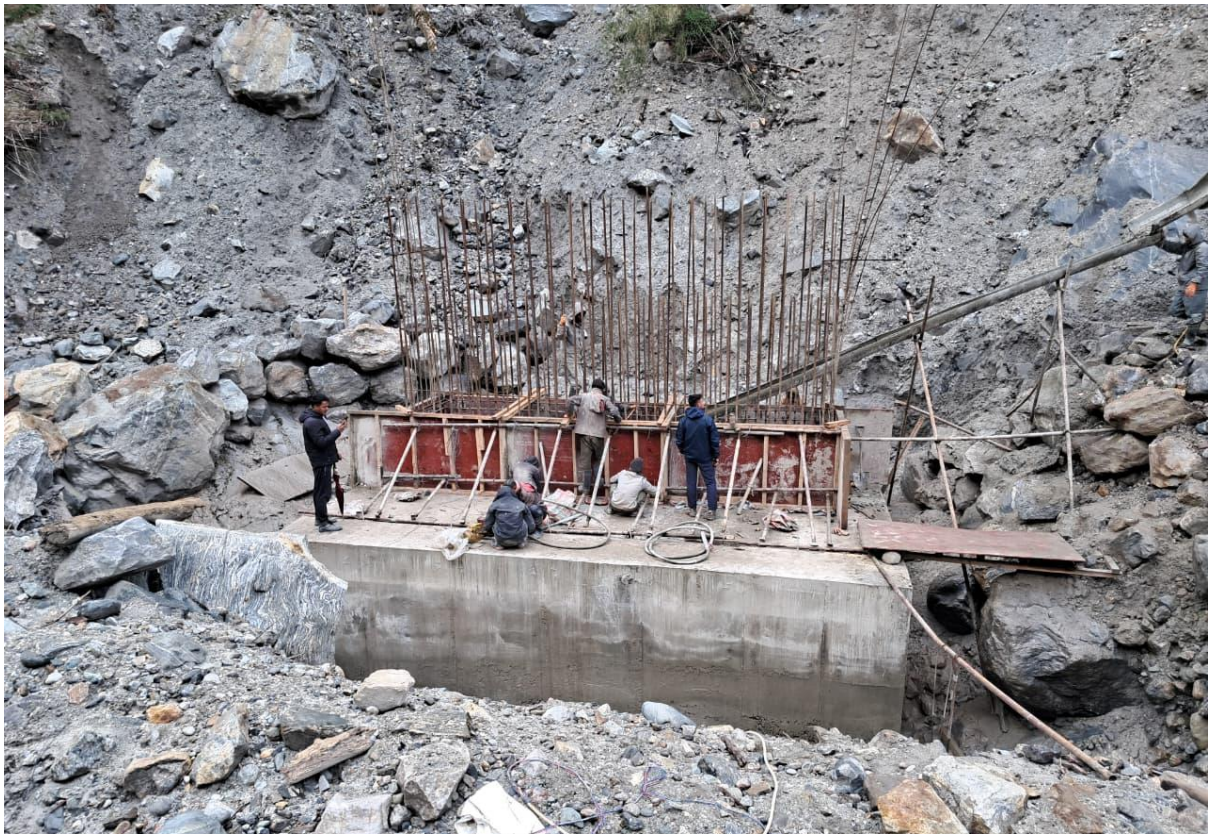

Figure 13: Preparation for first lift of stem wall of Bridge left abutment

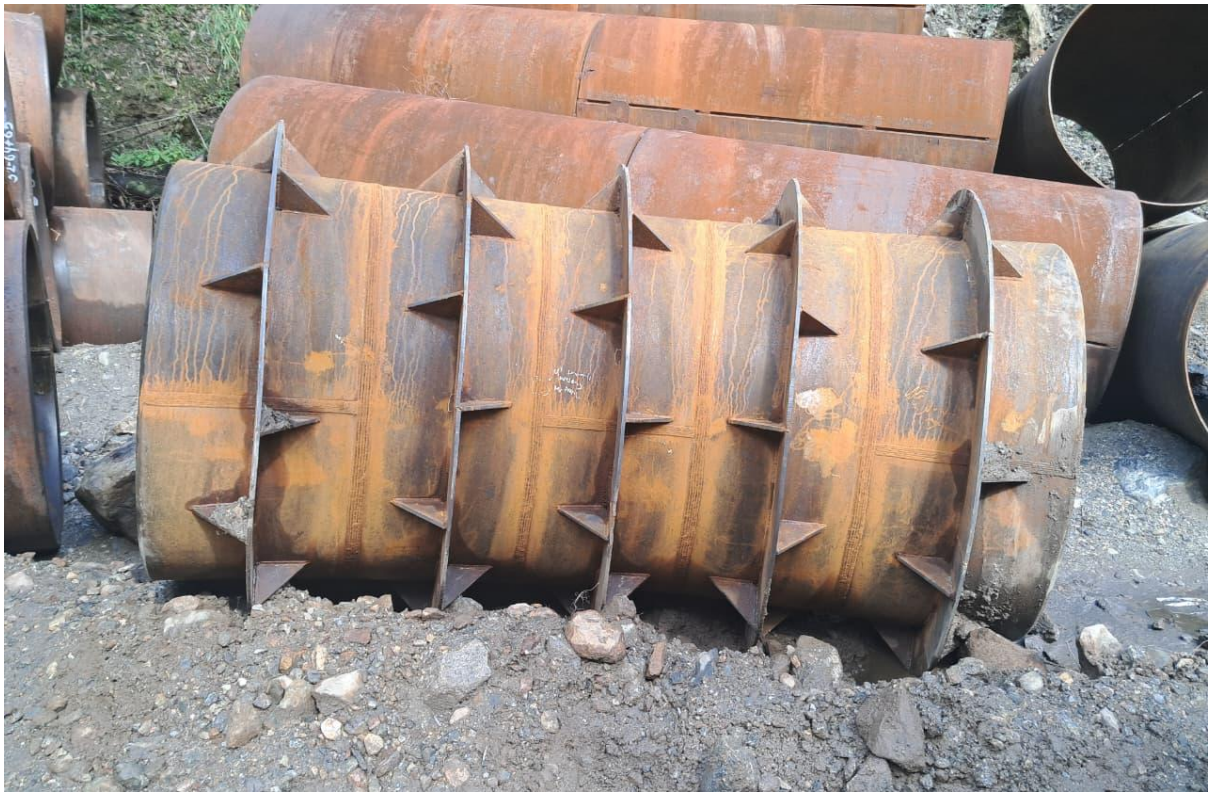

Figure 14: Anchor block 12 bend pipe

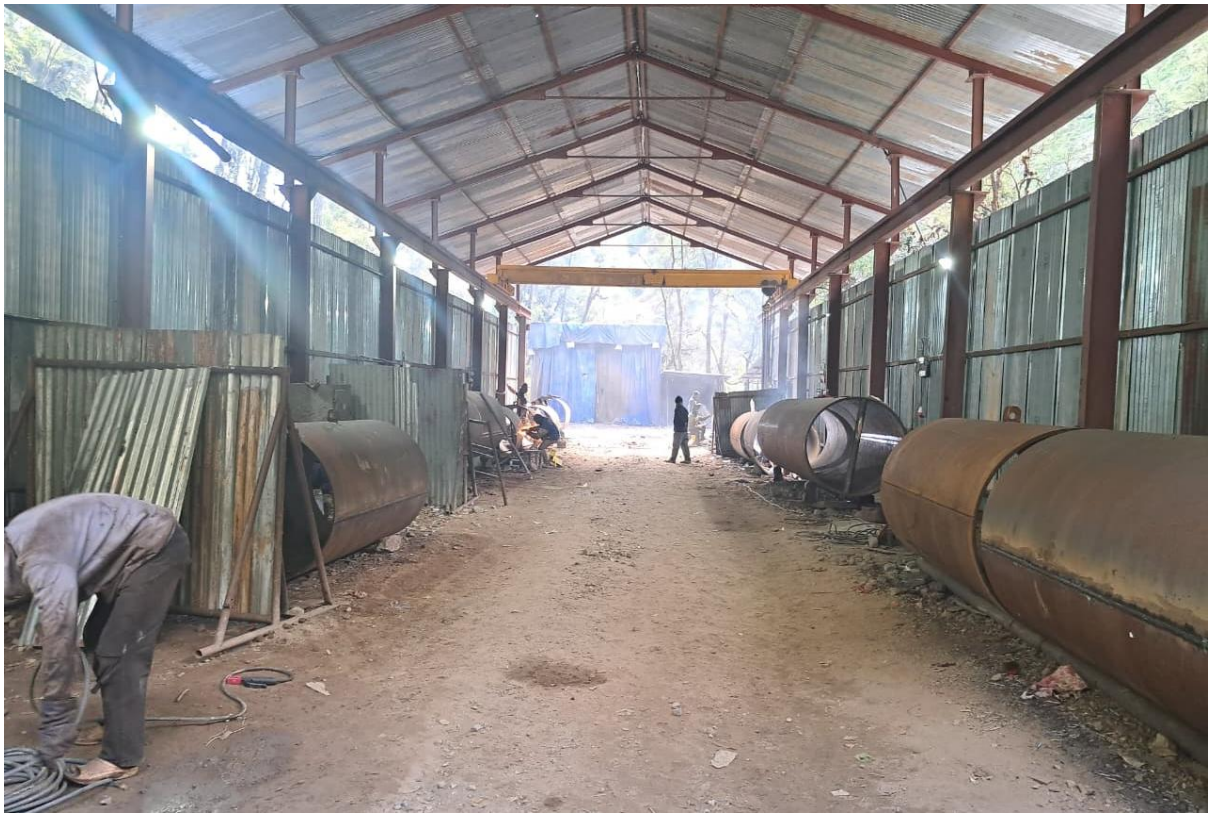

Figure 15: Hydromechanical workshop

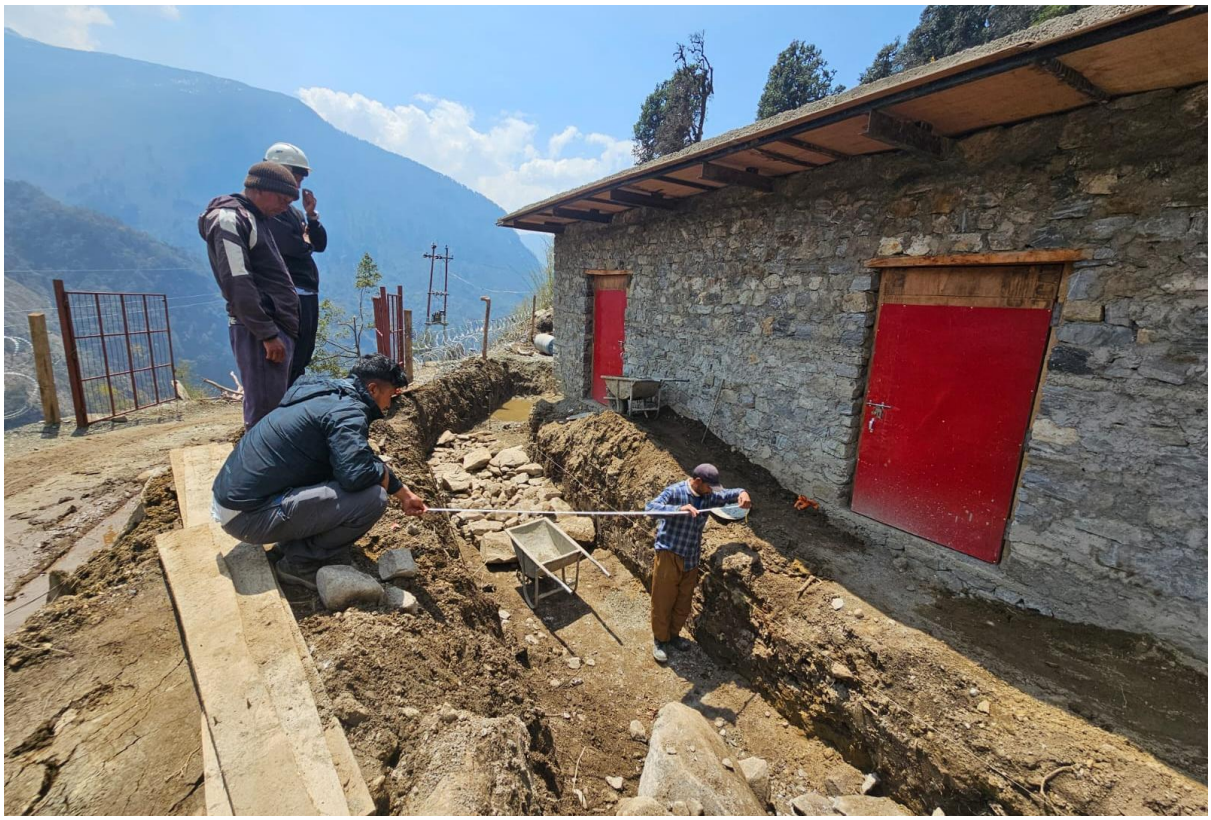

Figure 16: Foundation of Bunker traverse wall

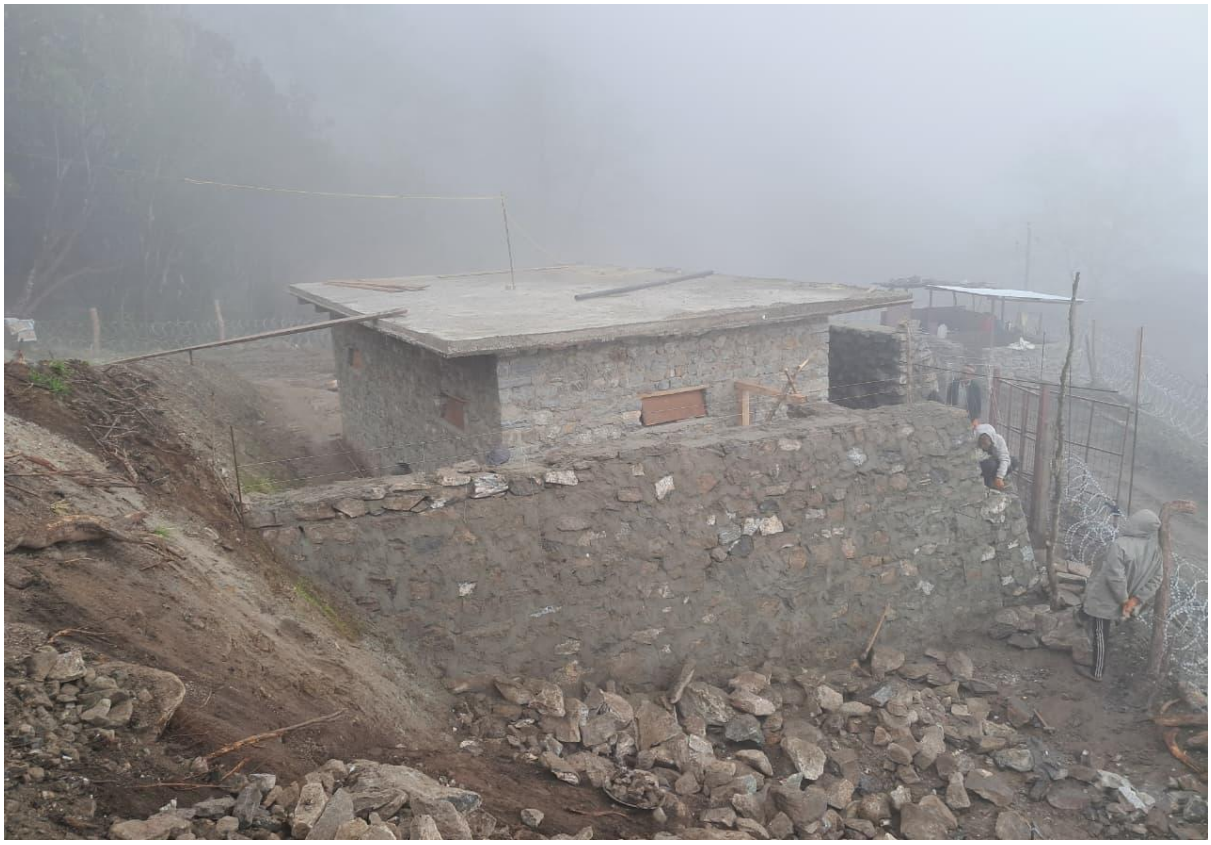

Figure 17: Traverse wall of Emulsion bunker