Monthly Progress Report

Amadablam Mini Hydro Subproject (911 kW)

Khumbu Pasanglhamu Rural Municipality, Ward No. 4

Solukhumbu, Nepal

Submitted To:

Alternative Energy Promotion Centre (AEPC)

Mini Grid Energy Access Project (MGEAP)

Central Renewable Energy Fund (CREF)

Siddhartha Bank Limited (SBL)

Khumbu Pasanglhamu Rural Municipality (KPLRM)

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November 2025

Monthly Progress Report of November 2025

1. Executive Summary

1.1 Brief Overview of the Project

Amadablam Mini Hydro Pvt. Ltd, Tilganga -8, Kathmandu, an Energy Sector Company (ESCO) intends to implement Amadablam Mini Hydro Subproject in Khumbu Pasanglhamu Rural Municipality-4, Solukhumbu district in Koshi Province, as a business /PPP model through technical and discussion in financial support of Government of Nepal and the World Bank through AEPC/MGEAP. The sub-project is in Sagarmatha National Park which lies on the trekking trail of Everest Base Camp which is one of the most popular tourist areas of Nepal. ESCO intended to provide electricity to households and other energy users such as Anchors/Business and Community. ESCO will be responsible for development, operation, maintenance, and management of the mini hydro plant. They will be functioning as a service provider and owner of the subproject.

Amadablam Mini Hydro Pvt. was changed to a public limited in 10th October 2023. This was done to facilitate the process of PPP model with Khumbu Pasanglhamu Rural Municipality. At present there are seven number of shareholders in the company, which also includes Beyul Hydro investment Pvt. Ltd. The office of Amadablam Mini Hydro Limited was located in Kapan, Nilopul, Kathmandu. Office location has been recently changed to Chandol, Kathmandu. The subproject is to be implemented as a business model through the technical and financial support of the Government of Nepal and the World Bank through AEPC/MGEAP. Furthermore, the subproject is supported by Foreign, Commonwealth and Development Office (FCDO) through AEPC/NREP.

Amadablam Mini Hydro Project is a run of the river type (RoR) scheme located in ward no-4 of Khumbu Pasanglhamu Rural Municipality of Solukhumbu district. The project is located inside the core region of Sagarmatha National Park. The project utilizes water diverted from Cholunche Khola to generate 911 kW power. The design flow of the project is 250 lps and gross head is 471.87 m. Cholunche Khola is a perennial river which flows from the Himalaya peak on the Northern side of Solukhumbu district and is a tributary of the Imja River. The project site is located near Pangboche village of Solukhumbu district. The boundary coordinates of the project lie between latitude 27° 50' 50" N and 27° 51' 40" N and longitude 86° 47' 49" E and 86° 49' 19" E. The proposed intake site is located at 27°50'56.52"N, 86°49'6.15"E and an elevation of 4422 amsl. The powerhouse site is located at 27° 51 '12.98"N, 86° 47' 49.21"E and an elevation of 3951.18 amsl. The project will be serving 451 households.

Project Financials:

SN	Source of Fund	Amount (NRs.)
1	AEPC	
1.1	Subsidy (MGEAP)	128,307,000.00
1.2	VGF Support (SECF)	170,050,000.00
2	Loan from Partner Bank (Siddhartha Bank)	150,000,000.00
3	Equity of ESCO	90,544,638.89
4	Investment of RM	80,000,000.00
	Total Subproject Cost (1+2+3)	**618,901,638.89**

1.2 Summary of key accomplishments to date

1.2.1 Agreements between Stakeholders

ESCO and RM:

First agreement : 1st January 2024

First Amendment : 12th February 2025

Second Amendment : 15th April 2025

AEPC and ESCO: : 29th March 2024

ESCO and Partner Bank:

Syndicated Credit Facilities Agreement : 7th January 2024

Supplementary Credit Facilities Agreement : 22th April 2025

1.2.2 Procurement

Board Meeting Minutes and the minutes from the Procurement Committee meeting held on November 3 have been prepared and finalized. Key decisions included the approval of the vendor shortlist, Contract Agreement signed and the initiation of the purchasing process for remaining mechanical equipment and electrical accessories at the power house.

Procurement Status are as follows:

1. **Earthing Mat**
   The design agreement for the Earthing Mat was officially signed on 25 November 2025, marking an important milestone toward project implementation.
2. **Transmission & Distribution (T&D) Works Phase- II**
   The technical evaluation for Phase-II of the T&D works has been successfully completed. The documents have now been forwarded for final approval, which is currently in progress.
3. **Electromechanical Equipment (EOT Crane and Diesel Generators)**
   The procurement team is actively collecting and reviewing quotations for power and distribution transformers to support purchase planning for the upcoming electro-mechanical installations.
4. **Electrification of Mingmo Village**
   Consultations are ongoing with Koju Engineering & Builders Pvt. Ltd. regarding the electrification works for Mingmo Village. Discussions are progressing smoothly as we work toward finalizing the implementation plan.

❖ **Compliance**

1. Earthing Mat design agreement signed on 25 November 2025.
2. T&D Phase II technical evaluation completed and submitted for final approval.
3. Procurement process initiated with collection of quotations for transformers. Ongoing coordination with Koju Engineering & Builders Pvt. Ltd. for Mingmo Village electrification.

❖ **Challenges**

1. Final approval for T&D Phase II is still pending.
2. Procurement timelines may extend due to evaluation of multiple transformer quotations.
3. Technical and logistical details for Mingmo Village electrification are still under discussion.

❖ **Next Steps**

1. Follow up to secure final approval for T&D II- Phase.
2. Complete evaluation of transformer quotations and proceed with procurement.
3. Finalize technical plans with Koju Engineering & Builders for the Mingmo Village electrification rollout.

1.3 Key Challenges Encountered and Solutions Implemented

Due to cold weather, work at the intake site is halted. Excavation works have commenced at both the penstock alignment and the powerhouse site; however, due to extreme cold weather (0°C at morning and -7°C at night) conditions on site, manpower could not be sustained at the penstock alignment. If the temperature deepens further, the work might need to stop until summer.

2. Work Progress Overview

Amadablam Mini Hydro Limited is partially satisfied with the current work progress of the contractors. The civil contractor has submitted the running bill for approval and the work has been going on at the site. So far, the contract of the T&D contractor has been extended till December with some conditions. The HM contractor has initiated the transportation of the HM components from roadhead to site and planning for EDF of expansion joints and accessories. The EM contractor has significantly progressed the fabrication work and planned for FAT in early February.

2.1 Activities

2.1.1 Human Resource Management

During the month of November, the Human Resource Department successfully carried out regular operational activities with a focus on staff coordination, record management, and stakeholder communication.

1. Staff Operation & Coordination

- Maintained smooth day-to-day HR operations, ensuring timely support to all departments.
- Coordinated effectively with staff regarding duties, concerns, and administrative needs.

2. Attendance & Record Management

- Updated and maintained staff attendance records, including leave, punctuality, and absences.
- Ensured the accuracy and proper filing of HR documents, both in physical form and digital formats.

3. Monthly Staff Meeting

- Successfully conducted the scheduled monthly staff meeting on the 1st Tuesday of the Nepali month.
- Discussions included staff performance, success, compliance requirements, upcoming tasks, and challenges.

4. Shareholder Information Management

- Actively maintained shareholder details in both hard-copy and digital formats.
- Regularly communicated with shareholders via phone to confirm or update required details.
- Provided prompt responses to shareholder emails and calls, including inquiries related to share advances and project progress.

5. Communication & Responsiveness

- Ensured quick and professional communication with internal staff and external stakeholders.
- Continued to strengthen trust by addressing queries and providing accurate information in a timely manner.

2.1.2 Meetings and Events

a. Monthly Staff Meeting

The HR department successfully conducted the monthly staff meeting on 18th November, where we discussed overall project progress, annual leave management, working hours, roles and responsibilities, salary and DSA matters, and other relevant agendas.

b. Meeting with AEPC

A meeting was held with AEPC on 21st November to address key financial issues, including contractor payments to be settled before December, equity fund-raising updates, and other necessary financial clarifications.

c. Board Meeting Preparation

The virtual Board Meeting was held on 28th November wherein the discussions focused on AGM planning, staff contract agreements, and additional agendas requiring board attention.

2.2 Summary of Completed and Ongoing Tasks

The civil construction works at the AMHL project have advanced notably, with RCC works coming to an end at gravel trap and desanding structures. With transportation of HM components being carried out, significant progress about fabrication of EM components and procurement of T&D components, the project remains on track to achieve its next set of milestones.

2.2.1 Civil Works

a. Headworks Construction and Material Mobilization

Construction activities at the headworks area have been halted due to snowfall and cold weather conditions. However, the transportation and collection of essential construction materials—including reinforcement bars, plywood for formwork, gabion boxes, stone, aggregate, and sand—are being stockpiled on-site in anticipation of the upcoming construction phase to minimize logistical delays.

b. Intake and Gravel Trap

The rising water level in the river, caused by continuous rainfall, has hindered the excavation of the cutoff wall for the intake and under sluice. RCC works in the gravel trap base have been constructed.

c. Desanding Basin cum Forebay

24.9m of desanding basin is constructed. Inlet zone of length 5.70 m is under construction with base and one lift completion. Head pond of length 1.95 is under construction with completion of base. Masonry works for both the spillway canal and the desander flushing canal have also been completed.

d. Penstock Pipe Alignment and Excavation

Excavation works for the penstock alignment have commenced in coordination with the Hydro-Mechanical (HM) contractor. Excavation up to chainage 0+500 at a depth of 0.7 m has been completed, including 12 anchor blocks. Excavation from chainage 2+800 to 2+400 is ongoing at a depth of 1.0 m.

During the excavation, several challenges have been encountered due to rainy conditions:

- Excavated portions have been repeatedly filled by slides, requiring re-excavation and additional clearing efforts.
- Landslide-prone sections along the alignment have been identified, where construction of protection walls will be necessary to stabilize the slope and safeguard ongoing works.
- Encounter of big boulders at the alignment penstock have obstructed the excavation works

Despite these challenges, works are progressing in phased coordination with the HM contractor to ensure proper sequencing for the installation of penstock components. A joint survey by the Civil and HM contractors is scheduled for the first week of December to verify the alignment profile.

e. Powerhouse Construction

Excavation works at the powerhouse have commenced, and excavation has been carried out up to a depth of 1.5 m. The contract for the earthing mat design has been finalized, and the design work is expected to be completed within the first week of December. Immediately after the design is completed, procurement and delivery to the site will commence.

2.2.2 Hydro-Mechanical Works

This month marks a significant milestone for the Hydro-Mechanical (HM) contractor, as the transportation and airlifting of penstock pipes to the project site has formally commenced. Pipe movement from the maximum roadhead access point at Surke began on 6th November 2025.

As of the reporting date, 28th November 2025, a total of 351 penstock pipes have been successfully airlifted to the project site. The breakdown of the transported pipes is as follows:

- 210 pieces of 16 mm thickness
- 41 pieces of 12 mm thickness
- 1 piece of 8 mm thickness
- 99 pieces of 6 mm thickness

At present, 199 pipes remain stockpiled at Surke. Based on coordination with the road transport contractor, the remaining 54 pipes are expected to arrive at the Surke roadhead by early December. Additionally, the HM contractor has communicated that expansion joints, C-clamps, and anchor components are scheduled to depart from the manufacturing facility in Bhaktapur on 1st December. These materials are expected to reach Surke by 4th December, after which airlift planning will commence.

The civil contractor has continued excavation of the powerhouse and the trench works in the powerhouse area. To date, a total of 280 meters of trench excavation has been completed in the powerhouse area and 500m in the intake area. Excavation is progressing in alignment with the planned sequence, facilitating timely installation of penstock and associated structures once the HM components arrive on site.

2.2.3 Electro-Mechanical Works

Regarding the 10% advance payment, the EM contractor has confirmed that all required supporting documents have already been submitted to the confirming bank, Commerzbank Germany. They also indicated that Commerzbank has issued the corresponding confirmation SWIFT, verifying receipt and processing of these documents. The confirming bank will subsequently forward the complete document set to your bank (Siddhartha Bank). According to the contractor, these

documents should reach your bank soon; however, the exact timeline is subject to Commerzbank's internal processing and dispatch procedures.

It is important to note that the current payment arrangement involves multiple intermediary steps, which inherently introduces additional delays. Due to these structural delays, we are unable to provide precise information regarding the postal or courier methods used by Commerzbank, nor can we accurately predict the delivery schedule to Siddhartha Bank. Nonetheless, based on the contractor's reassurances, the transfer process is underway and nearing completion.

Furthermore, the EM contractor has submitted the equipment drawings, technical specifications, and the powerhouse floorplan for design approval. These documents form a critical part of the project's technical validation process. As outlined in Clause 3.2 of the contract agreement, the approval of these design documents is a mandatory prerequisite for the release of the second payment installment (20%).

At this stage, we acknowledge that the fabrication work at the contractor's facility is progressing satisfactorily, as per previous reports. However, in order to maintain contractual compliance and ensure proper technical review, the second payment can only be processed once the submitted drawings have been formally reviewed and approved by the relevant technical team. Prompt evaluation and approval of these documents will help avoid additional delays in the payment timeline and overall project schedule.

2.2.4 Transmission & Distribution Works

During this month, substantial progress was achieved in Transmission and Distribution works of the project, major progress such as procurement of Low-Tension Cable, Service wire &, distribution transformer has been initiated by the contractor.

With this, a meeting was held on 18th of November 2025 at Contractor office, a joint factory visit was planned and held on 20th November at Janta Cable Industries Pvt. Ltd., Khanar, Itahari. During the visit, Quality-in-Charge Er. Pankaj Yadhav of JCI, guided through the manufacturing process of the provided Low Tension Cable and provided the status of the manufactured cable. Likewise, the decision of completion of the remaining cable was due on 3th of December 2025 and a joint factory testing of the cable is planned for 5th - 7th December 2025. Also, on the go, the factory visit team visited Priyanka Metal and Pipe Industry on 22nd November 2025 where pole manufacturing and galvanizing process were studied and the contractor has been in contact with several pole and accessories vendors whose specification will be provided for approval by 15th of December.

Likewise, a factory test of the distribution transformer will be planned for the 3rd week of December with a factory visit held a long while ago on 29th June 2025.

Regarding High Tension Cable, the contractor has been busy finalizing the vendor after specification modification and promised to initiate the procurement within 20th of December 2025 as committed by them in revised time schedule provided last month.

Lastly, on 25th Nov 2025, a contract agreement was done with Clean Power Pvt Ltd regarding the earthing mat design for power house. With this, the draft design drawing and report will be submitted within 10 days of signing of contract and payment of advance payment followed by final report after 5 days of submission of draft report.

With this, the pace of T&D Works has been progressive and the next month is to be crucial with LT cable testing, Transformer testing and following successful testing the plan is to be dispatched to road-head Surke in following weeks.

2.2.5 Environment & Social Safeguard

This section provides an update on the progress of environmental and social safeguards implemented at the project site. Environmental, health, and safety (EHS) rules are being followed at all ESCO construction sites. Workers have been given personal protective equipment (PPE) and life insurance to keep them safe and protected. First aid boxes are maintained on-site following clear guidelines to ensure that all medicines are properly stored and are not expired. The installation of project area delineation and construction signage has been completed at the site. The project information board is installed in a visible place accessible to everyone at the construction site. Labor camps consisting of tents have been established in accordance with site conditions. Housekeeping and waste management practices are being maintained effectively to ensure a safe and clean working environment. The Occupational Health and Safety (OHS) checklist and supporting photographs are attached in **Annex 2 and Annex 3.**

<u>Key Activities during this Month</u>

- **Review of Environmental Reports**

Reviewed the Environmental Impact Assessment (EIA) and Environmental and Social Impact Assessment (ESIA) reports to ensure that site activities are carried out in full compliance with the Environmental and Social Management Plan (ESMP).

- **Follow-up on Land-Related Documents**

Coordination with the Ministry of Forest and Environment (MOFE) was conducted concerning AMHL's land-related documentation. The land documents from the Watershed Departments have now been forwarded to the cabinet for further discussion. We are currently awaiting the cabinet's decision.

- **Orientation to the labor regarding occupational health and safety**

An orientation session was conducted for additional laborers on Occupational Health and Safety (OHS) practices, with a focus on prioritizing safety at the work site. The session included detailed guidance on the proper use of Personal Protective Equipment (PPE) to ensure maximum protection. Furthermore, the importance of maintaining good housekeeping practices was emphasized to keep the construction site safe, organized, and free from potential hazards.

- **Installation of Project Information Board at Construction Site**

The project information board has been installed at the construction site in a clearly visible location. It provides clear details about the project, including its duration, budget, donor, and other relevant information.

- **Waste Management at the Construction Site**

Kitchen waste is being managed properly by collecting all kitchen refuse in a designated pit, which is covered with soil daily. The pit is barricaded to prevent potential hazards. Other solid wastes are collected, segregated, and managed following the principles of waste reduction, reuse, and recycling. Collected waste will be transported to the Pangboche waste collection site for safe disposal.

- **Construction Site Labor Logbook Management**

Construction activities are ongoing at the project site. Detailed labor information is provided in **Annex 4.**

- **Construction Site Emergency Contact Number Update**

Emergency contact numbers have been updated on the information boards at the construction site and nearby villages to ensure prompt rescue in case of any emergency or injury. However, phone network coverage is unavailable on-site but can be accessed about 10 minutes from the construction area**.**

- **Installation and Enforcement of Code of Conduct for Workers on Construction Site**

Laborers receive daily orientations on the code of conduct, which clearly outlines acceptable and prohibited behaviors on the construction site. The code of conduct has clearly displayed at the site for continuous reference. Furthermore, laborers have signed self-declaration forms acknowledging their understanding of the code, including their commitment to preventing sexual harassment and exploitation.

Regular Monthly Staff Meetings and other Meetings

- A meeting with the MGEAP team was held at the AEPC office on 8th November. During this meeting, we discussed the ESMP budget breakdown, the execution of the budget in accordance with the ESMP, and the implementation of activities accordingly. We also reviewed the future plans for ESMP activities.
- A virtual meeting with all contractors and the MGEAP team was held on 13th November. During this meeting, all contractors were instructed to adhere to their contractual roles and responsibilities and to ensure compliance with OHS and other requirements at the construction site.
- On 18th November, the monthly office staff meeting took place at the Kathmandu head office, where the monthly progress of the project was updated along with the site plan and work activities. The meeting also covered discussions on health and safety at the construction site.
- On 27th November, the monthly ESS meeting was held virtually with the MGEAP, the World Bank and the AMHL team. Updates on the field status were provided, suggestions and feedback were received, and activities were planned for the upcoming months.

- **Communication and Coordination with Contractor Team**

Coordination and communication with the contractor and contractor representative are actively maintained on-site concerning Occupational Health and Safety (OHS), site housekeeping, waste management, availability of PPE, labor insurance policies, timely installation of the project information board, and other activities related to the construction labor code of conduct.

<u>ESS Activities for Next Month (December 2025)</u>

- Conduct training and implement environmental and social activities in accordance with the ESMP.

- Project site monitoring and supervision as per ESMP.

3. Monthly Financial Progress Report

This report presents the financial progress of the Amadablam Mini Hydro Project for November 2025. It summarizes subsidy disbursements, loan and equity management, operational expense settlements, procurement financing, and bank guarantees that are essential for advancing the project across civil, hydro-mechanical, and electro-mechanical components.

3.1 AEPC Subsidy and Viability Gap Funding (VGF) Support

During the month of November 2025, no new subsidy inflow was received for the project. However, the remaining balance of NPR 2,484,375.45 (Nepalese Rupees Two Million Four Hundred Eighty-Four Thousand Three Hundred Seventy-Five and Forty-Five Paisa) is still under process at AEPC. Consequently, the cumulative subsidy received by the project remains at NPR 103,799,283.76 (Nepalese Rupees One Hundred Three Million Seven Hundred Ninety-Nine Thousand Two Hundred Eighty-Three and Seventy-Six Paisa), which continues to play a vital role in supporting the ongoing implementation and progress of the project.

4. Quality Assurance and Quality Control

AMHL has strongly instructed the civil contractor to test the construction materials and concrete during construction and shall be monitored by the technical team. QA/QC of distribution cables and service cables will be done at the factory during FAT.

5. Social Media Outreach and Engagement Statistics

Since August 2025, Amadablam Mini Hydro Limited has been actively utilizing its official social media platforms to strengthen project visibility and enhance stakeholder engagement. The dedicated accounts on Facebook, Instagram, and LinkedIn continue to share regular updates highlighting project milestones, community benefits, and awareness on renewable energy development.

5.1 Recent Activities and Announcements

A motivational and informative video was posted to highlight the project, clearly outlining its objectives, challenges, and overall benefits. The video aimed to raise awareness and strengthen confidence among stakeholders and the local community regarding the Amadablam Mini Hydropower Project.

5.2 Milestone Project Progress Update

All penstock pipes from Surke have been successfully airlifted to the Pangboche project site. This achievement represents a major milestone and reflects steady progress in the project's implementation.

5.3 Quiz

To improve audience interaction and engagement, two quiz questions were posted weekly. Key questions included:

“What makes the Amadablam Mini Hydropower Project so unique?”

“Where is the world’s highest hydropower project being built?”

This initiative encouraged active participation while increasing public awareness of the project’s unique features and global significance.

5.4 Current Status of Social Media Platforms

The company’s social media platforms remained consistently active during this period and demonstrated positive engagement trends.

Facebook:
The page continues to perform strongly with a total of 244 followers. During this period, it recorded 18 shares and 6 comments, indicating steady audience interaction.

Instagram:
The Instagram profile currently has 32 followers. This month, it received 10 likes and 227 views, with no shares recorded. This suggests that Instagram is currently less utilized by the audience compared to other platforms.

LinkedIn:
The company’s LinkedIn page showed steady growth, reaching 65 followers, reflecting an increase from the previous period. Engagement for the month included 6 comments and 3 reposts, indicating growing professional interest and improved visibility of the company’s activities and updates.

6. Risks and Mitigation Measures

6.1 Technical Risks

The Amadablam Mini Hydro Subproject is experiencing a combination of technical, logistical, and contractual challenges that require close attention. Civil works are progressing more slowly than anticipated due to limited manpower, and excavation at the intake and under sluice is not feasible this season. The excavation works have been obstructed due to the presence of large

boulders along the penstock alignment. A joint survey is planned to prepare the L-section in order to identify and assess obstacles along the penstock alignment and determine appropriate solutions. On the electro-mechanical side, delays in submitting the Advance Payment Guarantee and powerhouse design drawings are affecting the timely sequencing of civil works. Transmission and distribution activities also carry risks due to pending FAT of cables, vendor approvals, and possible scope variations. Strengthened coordination, timely approvals, and proactive planning will be essential to mitigate these risks and maintain project momentum.

6.2 Financial Risks and Mitigation Measures

a. Financing, Interest Rate, and Cost Overrun Risk

Risk:

The Amadablam Mini Hydro Project faces potential risks from fluctuating interest rates, delayed subsidy or equity inflows, and cost overruns in civil, hydro-mechanical, and electro-mechanical components. For instance, pending subsidy processing and delays in advance payments to the electro-mechanical supplier could impact cash flow and timely payments to contractors.

Mitigation Measures:

- Maintain contingency funds to cover unexpected cost escalations.
- Utilize fixed-price contracts where feasible to limit exposure to cost variations.
- Conduct regular financial audits and closely monitor operational and project expenses to ensure adherence to the approved budget.
- Follow up promptly on subsidy releases and equity contributions to maintain uninterrupted project funding.

b. Contractor Non-Compliance Risk

Risk:

Delays in submission of required documents (such as Advance Payment Guarantees), slow project execution, or non-compliance with contractual obligations can lead to increased financing charges, penalties, lost revenue, and reputational impact. Delays in the submission of guarantees from contractors could affect procurement and construction schedules.

Mitigation Measures:

- Closely monitor contractor performance against contractual timelines, ensuring systematic tracking of advance payments and project milestones.
- Follow up promptly on required guarantees, approvals, and compliance documentation to avoid delays.
- Implement penalty clauses and progress-linked payments to incentivize timely completion.
- Maintain clear communication with lenders, AEPC, and regulatory authorities to manage any arising financial implications and support smooth project execution.

6.3 Physical, Biological, Environmental and Social Impact/ Risk

The subproject area is located in the northeastern mountain region of Nepal. The subproject area geologically lies on the Higher Himalayan Crystalline Zone in the eastern part of Nepal. The subproject area possesses the high-grade metamorphic rocks. The subproject area has gneisses, schists and marbles of the Higher Himalayan Zone and Tethyan sediments (limestone, shale, sandstone etc. belonging to the Tibetan-Tethys Zone. Most of the area is exposed bedrock with thin colluvial soil cover. The colluvial soil comprises boulders, gravels, cobble and pebbles of gneiss with sand. The subproject area lies in subalpine to alpine climatic zone. The average annual rainfall is 1524 mm. January is the coldest month and July is the warmest month of the subproject area. The minimum temperature of the Pangboche area goes down below 0°C about 7 months of the year. The weir will be in the river while penstock pipe lies in grassland. The powerhouse will be constructed in grassland. Transmission and distribution lines pass through tourist trekking routes.

6.3.1 Adverse Impacts

a. Physical Environment

Change in land use, topography, soil erosion, sedimentation in river water, spoil generation, impact on hydrology and river morphology and loss of topsoil are major adverse impacts on the physical environment during construction.

b. Biological Impacts

A total of 5.719 ha land of SNP has been required to construct various subproject components. Pressure on forest for fuelwood, impact on wildlife movement, aquatic flora and fauna, NTFPs, forest fire, wildlife hunting and poaching and increase in human wildlife conflict are identified as adverse impacts during construction.

c. Socio-economic and Cultural Impacts

Pressure on existing facilities, services and resources of subproject area, health and sanitation and public safety, occupational health and safety, socio-cultural conflicts between locals and migrant workforce, gender-based violence, issues related to disturbances to community and child labour issues are the identified potential impacts during construction.

d. SNP and Outstanding Universal Value (OUV)

The proposed subproject is located in the SNP and might have an impact on scenic beauty. There has been negligible impact on local social and cultural integrity as locals are already exposed to diverse groups of people since the last 75 years.

6.3.2 Mitigation Measures

a. Physical Environment

Land clearance has been minimized to the extent possible to prevent erosion and landslides. Excavated materials have been used for land reclamation and rehabilitation. Trenches, quarry sites, and disposal sites have been rehabilitated immediately. Spoils have been stored in designated areas (27°50'56.52" N, 86°49'6.15" E & 27°51'12.98" N, 86°49'49.21" E). People will be made aware about the early warning system and emergency preparedness plan through an awareness program.

b. Biological Environment

Unnecessary visits and smoking in the forest area have been prohibited for subproject staff and construction workers to reduce the possible risk of forest fire, hunting, and poaching. Due to intense cold climate A minimum environmental flow of 50% of the mean monthly flow will be maintained during operation Due to very cold climate in 3.5 Km long dewater area, fish cannot be found and the water flow is also sub-surface in many places, it does not seem to affect the biological environment. In addition, water flow from 50% release will be abundant to sustain the life of animals and plants if any in the area. All the workers and subproject staff have been provided with LPG for cooking to reduce pressure on the forest. The subproject requires 5.719 ha of land and the land comes under the jurisdiction of Sagarmatha National Park. The subproject will provide replacement of land and a total of 9150 seedlings will be planted at the rate of 1600 per ha and nurtured for next five years. All these activities will be done in accordance with the Procedures for Construction of Infrastructure in Protected Areas 2080. Community people, school children and subproject workers will be sensitized on conservation of environment, biodiversity and wildlife.

c. Socio-economic and Cultural Environment

All the workers and staff have been provided with workplace insurance and PPEs. To reduce conflict between workers and locals, the code of conduct including SEA/SH has been strictly implemented. All staff and construction workers have been oriented about GBV, including SEA/SH, and the social and legal consequences faced for involvement in any form of GBV. A separate SEA/SH code of conduct has been implemented to avoid the risk of gender-based violence, sexual exploitation and abuse, and sexual harassment. Trenches especially made for underground T&D lines will be reclaimed immediately to avoid accidents.

The subproject has been actively implementing the mitigation measures outlined in the EIA and ESIA reports to minimize negative impacts during the construction phases. The subproject has responsibility to mitigate the negative impacts on the physical, chemical, biological, social, economic, and cultural sectors at the local level during construction and operation phases. The EMP/ESMP has defined the roles and responsibilities of various institutions to address issues including spoil management, pollution control, occupational health and sanitation, public safety, integrity of OUV of SNP, clear budgets, timelines and emergency preparedness provisions.

7. Challenges and Recommendation

The unexpected snowfall during October has adversely affected the activities at site however the civil work has resumed in November but the temperature has badly impacted on work progress. The excavation works have been obstructed due to the presence of large boulders along the penstock alignment.

8. Next Steps

8.1 Factory Visit/Factory Assessment Test of Electro-Mechanical Components

Upon invitation from the EM contractor, the board has decided and suggested members to plan for the factory visit of the Poseidon SA, Greece. AMHL is working on finalizing the tasks to be carried out during the stay and checklist being prepared for the visit. The visa processing work shall be finalized by the beginning of December.

8.2 Procurement of remaining accessories

Regarding this, the technical and financial report of the procurement of two power transformers and one station transformer is at final stage and will be forwarded to all related parties for the

procedure within the first week of December. Also, the earthing mat design has been awarded to Clean Power Pvt Ltd and afterwards the procurement of copper mat and other necessary accessories for Power house earthing will be commenced as per the approved design.

8.3 Preparatory meeting between AMHL and stakeholders

The management and the board of AMHL has sought a meeting with all the stakeholders to discuss the status of the project and the way forward. There are also some agendas which need to be discussed that arise during the course of project implementation. The meeting is proposed in the second week of December 2025.

8.4 Testing of Distribution Cables and Service Cables

With factory visits for Low Tension Cable and Service Cable completed on 21st November 2025 at Janta Cable Industries Pvt Ltd, Khanar, Itahari the factory test for the cable is planned for 5th - 7th December 2025 followed by packaging and transportation to road head Surkey afterwards.

8.5 Review of Performance Based Agreement

As per the discussion between CREF, AEPC and AMHL, there has been the requirement of review of PBA for successful completion of the project. The preparation of necessary suggestions will be prepared by AMHL and will be sent for review before planning for the review meeting most probably on 19th December.

8.6 Contract Extension of the Contractors

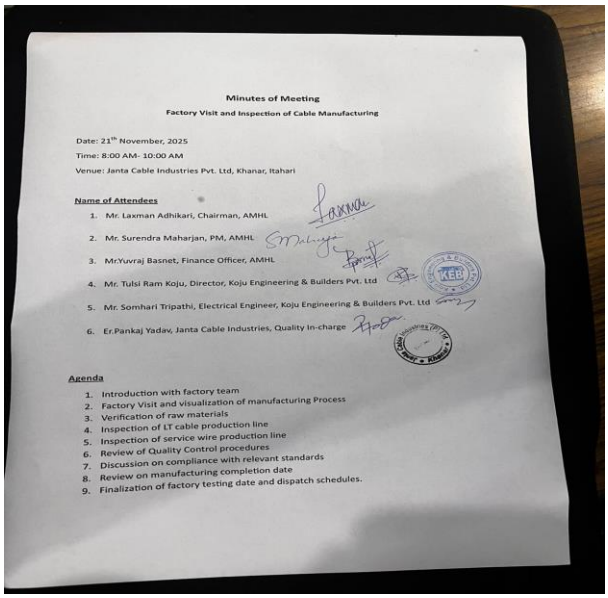
The contract agreement of the Civil, HM and T&D contractors will be expiring on December end so, the joint team of AMHL and MGEAP team will be planning for possible extension of the contract by mid-December.

8.7 Annual General Meeting and Annual Plan of Action of AMHL

The board of AMHL has decided to conduct the second AGM of AMHL on 30th December 2025 and the preparation has already started. In the meantime, the management has also planned a workshop to discuss and prepare the annual plan of action for 2026 on 31st December 2025.

9. Appendices

Fig 1. Factory Visit of LT cable at Janta Cable Industries Pvt. Ltd., Khanar, Itahari



Minutes of Meeting

Factory Visit and Inspection of Cable Manufacturing

Date: 21th November, 2025
Time: 8:00 AM- 10:00 AM
Venue: Janta Cable Industries Pvt. Ltd, Khanar, Itahari

Name of Attendees

1. Mr. Laxman Adhikari, Chairman, AMHL
2. Mr. Surendra Maharjan, PM, AMHL
3. Mr.Yuvraj Basnet, Finance Officer, AMHL
4. Mr. Tulsi Ram Koju, Director, Koju Engineering & Builders Pvt. Ltd
5. Mr. Somhari Tripathi, Electrical Engineer, Koju Engineering & Builders Pvt. Ltd
6. Er.Pankaj Yadav, Janta Cable Industries, Quality In-charge

Agenda

1. Introduction with factory team
2. Factory Visit and visualization of manufacturing Process
3. Verification of raw materials
4. Inspection of LT cable production line
5. Inspection of service wire production line
6. Review of Quality Control procedures
7. Discussion on compliance with relevant standards
8. Review on manufacturing completion date
9. Finalization of factory testing date and dispatch schedules.

Fig 2. Factory visit meeting minute

Fig 3. Pole manufacturing study at Priyanka metal and pipe industries

Fig 4. Contract signing between AMHL and Clean Power Pvt Ltd for earthing mat design

Fig 5. Penstock transportation and alignment at the project site by helicopter

Fig 6. Trench formation for penstock pipe alignment

Fig 7. Excavation of Power house area

ANNEX 2: Environment health and safety status at project site

S.N.	Activities	Implementation Status	Remarks/Details
1.	Occupational Health and Safety (OHS) Measures		
1.1	Set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	Human Resources at Subproject		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
2.3	Civil Engineer	Yes	Available at project site
2.4	Electrical Engineer	Yes	Available at project site
2.5	Mechanical Engineer	Yes	Available at project site
2.6	Workers /Labour	Yes	Available at project site
2.7	Insurance of Workers	Yes	Group Insurance
3.	Information Board and Suggestion Box		

3.1	Information Board of Subproject	Yes	
3.2	Suggestion Box	Yes	The record file is kept at the construction site.
4.	Community Consultation		
4.1	Number of Consultation Conducted	2	GRC1 Reformulation and Coordination Meeting with Pangboche Health Post
4.2	Number of People Participated in Consultation	22 and 9 (31)	Twenty-two people participated in the GRC1 reformulation meeting and nine people attended the meeting with Pangboche Health Post.
5.	Grievance Redress Mechanism		
5.1	Grievance Redress Committee Formed	Yes	GRC1 reformulation with nine committee members
5.2	Name of designated Grievance/ SEA/SH Handing Focal Person	Kalpana Dangol	ESS Officer
5.3	Grievance Registration Book	Yes	The record file is kept at the construction site.
5.4	Record of Grievance Received (If any)	NA	
6.	Placement of Signage		
6.1	Signage at Subproject Site	Yes	
6.2	Suggestion Box	Yes	The record file is kept at the construction site.
7.	Waste Management/Material Storage		

7.1	Waste Disposable Designated Area	Yes	Kitchen waste is being managed properly by collecting all kitchen refuse in a designated pit, which is covered with soil daily. The pit is barricaded to prevent potential hazards. Other solid wastes are collected, segregated, and managed following the principles of waste reduction, reuse, and recycling. Collected waste will be transported to the Pangboche waste collection site for safe disposal.
7.2	Material Storage Designated Area	Yes	Intake and Powerhouse

Annex 3: Photographs of Occupational Health and Safety (OHS)

Figure: Labor are working at construction site

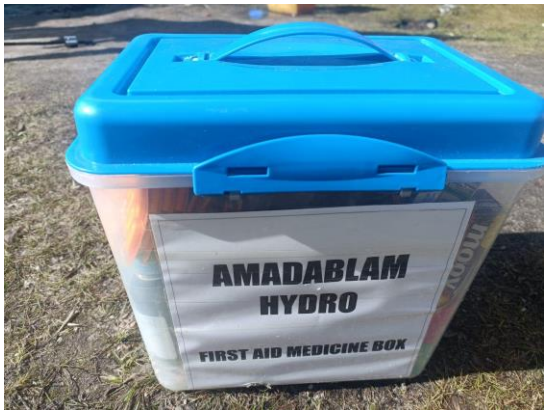
Figure: Labor Camp at Construction Site

Figure: Existing Construction Signages

Figure: Project information board at construction site

Figure: Portable water near the labor camp

Figure: Demarcation of Project Area



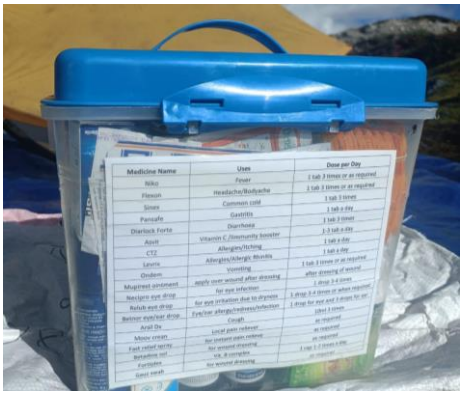


Figure: First aid box at construction site

Figure: Toilet near the labor camp

Annex 4: Labor Data (November 2025)

https://docs.google.com/spreadsheets/d/1PueHjWV0iXO5ijHT1NDS3SQikEPAIIh5g1h6g07HMtg/edit?usp=sharing