

# NUPCHE LIKHU HYDROPOWER PROJECT (57.5 MW)

Ramechhap, Nepal



## Project Progress Report

**Baisakh – Ashadh, 2081**



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# Executive Summary

This Progress Report is prepared for providing information about the progress of Nupche Likhu Hydropower Project (NLHP), Ramechhap (57.5MW). It contains the information about the project activities and progress of the months from **Baisakh to Ashadh 2081**. The major achievements during the period are:

## A. Forest and EIA/IEE Related Works

1. In Lahkshewar area, 7000 plants has been planted under the plantation program in FY 2080-81.
2. Tree cutting for 4 nos. of Foundation of Transmission Line Alignment has been completed.
3. Road maintenance along Deurali, Serding, Kayama area with Soling, Gabion works and back cutting are in progress.
4. Implementation and follow-up of environmental mitigation and social management plan throughout the construction phase are continued to achieve good environment.

## B. Preliminary/Preparatory Works

1. The strengthening and routine maintenance of project's access road has been finished.
2. Construction of stone soling out skirted by RCC band at Thado-Khola section has been completed.

## C. Civil Works (overall progress 72%)

1. Progress in Excavation of HRT (Headrace Tunnel) are demonstrated each front wise below:

SN	Description of Site	Tunnel Length(m)	Actual Tunnel Excavated (m)	Progress
1.0	<b>Vertical Shaft</b>	295.37	295.37	100%
2.0	<b>Penstock Tunnel</b>			
2.1	First Unit Bifurcation	55.78	55.78	100%
2.2	Second Unit Bifurcation	46.22	46.22	100%
2.3	Third Unit Bifurcation	31.4	31.4	100%
2.4	Penstock Tunnel	632.5	632.5	100%
	<b>Total (1+2)</b>	<b>1061.05</b>	<b>1061.05</b>	<b>100%</b>
3.0	<b>Headrace Tunnel</b>			
3.1	<b>Outlet Portal-Adit Junction</b>	1350	925.55	68.55%

SN	Description of Site	Tunnel Length(m)	Actual Tunnel Excavated (m)	Progress
3.2	Likhu Inlet- Nupche Likhu Junction	1078.68	1078.68	100%
3.3	Nupche Inlet -Nupche Likhu Junction	1058.90	779.5	73.61%
3.4	Adit Portal-Adit Junction	344.9	354.9	100%
3.5	Adit Junction-Nupche Likhu Junction	227.97	227.97	100%
3.6	Adit Junction-Outlet Portal	1329.4	551.20	41.46%
3.7	Nupche Likhu Junction-Likhu	347.78	347.78	100%
3.8	Nupche Likhu Junction-Nupche	540	364.80	67.55%
	<b>Total (3)</b>	<b>6071.55</b>	<b>4629.33</b>	<b>76.24%</b>
<b>4.0</b>	<b>Surge Shaft and Connecting Tunnel</b>			
4.1	Surge Shaft Connecting Tunnel	20	20.00	100%
4.2	Surge Shaft	41	19.40	47.31%
	<b>Total (4)</b>	<b>61</b>	<b>39.4</b>	<b>64.59%</b>
	<b>Total (1+2+3+4)</b>	<b>7446.40</b>	<b>5729.78</b>	<b>76.94%</b>

2. The total Headrace Tunnel of 5729.78 (76.94%) has been completed out of 7446.40;
3. Final shotcrete in the Likhu inlet is in progress and 1060m from inlet side has been completed.
4. Completion of Approach Culvert Kholsi Crossing and Forebay outlet gates hoisting slab concrete at Likhu Headworks;
5. Completion of River and Road crossing works from Bellmouth to AB1, M20 Plum concrete at AB16 & AB17, and casing work between AB16 to AB17 at Likhu Headrace Pipe.
6. M25 RCC works of main weir at Nupche headworks has been completed.
7. Construction of Super passage at settling basin at Nupche Headworks has been completed.
8. Along the Nupche Headrace pipe alignment, 4 nos. of Anchor Block (AB2, AB4, AB5 & AB6) are completed concrete casing work between AB8 to AB7 are in progress.
9. Along the penstock alignment, excavation from AB6 to AB7 and AB22 to AB23 has been completed with 3nos of Anchor block out of 15 for this quarter (AB20, AB21, AB23) has been completed.
10. Civil works of Power house is completed only second stage concreting is remaining.
11. Superstructure works of control building and earth mat laying in switchyard area are in progress.

**D. Electromechanical (EM) Work (overall progress 75%)**

1. Earthing and lighting system for powerhouse has been completed.
2. Main hoisting system for Powerhouse EOT and HOT has been completed.
3. Installation of Transformer rail lines, winch block, pulling hook stand other embedment parts has been completed.
4. Transportation of all three units of Generators from border to the site has been completed.
5. Construction of Close Store has been completed.

**E. Hydro mechanical (HM) Works (overall progress 78.2%)**

1. Installation of embedded parts in Nupche HWs components at settling basin are in progress and most of the gates frames are being installed at Likhu HWs components with second stage concreting in progress.
2. 50.83% of Pipes erection has been completed. The details are as follows:

Particulars	Total Length (m)	Completed Length (m)	Completed Percentage (%)
Penstock	1527.54	855.43	56.00%
Vertical Shaft	298.76	16	5.35%
Horizontal Shaft	569	78	13.70%
Bifurcation and Manifolds (Branch pipe)	182	122	67.03%
Likhu HRP	1053.122	1026.223	97.44%
Nupche HRP	421.349	298.20	70.77%

**F. Transmission Line (overall progress 59.09%)**

1. Approx 98% of tower material has been delivered to site.
2. 45.98% excavation of tower foundation has been completed.
3. 42.28% of Tower foundation concreting has been completed.
4. 21.75% of Tower foundation has been completed with back filling of Pit.
5. 3.70% of Tower Erection work has been completed.

**G. Planning, Governance and Other Works**

1. Investment in nearby small and other large projects has been initiated;
2. Some of the major plan for next quarter is discussed in detail report. Please refer to the status of the project below;
3. Development and Implementation of Strategy to increase Productivity;

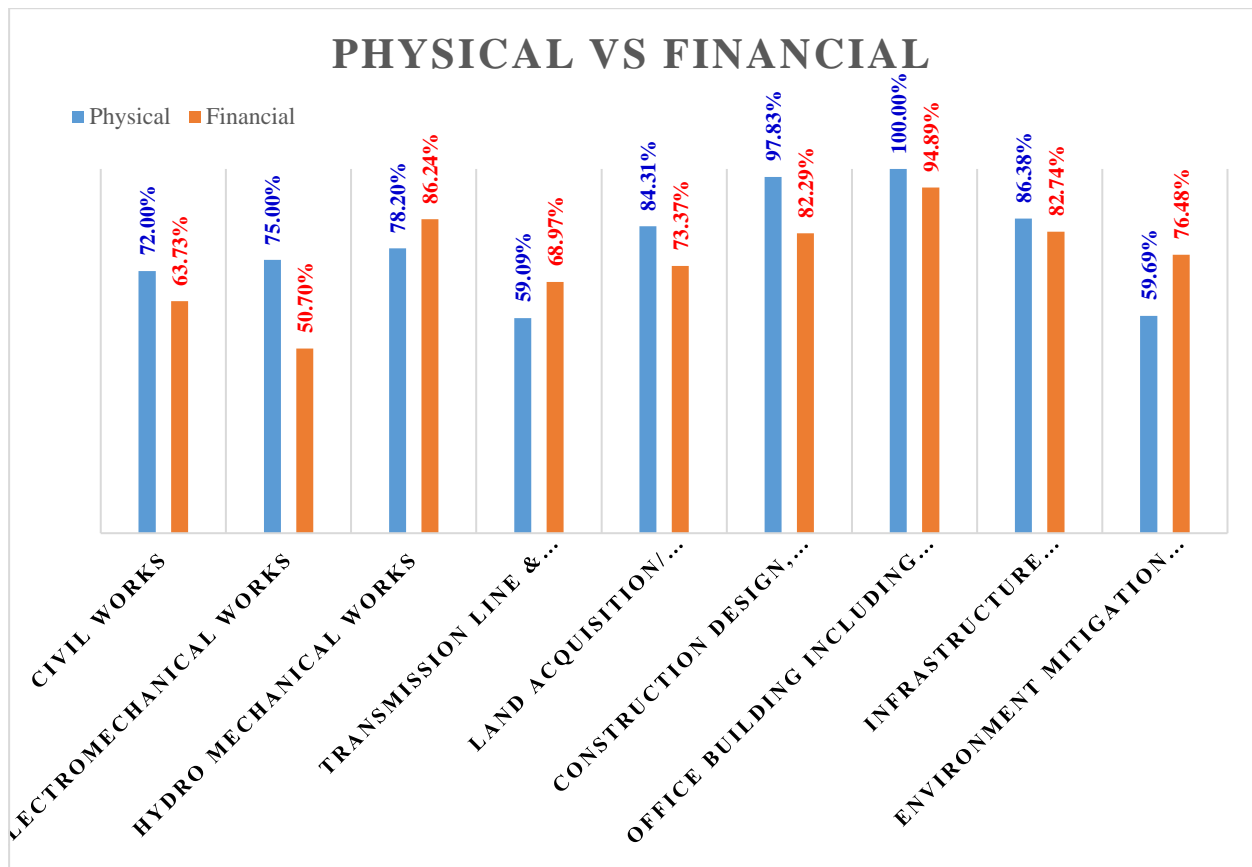
**H. Any Bottlenecks**

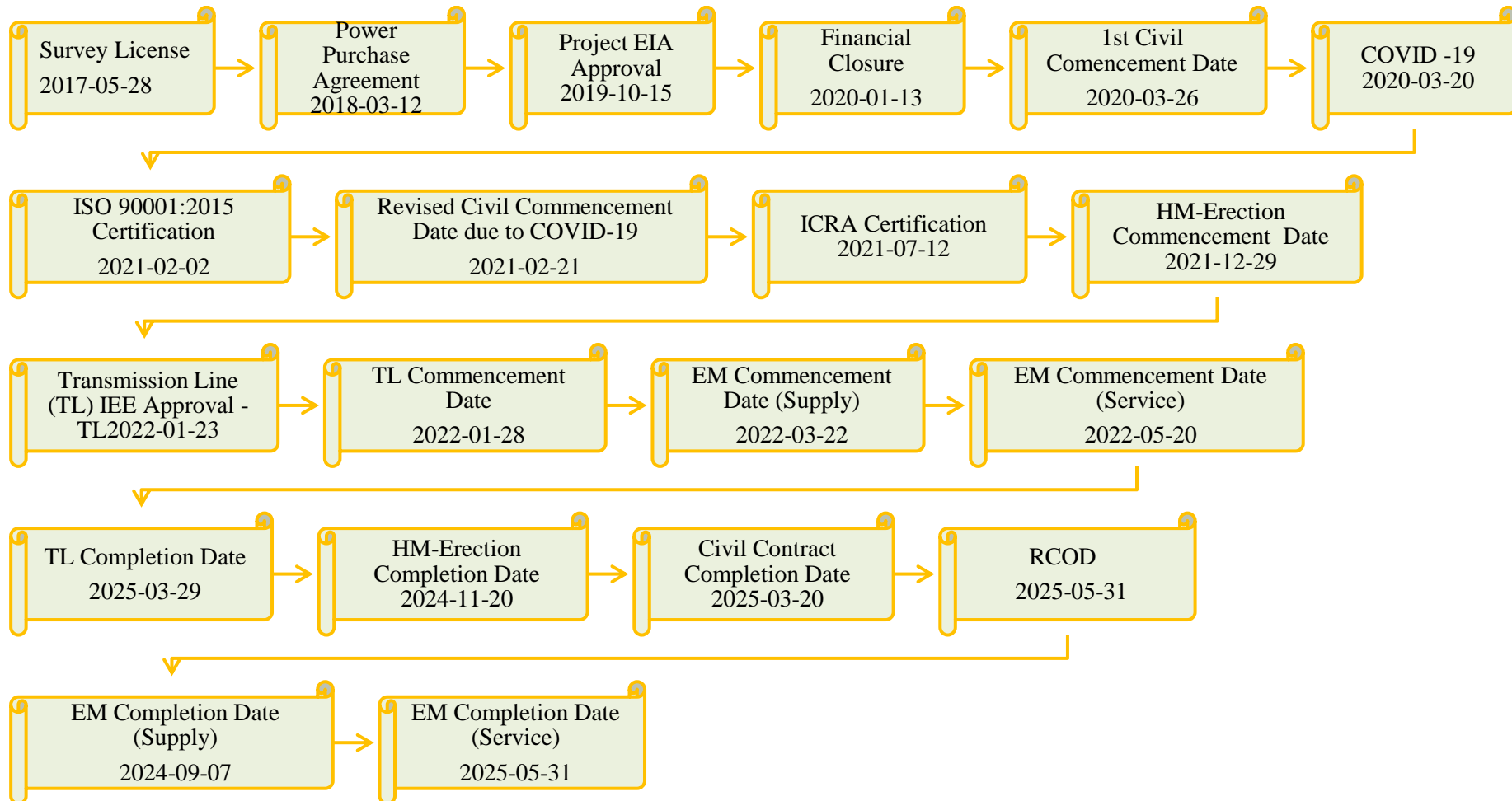
1. Installation of Gate Leaf at Likhu Intake.
2. Back filling from AB21 to AB23.

3. Breakdown of machineries and remobilization of the manpower for the monsoon.
4. Lack of Explosives for Blasting due to halt of NOC by Indian authority.
5. Obstacle in road due to heavy rainfall.

## I. Financial and Physical Progress

Till the date 66.39% of the budget has been utilized and about 75.09% of the overall physical progress has been achieved;



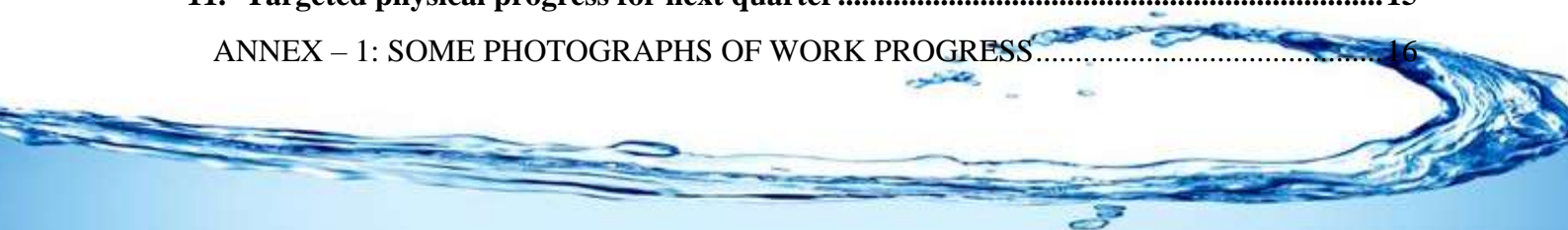
**J. Revised NLHP Project's Major Timeline**



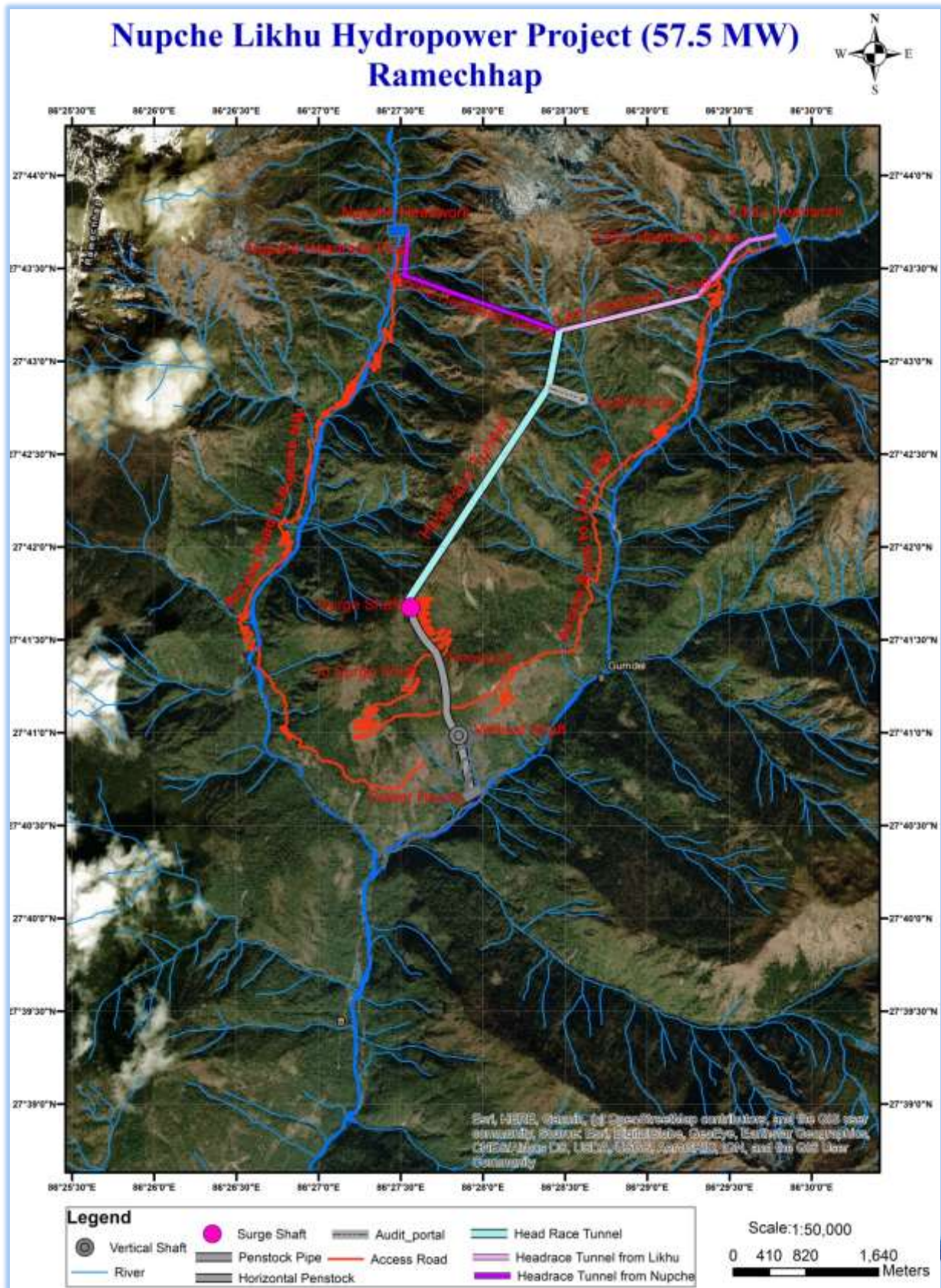
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## Section A: About the Project





# 1. Introduction

## 1.1 Background

Vision Energy & Power Ltd (VEPL) aims to develop Nupche Likhu Hydropower Project (57.5 MW) in Ramechhap District using local technical, managerial and financial capability and is dedicated to supply the power to the National Grid to fulfill domestic energy demand. The project is a run-of-river (RoR) Hydropower Project.

## 1.2 About the Project

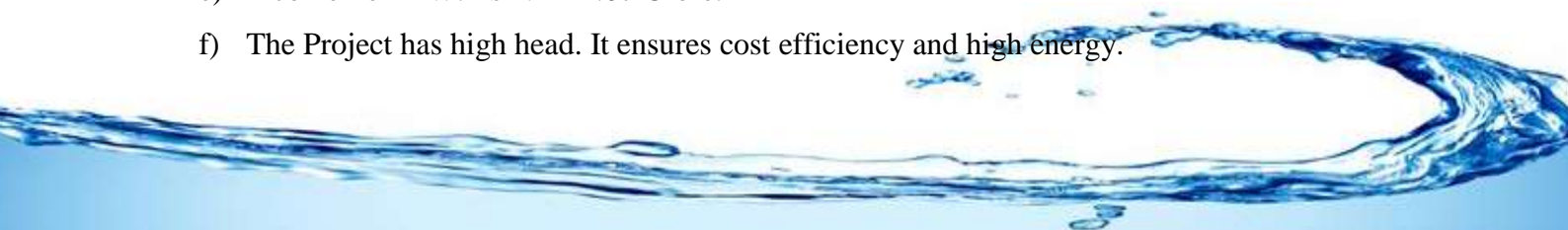
The proposed Nupche Likhu Hydropower Project is located in Umakunda Rural Municipality of Ramechhap district of Nepal. The source of water for the project is originated from Nupche and Likhu rivers which are snow-fed Rivers starting from the High Mountain/Hilly areas. The proposed intake of the Nupche Likhu Hydropower Project is located north of Lahaksewar Village in left bank of Nupche Khola with its weir crest level at an elevation of 3338 m above amsl and the right bank of Likhu Khola with its weir crest level at an elevation of 3338 m above amsl. The powerhouse is located on the right bank of the Likhu Khola with the turbine center line level at 2336 m amsl. The gross head estimate is 1003.5 meter and design discharge is 7.11 m<sup>3</sup>/sec.

## 1.3 Location & Access:

The project can be access from Kathmandu through an existing all-weather road up to Manthali (131 km) or 94 km road from Bardibas. After Manthali, following about 125 km partly stone paved earthen road reaches up to Kyama, Gumdel VDC. Furthermore, from Kyama an access road has been reached near to Kongematar village, the proposed Powerhouse site, Lahaksewar village which is also the residential area for the project employees, Outlet/Surge Shaft, Adit Tunnel, Likhu Headworks and Nupche Headworks.

## 1.4 Main Financial Features of the Project

- a) Total project cost of the project: NRs.10,983,640,292.00 and total cost per MW = NRs. 190,956 thousands.
- b) Internal Rate of Return (IRR): 17.50 %, Equity Internal Rate of Return (EIRR): 27.57%
- c) Simple Payback Period: 4.75 Years; Discounted Payback Period: 7.68 years.
- d) High Energy per MW (6.63 GWh p.a.), Dry Energy 36.61% and Wet Energy 63.29%
- e) Income Per MW: is NPR 4.07 Crore.
- f) The Project has high head. It ensures cost efficiency and high energy.



- g) Professional, Transparent and Responsible Management.
- h) Aims to benefit Small and medium Investors too.
- i) Focused on high Return on Investment and high value in secondary market.

## 1.5 Salient Features of the Project

S.N.	Particulars	Remarks
1.	<b><u>General</u></b>	
	Name of the Project	Nupche Likhu Hydropower Project
	Type of the Project	Snow fed Run-off River Hydropower Project
2.	<b><u>Location</u></b>	
	Zone/ Development Region	Janakpur Zone/Central Development Region
	<b><u>District</u></b>	Ramechhap
	Project Location	Umakunda Rural Municipality, (Gumdel VDC)
	River	Nupche Khola and Likhu Khola
	<b><u>License Boundary</u></b>	
	Longitude	86°26'30" E - 86°30'30" E
	Latitude	27°40'37" N - 27°43'43" N
3.	<b><u>Hydrology</u></b>	
	Catchment Area at Headworks	150 Km <sup>2</sup> (Nupche 82km <sup>2</sup> &Likhu 68 km <sup>2</sup> )
	Design Discharge (Q 45 %)	3.89 m <sup>3</sup> /s+ 3.22 m <sup>3</sup> /s (Nupche & Likhu) = 7.11m <sup>3</sup> /s
4.	<b><u>Nupche &amp; Likhu- Headworks</u></b>	
	<b><u>Weir</u></b>	
	Type	Boulder line weir
	<b><u>Bed Load Sluicer</u></b>	
	Type	Bed Load
	<b><u>Intake</u></b>	
	Type	Orifice, Side Intake
	<b><u>Gravel Trap</u></b>	
	Type	Single, Dufour
	<b><u>Settling Basin</u></b>	
	Type	Double Bay Dufour Type
5.	<b><u>Headrace Pipe</u></b>	
	Headrace Pipe	480m & 1096 m (Nupche & Likhu)
6.	<b><u>Tunnel Length</u></b>	
	Total Length	7475 m
	Tunnel Size	3.2 m x 3.8m (Excavation Size)
7.	<b><u>Surge Tank</u></b>	
	Type	Surface, Circular
8.	<b><u>Penstock Pipe Length</u></b>	
	Total Steel Penstock Pipe	2712 m
9.	<b><u>Power House</u></b>	
	Type	Surface
10.	<b><u>Turbine</u></b>	
	Type	Horizontal Pelton

	Number of units	3
	Rated Output Capacity per unit	20.26 MW
11.	<b><u>Generator</u></b>	
	Type	Solid State, PID Governor
	Number of units	3
	Rated Output Capacity	22.55 MVA
	Excitation System	Brushless Type
12.	<b><u>Transformer</u></b>	
	Type	Outdoor, Oil immersed, Three Phase
	Rated Capacity	23 MVA
	Number of Units	3
13.	<b><u>Tail-Race Canal</u></b>	
	Type	Box Culvert
14.	<b><u>Transmission Line &amp; Grid</u></b>	24 km 132 kV line up to National grid at 132 kV switchyard of Proposed NEA Hub at Garjyang Substation, Ramechhap district.
15.	<b><u>Power and Energy</u></b>	
	Gross Head	1005.65m
	Net Head at Full Flow	968.33 m
	Installed Capacity	57.5 MW
	Generated Energy per Annum	139.757 GWh, 36.61% (Dry) and 241.978 GWh, 63.39% (Wet) <b>Total: 381.735 GWh</b>
16.	<b><u>Project Road to HW &amp; PH</u></b>	38.90 km
17.	<b><u>Approximate Cost of Project</u></b>	10,983 Million (Revised as per lending Bank Technical Consultant)
18.	<b><u>Approximate Construction Period:</u></b>	4 Years
19.	<b><u>Required Commercial Operation Date (RCOD)</u></b>	2082/02/18 BS 2025/05/31 AD

## 1.6 Investment Module

The investment in Promoters Share has been closed from Ashwin End 2075.

## 2. Human Resources and Good Governance

### 2.1 Organization Chart

The organization structure of Nupche Likhu Hydropower Project has been prepared considering Construction, Operation & Maintenance phases of the Project. The detained organization chart is presented in the official website of the company i.e. [www.veplinfo.com](http://www.veplinfo.com).



## 2.2 Good Governance

Nupche-Likhu Hydropower Project has proposed Performance Based Incentive program for its employee. The key performance area (KPA) and Key performance index (KPI) is developed for whole project period. Based on the developed KPI the performance evaluation mechanism is developed. Further,

1. Various manuals such as Finance Manual, Human Resource Manual, Investment Manual, Corporate Governance Guidelines, Performance Evaluation Guidelines, Project Management Guidelines, Branding Guidelines, etc. are in practice.
2. Formation of various committees such as High-level coordination sub-committee, Audit Committee, Local Area Co-ordination Sub-Committee and International Co-ordination Sub-Committee.
3. Recruitment of highly professional Consultants.
4. Work plan assigned to each executive level and working level personnel.
5. Performance evaluation of each personnel conducted on quarterly basis.
6. Compliance officer appointed for legal and internal guidelines compliance.
7. Regular meeting of Board of Directors and Various Committees.
8. Unique investment module and mechanism to select quality investors.
9. Integrity, transparency, legal compliance, team work, higher return, responsibility, safe investment, accountability are the core values of the Company.

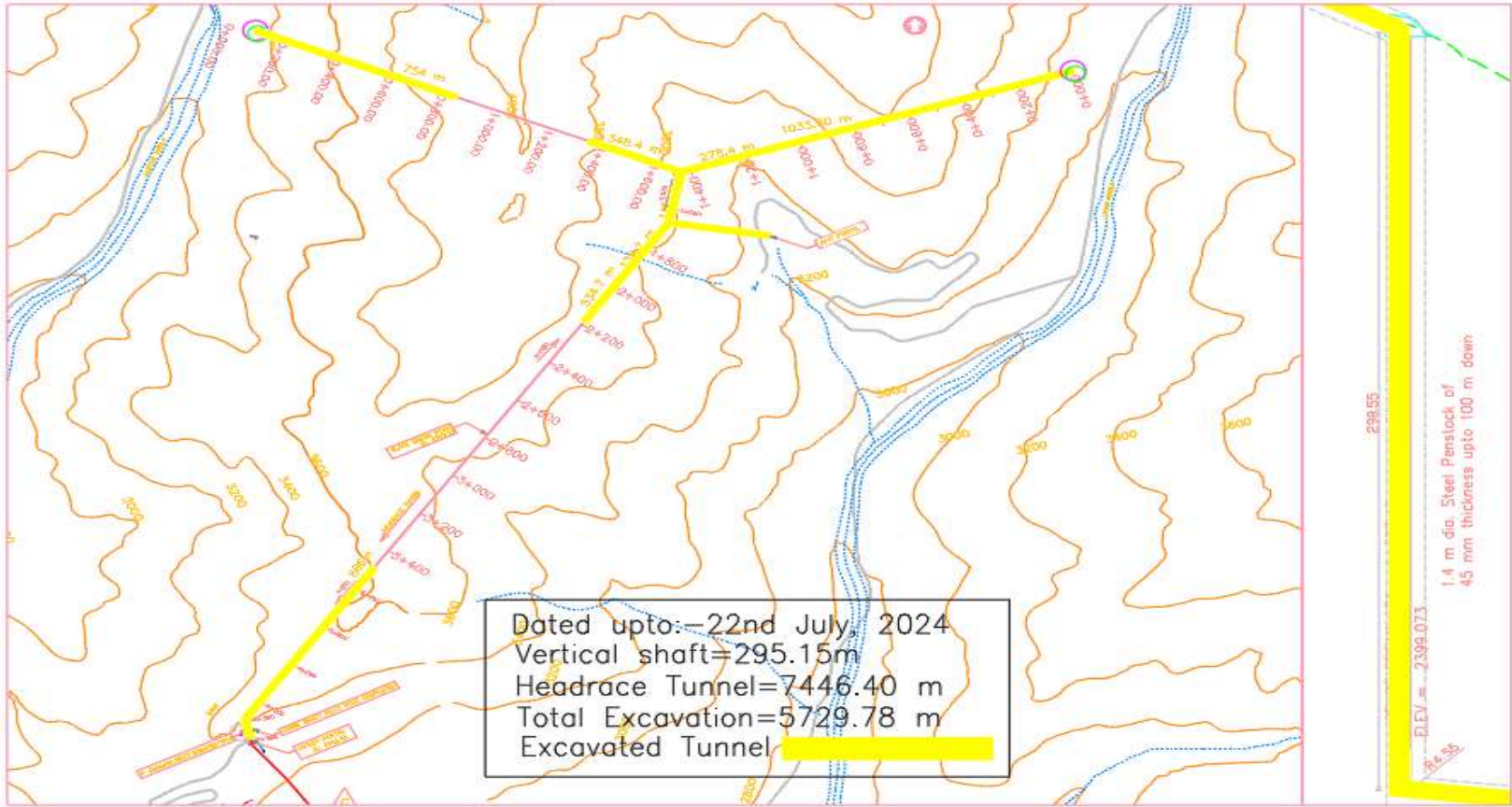
## 3. Project Implementation

The company has obtained the Generation Licence. It has planned to generate electricity within the period of 4 years from the commencement of construction work. The Environmental Impact Assessment (EIA) for the project and Initial Environmental Examination (IEE) for the Transmission Line has been approved. The Supervision & Management, Civil Contract, Explosives Supply, Electromechanical Contract, Hydromechanical Contract and Transmission Line Contract has been executed and are in progress. Detailed progress of the project is also presented in the official website of the company i.e., [www.veplinfo.com](http://www.veplinfo.com).





Section B: Current Status of the Project



## 4. Current Status of the Project

### 4.1 Forest, EIA & IEE Related

#### A. Major Completed Works

1. **Environmental Impact Assessment (EIA)** study of Project has been approved.
2. The application for approval of '**Tree Cutting and use of Government Land**' has been approved from the Council of Ministers.
3. Procurement of Land for the replacement of the government land used by the Project has been completed.
4. The agreement between Department of National Parks and Wildlife Conservation, Department of Forests and Soil Conservation and Vision Energy and Power Pvt. for use of '**Tree Cutting and use of Government Land**' has been signed on 30<sup>th</sup> Chaitra, 2077.
5. Field Work for Tree Counting and Stamping for the project is completed in pursuant to EIA.
6. IEE for the Transmission Line has been approved on 2076-10-09 and Tree cutting and government land use for Transmission Line from cabinet of government of Nepal has been approved on 2080-04-23, also agreement with Department of National Parks and Wildlife Conservation has been concluded.
7. Submission of self EHS Audit Report to ministry of Forest and Environment.
8. Land acquisition and Agreement with the NPWC has been completed and Tree stamping completed and cutting is in progress.

#### B. Major Ongoing Works

1. Agreement with NPWC to start tree stamping and tree cutting along the transmission line.
2. Implementation and follow-up of environmental and social management plan throughout the construction phase to achieve good environmental outcomes as per approved EIA

### 4.2 Preliminary/Preparatory Works

#### A. Major Completed Works

1. **Survey License** of the project was obtained for 57.5 MW on 2074/06/29 (15/10/2017).
2. **Power Purchasing Agreement (PPA)** has been done with Nepal Electricity Authority (NEA) on 2074/11/28 (12/03/2018).
3. **Financial Closure** has been completed with Machhapuchchhre Bank Ltd. (Lead Bank), Himalayan Bank Ltd. (Co-Lead Bank), Citizens Bank International Ltd., NCC

- Bank Ltd., Kumari Bank Ltd., Agriculture Development Bank Ltd., Rastriya Banijya Bank Ltd., Global IME Bank Ltd., Kamana Sewa Bikash Bank Ltd.
4. **Generation License** has been obtained on 2076/10/12.
  5. The **Survey License of Transmission Line** for the 4th year i.e., up to 2078/12/14 has been renewed and has been completed.
  6. The License for Transmission Line has been obtained on 2078/12/30.
  7. **Automatic Gauge Station** has been installed at Nupche & Likhu Intake site.
  8. **Hydroelectricity Investment and Development Company (HIDCL)** has approved to invest in equity share capital of Vision Energy & Power Ltd (VEPL).
  9. **Detailed Engineering Design** of the Project & Transmission Line has been completed.
  10. The **Construction of main Camp House and associated facilities** has been completed.
  11. **Bank's consultants** for the project have been selected.
  12. The Company's Senior Management team including the Chairman, Board of Directors, General Manager, Project Director **launched blasting process** for the Penstock Tunnel and Vertical Shaft construction work on *12<sup>th</sup> Ashwin 2078*.
  13. The **Supervision & Management Consultants, Civil Contractor, Explosives Suppliers, Electromechanical Contractor, Hydromechanical Contractor and Transmission Line Contractor** has been selected and agreement has been signed.
  14. Land acquisition for the Project has been completed.
  15. Road widening and strengthening for the transportation of Generators and Transformer.
  16. Completion of Construction Power Line of Nupche.

#### **B. Major Ongoing Works**

1. Road strengthening and routine maintenance of access road.

### **4.3 Civil Works**

#### **A. Major Completed Works**

1. Approx. **72 %** of physical progress in Civil Works has been achieved.
2. M25 concreting of tailrace panel-1 is completed.

3. Internal and External painting works in superstructure of the Powerhouse has been completed and installation of shutter/Gutter and Windows is completed.
4. PCC in thrust block area is completed.
5. Powerhouse is in the final stage of handover to EM Contractor.
6. Excavation of HRT (Headrace Tunnel) from Outlet about 1476.75 m (54.12%) completed out of 2728.6m;
7. Excavation of HRT (1426.25m) from Likhu Inlet to Nupche Likhu Junction has been completed.
8. Excavation of HRT from Nupche Inlet about 1144.3 m (71.56%) has been completed out of 1599m;
9. Excavation in Surge Shaft has started with progress of 19.40 m out of 41m has been completed has been completed.
10. The total Headrace Tunnel of 5729.78 (76.94%) has been completed out of 7446.40;
11. Completion of 16m Concreting at the Vertical Shaft.
12. Likhu HWs is on the verge of completion, approx. 98% of civil works of Likhu HWs has been completed except the second stage concreting.
13. Completion of concreting Anchor Block from 1 to 18 has been completed and backfilling works of Anchor Block from 1 to 18 for Likhu Headrace pipe is in progress.
14. Along the Likhu HRP, 98% of work has been completed.
15. Along the penstock alignment, 13 Anchor Blocks out of 27 has completed.
16. Completion of First stage river diversion and concreting of main weir and super passage concrete work at settling basin has been completed in Nupche HWs area.
17. Concreting works along AB2 & backfilling works from AB4 to AB7 is completed along Nupche HRP.
18. M20 plum concrete of AB2, AB4, AB5 and AB6 is completed along Nupche HRP.
19. Backfilling works from AB8 to AB16 is completed along penstock alignment.
20. M25 Concrete of Tailrace panel-1 is completed.

#### **B. Major Ongoing Works**

1. Super Structure works of Control building.
2. Retaining wall works at U/S of Powerhouse.
3. Excavation of Nupche intake, gravel trap and approach canals.
4. RCC works in settling basin in Nupche settling basin, with Flushing structures.
5. Excavation and PCC along the Nupche Headrace Pipe alignment.



6. HRT excavation from 4 tunnel faces.
7. Concreting work of AB18 and AB22 along Penstock alignment.
8. Full excavation of Surge shaft; with safety shotcrete.
9. Final shotcrete and invert lining in the Likhu inlet area is in progress.

#### **4.4 Electromechanical Works**

##### **A. Major Completed Works**

1. Approx. **75%** of physical progress in Electromechanical Works has been achieved.
2. Commissioning of Powerhouse EOT crane has been completed.
3. Delivery of Main Transformer at site and have been placed at its location.
4. System Engineering and general layout drawing has been completed for major Equipment.
5. PPV casting has been completed.

##### **B. Major Ongoing Works**

1. Ongoing transportation of the Turbine runner.
2. Laying of Earth mat under Switchyard foundation.

#### **4.5 Hydro mechanical Works**

##### **A. Major Completed Works**

1. Approx. **78.20 %** of physical progress in HM Works has been achieved.
2. 6nos out of 16 nos. of gates second stage EP installation has been completed in Likhu headworks.
3. Erection of 5.35% pipes in the Vertical Shaft has been completed and erection of 13.70% pipes on PT has been completed.
4. Erection of pipes 50.83% has been progressively completed.
5. Installation of embedded parts in Nupche HWs components is in progress and gate frames being installed at Likhu HWs.
6. Transportation of the pipes including accessories, valves and manifolds also have been completed.

##### **B. Major Ongoing Works**

1. Fabrication, supply and Erection of embedded parts and gate parts of Likhu Headworks is in progress.
2. Erection of the pipe along AB17-AB19 along penstock alignment.
3. Installation of bend 2 and 3 along Nupche Headrace pipe.

## 4.6 Transmission Line

### A. Major Completed Works

1. Approx. **59.09%** of physical progress in Transmission Line Works has been achieved.
2. 98% of tower material has been received to the site.
3. 50% of pit marking has been completed.
4. 42.28% excavation of tower foundation has been completed.
5. 21.50% of Tower foundation has been completed with back filling of Pit.
6. Tree cutting has been started in ROW area along the transmission line.

### B. Major Ongoing Works

1. Tree cutting and excavation in remaining tower alignment is in progress.
2. Pit marking of the tower and survey and establishment of camp in other front along the tower alignment.
3. Erection of Tower.

## 5. Planning, Governance and Other Works

### A. Major Completed Works

The Company has received ISO 9001:2015 Certificate on 2021-02-02.

### B. Ongoing Works of the Project

ICRA rating revision is in progress

## 6. Challenges Faced:

Though the company is committed to complete the work in stipulated time and schedule, company struggles to tackle the project management challenges and issues related to the processes and directions of government, local community, site condition etc. The major challenges we have faced are.

1. Shortage of Explosive due to India's restrictions on importing explosives.
2. Local issues such as excessive demands for construction/upgradation of roads
3. Topographical challenges and unexpected ground conditions at TL alignment than anticipated in geotechnical investigation.
4. Damaged road section in various location of access road to Nupche-Likhu Hydroelectric project.

**Management Plan for the Mitigation of Challenge:**

1. NOC has been issued and transportation of the explosives has been planned to reach at site within 15<sup>th</sup> Shrawan, 2081.
2. Co-ordination with local authority and local people about the issue.
3. Beside the topographical challenges the resources such as equipment and manpower with advance working methodology has been adopted.
4. Road maintenance work in progress.

**7. Physical Progress**

Vision Energy & Power Ltd records physical progress data on every construction work of the Nupche Likhu Hydropower Project. The objective and realistic measurement of physical progress during a construction project is a key element for successful project management in providing as-built information for project planning, control, cost engineering, and many others. Progress measurement is an input directly used to help determine the earned value of a project and forecasts such as cost at completion and estimated finished date. The evaluation of project physical progress has been prepared by weighted method which is highlighted as the best and realistic technique to determine the percentage complete of the overall project. Below is the physical and financial progress data up to **31<sup>st</sup> Ashadh, 2081**.

**Physical Progress vs. Financial Progress**

SN	Activities	Physical Progress	Financial Progress
1	Civil Works	72%	63.73%
2	Electromechanical Works	75.00%	50.70%
3	Hydro Mechanical Works	78.20%	86.24%
4	Transmission line & Interconnection	59.09%	68.97%
5	Land Acquisition/ Compensation/Development	84.31%	73.37%
6	Construction Design, Drawing and DPR	97.83%	82.29%
7	Office Building including Camp Facilities	100.00%	94.89%
8	Infrastructure Development (Temporary and Permanent)	86.38%	82.74%
9	Environment Mitigation and Social Responsibility	59.69%	76.48%

**OVERALL PHYSICAL PROGRESS ACHIEVED: 75.09%**

## 8. Financial Progress

Vision Energy & Power Ltd. records important financial data on every aspect of a business's activities. As such they can be evaluated on the basis of past, current, and projected performance. Below is the financial progress data to manage the operations of our business and also to provide reporting transparency to our stakeholders

### Allocated Budget Vs. Actual Utilization Up to 31<sup>st</sup> Ashadh, 2081

SN	Particulars	Amount (Rs.)	Utilization Up to 31 <sup>st</sup> Ashadh, 2081 (Rs.)	Utilization %
1	Preliminary Works	246,969,000	246,051,846	99.63%
2	Civil Works	4,297,121,504	2,722,949,806	63.37%
3	Electromechanical Works	1,413,490,626	716,586,866	50.70%
4	Hydro Mechanical Works	1,258,106,453	1,084,932,233	86.24%
5	Transmission line & Switchyard	596,943,160	411,698,207	68.97%
6	Land Acquisition/ Compensation/Development	110,210,625	80,863,125	73.37%
7	Project Supervision/Management and Engineering	451,561,212	344,479,675	76.29%
8	Construction Design, Drawing and DPR	33,886,932	27,886,932	82.29%
9	Office Building including Camp Facilities	97,744,741	92,754,241	94.89%
10	Office Equipment	19,447,135	13,126,908	67.50%
11	Vehicle	28,417,477	22,485,102	79.12%
12	Infrastructure Development (Temporary and Permanent)	819,327,844	677,871,294	82.74%
13	Environment Mitigation and Social Responsibility	190,931,582	146,029,586	76.48%
14	Loan Documentation Fee	69,685,000	61,638,528	88.45%
15	Interest During Construction	1,349,797,000	642,211,780	47.58%
	<b>Total</b>	<b>10,983,640,292</b>	<b>7,291,566,129</b>	<b>66.39%</b>

**Total Paid up Share Capital as on 31st Ashadh 2081: - NPR 2,635,504,877.00**

## 9. Loan Details

**Total loan sanctioned from the Consortium Banks is 7 Arab 93 Crores. Loan disbursement till this period is NPR 5,033,114,250.00**



## 10. Planning for the next quarter

- a) Routine Maintenance of Access Roads
- b) Kholsi-Protection of Powerhouse
- c) Handover of the Powerhouse to EM.
- d) Installation of transformer.
- e) Completion of control Building
- f) Completion of excavation and finishing work of Surge shaft.
- g) Complete erection of 90m pipes in Vertical shaft and Inclined Tunnel; along with the infill of concrete.
- h) Excavation of 85% of the Headrace Tunnel.
- i) Completion of 100% of Headrace Pipe Works.
- j) Completion of 90% of Penstock Pipe Works.
- k) Completion of 90% of the Nupche Headworks.
- l) Installation of gates in Likhu HWs & Tailrace.
- m) Erection of 40 nos of towers along transmission line.

## 11. Targeted physical progress for next quarter

The targeted physical progress for the next quarter is approx.85%.

**ANNEX – 1: SOME PHOTOGRAPHS OF WORK PROGRESS**

Figure : Super Structure of Control Building.



Figure: Superstructure of Powerhouse and Transformer.



Figure showing: Inside of Powerhouse MIV location



Figure Showing: Interior of powerhouse





Figure: Vertical Shaft



Figure showing Load Test at Vertical Shaft



Figure: Pipe Erection Work at penstock



Figure: Welding of pipe at Penstock Tunnel

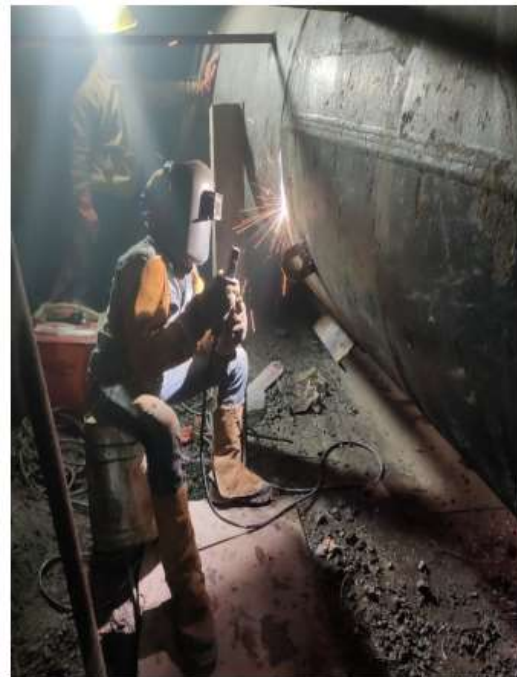


Figure: Completion of AB18



Figure: Concreting of Anchor Block along penstock pipe alignment.



Figure: Breakthrough of Pilot Hole



Figure: Full face Excavation work of Surge Shaft





Figure: Adit Junction



Figure: Pullout test at Nupche Inlet



Figure: Breakthrough of Likhu Tunnel



Figure: Final Shotcrete of Likhu Tunnel



Figure: NL Junction to Nupche



Figure: Adit D/S



Figure: NL Junction HRT



Figure: Rib Installation and stone packing at Nupche.





Figure: Khosli Crossing at Likhu Headworks



Figure: Likhu HWs Flushing culvert.



Figure: Likhu Khola Crossing



Figure: Completed section of Penstock





Figure:-Concreting of Anchor Block along penstock alignment.



Figure: Nupche Headworks.



Figure: Nupche HWs Floodwall



Figure:PCC at Bed Load Flushing Culvert



Figure: Pipe Erection at Nupche HRP



Figure: Static Balancing of Runner



Figure: Gap measurement between template and Bucket



Figure: Checking of Bucket width





Figure: MIV Downstream body Casing



Figure: Inspection of CTs



Figure: Commissioning of EOT Crane



Figure: Storage of EM Equipments



Figure: Protection structure at Garjyang Substation



Figure: Garjyang Substation



Figure: Unloading of Erection Equipments



Figure: Erection of Tower





**THANK YOU!**