

Status of The Study

Seti Nadi -3 Hydropower Project



- Client –Chilime Hydropower Company Limited
- Consultant-Chilime Engineering & Services Co. Ltd.(CHESCO)



Seti Nadi-3 Hydroelectric Project:

License Number	:	वि.वि.वि. ०७४/७५ वि.उ.स.१०५
Issue Date	:	2074-06-01
Name of Project	:	Seti Nadi-3 PROR Hydroelectric Project
Location of Project	:	Chainpur, Bajhang, Sudurpaschim Pradesh (No. 7)
Name of Promoter	:	Chilime Jalavidhyut Company Limited
Name of Consulting Firm	:	Chilime Engineering & Services Co. Ltd.

License Permission Provided on-2074/06/01 for two years has already been finished up in - 2076/05/30 and already renewed for one year

License Permission Extension for First Year Renewed in 2076/09/02, First year Renewed License Permission is going to be completed in 2077/05/30


नेपाल सरकार
ऊर्जा मन्त्रालय
विद्युत विकास विभाग
(.....)
पत्र संख्या :- २०७४/०७५ (अनुमतिपत्र)
चलानी नं. : ३३८

फोन नं. : ४४७४८५२, ४४८०२७६
४४७८०८५, ४४८०३२६
४४८०४२५, ४४९६८००
४४८९६१४, ४४७६९९०

फ्याक्स (९७७-९)-४४८०२५७
पोष्ट बक्स नं. २५०७
थापागाउँ, अनामनगर
काठमाडौं, नेपाल
मिति: २०७४/६/१

विषय:- सेती नदी ३ (SR-3) अर्धजलाशययुक्त (PROR) जलविद्युत आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र बारे ।

श्री चिलिमे जलविद्युत कम्पनी लिमिटेड,
धुम्बाराही ४, काठमाडौं, नेपाल ।
फोन नं.: ०१-४३७०७७३, ४३७०७९३,
फ्याक्स नं. : ४३७०७२०,
पो.ब.नं. : २५२९०
इमेल : chpcl@chilime.com.np

प्रस्तुत विषयमा तहान्ने सेती नदी ३ (SR-3) अर्धजलाशययुक्त (PROR) जलविद्युत आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र पाउन २०७४/५/२५ मा दिएको दरखास्त अनुसार विद्युत ऐन, २०४९ को दफा ४ को उपदफा २ र विद्युत नियमावली, २०५० को नियम ८ बमोजिम नेपाल सरकार, ऊर्जा मन्त्रालय, (सचिवस्तर) को मिति २०७४/६/१ को निर्णयानुसार मिति २०७६/५/३० सम्म (दुई वर्ष) बहाल रहने गरी जारी भएको १,६५,००० किलोवाट (१६५ मे.वा.) क्षमताको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र संख्या वि.वि.वि. ०७४/७५ वि.उ.स. ९०५ यसै साथ संलग्न गरी पठाइएको व्यहोरा अनुरोध छ ।


नेपाल सरकार
ऊर्जा, जलस्रोत तथा सिंचाइ मन्त्रालय
विद्युत विकास विभाग
(.....)
पत्र संख्या :- ०७६/७७
च.नं. ८९

फोन नं. : ४४९९०७४, ४४९९३७
४४९९७६८, ४४९९५०९
४४४३७७५, ४४३४९९९
४४३९३६२

फ्याक्स ४४४३९०३
पोष्ट बक्स नं. २५०७
सानोगौचरण
काठमाडौं, नेपाल
मिति: २०७६/०९/०२

विषय:- सेती नदी ३ (SR-3) अर्धजलाशययुक्त जलविद्युत आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र (वि.वि.वि ०७४/७५ वि.उ.स ९०५) को नवीकरण सम्बन्धि

श्री चिलिमे हाईड्रोपावर कम्पनी लि.
धुम्बाराही, काठमाडौं, नेपाल ।
फोन नं. ०१-४३७०७७३, ४३७०७९३, ९८४१२३८३८३ ।

चिलिमे हाईड्रोपावर कम्पनी लिमिटेड
दर्ता नं. : ४४८
दर्ता मिति : ०८/११/१३

प्रस्तुत विषयमा तहान्ने सेती नदी ३ (SR-3) अर्धजलाशययुक्त जलविद्युत आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्रको एक वर्ष नवीकरण हुन पेश गरेको दरखास्त उपर कारवाही हुँदा उक्त आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र (वि.वि.वि ०७४/७५ वि.उ.स ९०५) को अवधि १ वर्ष थप भइ मिति २०७६/०५/३० सम्म बहाल अवधि रहने गरि नवीकरण गरिएको व्यहोरा मिति २०७६/०८/३० को सचिवस्तरिय निर्णयानुसार जानकारी गुराईन्छ ।



Project Background:

- Chilime Jalavidhyut Company Limited Prepared a desk study report and applied for Survey License of Seti Nadi-3 Hydroelectric Project on 2074-05-25 B.S.
- Survey license was awarded on 2074-06-01 as per decision of GoN, Ministry of Energy dated 2074-05-30 B.S. (license number वि.वि.वि. ०७४/७५ वि.उ.स.१०५)

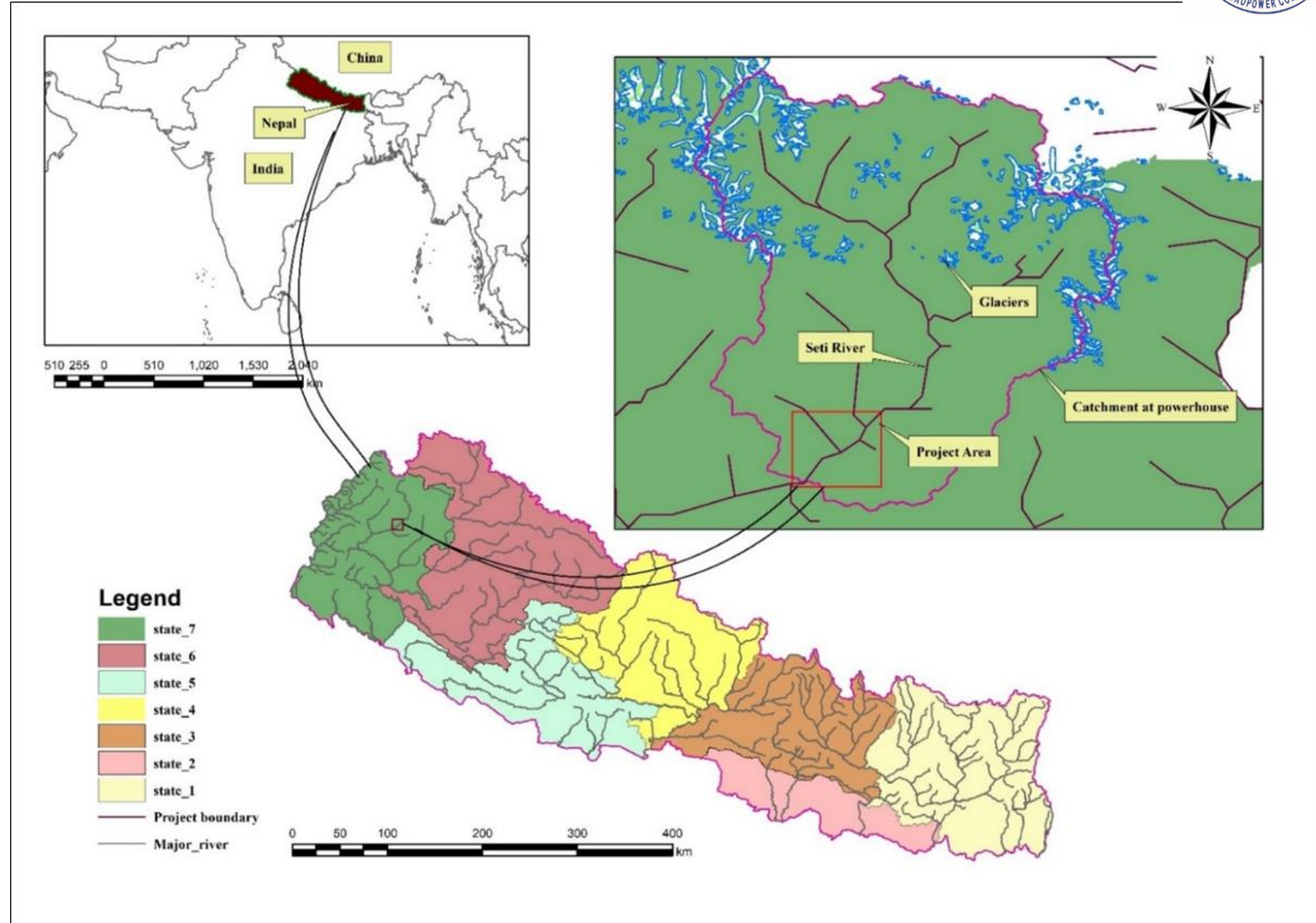
Boundary Point	Longitude	Latitude
1	81° 07' 51" E	29° 30' 00" N
2	81° 07' 51" E	29° 36' 00" N
3	81° 15' 00" E	29° 30' 00" N
4	81° 15' 00" E	29° 36' 00" N

Project Background:



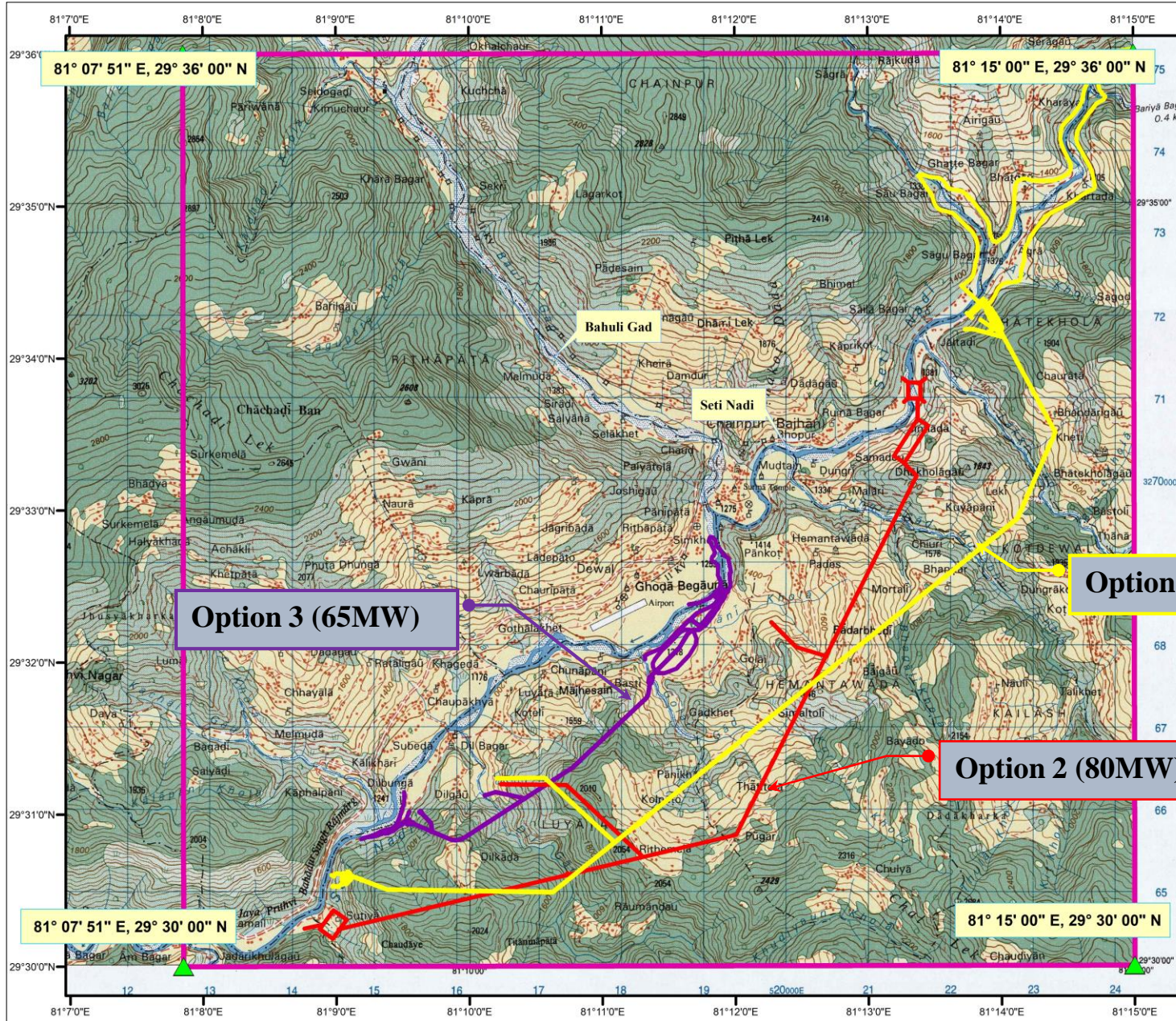
Accessability

Location	Highway	Highway Code	Distance
Kathmandu to Mugling	Prithvi Highway	H04	114 km
Mugling to Narayangad	Madan Asrit Highway	H05	42.8 km
Narayangad to Attariya	Mahendra Highway	H01	506 km
Attariya to Khodpe	Mahakali Highway	H14	147 km
Khodpe to Chainpur	Feeder road	F49	101 km
Chainpur to Headworks area	-	-	2 km



Project location Map SETI NADI-3 Hydroelectric Project

Study of Alternatives:



Option 1 (93 MW):

- Dam shifted u/s near confluence of Seti Nadi and Sunigad Khola [To minimize inundation area and dam size]

Option 2 (80 MW):

- RoR option at proposed dam axis in Desk Study [To avoid inundation area]

Option 1 (93MW)

Option 3 (65 MW):

- PRoR scheme d/s of Chainpur.

Option 2 (80MW)



Study of Alternatives:

Option 3 (65 MW) has the following positive aspects :

- Tunnel Length (4.06 km).
- Size of Structures (7 m high and 70 m wide concrete weir).
- Already available access road.
- Sufficient construction material in Project area.
- Resettlement and EIA issues are reduced significantly.



Project Layout (65 MW):

Features:

- Design Discharge : 69.44 cumecs
- Gross Head: 119.30 m
- Net Head: 110.35 m
- Peaking hours: 1.2 hours
- Headrace Tunnel: 4.121 km
- Powerhouse: Underground
- Installed Capacity: 65 MW



Project Salient features (65 MW):



Hydrology:

Catchment area at intake site	:	2265.47 km ²
Catchment area at powerhouse site	:	2323.84 km ²
Average annual discharge	:	101.10 m ³ /s
Minimum monthly discharge	:	23.41 m ³ /s
Maximum monthly discharge	:	310.68 m ³ /s
Minimum environment release	:	2.34 m ³ /s (10% of minimum monthly discharge)
Flood discharge for headworks design	:	1768 m ³ /s (1000 years flood) 1393 m ³ /s (100 years flood)
Flood discharge for powerhouse/tailrace design	:	1824 m ³ /s (1000 years flood) 1437 m ³ /s (100 years flood)
Construction flood discharge for headworks	:	184 m ³ /s (20 years dry season flood)

Head and Design Discharge:

Design discharge	:	69.44 m ³ /s
Gross head	:	119.30 m
Net head	:	110.35 m

Annual Energy:

Installed capacity	:	65 MW
Total annual energy	:	385.52GWh
Annual off-peak dry energy	:	118.04 GWh
Annual peak dry energy	:	13.93 GWh
Annual wet season energy	:	253.55 GWh

A. Feasibility Study Completed Till Date

1. After signing the contract

- a) First field Mobilization Report
- b) Inception Report

2. Submission of Field Report

a) Topographic Survey and mapping

- i) Project Area Survey Field Report

b) Hydrological Investigation

- i) Installation of Gauge
- iii) Hydrology and Sediment Study Report including GLOF Study

c) Geological and Geotechnical Survey and Study

- i) Surface Geological Mapping
- ii) Resistivity Tomography Method

d) Drilling Geology (Subsurface)*

- i) Drilling at Weir/ Intake Section
- ii) Drilling at Desander Section

e) Construction material Survey

- i) Construction material Survey Field Report
- ii) Lab Test

3. Submission of Design Reports

- i) Finalization of Layout Design

B. Feasibility Study Remaining Till Date

2. Submission of Field Report

a) Topographic Survey and mapping

- ii) Survey Work for Drilling
- iii) Final survey Report

b) Hydrological Investigation

- ii) Field measurement 12 times (Hydrology and Sediment)
- iv) Data Collection
- v) Final Report (24 months)

c) Geological and Geotechnical Survey and Study

- iii) Geological and Geotechnical Study
- iv) Seismic Coefficient determination of Project Structure

d) Drilling Geology (Subsurface)*

- iii) Drilling at Adit Tunnel Section
- iv) Drilling at Surge Tank Section
- v) Drilling at Powerhouse Section
- vi) Interpretation and Final report
- vii) Drilling at Peaking Reservoir Area

e) Construction material Survey

- iii) Final Report

B. Feasibility Study Remaining Till Date

3. Submission of Design Reports

- ii) Hydraulic design of all water Conveyance System including Electromechanical & Hydro mechanical
- iii) Structural Stability Analysis and Rate Analysis
- iv) Quantity Estimate, Cost Estimate, Financial and Economic Analysis based on the Construction Schedule
- v) Draft Design Report and Drawing

4. Tender Document Preparation (EPC) Contract

- i) Submission of EPC Contract Document
- ii) Final Submission

5. Project EIA Study

- i) Submission of TOR and Scoping approval
- ii) Submission of Field EIA Report
- iii) Submission of EIA approval Report

6. Final Report

- i) Submission of Final Report
- **Progress as per Financially =48%**