



**jade**  
CONSULT

We are involved in over 8911MW of Hydropower Projects, 3700km of Transmission Line Projects ranging from 33kV to 400kV & 2445km distribution lines all over Nepal.

We are the pioneer consulting firm in Nepal to work in:

- » **High voltage** (400 kV) transmission line in **high altitude (2,716 m)**, Tamakoshi (Khimti) – Kathmandu TL Project.
- » **First major storage-type hydroelectric project**, Budhigandaki HEP (1200 MW).
- » Detailed design of **highest dam (263 m)** in Nepal, Budhigandaki HEP.
- » Supervision of construction of **400 kV Transmission line** project, Hetauda-Dhalkebar-Inaruwa 400 kV TL Project.
- » Prepare the Resettlement Action Plan (**RAP**) of **400 kV Transmission Line**, SJVN Arun-3 Power Development Company Pvt. Ltd.
- » Supervision of construction and commissioning of 220 kV Power Substation, Dhalkebar Substation.
- » **Largest foreign direct investment (FDI)** in the hydropower sector in Nepal till date, Upper Trishuli-1 HEP.
- » Supervision of construction and commissioning of **220 kV Transmission Line** Project, Khimti – Dhalkebar TL Project.
- » **More than 3,700 km length** of transmission line projects.

M/s Jade Consult Pvt. Ltd.  
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Jade Consult is a private consulting firm established in 2001 A.D., registered with the Department of Industries (reg. no.15037), Government of Nepal, under company Act 2053 with expertise in the field of hydropower, transmission lines, roads, water resources and irrigation and environmental & social studies of various infrastructure development projects.

The firm is certified with ISO 9001:2015, quality management system and ensures the owner to render its service with good quality within specified time frame.

Since 2001, our competent staffs have been providing comprehensive, integrated solutions in all segments of hydropower, transmission line and other infrastructure development projects. We offer our clients exceptionally detailed industry knowledge and engineering services.



**WE PROVIDE CONSULTANCY SERVICES FOR DESIGN, CONSTRUCTION SUPERVISION, ENVIRONMENTAL & SOCIAL STUDIES OF HYDROPOWER, TRANSMISSION LINE, ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT PROJECTS.**

#### Hydropower & Dams

We are involved in over three dozen hydro power projects totaling up to 8911MW capacity at different stages of development. We provide all necessary technical support to hydropower developers.

#### Transmission Line

We are the pioneers of transmission line consulting in Nepal, with nearly two decades of experience in high voltage transmission line systems of up to 400kV. At present, we are involved in a number of transmission line projects ranging 33kV/132kV/220kV/400kV across the country comprising a total length of about 2445km.

#### Road/ Highways

We are involved in survey, feasibility study, detailed design and construction supervision of several road projects ranging from rural roads to highways in diverse and difficult geographical terrains of Nepal.

#### Environmental & Social Studies

We have successfully conducted the EIA, prepared the land acquisition, resettlement & rehabilitation action plan for prestigious projects like Budhigandaki Hydropower Project 1200MW and Upper Trishul-I Hydropower Project 216MW and resettlement & rehabilitation action plan and supplementary IEE for 400kV D/C Transmission Line of Arun-3 HPP 900MW.





# Our Values

## More than just doing the right thing:

To us, being responsible in our business means managing our operations with ethics and integrity and recognizing that our responsibilities extend into our value chain. But more than that - we understand that the most significant societal contribution we make is through the work we do every day. It also means recognizing our responsibilities, and opportunity to influence for positive change.



## Our Quality Policy

We are committed to provide excellent consultancy services for hydropower, transmission line, road and civil structure projects in national as well as international market, ensuring best quality services, complying with statutory and regulatory norms as well as requirements of our quality management system based on ISO 9001:2015 standard so that we fulfill the expectations of our customers and to increase the satisfaction level our clients.



## Integrity:

Highest level of integrity in our work is fundamental to who we are. We give utmost importance to our reputation for which we follow ethical principles and are strongly committed to sustainable and responsible business practices.



## Outstanding value to markets and clients:

We play a pivotal role in helping our clients operate more effectively in reaching their goals. We consider our part in their success as a privilege and are willing to provide constant vigilance and unrelenting commitment it requires.

## Our Clients

## National Clients

## Government/Semi-government Entities

- Nepal Electricity Authority (NEA)
- Ministry of Energy, Nepal
- Department of Electricity Development, Nepal
- Department of Water Resources and Irrigation, Nepal
- Department of Roads, Nepal
- Tamakoshi Jalvidyut Company Limited, Nepal
- Remit Hydro Ltd./Hydroelectricity Investment and Development Company Limited (HIDCL), Nepal

- Budhi Gandaki Hydroelectric Project Development Committee, Nepal
- Rastriya Prasaran Grid Company Limited, Nepal
- Department of Hydrology and Meteorology (DHM)
- Dhaubadi Iron Company Limited, Nepal
- Vidhyut Utpadan Company Limited, Nepal
- Millennium Challenge Account Nepal (MCA-Nepal)

### Private/Public Organizations

- Nepal Water and Energy Development Company Pvt. Ltd
- Worldlink Communications, Nepal
- Urja Developers Pvt. Ltd, Nepal
- Vision Lumbini Urja Co. Ltd.
- Paramount Construction Pvt. Ltd.
- Sita Hydropower Company Pvt. Ltd.
- Union Mewa Hydro Ltd.
- Silk Power Private Limited.
- Isuwa Energy Pvt. Ltd.
- Upper Seti Hydro Pvt. Ltd.
- Chujung Khola Hydropower Co. Ltd.
- Kabeli HP Dev. Co. P Ltd.
- Surya Energy
- Saptang Hydropower Pvt. Ltd.

- Jhaymolonga Hydropower Company P. Ltd
- Energy Venture P. Ltd.
- Dudhkoshi Power Company Pvt. Ltd.
- Himtal Hydropower Co.Ltd.
- Hydro Vision Pvt.Ltd
- Laxmi Bank
- Global IME Bank
- Himalayan Bank
- Sanima Bank
- Sunrise Bank
- Bank of Kathmandu
- Everest Bank
- Siddhartha Bank
- Machhapuchchhre Bank Ltd.

## International Clients

- Assam Electricity Grid Corporation Limited (AEGCL), India
- Assam Power Generation Corporation Limited (APGCL), India
- Electricite De France SA (EDF), France
- GMR Group, India
- NEWJEC Inc., Japan

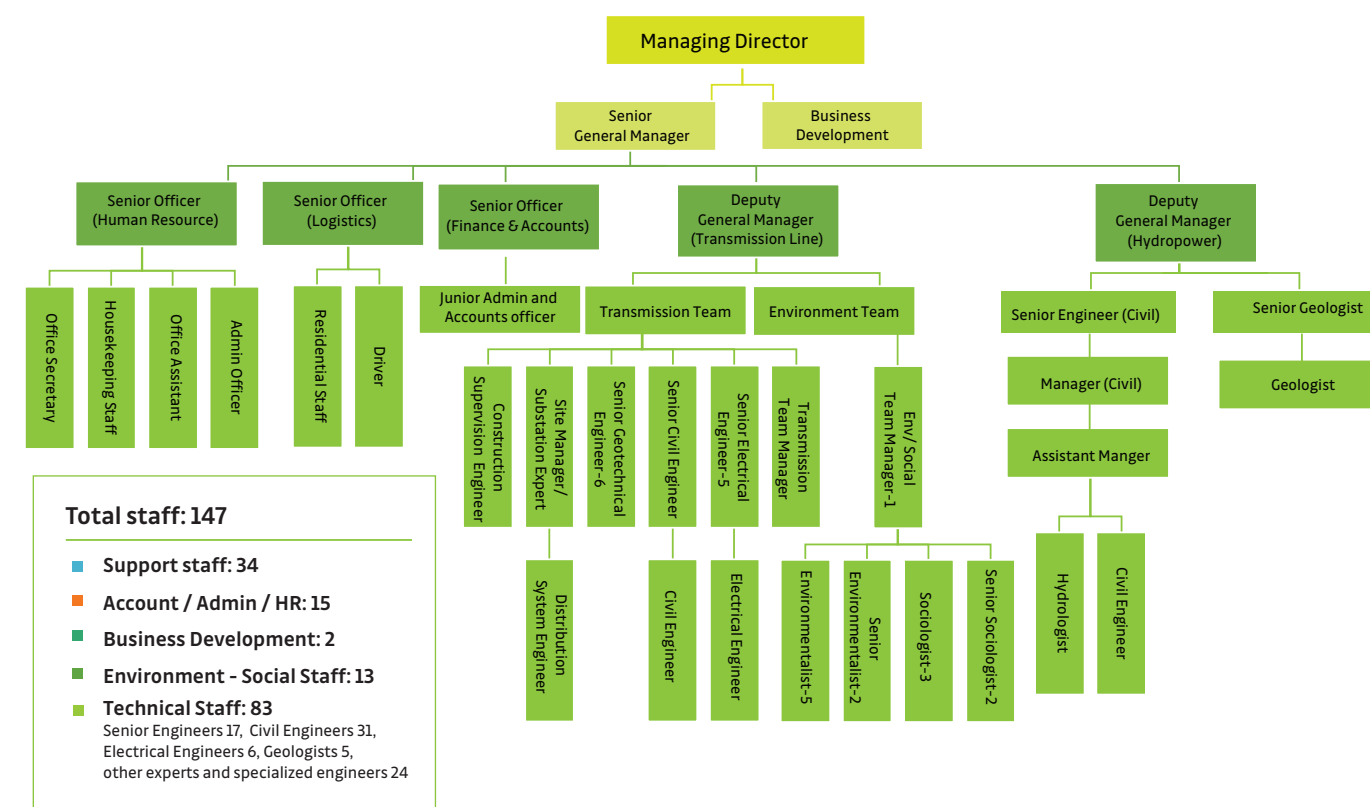
- Woonsun Energy & Construction Co. Ltd., South Korea
- Gezhouba Group, China
- Saman Engineering, Korea
- Brasspower International, Brazil
- Satluj Jal Vidyut Nigam (SJVN), India

## International Financing Institutions

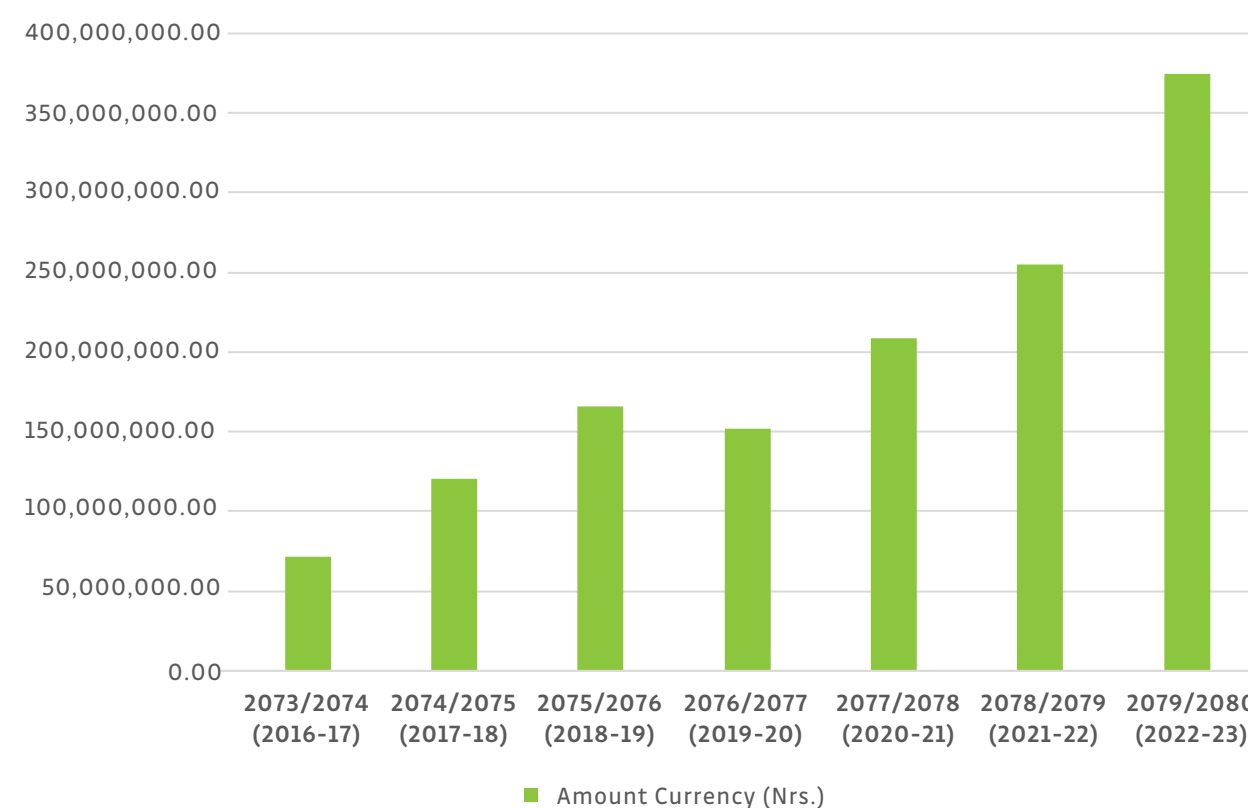
- Asian Development Bank (ADB)
- World Bank
- KfW
- JICA
- European Investment Bank (EIB)

- International Finance Corporation (IFC)
- Asian Infrastructure Investment Bank (AIIB)
- British International Investment (BII)
- Millennium Challenge Corporation (MCC)

## Organizational Chart

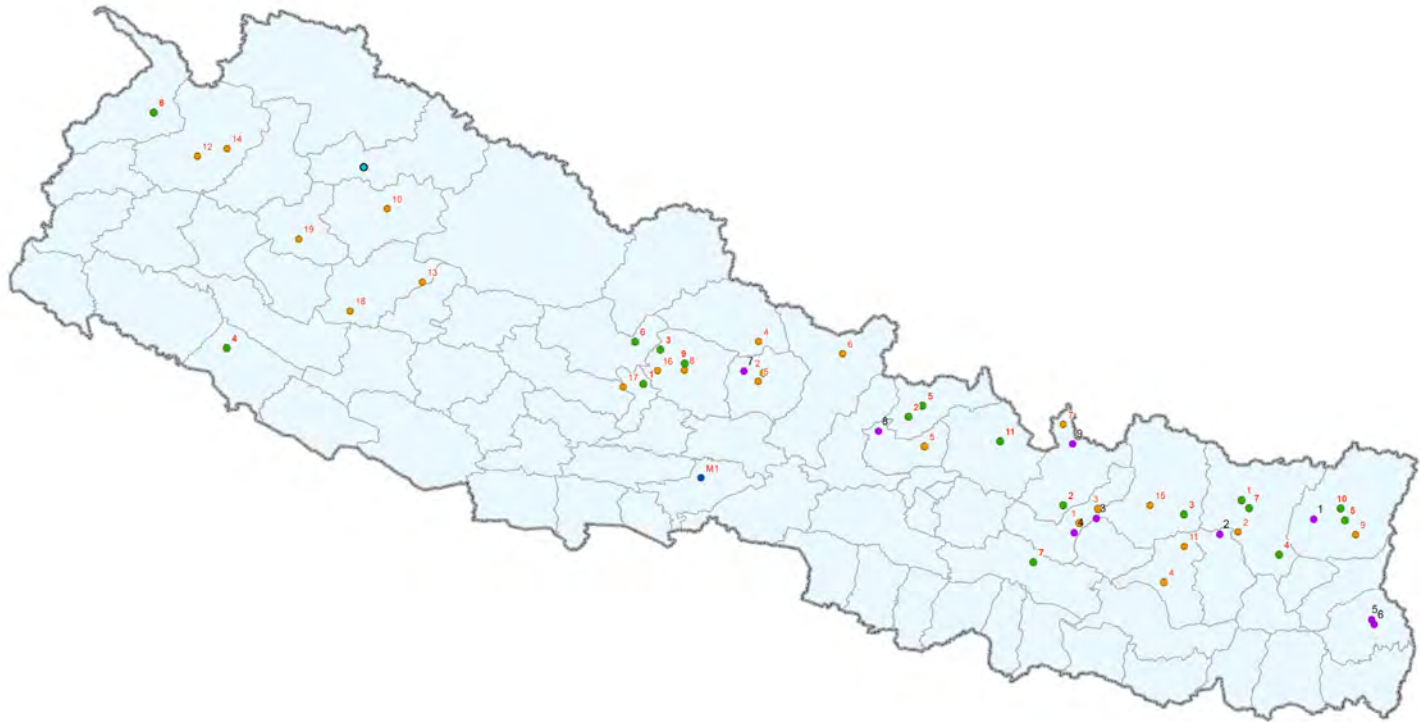


### Average Annual Turnover of Jade Consult Pvt Ltd (Last 7 Fiscal Years)





# Hydropower & Dams



**Ongoing Projects**

- 1. Kaligandaki Storage HPP (844 MW)
- 2. Upper Trishuli-I HPP (216 MW)
- 3. Landruk Modi HPP (86.59 MW)
- 4. Babai Man Khola Diversion Project (46.8 MW)
- 5. Simbuwa Khola HEP (70.3 MW)
- 6. Upper Chameliya HPP (53.85 MW)
- 7. Sunkoshi Marin Diversion Multipurpose Project (31.07 MW)
- 8. Mewa Khola HPP (23 MW)
- 9. Upper Seti HPP (20 MW)
- 10. Super Tamor HEP (166 MW)
- 11. Nyasim Khola HPP (35 MW)

(Technical Consultant)

- 1. Isuwa Khola HPP (97.2 MW)
- 2. Khimti-II HPP (48.8 MW)
- 3. Mid-Hongu HPP (22 MW)
- 4. Upper Piluwa Khola 3 HPP (4.95 MW)
- 5. Langtang Khola HPP (20 MW)
- 6. Rele Khola HPP (6 MW)
- 7. Isuwa Khola PROR Cascade HPP (40.1 MW)

**Completed Projects**

- 1. Budhi Gandaki HEP (1200 MW)
- 2. Lower Arun HEP (400 MW)
- 3. Upper Marsyandi II HEP (125 MW)
- 4. Upper Marsyandi III HEP (121 MW)
- 5. Budhi Gandaki Nadi HEP (91.17 MW)
- 6. Upper Lapche Khola HEP (52 MW)
- 7. Karuwa Seti HPP (32 MW)
- 8. Kabeli-3 HEP (21.93 MW)
- 9. Upper Seti HEP (20 MW)
- 10. Jawa Khola HPP (17 MW)
- 11. Rawa Khola HPP (6.5 MW)
- 12. Upper Jeuligad Small HEP (4 MW)
- 13. Bheri-1 HEP (270 MW)
- 14. Talkot Seti HEP
- 15. Deku Khola HPP
- 16. Upper Modi HPP
- 17. Low Head Kaligandaki HPP
- 18. Chere Khola HPP
- 19. Tila HPP

(Technical Consultant)

- 1. Likhu-IV HPP (52.4 MW)
- 2. Nyadi HPP (30 MW)
- 3. Likhu-A HPP (24.2 MW)
- 4. Sapsup Khola HPP (6.6 MW)
- 5. Lower Tadi HPP (5 MW)

**Feasibility Study of Dams in Dang Valley**

- 1. Vitri Dam
- 2. Gwar Dam
- 3. Balim Dam
- 4. Vutiya Dam
- 5. Ranighat Dam

## Completed Projects

**Five Dams in Dang Valley**

Client - Mega Dang Valley Irrigation Project

Works - Feasibility Study, IEE & Detailed Design of 5 Dams:

- 1. Dam at Vutiya Tal- 15m (Earthen Dam)
- 2. Dam at Ranighat Khola- 43m (Earthen Dam)
- 3. Dam at Balim Khola-70m (Clay Core Rockfill Dam)
- 4. Dam at Vitri Khola- 29m (Earthen Dam)
- 5. Dam at Gwar Khola- 125m (Clay Core Rockfill Dam)

**Upper Trishuli- 1 HEP (216MW)**

Client - Nepal Water and Energy Development Company Pvt. Ltd.

Works - Assistance in Preperation of Detailed Design, Drawings & Cost Estimates

**Manang Marsyangdi Hydropower Project (144 MW)**

Client - Marsyangdi Power Company P. Ltd.

Works - Design review, Cost review, financial analysis, preparation of construction schedule, Power and Energy calculation for Peaking RoR, Power Evacuation Study, facilitation of Grid Connection Agreement and Power Purchase Agreement

**Saptang Khola Small Hydropower Project (2.5 MW)**

Client - Machhapuchhre Bank Limited

Works - Prepare Due Diligence Study Report, review and independent analysis of hydrology and geological study, review and independent assessment of installed capacity and energy generation, review and independent analysis of transmission plan, review of design parameters and criteria, verification of cost estimates, financial analysis

**Lower Barun Khola Hydropower Project (132 MW)**

Client - Ampik Energy Pvt. Ltd.

Works -Geotechnical investigation that includes 265 m of core drilling and associated laboratory tests

**BudhiGandaki HPP (1200MW)**

Client - Budhigandaki Hydropower Development Committee

Works -Feasibility study, Detailed Design Report & Tender documents preparation and EIA Studies

**Rawa Khola HEP (6.5MW)**

Client - Dudh Koshi Power Company Pvt. Ltd.

Works -Detailed Engineering Design & Tender Documents Preparation

**Upper Marsyangadi-III HEP (121MW)**

Client - VA TECH Hydro, Switzerland

Works -Investigation, Detailed Feasibility Study of the project, which includes Topographical survey, Geological mapping and investigation, Hydrological analysis EIA study etc.

**Upper Marsyangadi-II HEP (125MW)**

Client - Himtal Hydropower Co. Pvt. Ltd

Works -Investigation, Design and Detailed Feasibility Study.

**Upper Marsyangadi-II HEP, Optimization (250MW)**

Client - Himtal Hydropower Co. Pvt. Ltd

Works -Investigation of optimal plant capacity. Detail analysis of the project alternatives. Preparation of optimization study report.

**Lower Arun HEP (400MW)**

Client - Bras Power International, Brazil

Works -Hydrological gauging station establishment, Land Acquisition, Survey, Design and Drawing preparation for approximately 26km long access road

**Upper Modi HEP (14 MW)**

Client - GITEC Nepal Pvt. Ltd

Works -Upgrading and Detailed Feasibility Report and ACRP Report.

**Low Head Kaligandaki HEP (30MW)**

Client - Jade Power Pvt. Ltd.

Works -Inventory study & Preparation of Desk Study report

**Talkot Seti HEP (75MW)**

Client - H2O Hydropower

Works - Inventory study & Preparation of Desk Study report

**Deku Khola (3.4MW)**

Client - GCE Group Pvt. Ltd.

Works -Inventory study & Preparation of Desk Study report

**Tila HEP (500MW)**

Client - Tila Hydropower

Works -Inventory study & Preparation of Desk Study report

**Chhere Khola (12MW)**

Client - Jade Power Pvt. Ltd.

Works -Inventory study & Preparation of Desk Study report

**Phukot Karnali HEP (210MW)**

Client - PES Engineers Pvt. Ltd.

Works -Preparation of Desk Study report

**Upper Seti Hydropower Project (20MW)**

Client - Upper Seti Hydropower Pvt. Ltd.

Works - Feasibility Study including Field Investigation (Hydrological & Sedimentological Study, Geological Mapping, Topographical Survey)

**Upper Lapche Khola (52MW)**

Client - Energy Venture Pvt. Ltd.

Works - Review of Feasibility Study & Detail Project Report. Detail Engineering Design with reinforcement drawing. Preparation of Tender Documents

**Upper Trishuli-I HEP (216MW)**

Client - Nepal Water and Energy Development Company Pvt. Ltd

Works - Project investigation, Design and Detailed Feasibility Study. Preparation of EIA, ToR Scoping and EIA report, Survey, Design and Drawing preparation of access road

**Karuwa Hydropower Project (36MW), Kaski**

Client - Jhaymolonga Hydropower Company P. Ltd

Works - Detail design of all project structures including 3.5 Km HRT, preparation of tender documents, survey and design of access road and transmission line, hydrological and sedimentological studies, geological mapping.

**Bheri-1 Hydropower Project (270MW)**

Client - Gezhouba Group Power Investment Nepal Pvt. Ltd.

Works - Review of Feasibility Study

**Jawa Khola HPP (17.2MW)**

Client - Department of Electricity Development

Works - Feasibility Study and IEE Study

**Preparation of Biodiversity Action Plan (BAP) for Tamakoshi V Hydroelectric Project (99.8 MW)**

Client: Tamakoshi Jalvidyut Company Limited

(Funded by Asian Infrastructure Investment Bank)

Works - To conduct and prepare Critical Habitat Assessment, Consultation and Partnership Building Strategy, Mitigation Strategies and Biodiversity Action Plan

**Preparation of Supplemental Environmental and Social Documentation (SES) for Tamakoshi V Hydroelectric Project (99.8 MW)**

Client - Tamakoshi Jalvidyut Company Limited

(Funded by Asian Infrastructure Investment Bank)

Works - Restructure Environmental Management Action Plan (EMAP), prepare Stakeholder Engagement Plan, prepare Monitoring Plan, conduct Cumulative Impacts Assessment, Climate Change Assessment, develop Pollution control strategy, develop Public Health and Safety Strategy, develop Local employment strategy, prepare Land acquisition and Livelihood Restoration Plan, Environmental Flows and Ecosystem Services Assessment, develop E&S actions to be implemented by the Developer, develop E&S specifications for the EPC contractor.

**Lower Likhu HPP 28.1 MW**

Client: Consortium led by Laxmi Bank

Works: Due Diligence Study for Cost Overrun

**Upper Jeuligad Small Hydroelectric Project (4 MW)**

Client: Woonsun Energy & Construction Co. Ltd., Seoul, Korea

Works: Feasibility study

**Upper Khudi Hydropower project (21.21 MW)**

Developer: Super Khudi Hydropower Project

Client - Bank of Kathmandu

Works - Due Diligence Study.

**Sapsup Khola Small Hydropower Project (6.6 MW)**

Developer: Three Star Hydropower Pvt. Ltd.

Client - Himalayan Bank Ltd.

Works - Technical Bill Verification and Progress monitoring

**Budhi Gandaki Nadi HEP (91.17MW), Gorkha**

Client - Surya Energy

Works - Detail Feasibility including field investigation (hydrological and sedimentological study, geological mapping, topographical survey) & EIA



Completed Projects

**Kabeli -3 HEP (21.93MW), Taplejung**  
*Client - Kabeli HP Dev. Co. P Ltd*  
Works -Detail Design of all project structures such as headworks, headrace tunnel, penstock, powerhouse, camp facilities, access road including hydrological & sedimentological studies and geological mapping.

**Lower Tadi Khola HPP (5MW)**  
*Client - Consortium led by Siddhartha Bank*  
Works - Technical Consultant for Bill Verification Work & Progress Monitoring

**Likhu-IV Hydroelectric Project (52.4MW)**  
*Client - Consortium led by Laxmi Bank*  
Works - Technical Consultant for Bill Verification Work & Progress Monitoring

**Likhu-A Hydropower Project (24.2MW)**  
*Client - Consortium led by Laxmi Bank*  
Works - Technical Consultant for Bill Verification Work & Progress Monitoring

**Nyadi Hydropower Project (30MW)**  
*Client - Consortium led by Everest Bank*  
Works - Technical Consultant for Bill Verification Work & Progress Monitoring

**Chujung Khola Hydropower Project (48MW)**  
*Client - Chujung Khola Hydropower Co. Ltd.*  
Works - Detail Feasibility Study including field investigation (Hydrological and sedimentological study, Geological mapping, Topographical survey)

**E&S Baseline Data Collection, Downstream Impact Assessment and E-flow Assessment Study, Rapid Cumulative Impact Assessment (CIA) for Upper Karnali Hydropower Project (HPP), Nepal**  
*Client: EDF/GMR*  
Works: Collection of environmental and social baseline data, E-flow assessment study covering a downstream baseline and initial impact assessment, Rapid Cumulative Impact Assessment (Rapid CIA) on Karnali River

**Landruk Modi Hydropower Project (86.59 MW)**  
*Client: Consortium led by Global IME Bank Ltd.*  
Works: Due Diligence Study

**Simbuwa Khola Hydroelectric Project, Taplejung District, Nepal (70.3 MW)**  
*Client - Remit Hydro Ltd.*  
Works - Updating Feasibility Study, Conducting Detailed Engineering Survey & Design and Preparation of Tender Documents

**Mewa Khola Hydropower Project (23 MW)**  
*Client- Union Mewa Hydro Ltd.*  
Works- Updated Feasibility Study, Detailed Project Report and Preparation of Tender Documents along with 132 kV Transmission Line Study and Design of Project Road

**Independent Engineering Services to Perform the Due Diligence of the 3 Hydropower Projects**  
- Middle Mewa Hydropower 73.5 MW  
-Mai Beni Hydropower 9.5 MW  
-Lower Jogmai Hydropower 6.2 MW  
*Client- IFC*  
Works- To carry out a high-level technical appraisal of the 3 hydro projects

Ongoing Projects

**Contract Management and Related Works for Construction of Sunkoshi Marin Diversion Multipurpose Project**  
*Client: Department of Water Resources and Irrigation*  
*Funding Agency: Government of Nepal*  
Works: The work involves design review, construction supervision, quality control, project management, construction and contract management

**Owner’s Engineer Services for Upper Trishuli - I Hydroelectric Project (216 MW)**  
*Client: Nepal Water and Energy Development Company Pvt. Ltd*  
*(Funded by IFC, ADB, AIIB, K-EXIM, KDB, CDC, FMO, PROPARCO and OFID.)*  
Works: Design Review, Construction Supervision, Contract Administration, Environmental and Social Safeguards Implementation and Compliance Monitoring

**Lower Kopili Hydroelectric Project (120 MW), Assam, India**  
*Client: Assam Power Generation Corporation Limited (Funded by ADB)*  
Works: Independent monitoring of implementation of Social and Environment safeguards during design, construction and operation phases.

**Mid Hongu Khola - A Hydropower Project (22 MW)**  
*Client: Consortium led by Sanima Bank*  
Works: Technical Consultant for Bill Verification Work & Construction Monitoring

**Upper Piluwa Khola 3 Hydropower Project (4.95 MW)**  
*Client: Consortium led by Laxmi Bank Limited*  
Works: Technical Consultant for Bill Verification Work & Progress Monitoring.

**Rele Khola Hydropower Project (6 MW)**  
*Client: Consortium led by Himalayan Bank*  
Works: Technical Consultant for Bill Verification Work & Progress Monitoring

**Khimti-2 Hydropower Project (48.8 MW)**  
*Client: Consortium led by Sanima Bank*  
Works: Technical Consultant for Bill Verification Work & Progress Monitoring

**Kaligandaki Storage Hydropower Project (844 MW), Parbat & Myagdi District**  
*Client - Department of Electricity Development*  
Works - Feasibility Study and Environmental Impact Assessment Study.

**Isuwa Khola Hydropower Project (97.2 MW)**  
*Developer: KBNR Isuwa Power Ltd. | Client - Sanima Bank Ltd.*  
Works - Technical Bill Verification and Progress monitoring

**Upper Chameliya Hydropower Project (60 MW), Darchula District**  
*Client - Department of Electricity Development*  
Works - Feasibility and Environmental Impact Assessment (EIA) study

**Langtang Khola Hydroelectric Project (20MW)**  
*Client - Consortium led by Sunrise Bank Ltd.*  
Works - Technical Consultant for Bill Verification Work & Progress Monitoring

**Upper Seti Hydropower Project (20MW)**  
*Client - Upper Seti Hydro Pvt. Ltd.*  
Works - Detail Design of all project structures including 2.51 Km HRT , preparation of Tender Documents, survey and design of access road and Transmission line, hydrological and sedimentological studies, geological mapping.

**Project Management Consultant (PMC) service of Nyasim Khola Hydropower Project (35 MW), Sindhupalchowk, Nepal**  
*Client- Sita Hydropower Company Pvt. Ltd.*  
Works- Project Management Consultant Service for Construction Supervision and partial design review.

**Jum Khola Hydropower Project (56 MW)**  
*Client- Nabil Bank Limited | Developer- Sanima Jum Hydropower Limited*  
Works- Due Diligence Study of the Jum Khola

**Kaligandaki Storage Hydropower Project (844 MW)**  
*Client- Department of Electricity Development (DoED)*  
Works- Feasibility and Environmental Impact Assessment (EIA) study of Kaligandaki Storage Hydropower Project

**Upper Irkhuwa Khola HPP (14.5 MW)**  
*Client- Consortium Led by Machhapuchchhre Bank Limited*  
Works- Technical Bill Verification and Progress monitoring

**Isuwa Khola PROR Cascade HPP (40.1 MW)**  
*Client- Consortium Led by Siddhartha Bank Limited*  
Works- Technical Consultant for Bill Verification works and Progress Monitoring

**Mugu Karnali Storage Hydro Electric Project (MKHEP) (1902 MW)**  
*Client- Vidhyut Utpadan Company Limited*  
Works- Environmental Impact Assessment (EIA) Study

**Babai Mankhola Diversion Project**  
*Client- Department of Water Resources and Irrigation*  
Works- Detail Feasibility Study

Hydropower Projects

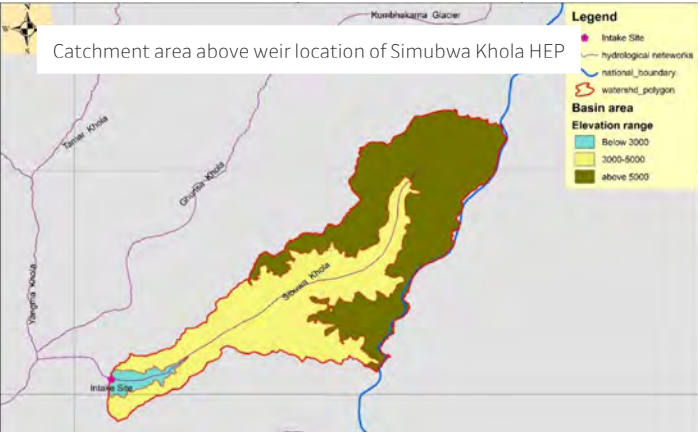
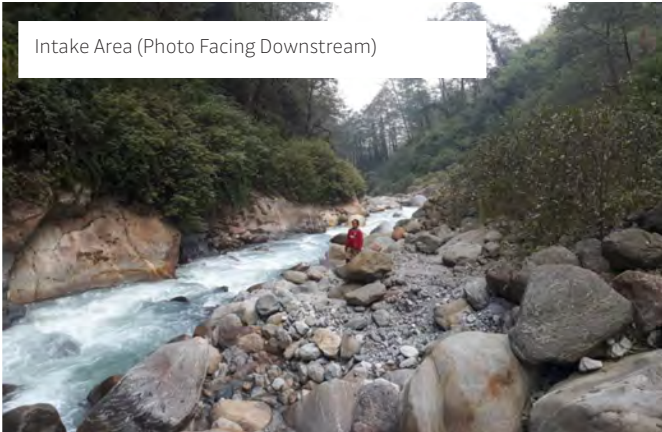
Simbuwa Khola HEP (70.3 MW)

Simbuwa Khola Hydroelectric Project is a RoR type of hydropower project envisaged to be developed in Lelep and Tapethok VDCs (currently in Faktanglung Rural Municipality) of Taplejung district, utilizing the flow of Simbuwa Khola, a tributary of Tamor River. The scheme is a 70.34 MW (installed capacity) hydropower project with a gross head of 888.86 m and design discharge of 9.24 cumecs at 40% flow exceedence level. The major structures of the project are a 5 m high and 17 m long weir and two intakes (3.2 m x 2.5 m). A two chambered underground desanding basin of 80 m length is proposed. The headrace tunnel is 4.393 km long, which will lead to a 26m high underground surge shaft. The design flow will be directed towards the underground powerhouse through a 1.8 m diameter pressure shaft with vertical drop at three places of maximum drop of 300m and length of 271042 m. The annual energy generation from the project will be 378.96 GWh and the electricity generated will be evacuated through interconnection with the Dhunge Sangu substation via proposed Koshi corridor.

Client  
Remit Hydro Ltd.

Scope of Works  
- Review and update of existing feasibility study  
- Detailed Engineering Survey & Design  
- Preparation of tender documents

General  
Project Location: Taplejung District  
Nearest highway: Mechi Highway (Charali- Fungling Bazar)





## Sunkoshi Marin Diversion Multipurpose Project (SMDMP)

The National Pride Project of the Government of Nepal involves design review, construction supervision, quality control, project management, construction, and contract management works. SMDMP aims at producing hydropower and providing irrigation facility in the southern plains of Province 2. The project plan includes construction of barrage across the Sunkoshi River to divert 67 Cumecs water through a 13.1 km concrete lined tunnel to be constructed by using a Tunnel Boring Machine (TBM) followed by a surface powerhouse positioned on the Marin River in Kusumtar of Kamalamai Municipality, Sindhuli District.

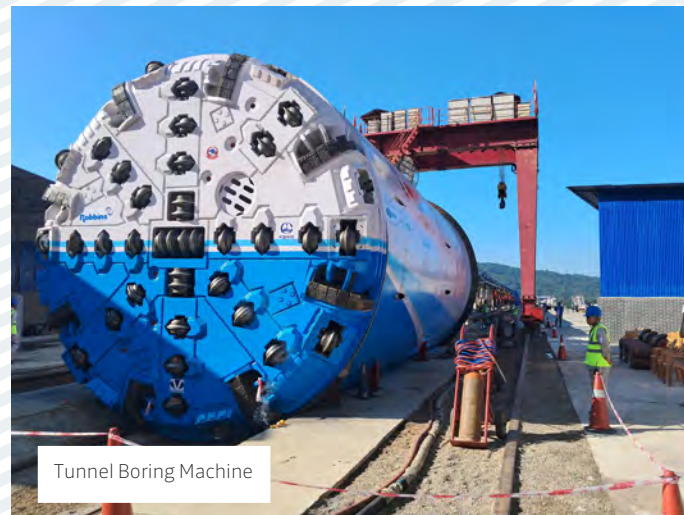
**Client**  
Department of Water Resources and Irrigation under the Ministry of Energy, Water Resources and Irrigation, Government of Nepal

**Scope of Works**  
Design review, construction supervision, quality control, project management, construction, and contract management

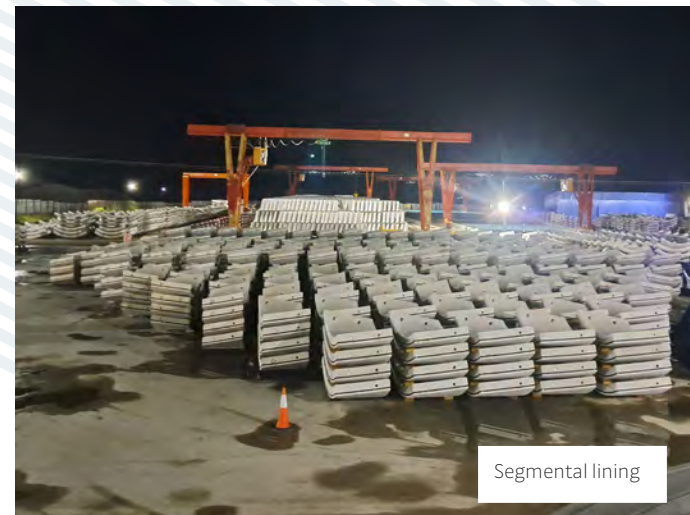
**General**  
**Project Location:** Sindhuli District



Tunnel outlet



Tunnel Boring Machine



Segmental lining

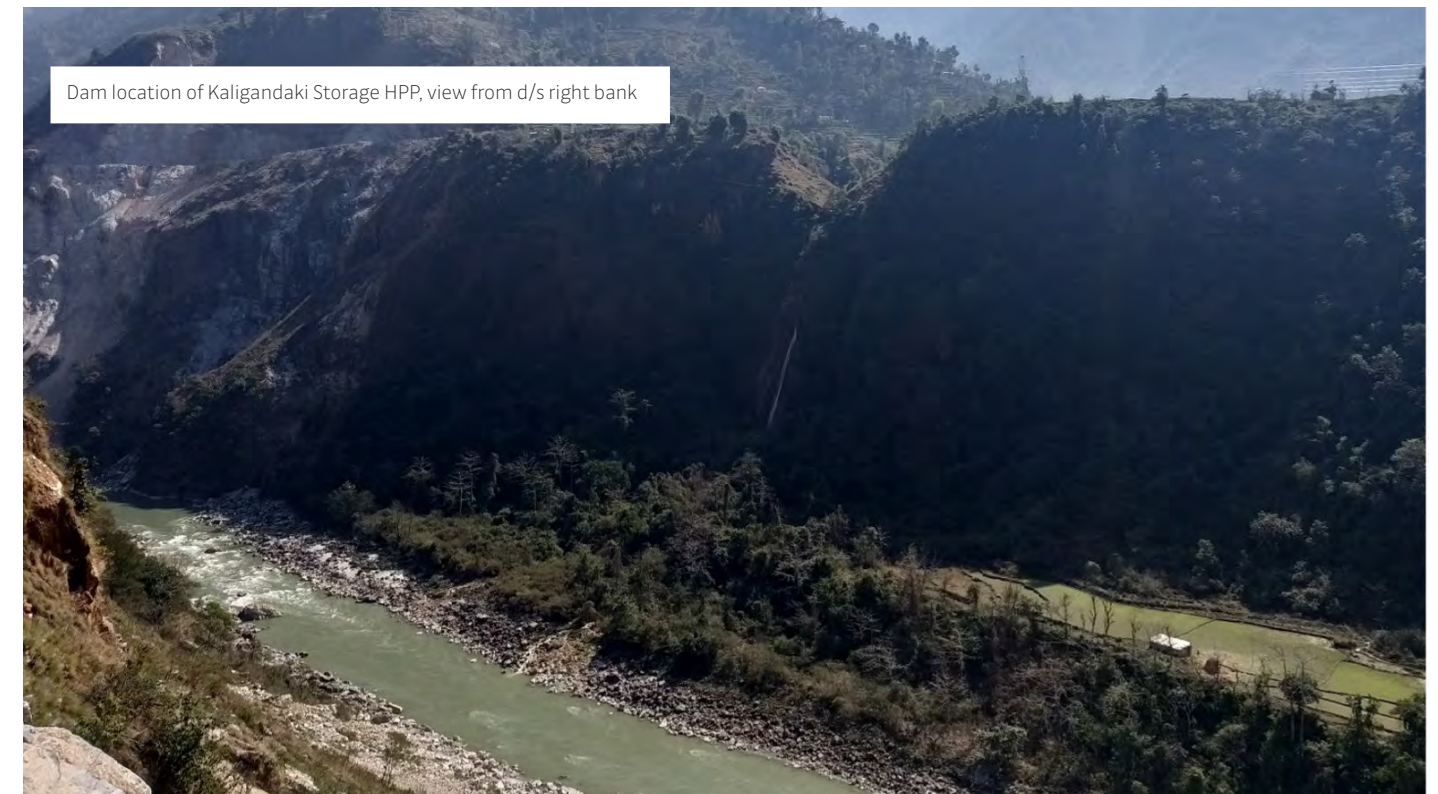
## Kaligandaki Storage Hydropower Project (844 MW)

The proposed Kaligandaki Storage Hydropower Project lies in the western part of Nepal. It will inundate some area of province 4 and province 5, namely the districts: Gulmi, Parbat and Baglung. The project has catchment area of approximately 6934.15 km<sup>2</sup> at the most downstream dam location. The most downstream location of the dam for which a toe of dam power station can be built is about 2 km upstream of Setiben, the confluence of Kaligandaki and Seti Khola.

**Client**  
Department of Electricity Development (DoED)

**Scope of Works**  
Feasibility and Environmental Impact Assessment Study

**General**  
**Project Location:** Gulmi, Parbat, Baglung Districts



Dam location of Kaligandaki Storage HPP, view from d/s right bank



Geotechnical investigation (Borehole drill) being carried out at Dam Site



Discharge measurement work at Purthihat hydrological station



## Budhigandaki HPP (1200MW)

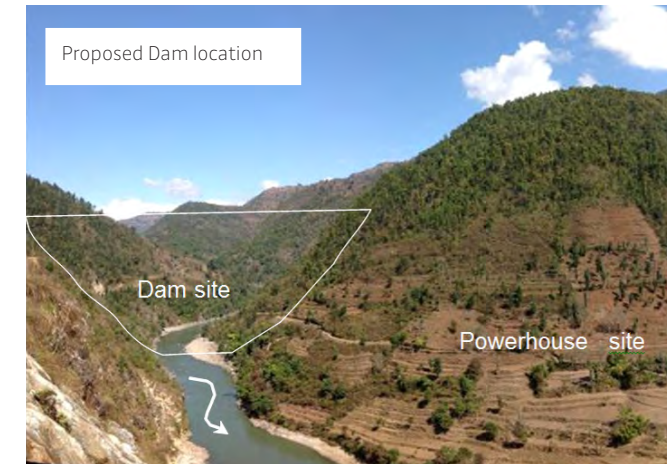
Budhigandaki Hydropower Project is a large seasonal storage-type project located in Dhading & Gorkha district. Tractabel Engineering S. A. France in association with Jade Consult P. Ltd. prepared the Feasibility study, Detailed design report and Tender documents of the project. Main highlight of this project is the 263m high Double Curvature Arch Concrete Dam with a gross reservoir capacity of 4467mm<sup>3</sup>. This project responds perfectly to the urgent need of power regulation in the country. The study of the project has concluded that the project has a high energy potential, large storage volume, and favorable location and access to Central Nepal, near the main load center. The power generated by the project is expected to be interconnected to the national grid via New Hetauda Substation and proposed Naubise Substation.

**Client**  
Budhigandaki Hydropower Development Committee

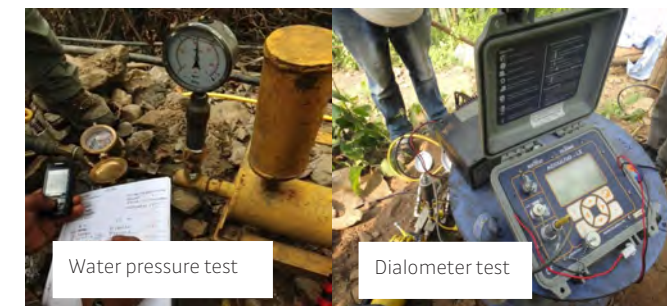
**Scope of works**  
- Feasibility study  
- Detailed Design Report-submitted on February 2016  
- EIA Studies - Approved

**General**  
**Project Location:** Dhading & Gorkha District,  
Latitude 26° 22' to 30° 22' N & longitude 80° 4' to 88° 12' E  
**Nearest highway:** Prithvi Highway

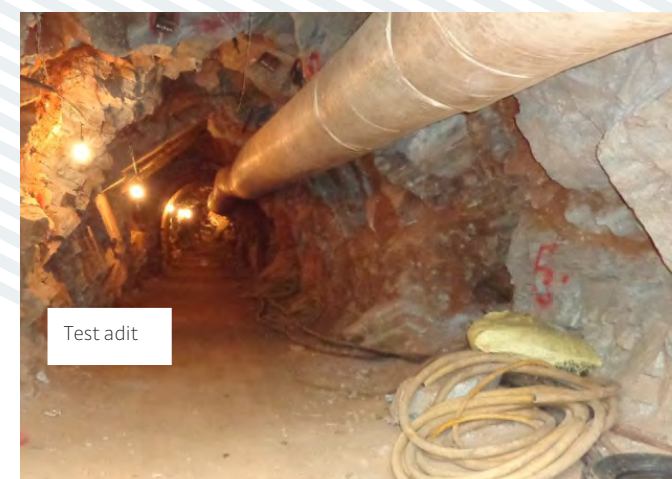
**Reservoir**  
**Gross capacity at FSL:** 4467Mm<sup>3</sup>  
**Effective/Active storage capacity:** 2226Mm<sup>3</sup>  
**Surface area at FSL:** 63km<sup>2</sup>



### Core Drilling:



### Plate Jacking Test:





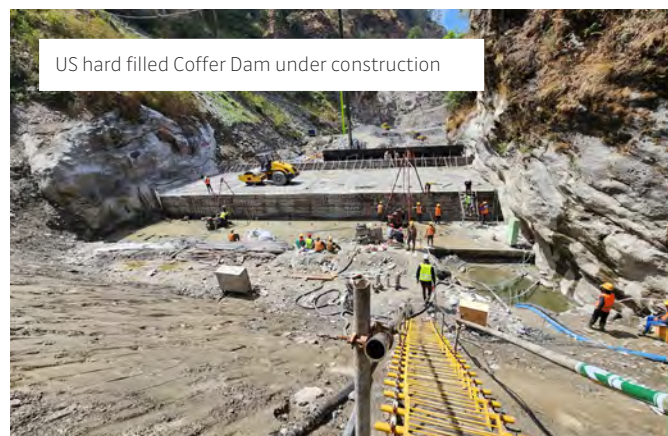
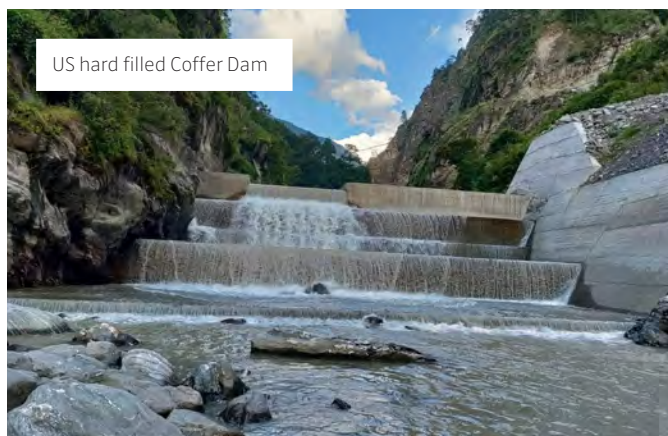
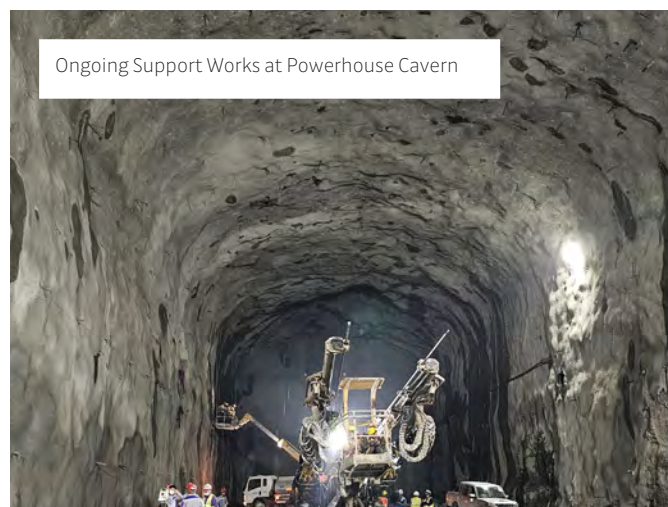
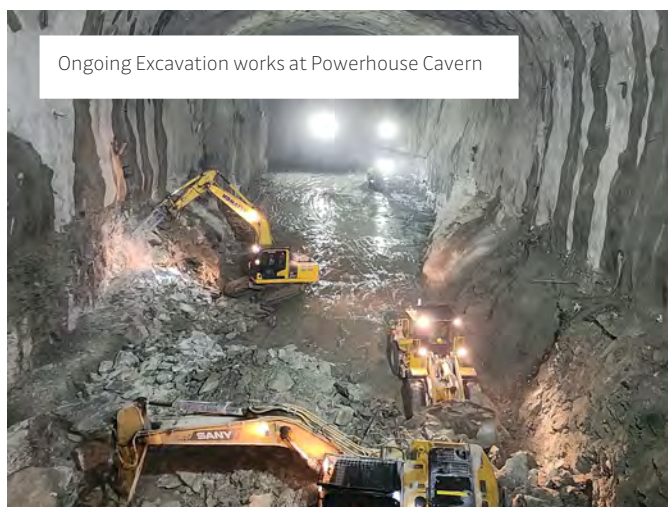
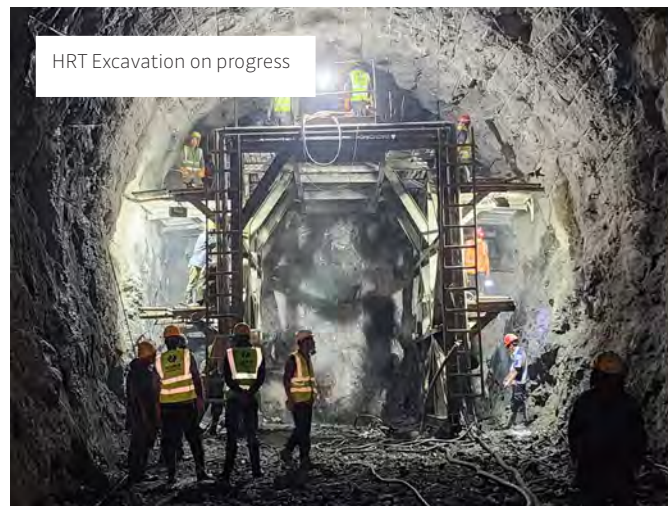
## Upper Trishuli-I HEP (216MW)

Upper Trishuli- 1 HEP is located in Rasuwa district, Bagmati zone. UT-1 HEP is financed by International Finance Corporation (IFC) along with other eight international financing institutions namely ADB, AIIB, K-EXIM, KDB, CDC, FMO, PROPARCO and OFID. The power generated from this project is expected to be interconnected into the national grid through Trishuli 3B Hub station.

Client  
Nepal Water and Energy Development Company Pvt. Ltd.

Scope of Works  
- Feasibility Study  
- EIA Study  
- Detailed Design  
- Owner's Engineer

General  
**Project Location:** Rasuwa district Haku, Gogane and VDCs  
**Nearest highway:** Pasang Lahmu Highway



## Upper Lapche HPP (52 MW)

Upper Lapche Khola hydropower project (52 MW) is a Run-of-River (RoR) type project located in Dolakha district, Janakpur Zone, Central Development Region of Nepal. The electricity generated from this project has been planned to evacuate at Singati sub-station which is about 36km from powerhouse of the project. This medium sized hydropower project will be highly beneficial to support the government's plan to make Nepal a load shedding free country." Jade is responsible to prepare Detailed Design report and Tender Documents of the project.

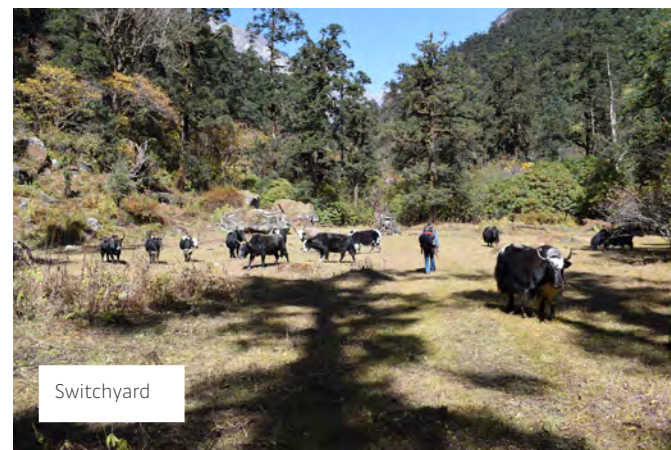
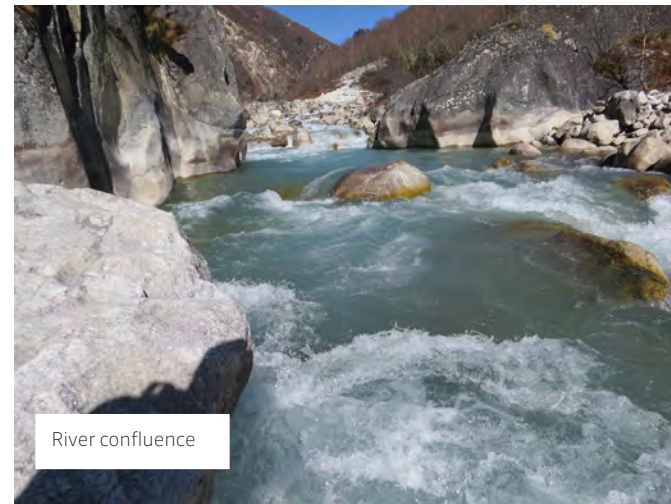
Client  
Energy Venture Pvt. Ltd.

Scope of Works  
- Review of Feasibility Study and detail project report  
- Detail Engineering Design with reinforcement drawing  
- Preparation of Tender Documents

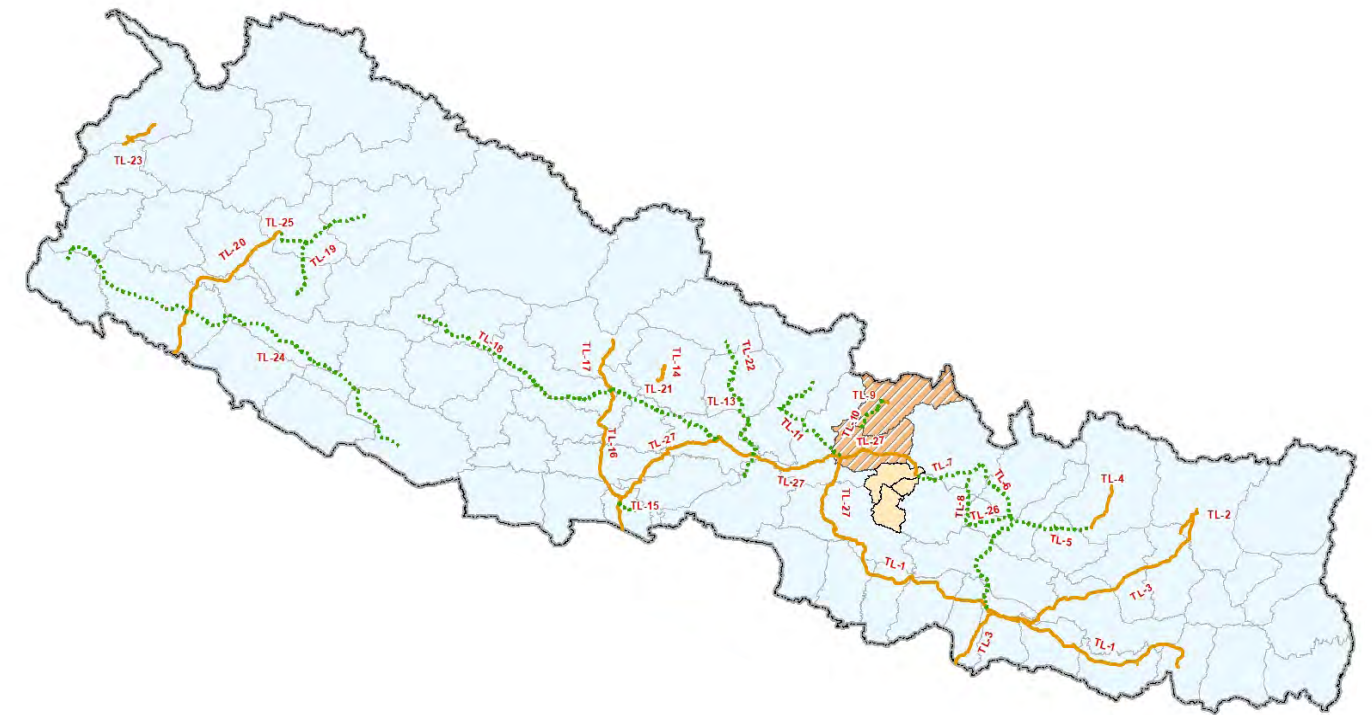
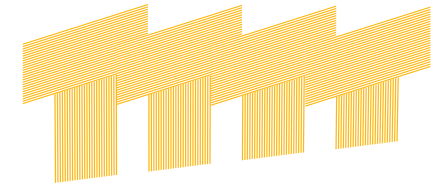
General  
**Project Location:** Janakpur zone, Dolakha district, Lamabagar VDC  
**Nearest highway:** Kathmandu-Charikot







## Transmission Lines



Reconstruction and improvement of electricity in earthquake affected districts of Rasuwa and Nuwakot  
 Power Transmission Distribution Efficiency Enhancement Project (PTDEEP)

### Completed Projects

- TL-1: Hetauda-Dhalkebar-Duhabi 400 kV
- TL-2: Isuwa Khola 220 kV
- TL-3: Arun-3 33 kV |
- TL-4: Luja Khola 132 kV
- TL-9: Langtang Khola 220 kV
- TL-14: Karuwa Seti 132 kV
- TL-16: Kushma - New Butwal 220 kV
- TL-17: Dana - Kushma 220 kV
- TL-20: Karmadev \_ Phukot 400 kV |
- TL-21: Seti Nadi 132 kV
- TL-23: Makari Gad 33 kV
- TL-27: MCA 400 kV

### Ongoing Projects

- TL-5: Tingla - New Khimti - Sunkoshi Hub - Dhakebar 400 kV
- TL-6: New Khimti - Barhabise 400kv
- TL-7: Barhabise - Kathmandu 400 kV
- TL-8: Lamoshangu - Kavre/Ramechhap 132 kV
- TL-10: Chilime - Trishuli 220kV
- TL-11: Philim - Gumda - Ratamate 400 kV
- TL-12: Markichowk (Marsyangdi) - Matatirtha (Kathmandu) 220 kV
- TL-13: Udipur - Markichowk - Bharatpur 220 kV
- TL-15: New Butwal - Bardaghat 220kV
- TL-18: Damauli - Kusma - Bafikot 400 kV
- TL-19: Dailekh - Kalikot - Jumla 132 kV
- TL-22: Manang - Khudi - Udipur 220 kV
- TL-24: Lamahi - Chhinchu - Dododhara - Attariya 400 kV
- TL-25: Phukot - Kalikot 132 kV
- TL-26: New Khimti - Kavre/Ramechhap 132 kV



## Completed Projects



### SASEC (South Asia Sub regional Economic Cooperation) Power System Expansion Project-PPS

- 220kV Kaligandaki Corridor TL Project
- 220kV Marsyangdi Corridor TL project
- 220kV Marsyangdi-Kathmandu TL Project

*Client – Asian Development Bank (Implementing Agency-NEA)*  
Scope: Assist NEA in preparing designs, technical specifications and bidding documents. · Assist NEA in the bidding process and bid evaluation including preparation of technical and financial evaluation reports. · Assist NEA in contract negotiation with the contractor until contract awarded and advance payment paid.

### Karmadev – Phukot 400 kV Double Circuit Karnali Corridor Transmission Line Project

*Client – Rastriya Prasaran Grid Company Limited*  
Scope: Detailed Engineering Design and Enviornmental Study of Transmission Line and Substations. Preparation of Technical Specifications and Tender Documents. Karmadev (Indo – Nepal Boarder) – Phukot (Kalikot) is a 130 km double circuit line project, which also includes two 400 kV GIS substations at Phukot and Betan.

### Tamakoshi (Khimti) – Kathmandu 220 kV/400 kV Transmission Line Project

*Client – Nepal Electricity Authority (NEA) (World Bank Fund)*  
Scope: Preparation of technical specifications and bidding documents  
· Support in bidding process · Supervision during construction, testing and commissioning

### Upper Trishuli-I HEP 220kV Transmission Line Project

*Client – Nepal Water and Energy Development Co. Pvt. Ltd (NWEDC)*  
Scope: Detail TL Survey and Design, and IEE Study

### Khimti Dhalkebar 220kV Transmission Line Project

*Client – Nepal Electricity Authority (NEA) (World Bank Fund)*  
Scope: Consultancy for planning design, preparation of bidding document with detail specification, bid evaluation and contact negotiation, design review, quality assurance, construction supervision, contract management and knowledge transfer etc. (In association with Power Grid INDIA)

### Lower Arun-Dhalkebar 400kV Transmission Line Project

*Client – Lower Arun Hydroelectric Co. P. Ltd*  
Scope: Desk Study

### Arun-3 HPP-33kV TL Project

*Client – SJVN Arun-3 Power Development Company P. Ltd.*  
Scope: Survey & Investigation for Proposed 33kV transmission line.  
· Preparation of IEE Report

### Makarigad Gaun – Balanch 33 kV Transmission Line Project in Darchula district, Nepal.

*Client – Hydro Vision Pvt. Ltd.*  
Scope: Feasibility Study of 27 km, 33 kV Transmission Line including Topographic survey, Cost Estimation, Geographical and Geological Survey, Design and Project Component Optimization.

### Resettlement and Rehabilitation (R & R) Plan preparation of 400 kV Double Circuit Transmission Line (length – 210 km)

*Client – SJVN Arun-3 HPP Power Development Company (SAPDC)*  
Scope: Cadastral Map Verification, Social and Environmental Survey, Preparation of Resettlement and Rehabilitation plan, Supplementary IEE , Detailed survey and Design of Changed Portion of the 400 kV Transmission Line.

### SASEC (South Asia Sub regional Economic Cooperation) Power System Expansion Project-PSC

- 220kV Kaligandaki Corridor TL Project
- 220kV Marsyangdi Corridor TL project
- 220kV Marsyangdi-Kathmandu TL Project
- 132kV Samudratar Trishuli 3B Hub TL Project
- Distribution System Expansion in Eastern, Central, Western Nepal

*Client – Asian Development Bank (Implementing Agency-NEA)*  
Scope: Grid Substation Reinforcement Sub Project · Construction Supervision of Transmission Line & Substation

### Hetauda-Dhalkebar-Duhabi 400kV Transmission Line Project

*Client – Nepal Electricity Authority (NEA) (World Bank Fund)*  
Scope: Construction Supervision and Substation Design.

### Reconstruction and Improvement of Electricity in Earth-quake affected Districts of Rasuwa & Nuwakot.

*Client – Nepal Electricity Authority (Funded by KfW and EIB)*  
Scope: Engineering Design, Bidding Document Preparation, Environmental and Social Studies & Construction Supervision.

### Consulting Services for Detailed Survey and Updated Line Design for 30 Km of Changes in 400kv Transmission Line Route Alignment.

*Client – Millennium Challenge Account Nepal (MCA-Nepal)*  
Scope: Inception of the assignment, Detailed Field survey and preliminary engineering design, Geo-technical Investigation, Detailed Environmental and Social Assessment, Pegging activities and Preparation of final survey report.

### Feasibility Study and Design of 132kV Transmission Line of Langtang Khola Hydroelectric Project (20 MW), Rasuwa District

*Client: Multi Energy Development Pvt. Ltd.*  
Scope: Feasibility study and design of about 4.5km, Single circuit 132 kV transmission line

### Preparation of Feasibility Study & Tender Documents for 220 kV Double Circuit Transmission line from Isuwa Khola PRoR Cascade Hydro Electric Project to 220/132 kV Shitalpati Substation (IKHEP)

*Client: Isuwa Energy Pvt. Ltd.*  
Scope: Desk Study of Interconnection Point, Tower Spotting and Tower Optimization in PLS-CADD, Check Survey and Preparation of Tender Documents

### Tower Spotting & Optimization, Check Survey, Preparation of Technical Specifications & Tender Documents for 132 kV Single Circuit Transmission line from Luja Khola Hydro Electric Project to 132/33 kV Tingla (LJKHEP)

*Client: Silk Power Pvt. Ltd.*  
Scope: Tower Spotting & Tower Optimization in PLS-CADD, Check Survey, Preparation of Technical Specifications & Tender Documents

## Ongoing Projects

### Study for Environmental and Social Considerations for “The Project for Construction of Transmission and Distribution Network Development in Nepal

*Client: NEWJEC Inc, Japan (Funded by JICA)*  
Works: Environmental and social assessment for the construction of 132/11 kV Birauta  
S/S including underground transmission line, Preparation of IEE report including RAP.

### Assessment for Private Sector Involvement in Power Transmission in The Asia Pacific Region

*Client: IFC*  
Works: Identify specific domestic and cross-border transmission projects that could be considered for possible private sector investment, and prepare and propose amendments to already available tools, documents, and templates for supporting the structuring of these projects.

### Feasibility Study and Design of 132kV Transmission Line of Langtang Khola Hydroelectric Project (20 MW), Rasuwa District

*Client: Multi Energy Development Pvt. Ltd.*  
Works: Feasibility study and design of about 4.5km, Single circuit 132 kV transmission line

### Tingla Hub – Likhu Hub – New Khimti – Sunkoshi Hub – Dhalkebar 400 kV Transmission Line and Associated Substations

*Client – Nepal Electricity Authority (Funded by ADB)*  
Works: Engineering and Environmental Study

### Budhigandaki Corridor (Philim-Gumda-Ratamate) 400 kV Transmission Line and 132 kV Dailekh-Kalikot-Jumla and Lamoshangu-Kavre/Ramechhap Transmission Line and Associated Substations

*Client – Nepal Electricity Authority (Funded by ADB)*  
Works: Engineering and Environmental Study

### Damauli – Kusma – Burtibang – Bafikot 400 kV Transmission Line and Associated Substations

*Client – Nepal Electricity Authority (Funded by ADB)*  
Works: Engineering and Environmental Study

### Chilime – Trishuli 220 Kv Transmission Line Project

*Client – Nepal Electricity Authority (NEA), Nepal, funded by KfW, Germany*  
Scope: Survey, Geotechnical Investigation · Preparation of technical specifications and bidding documents · Support in Bidding process · Supervision during construction, testing and commissioning

### Power Transmission and Distribution Efficiency Enhancement Project (PTDEEP)

*Client – Nepal Electricity Authority (Funded by ADB)*  
Scope: Bidding Document Preparation, Project Management & Construction Supervision of distribution networks and underground cabling works.

### Consulting Services for Project Supervision Consultant (Phase II) – Electricity Transmission Expansion & Supply Improvement Project for 400 kV Tamakoshi (Khimti) – Kathmandu Transmission Line and associated Substations

*Client: NEA*  
Funding Agency: ADB  
Works: Design review, quality monitoring, and construction supervision

### SASEC (South Asia Sub Regional Economic Cooperation) Power System Expansion Project-Project Supervision Consultant (PSC) (Phase-II)

- 220kV Kaligandaki Corridor TL Project
- 220kV Marsyangdi Corridor TL project
- 220kV Marsyangdi-Kathmandu TL Project
- 132kV Samudratar Trishuli 3B Hub TL Project
- Distribution System Expansion in Eastern, Central, Western Nepal
- Grid Substation Reinforcement Sub Project

*Client – Asian Development Bank (Implementing Agency-NEA)*  
Scope: Review and Construction Supervision of Transmission Line & Substation.

### Project supervision consulting services for the supervision of contracts under Nepal distribution system upgrade and expansion project (DSUEP-EIB)

*Client – Nepal Electricity Authority (NEA)*  
Scope: Design Review and Construction supervision in Lumbini and Sudurpaschhim province of Nepal and quality monitoring and implementation of environmental and social safeguards

### Consultancy Services for Project Implementation and Management Support for the Assam Intra State Transmission System Enhancement Project

*Client – Assam Electricity Grid Corporation Limited (AEGCL), India*  
Scope: Design Review and Construction supervision of 1113 circuit km of 400 kV, 220 kV and 132 kV Transmission line, and 400/220 kV, 220/132/33 kV, 220/132 kV, 132/33 kV & 132/11 Substation with additional capacity of 5606 MVA.

### 132 kV S/C Transmission Line of Super Lower Bagmati Hydropower Project

*Client – Super Bagmati Hydropower Pvt. Ltd.*  
Scope: Walkover survey, Detailed survey, Tower Spotting, Surface Geological Mapping, Bill of Quantity (BoQ), Technical Specification and Tender Document Preparation



## Power Transmission and Distribution Efficiency Enhancement Project (PTDEEP)

The project consists of following sub projects:

- 220 kV Substation at Lapsipedi and 132 kV Substation at Changanarayan
- 132 kV Substations at Kathmandu Valley
- Enhancement of Distribution Network in Kathmandu
- Delivery of Distribution Transformers
- Enhancement of Distribution Networks in Major Urban Centers of Nepal

These projects lies on the Kathmandu, Bhaktapur, Lalitpur, Kailali, Banke, Dang, Rupandehi, Kaski, Chitwan, Makwanpur, Parsa, Bara, Dhanusha, Sunsari and Morang Districts of Nepal. The above transmission/Substation projects lies on majorly terai and hilly region of the Nepal. ThWe scope of consulting services include the Demand forecast and load flow studies of the distribution networks, preparation of the tender documents of the Distribution Networks in Major Urban Centers of Nepal, Assistance in tendering and awarding for the Enhancement of Distribution Networks in Major Urban Centers of Nepal, Project Management, Construction Supervision and testing and commissioning of the 220 kV Substation at Lapsipedi, 132 kV GIS Substation at Chaganarayan, 132 kV GIS Substations at Kathmandu Valley and Enhancement of Distribution Networks in Major Urban Centers of Nepal.

Client  
**Nepal Electricity Authority**

Funding Agency  
**Asian Development Bank**

Scope of Works  
**Jade Consult is working in this project with Power Grid Corporation of India Limited, India and providing assistance in;**

- preparation of technical specification and bidding documents;**
- support in bidding process;**
  - ensuring quality in project implementation**
  - supervision during construction**
- testing and commissioning of the different sub projects**
- capacity Building of the NEA staff.**



132 KV GIS building and 45 MVA Transformer at TEKUS



Site Levelling works on Phutung site



132 KV GIS Erection at Changanarayan SS



Observation of conformitv SPT value at Phutung S-S



## Hetauda-Dhalkebar-Duhabi (400kV) Transmission Line Project

This is the first 400kV voltage level TL-Project of Nepal that is in construction phase. Once it gets commissioned, this line will be the backbone of INPS (Integrated Nepal Power System) for at least the next 10 years. Jade Consult is working in association with POWERGRID Corporation of India Ltd. in this project.

Client :  
Nepal Electricity Authority (NEA)

Scope of Works :  
(In association with POWERGRID India)  
- Owner's Engineer for Hetauda-Dhalkebar-Duhabi 400kV TL Project  
- Design Check and Construction Supervision  
- Quality assurance and inspection  
- Supervision of installation  
- Testing & commissioning of Transmission Line works & Substation works

Project Features

**Route:** Hetauda to Inaruwa via Dhalkebar (400kv line)

**Length:** 285 Km

**No. of Substations:** 3 (220kV of substations at Hetauda, Dhalkebar & Inaruwa)

- Highest Voltage Level TL Project of Nepal till date
- Route Alignment passes through Makawanpur, Bara, Rautahat, Sarlahi, Mahottari, Dhanusa, Siraha, Saptari, Udayapur and Sunsari Districts
- Voltage Level – 400kV (initially will be charged at 220kV)
- Circuit – Double
- Total quantity of 400kV double circuit towers: 792 nos.
- Conductor – ACSR Moose (Quad)



Template setting for tower foundation work



Water curing of foundation and columns



Inaguration of the First 220 kV substation to come in operation in Nepal



Tower erection in Progress



Electrical equipment support structure



Concreting in progress for tower foundation



160 MVA, 220/132 kV Power Transformer Installed at Dhalkebar Substation



Control building at Dhalkebar substation



Foundation works of 220/132 kV Transformer at Dhalkebar Substation



## SASEC (South Asia Subregional Economic Cooperation) Power System Expansion Project

The transmission line under this project, are going to strengthen the INPS (Integrated Nepal Power System) in the areas of Marsyangdi, Kaligandaki and Trishuli River Basins, & the distribution system expansion projects under this project are going to strengthen the distribution system network all over the nation. Jade Consult is working in association with POWERGRID Corporation of India Ltd. in this project.

Client  
Asian Development Bank

Implementing Agency  
Nepal Electricity Authority (NEA)

### Scope of Works

(In association with POWERGRID India)

- Assist NEA in preparing designs, technical specifications and bidding documents
- Assist NEA in the bidding process and bid evaluation including preparation of technical and financial evaluation reports
- Assist NEA in contract negotiation with the contractor until contract awarded and advance payment paid.

### Project Features

**Dana - Kusma 220kV** transmission line (40 km length), and **substations at Dana & Kusma**

**Kusma - New Butwal 220kV** transmission line (88 km length), and **substation at New Butwal**

**New Butwal - Bardaghat 400kV** transmission line (45 km length), and **LILO of 132kV Double Circuit Butwal- Bardaghat** Transmission Line at New Butwal Substation.

**Markichowk- Matatirtha 220kV** transmission line (82 km length), and **associated substation at Markichowk extension at Matatirtha.**

**New Bharatpur- Markichowk- Udipur 220kV** transmission line (64 km length), and **substation at Udipur, bay extension at New Bharatpur and Markichowk**

**Udipur - Khudi-Manang 220kV** transmission line (50 km length), and **associated substations at Manang and bay extension at Udipur**



Transformer Installation at Haripur SS



Completion of 1st lift pedestal of BR2-3 Retaining wall at Dana SS



Erected 12 kV VCB Panels at Aurahi SS



ADB site visit at Kushma SS



Shuttering works is on progress on lintel beam of FFPH at Dana SS



Safety meeting held at Dana SS



Raft of SPR-6 at BR4 Area at Dana SS



Rebar fixing and electrical conduiting at Ground Floor Slab of Control Building at Dana Substation



Concreting of north side retaining wall raft RCSA at Kushma SS



Testing Power Tr. at Haripur SS

Chisapani SS (Measurement of staff quarter foundation)



## CHILIME – TRISHULI (220kV) Transmission Line Project

This line passes through high altitude of 2635m, one of the most difficult terrain faced till date for higher voltage transmission line. Once this line is commissioned, it will help to tap a good amount of electric power from the Trishuli and Chilime river basins and supply bulk power to different major load centers of Nepal including Kathmandu. Jade Consult is working on this project in association with POWERGRID Corporation of India Ltd.

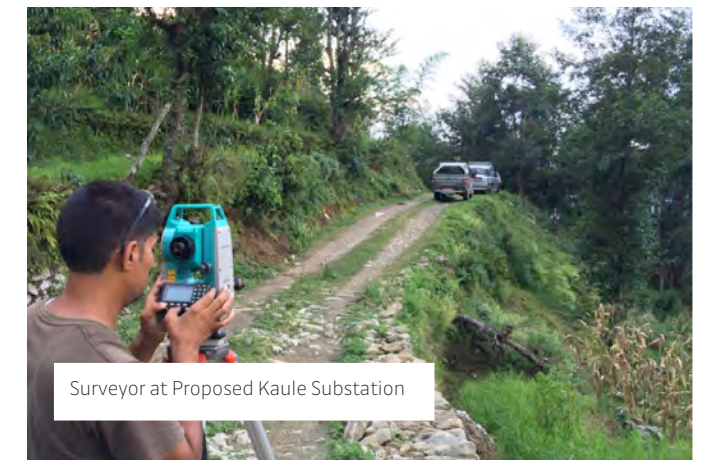
**Client**  
Nepal Electricity Authority (NEA), Nepal, funded by KfW, EIB

**Scope of Works**  
(In association with POWERGRID India)  
- Survey, Geotechnical Investigation  
- Preparation of technical specifications and bidding documents  
- Support in Bidding process  
- Supervision during construction, testing and commissioning

**Project Features**  
**Chilime - Trishuli 220 kV** Double Circuit Transmission Line (26.5 Km)  
**Number of Substation :** 2 (220 kV Chilime Hub Substation and 220 kV Trishuli 3B Hub Substation)  
**Rural Electrification** (Neighborhood Support Program)  
**33/11 kV Substation at Dhunche VDC and/ or Kaule VDC**  
**33 kV Line and 11 kV** Distribution lines



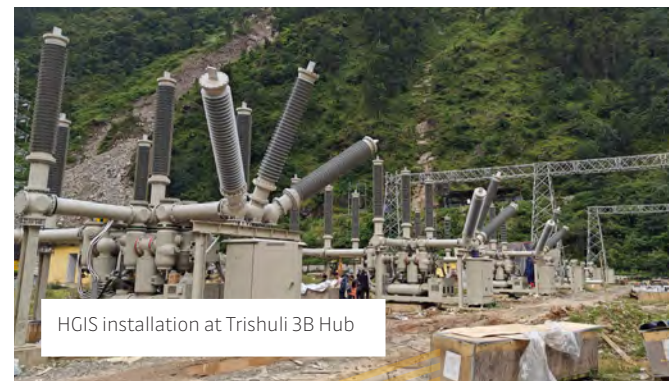
Chilime hub region



Surveyor at Proposed Kaule Substation



Erection of 132kV Gantry tower at Chilime Substation



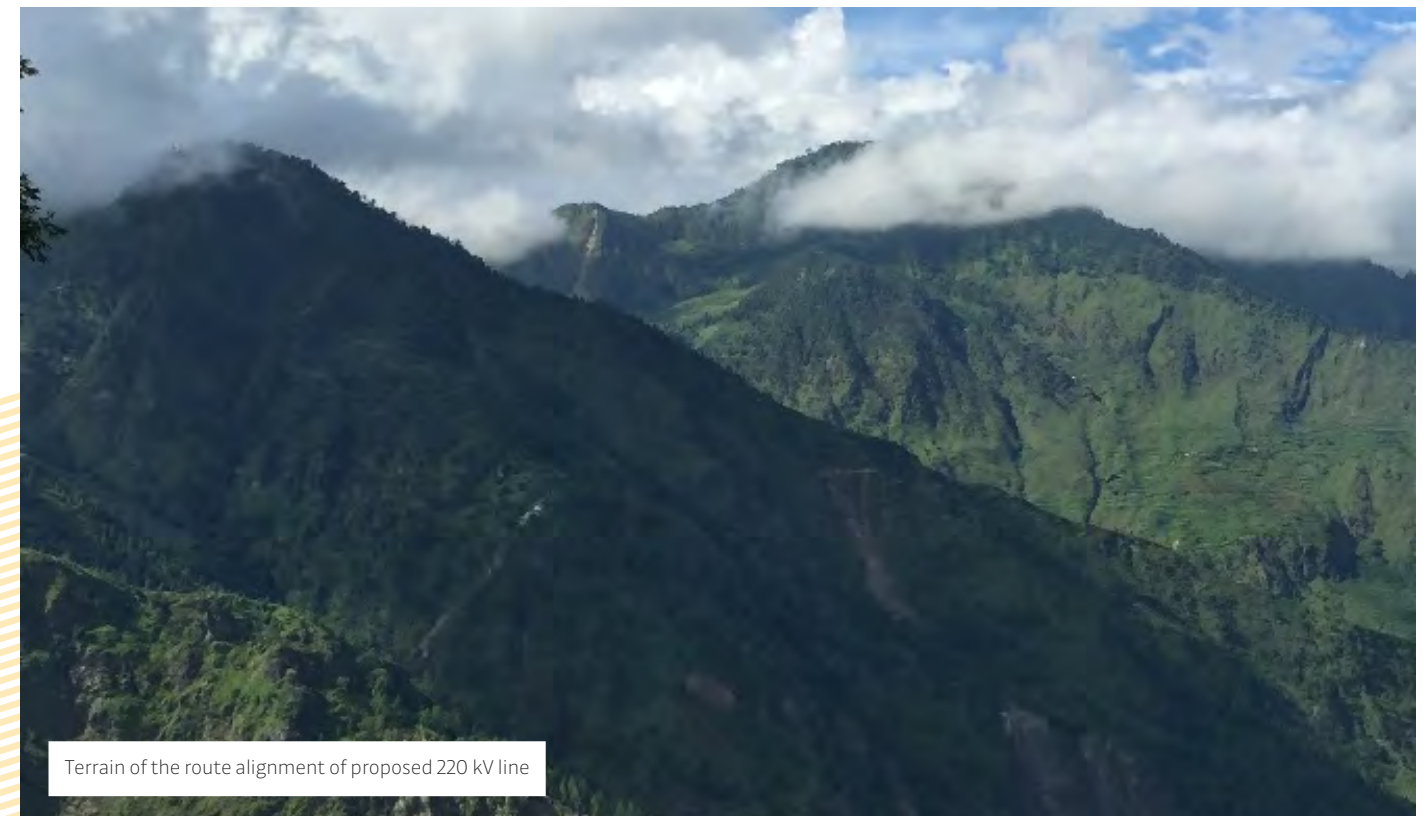
GIS installation at Trishuli 3B Hub



Installation of 132kV GIS Bus-duct at Chilime Substation



Ongoing erection at AP 27 special tower of Chilime-Trishuli 220kV TL



Terrain of the route alignment of proposed 220 kV line



Tower Erection and Conductor Stringing of Chilime-Trishuli 220kV TL



Tower Erection of Multicircuit-31/2 of Chilime-Trishuli 220kV TL



Proposed Distribution Substation location of Ratmate VDC



Proposed location of Trishuli 3B Hub substation and Trishuli River in right side



## TAMAKOSHI (KHIMTI) – KATHMANDU (220 kV/400 kV ) Transmission Line Project

This is the second 400kV transmission line project of Nepal that is in implementation phase. Once this line is commissioned, it will act like a bridge between Kathmandu and Dhalkebar (Major Hub of Nepal for import & export of power with India). Jade Consult is working in association with POWERGRID Corporation of India Ltd. on this project.



132 kV GIS hall installation works under progress for Barhabise S-S



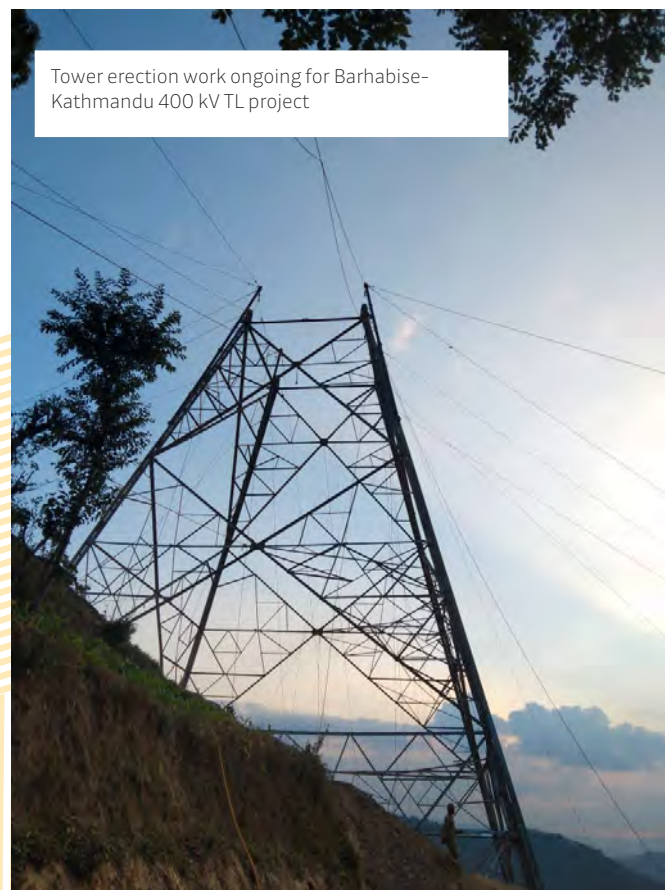
Site visit of Consultant Team Leader along with experts at Barhabise S/S

Client  
Nepal Electricity Authority

Scope of Works  
(In association with POWERGRID India)  
- Preparation of technical specifications and bidding documents  
- Support in bidding process  
- Supervision during construction, testing and commissioning

Project Features

- **Khimti – Barhabise – Haledi 400kV/220 kV**  
Double Circuit transmission line (90 km length)
- **Haledi-Changunarayan 132kV**  
Double Circuit Transmission Line (10km Length)
- **Number of Substations:** 3  
(new 220 kV substations at Barhabise & Haledi), bay extension at Khimti and 1 new 132 kV substation at Changunarayan
- **LILO (Loop-in Loop-out)**  
arrangement at proposed 132 kV Chagunarayan Substation for 132 kV Bhaktapur – Chapali Line

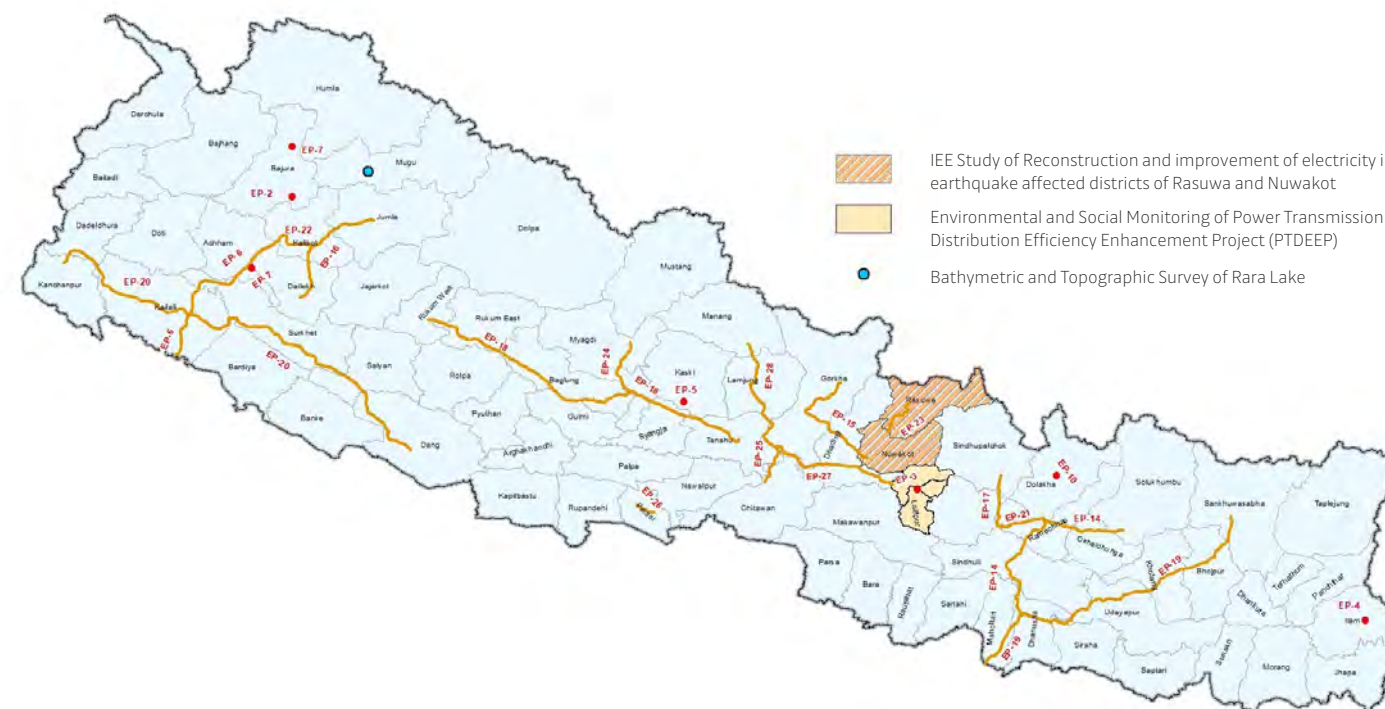
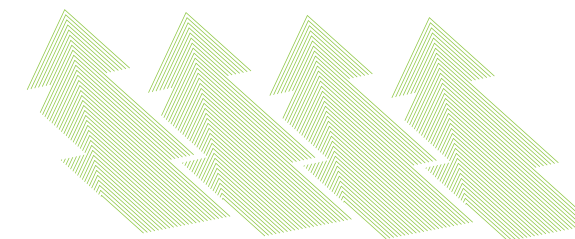


Tower erection work ongoing for Barhabise-Kathmandu 400 kV TL project



Transformer installation completed at Barhabise S/S

# Environmental & Social Studies



- EP-1 ESIA of Budhi Gandaki HEP (1200 MW)
- EP-2 Mugu Karnali Storage Hydro Electric Project (1902MW) - EIA
- EP-3 EHS Specialist for Worldlink Communication Ltd, Nepal
- EP-4 Social Assessment and Biodiversity Assessment for Mai Beni HPP (9.51 MW) and Lower Jogmai Khol
- EP-5 ES study "The Project for Construction of Transmission and Distribution Network Development in Nepal"
- EP-6 IEE and ESIA of Karmadev Phukot 400 KV TL
- EP-7 Upper Karnali HPP - ES study
- EP-8 Ecological study around Naryanghat-Hetauda-Pathlaiya road under SASEC Road Improvement Project
- EP-9 Kaligandaki Storage HPP (844 MW) - EIA study
- EP-10 Tamakoshi V HEP (99.8 MW) - Preparation of Biodiversity Action Plan & ES study.
- EP-11 Upper Chameliya HPP (53.85 MW) - EIA study
- EP-12 IEE study of 220 KV TL of Upper Trishuli HEP (216 MW)
- EP-13 Upper Trishuli-1 HPP (216 MW) - EIA/ E&S Monitoring study
- EP-14 EIA study of Tingla Hub - Likhu Hub - New Khimti - Sunkoshi Hub - Dhalkebar 400 KV TL under CP-1

- EP-15 EIA study of Philim - Gumda - Ratamata 400 KV TL under CP2 project
- EP-16 EIA study of Dailekh-Kalikot-Jumla 132 kV TL under CP2 project
- EP-17 EIA study of Lamosanghu-Kavre/Ramechhap 132 kV TL under CP2 project
- EP-18 EIA study of Damauli - Kusma - Bafikot 400 kV TL under CP3 project
- EP-19 RAPP study of 400 KV TL for Arun 3 HPP
- EP-20 EIA study of Lamahi Chhinchu - Dododhara - Attariya 400 kV TL under Additional of CP project
- EP-21 EIA study of New Khimti - Rakathum 132 kV TL under Additional of CP2 project
- EP-22 EIA study of Phukot Kalikot 132 kV TL under Additional of CP2 project
- EP-23 Environmental and Social study of Chilime-Trishuli 220 kV TL Project
- EP-24 Environmental and Social Monitoring of Dana-Kushma 220 kV TL
- EP-25 Environmental and Social Monitoring of Udipur-Markichowk-Bharatpur 220 kV TL
- EP-26 Environmental and Social Monitoring of New Butwal - Bardaghat 220 kV TL
- EP-27 Environmental and Social Monitoring of Markichowk (Marsyangdi) - Matatirtha (Kathmandu) 220 KV TL
- EP-28 Environmental and Social Monitoring of Manang - Khudi - Udipur 220 KV TL

Jade Consult has been involved in over a dozen projects related to the environmental and social studies of various infrastructure development projects. Such studies consists of ESIA, EIA & IEE studies, preparation of Biodiversity Action Plan (BAP), Indigenous Peoples Development Plan (IPDP), Vulnerable Community Development Plans (VCDP) Resettlement Action Plan (RAP), Land Acquisition & Compensation Plan (LACP), Stakeholder Engagement Plan (SEP), Environment & Social Management Plan (ESMP) etc.





## Completed Projects

### Study for Environmental and Social Considerations for “The Project for Construction of Transmission and Distribution Network Development in Nepal

Client: NEWJEC Inc, Japan (Funded by JICA)

Works: Environmental and social assessment for the construction of 132/11 kV Birauta S/S including underground transmission line, Preparation of IEE report including RAP

### Consultancy Services for Green and Resilient Strategy for Nepal's Selected Highway Corridors

Client: World Bank

Works: Carry out a comprehensive strategic environmental and social assessment of both East West Highway and North South trade corridors and develop a Green and Resilient Strategy for Selected Highway Corridors in Nepal

### TA-9461 REG: Protecting and Investing in Natural Capital in Asia and the Pacific - Smart Infrastructure Planning and Design (Nepal)

Client - Asian Development Bank

Works - To conduct comprehensive and in-depth ecological studies in and around the project area for the Narayanghat-Hetauda-Pathlaiya road and to provide technical support and guidance for design and implementation of the wildlife mitigation measures and biodiversity conservation plan for the Narayanghat-Butwal road under the SASEC Road Improvement Project (SRIP) project as necessary.

### Karmadev – Phukot 400 kV Double Circuit Karnali Corridor Transmission Line Project

Client – Rastriya Prasaran Grid Company Limited

Works - Initial Environmental Examination of 400kV Transmission Line and associated substations, Resettlement Plan, Indigenous People Plan, Social Impact Assessment, Tree Cutting Plan for 400kV transmission line and associated substations

### SASEC (South Asian Sub Regional Economic Cooperation) Power System Expansion Project (Total Project Cost: USD 440.5 Million)

Client – Asian Development Bank (Implementing Agency-NEA)

Works -Site inspection to monitor compliances (Environmental and Social), Review/update Environmental, Health Safety Plan, Prepare/review of Periodic Safeguard Monitoring Report (monthly, quarterly, semi-annual), Preparation of updated Resettlement and Indigenous Peoples' Plan

### Upper Marsyangdi - 2 HEP (125MW)

Client: Himtal Hydropower Company P Ltd.

Works: Preparation of scoping document and TOR for Environmental Impact Assessment (EIA) Study.

### E&S Baseline Data Collection, Downstream Impact Assessment and E-flow Assessment Study, Rapid Cumulative Impact Assessment (CIA) for Upper Karnali Hydropower Project (HPP), Nepal

Client: EDF/GMR

Works: Collection of environmental and social baseline data, E-flow assessment study covering a downstream baseline and initial impact assessment, Rapid Cumulative Impact Assessment (Rapid CIA) on Karnali River

### Reconstruction and Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot

Client – Nepal Electricity Authority (Funded by KfW and EIB)

Works - Bidding Document of Social Infrastructure Development Component, Environmental and Social Impact Assessment of transmission line (33kV) and substation (33/11 kV), Environmental Impact Assessment of 33kV TL and associated substation 33/11 kV

### Preparation of Biodiversity Action Plan (BAP) for Tamakoshi Hydroelectric Project (99.8 MW)

Client – Tamakoshi Jalvidyut Company Limited

(Funded by Asian Infrastructure Investment Bank)

Works - To conduct and prepare Critical Habitat Assessment, Consultation and Partnership Building Strategy, Mitigation Strategies and Biodiversity Action Plan

### Preparation of Supplemental Environmental and Social Documentation (SESD) for Tamakoshi V HEP (99.8 MW)

Client – Tamakoshi Jalvidyut Company Limited

(Funded by Asian Infrastructure Investment Bank)

Works - Restructure Environmental Management Action Plan (EMAP), prepare Stakeholder Engagement Plan, prepare Monitoring Plan, conduct Cumulative Impacts Assessment, Climate Change Assessment, develop Pollution control strategy, develop Public Health and Safety Strategy, develop Local employment strategy, prepare Land acquisition and Livelihood Restoration Plan, Environmental Flows and Ecosystem Services Assessment, develop E&S actions to be implemented by the Developer, develop E&S specifications for the EPC contractor.

### Resettlement and Rehabilitation (R & R) Plan Preparation of 400kV Double Circuit Transmission Line

Client– SJVN Arun-3 HPP Power Development Company (SAPDC)

Works-Identification of land ownership detail, Social and Environmental Survey, Preparation of Supplementary Initial Environmental Examination of Changed Portion, Preparation of Resettlement Action Plan for the affected seven districts.

### Jawa Khola HPP (15.25 MW)

Client- Department of Electricity Development

Works- Initial Environment Examination (IEE) Study

### Budhi Gandaki Hydroelectric Project (1200 MW)

Client – Budhigandaki Hydropower Development Committee

Works -Environmental and Social Impact Assessment (ESIA) Studies

### Two double circuit transmission lines of 400 kV to evacuate the power from Budhi Gandaki Hydroelectric Project

Client – Budhigandaki Hydropower Development Committee

Works -Environmental and Social Impact Assessment (ESIA) Studies

### Upper Trishuli-1 HEP (216 MW)

Client – Nepal Water and Energy Development Company Pvt. Ltd

Works - Initial Environment Examination (IEE) Study

### Transmission Line of 220 kV for 216 MW Upper Trishuli - 1 HEP

Client – Nepal Water and Energy Development Company Pvt. Ltd

Works- Initial Environment Examination (IEE) Study

### 33kV Transmission line for Arun -3 HPP (900 MW)

Client – SJVN Arun-3 HPP Power Development Company (SAPDC)

Works-Initial Environment Examination (IEE) Study

### Mai Beni Hydropower Project (9.51 MW) and Lower Jogmai Khola Hydropower Project (6.2 MW)

Client- Urja Developers Pvt. Ltd

Works- Social Assessment and Biodiversity Assessment

### Bathymetric and Topographic Survey of Rara Lake

Client- Department of Hydrology and Meteorology (DHM)

Works- The main objectives of this assignment are to carry out a detailed investigation of Rara Lake including its bathymetric survey, topographical survey, hydrological studies, sediment studies and water quality studies

### Consulting Services for Detailed Survey and updated Line Design for 30 km of Changes in 400 kV Transmission Line Route Alignment

Client- Millennium Challenge Account Nepal (MCA-Nepal)

Works- Detailed Environmental and Social Assessment including flood risk assessment

## Ongoing Projects

### Owner’s Engineer Services for Upper Trishuli - I Hydroelectric Project (216 MW)

Client: Nepal Water and Energy Development Company Pvt. Ltd

(Funded by IFC, ADB, AIIB, K-EXIM, KDB, CDC, FMO, PROPARCO and OFID.)

Works: Environmental and Social Safeguards Implementation and Compliance Monitoring

### Lower Kopili Hydroelectric Project (120 MW), Assam, India

Client: Assam Power Generation Corporation Limited (Funded by ADB)

Works: Independent monitoring of implementation of Social and Environment safeguards during design, construction and operation phases.

### Power Transmission and Distribution Efficiency Enhancement Project

Client – Nepal Electricity Authority (Funded by ADB)

Works -Preparation of Environmental Management Plan, Updated Resettlement Plan Report, Social Impact Assessment, and Indigenous People Plan, Periodic Safeguard Monitoring Report (semi-annual)

### Chilime – Trishuli Transmission System Project (220 kV)

Client – Nepal Electricity Authority (NEA), Nepal, funded by KfW, Germany

Works -Prepare updated Land Acquisition and Compensation Plan for 220kV Chilime-Trishuli Transmission Line Project, Environmental and Social Impact Assessment for Neighborhood Electrification Component, Updated Stakeholder Engagement Plan for 220kV Chilime-Trishuli Transmission Line Project, Environmental and Social Management Plan for 220kV Chilime-Trishuli Transmission Line Project

### Mugu Karnali Storage Hydro Electric Project (MKHEP) (1902 MW)

Client- Vidhyut Utpadan Company Limited

Works- Environmental Impact Assessment (EIA) Study

### Phukot-Rachuli 132kV Transmission Line Project

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental and Social Study (Initial Environmental Examination, Social Impact Assessment, Resettlement and Indigenous Peoples' Plan, Environmental Management Plan, Tree Cutting Plan)

### New Khimti-Rakathum 132kV Transmission Line Project

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental and Social Study (Initial Environmental Examination, Social Impact Assessment, Resettlement and Indigenous Peoples' Plan, Environmental Management Plan, Tree Cutting Plan)

### Lamahi-Chhinchu 400kV Transmission Line Project

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental and Social Study (Initial Environmental Examination, Social Impact Assessment, Resettlement and Indigenous Peoples' Plan, Environmental Management Plan, Tree Cutting Plan)

### Kaligandaki Storage Hydropower Project (844 MW)

Client- Department of Electricity Development (DoED)

Works- Environmental Impact Assessment (EIA) study

### Upper Chameliya Hydropower Project (60 MW), Darchula District

Client – Department of Electricity Development

Works – Feasibility and Environmental Impact Assessment (EIA) study

### Tingla Hub – Likhu Hub – New Khimti – Sunkoshi Hub – Dhalkebar 400 kV Transmission Line and Associated Substations

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental Study

### Budhigandaki Corridor (Philim-Gumda-Ratamate) 400 kV Transmission Line and 132 kV Dailekh-Kalikot-Jumla and Lamoshangu-Kavre/Ramechhap Transmission Line and Associated Substations

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental Study

### Damauli – Kusma – Burtibang – Bafikot 400 kV Transmission Line and Associated Substations

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental and Social Study (Initial Environmental Examination, Social Impact Assessment, Resettlement and Indigenous Peoples' Plan, Environmental Management Plan, Tree Cutting Plan)

### Environment, Health & Safety (EHS) Specialist for Worldlink Communication Ltd.

Client- British International Investment (BII)

Works- The overall objective of the assignment is to provide support towards providing Environmental, Health & Safety and Social (EHSS) Specialist Advisory to WorldLink’s (WL’s) team in developing and implementing an EHSS Management System (EHSS MS).

### Chhinchu-Dododhara 400kV Transmission Line Project

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental and Social Study (Initial Environmental Examination, Social Impact Assessment, Resettlement and Indigenous Peoples' Plan, Environmental Management Plan, Tree Cutting Plan)

### Dododhara-New Atariya 400kV Transmission Line Project

Client – Nepal Electricity Authority (Funded by ADB)

Works: Environmental and Social Study (Initial Environmental Examination, Social Impact Assessment, Resettlement and Indigenous Peoples' Plan, Environmental Management Plan, Tree Cutting Plan)

### Environment, Health & Safety (EHS) Specialist for Worldlink Communication Ltd.

Client- British International Investment (BII)

Works- The overall objective of the assignment is to provide support towards providing Environmental, Health & Safety and Social (EHSS) Specialist Advisory to WorldLink’s (WL’s) team in developing and implementing an EHSS Management System (EHSS MS).  
Works: Prepare EHSS report, provide training related to health and safety, monthly monitoring of implementation of EHSS



## MUGU KARNALI STORAGE HYDRO ELECTRIC PROJECT (MKHEP) (1902 MW)

Mugu Karnali Storage Hydroelectric Project 1902 (MW) (MKHEP) located at the upper reaches of Karnali River. Out of these six mega projects in Nepal, MKHEP is the second largest storage project. MKHEP aims at contributing to the social and economic development of the country through increasing the electricity generation capacity.



Air Quality Monitoring



Water Quality Monitoring



Noise Level Monitoring

Client  
Vidhyut Utpadan Company Limited

Scope of Works  
Preparation of Environmental Impact Assessment (EIA) Study, Environmental Management Plan (EMP), Social Management Plan (SMP), Vulnerable Community Development Plan (VCDP), Indigenous Peoples Development Plan (IPDP), Gender Action Plan (GAP), Resettlement Action Plan (RAP)

Project Features

- Construction of storage type 1902MW capacity Hydropower
- Rockfill dam with height 280m
- Crest level 1355
- FSL 1350
- Back water length 44 km



District Level Consultation during Scoping Stage



Local Level Consultation during Scoping Stage

## LOWER KOPILI HYDROELECTRIC PROJECT (120 MW), ASSAM, INDIA

The project uses the hydropower potential of the Kopili River, a south bank tributary of the Brahmaputra River. The proposed LKHEP is downstream development of existing Kopili HEP. The LKHEP is located in Karbi Anglong and Dima Hasao districts of Assam. The project envisages utilization of the regulated discharge from Kopili HEP, spills of Khandong and Umrang Dam and the discharge from the intermediate catchment.



Plantation Area by the project



Nursery Development by the project

Client  
Vidhyut Utpadan Company Limited

Scope of Works  
Preparation of Environmental Impact Assessment (EIA) Study, Environmental Management Plan (EMP), Social Management Plan (SMP), Vulnerable Community Development Plan (VCDP), Indigenous Peoples Development Plan (IPDP), Gender Action Plan (GAP), Resettlement Action Plan (RAP)

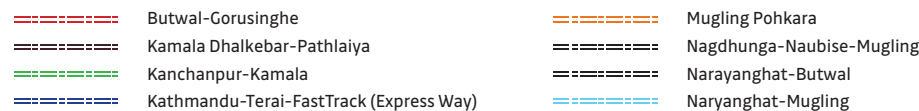
Project Features

- Construction of storage type 1902MW capacity Hydropower
- Rockfill dam with height 280m
- Crest level 1355
- FSL 1350
- Back water length 44 km



Consultation Meeting with ADB representatives and client





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## FEASIBILITY STUDY OF TATHALI-RABIOPI ROAD TUNNEL

The Thathall - Rabiopi Road Tunnel is proposed to be constructed in Bhaktapur district of Bagmati Province. The primary objective for the construction of this tunnel way is to directly and indirectly facilitate the movement for people of Bhaktapur, Nuwakot, Sindhupalchowk, Kavrepalanchowk and Kathmandu districts. The road will support a greater purpose of balanced urbanization through development of city at Panchkhal area. This may be useful in reducing the densely population of Kathmandu valley by shifting it to Panchkhal area. The tunnel will also play a vital role in reducing the travel distance of Araniko Highway to reach China boarder, Kodari and the Mid-Hill Highway from the Kathmandu Valley.

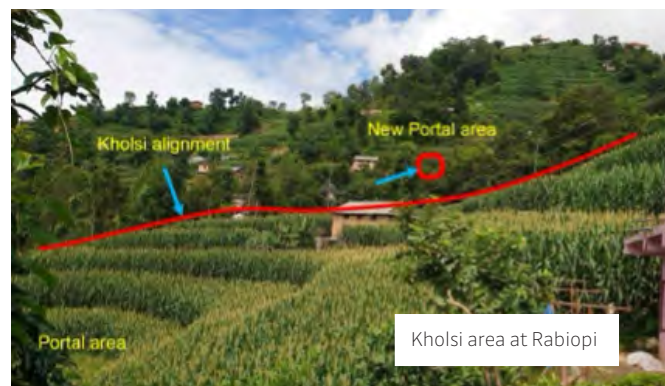


## CONSULTING SERVICE FOR GREEN AND RESILIENT STRATEGY FOR NEPAL'S SELECTED HIGHWAY CORRIDORS

This consulting service is part of a Technical Assistance (TA) initiative aimed at boosting the performance of key selected highway corridors in Nepal. As part of this TA, this consultancy is focusing on the preparation of a Strategic Environmental and Social Assessment (SESA) and resultant development of a Green and Resilient Strategy for the Upgrading of Nepal's Selected Road Corridors, which DoR can adopt and use. The Consultant will carry out a comprehensive strategic environmental and social assessment of both East West Highway and North South trade corridors. The overarching goal of this consultancy service is to develop a Green and Resilient Strategy for Selected Highway Corridors in Nepal, and help to better inform DoR's decisions in the management and optimization road corridors. The SESA will also inform the prioritization of roads for maintenance or improvement interventions considering environmental and social challenges.

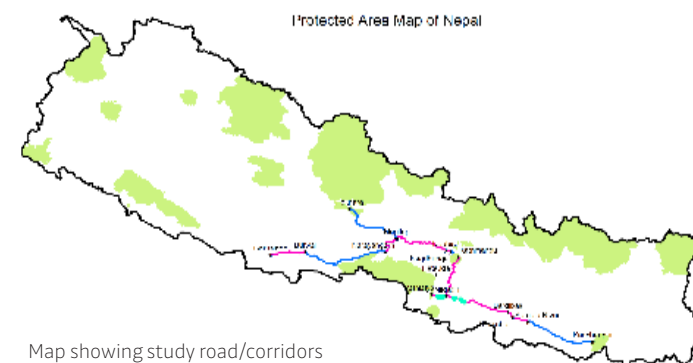
Client  
Department of Roads (DOR), Nepal

Scope of Works  
The overarching objective of the project is to conduct the feasibility study of the Thathali-Rabiopi Road Tunnel to be constructed under DB or EPC Model.



Client  
Department of Roads (DOR), Nepal

Scope of Works  
The overarching objective of the project is to conduct the feasibility study of the Thathali-Rabiopi Road Tunnel to be constructed under DB or EPC Model.

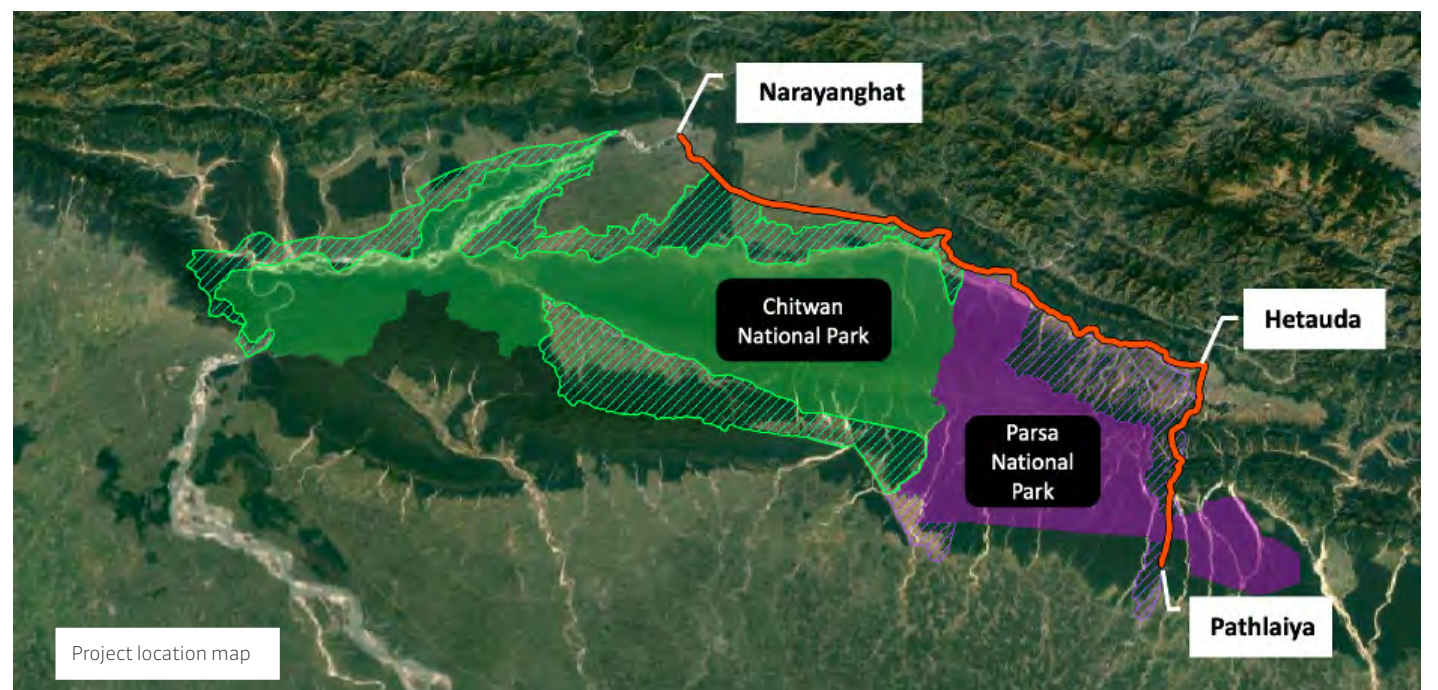


## TA-9461 REG: PROTECTING AND INVESTING IN NATURAL CAPITAL IN ASIA AND THE PACIFIC – SMART INFRASTRUCTURE PLANNING AND DESIGN, NEPAL

The Nepal South Asia Subregional Economic Cooperation (SASEC) Road Improvement Project (SRIP) has proposed widening from two to four lanes the Naryanghat – Hetauda – Pathlaiya (NHP) road (106 Km). The proximity of this road to important protected areas, including the buffer zone of Chitwan and Parsa National Parks is of concern. Chitwan National Park (CNP) and Parsa National Park (PNP) are flagship national parks and critically important conservation areas in Nepal that provide habitat and connectivity for wildlife species of high conservation concern. This consulting services, which are part of the regional technical assistance on Protecting and Investing in Natural Capital in Asia and the Pacific, will support the road improvement project and enhance the sustainability of its investments by integrating measures to protect natural habitats and biodiversity. Ultimately, this project will provide the Executing and Implementing Agencies with the science-based solutions to understand and mitigate the road impacts on local biodiversity.

Client  
Asian Development Bank (ADB)

Scope of Works:  
The objective of the assignment is:  
(i) To conduct comprehensive and in-depth ecological studies in and around the project area for the NHP road. The study will be used as a key component of the EIA for the road; and  
(ii) To provide technical support and guidance for design and implementation of the wildlife mitigation measures and biodiversity conservation plan for the NB road under the SRIP project as necessary





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