## **Background**

The project is located in Taplejung and Panchthar Districts, Eastern part of Nepal. The geographical location of the project is between longitudes 87° 40′ 55″ E and 87° 45′ 50″ E and latitudes 27° 13′ 41″ N and 27° 17′ 32″ N. The project is a daily pondage run-of-river type located between elevations 400 m and 600 m above mean sea level.

This project utilizes a more than 15 km long loop of Kabeli River formed with Tamor River. The Kabeli River is diverted approximately through 4.33 km long tunnel and discharges into Tamor River after power generation. The gross head of the project is 116.8 m and the design discharge based on the 40 percentile flow in the river is 37.73 m3/s. As per the updated feasibility study installed capacity of the project is 37.6 MW. The annual average energy generation is estimated as 201 GWh after considering an outage of 6%.

Headworks will be built in Kabeli river approximately 3 km upstream of Kabeli bridge along Mechi Highway in Dhuseni village of Amarpur VDC of Panchthar District and Thechambu VDC of Taplejung district.

Geologically, the project lies in metasedimentary rocks of Taplejung Window of the Eastern Nepal, Lesser Himalaya. In the project area, phyllite and quartzites of the Lesser Himalayan rocks are found intruded with granites. Headworks and two third stretch of headrace tunnel passes through granites whereas remaining stretch of tunnel and powerhouse site comprises phyllite, quartzite, gneiss and schist.

The catchment area above the proposed intake site of the project is 864 km2. In the catchment, average annual precipitation is 2135 mm.

The project area is accessible through Mechi Highway. The headwork and powerhouse are accessible by 7.5 km and 12.6 km access road respectively from Mechi highway.

The project will be developed through a SPV, Kabeli Energy Limited. The SPV has executed the Project Development Agreement with Government of Nepal (GoN) for development of the project on Build-Own-Operate-Transfer (BOOT) basis.

The total capitalized cost of the project is estimated to be about 78 Million USD which will be funded through mix of debt and equity (77.50:22.50).

Project Name	Kabeli 'A' Hydroelectric Project
Location	Amarpur VDC, Panchthar
Project Type	Peaking ROR
Installed capacity	37.6 MW
Total Project Budget	USD 78 Million
Saleable Annual Energy	201 Gwh
Construction Period	4 Years
Developer	Kabeli Energy Limited
Lead Sponsor	Butwal Power Company Limited
Timing for Project	Construction Starting Dec 2011

Fig-I Project Location

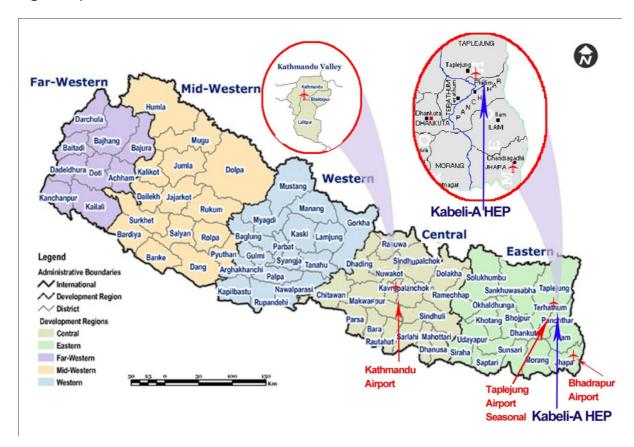


Fig 2 Project Layout Plan

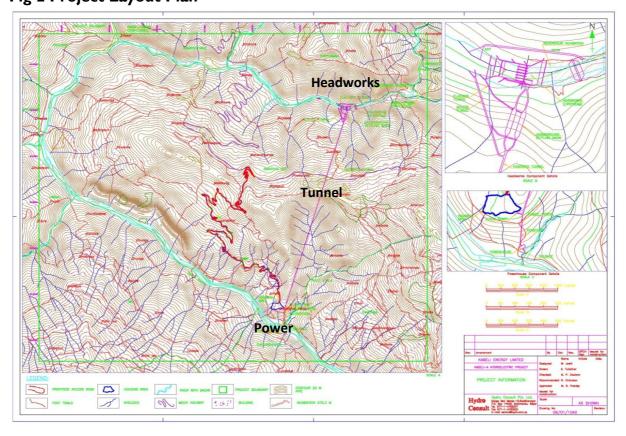


Fig-3 Project in South Asian Regional Context



## **Project Accessibility**

Nearest Sea Port -	Kolkata (West Bengal, India)
Nearest Railway Head -	Silguri (West Bengal, India)- 325 KM South-East
	Jogbani (Bihar, India)- 312 KM West
Nepali Town near Railway Head -	Kakarbhita (200 KM south)
	Biratnagar/Jogbani (about 312 KM west from Project site)
International Airport -	Kathmandu (797 KM)
Domestic airport close to the Project Area -	Bhadrapur (213 KM south) Biratnagar (305 KM west) Small Air strip at Taplejung (25 KM north)

## **Power Off-Take**

NEA (Nepal Electricity Authority) is the power off taker of Kabeli 'A' HEP. NEA is constructing a 77 KM long I32 kV transmission line under World Bank funding for power evacuation from the project. The generated power from the project will be connected to a substation near to Kabeli-A powerhouse/switch yard.