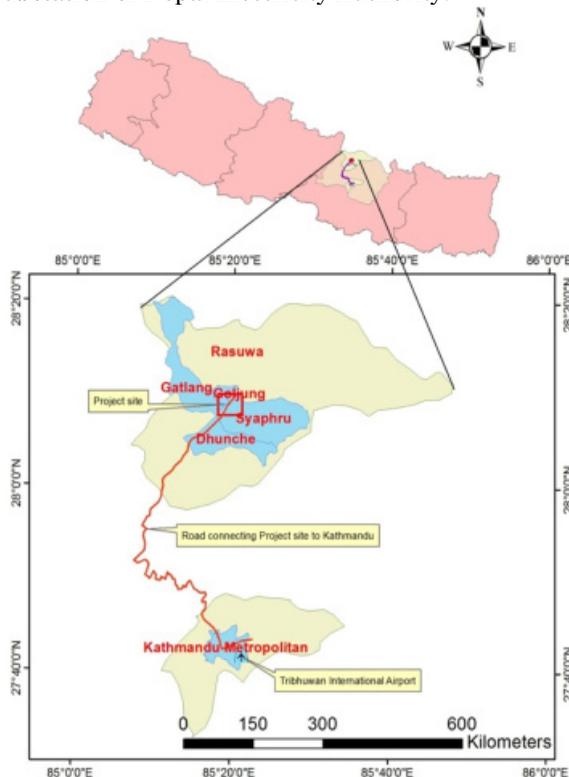


Introduction

The proposed Upper Trishuli-2 Hydroelectric project of 102 MW capacity is situated 127 km north of Kathmandu, the capital city of Nepal, on the Trishuli River about 950 m downstream of Chilime Powerhouse (22 MW) in the Rasuwa District of Bagmati zone in the Central Development Region of Nepal. Proposed project is a Run-of-River (RoR) scheme aimed at utilizing the design discharge of 110 m³/s to generate average annual hydro-based electric energy of 593 GWh. The catchment area at the proposed intake site is 4064 km² and the rated head is 99.6 m.



The project components are gated weir with side intakes, 3.65 km long and 7.0 m diameter headrace tunnel for water conveyance and underground powerhouse measuring 80.5 m long, 18.6 m wide and 45.1 m high to house 2 units of Francis turbines of 51 MW capacity each. The power generated from the proposed project will be evacuated through a 22 km long 220 kV transmission line to proposed Upper Trishuli 3 B Hub Substation of Nepal Electricity Authority.



The project is being developed by Hydro China Corporation (HCC), China. The total estimated cost for the proposed project is 332.402 million US\$ with the construction period of 56 months and estimated investment recovery period of 14.4 years.

Salient Features

Hydrology

Total Catchment Area:	4064 km ²
Design Discharge:	110 m ³ /s
Design Flood:	4140 m ³ /s
Installed Capacity:	102 MW

Head

Rated Head:	99.6m
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Energy Production

Average Annual Energy:	593 GWh
Energy Yield in Dry Season (Jan-April):	110 GWh
Energy Yield in Wet Season (May-Dec):	843GWh

Wear

Type:	Concrete
Headrace	Tunnel
Type:	Tunnel
Length:	3650m
Diameter:	7m

Penstock

Inclined Shaft:	Tunnel
Type:	200m
Length:	4 m
Diameter	
Horizontal Pressure Tunnel:	
Type:	Tunnel
Length:	285m
Diameter:	4 m

Powerhouse

Type:	Underground
Length:	80.5 m
Width:	18.6 m
Height:	45.1 m

Turbine

Type:	Francis
Number:	2
Rated Output:	51 MW

Tailrace

Type:	Tunnel
Length:	400m

Note: Above mentioned dimensions of project components are subject to change.

References

- Feasibility Study Report. Upper Trishuli-2 Hydroelectric Project, 2015
- Environmental Impact Assessment of Upper Trishuli-2 Hydroelectric Project, 2016

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