The Himalayan Times

Nepal

World's highest hydro near Mt Everest by 2026

By Himalayan News Service
Published: 11:12 am Oct 01, 2024

KATHMANDU, SEPTEMBER 30

A mountainous village in Solukhumbu is set to generate electricity from a perennial river near Mount Everest, following government approval of an Environmental Impact Assessment (EIA) study for the power project.

According to Sonam Gyalzen Sherpa, National Assembly Member and Chairman of the Federalism and National Concerns Committee, the Ministry of Forests and Environment approved the EIA study, allowing for the development of the Amadablam Mini Hydro Project near the world's highest peak.

The Amadablam Mini Hydro Project will be built at an altitude above 4,400 meters in the Everest region, making it the highest-altitude mini hydropower plant globally. The project team has worked tirelessly for over two years to obtain EIA approval from the ministry. Laxman Adhikari, Chairman of Khumbu Pasang Lhamu Rural Municipality-4, coordinated efforts on the ground and said they made numerous attempts to convince local authorities, UNESCO, and various ministries about the urgent need for power projects in protected national park areas.

According to Adhikari, the project will be implemented in Pangboche, with an elevation range within the project area of 3,951.18 meters to 4,422 meters. The Amadablam Mini Hydro Project is a run-of-river scheme that uses water from Cholunche Khola, a perennial river and tributary of Imja Khola. Water will be diverted at an elevation of 4,423 meters, with intake made at 4,422 meters. The project plans to generate electrical power using two units of turbines with a rated output of 485 kW and couple them with two 650 kVA synchronous generators.

The generated electricity will be transmitted through 11kV transmission lines and distributed through 0.4kV distribution lines to 451 households across 19 settlements, including Chukung, Debuche, Dingboche, Dole, Mongla, Fungi Thana, Lobuche Pangboche, Pheriche, Phortse, Thukla, and Tengboche.The total project cost is approximately 620 million rupees, with nearly 24.24 % of funding secured as a loan from the World Bank channeled through Siddhartha Bank Limited. The project has also received a government subsidy of 20.73% from the Alternative Energy Promotion Centre and 27.47% Viability Gap Funding supported by the British Embassy Kathmandu through the Sustainable Energy Challenge Fund implemented by AEPC/Central Renewable Energy Fund and remaining from local government and private investors in Public Private Partnership model, Adhikari shared.

Adhikari stated that this is the first-ever project carried out within the Sagarmatha National Park/World's Heritage Site by following all due procedures, and the contractor has already been appointed for the project with headwork structures being made. A total of 72,500 man-days of human resources will be employed during construction, and at least five people will be employed for power generation once completed. The construction is expected to take 18 months, completing by early 2026, with the land acquisition process starting as soon as possible, as per Adhikari.

The Amadablam Mini Hydro Project intends to acquire approximately 5.719 hectares of Sagarmatha National Park and 5.085 hectares outside the national park during its implementation. SNP's Buffer Zone Committee

Chairman Chhiring Penzo Sherpa termed the Amadablam mini hydro as Khumbu's pride project and the highest-altitude mini hydro project in the world. An environmental audit of the project will begin two years after the commencement of completion, with environmental monitoring plans prepared proposing mitigation measures for each identified adverse impact, Sherpa said.

#World’s highest hydro