Energy resources in Nepal

In 2014 heavy rain caused a massive landslide from the hillside in Jure, in Nepal’s central region. It created a high artificial dam across the Saptakoshi river, one of the main tributaries of the Koshi river, blocking the flow of water completely. Around 5,000 families were displaced and dozens of houses were destroyed. It was the deadliest landslide in Nepal in a decade. The landslide also deposited mud and debris 20 metres deep on the main highway to China, and blocked the Sun Koshi river roughly 80 km east of Kathmandu. Water quickly pooled behind the rubble, forming a lake that submerged a small hydropower station 3 km upstream. The lake posed a flood risk for at least 400,000 people in two countries. The landslide damaged a hydroelectric power station downstream and cut electrical transmission lines along the valley. In all, nearly a tenth of the nation’s hydroelectric capacity, some 67 megawatts, was severed, leading to power cuts in the capital and elsewhere in the country.

Nepal’s undeveloped hydropower potential is the second highest in the world, behind Brazil. Its deep narrow canyons would be an ideal site for HEP if it were not for monsoonal rain and the risk of landslides. In 2010 Nepal’s energy ministry set a goal of building 37,000 megawatts of new hydropower capacity within 20 years. Later that same month, heavy rain between 14 and 16 August caused massive floods and several landslides in 18 districts across the country. It destroyed crops, contaminated water and once again cast doubts on whether Nepal should try to develop its HEP project, despite abundant raw materials.