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Earthquake Effect in Micro Hydro Sector: Case Study of Dulakha District, Nepal

Authors : Keshav Raj Dhakal, Jit Bahadur Rokaya Chhetri

Abstract : The Micro Hydro (MH) is one of the successful technology in Rural Nepal. Out of 75 district, 59 districts have installed 1287 MH projects with a total capacity of 24 Mega Watt (MW). Now, the challenge is how to sustain them. Dolakha is a prominent district for sustainable endues of power to sustain the MH projects. A total of 37 MH projects have been constructed with producing 886 Kilo Watt (KW) of energy in the district. This study traces out the impact of earthquake in MH sector in Dolakha district. It shows that 59 % of projects have been affected by devastating earthquake in April and May, 2015 where 29 % are completely damaged. Most of the damages are in civil structures like Penstock, forebay, power house, Canal, Intake. Transmission and distribution line have been partially damaged. This paper analysis failure of the civil structural component of MH projects and its financial consequence to the community. This study recommends that a disaster impact assessment is essential before construction of MH projects.

Keywords : micro hydro, earthquake, structural failure, financial consequence
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