

Sustainability: Effect of Earthquake in Micro Hydro Sector, a Case Study of Micro Hydro Projects in Northern Part of Kavre District, Nepal

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Abstract : The Micro Hydro is one of the successful technology in Rural Nepal. Kavre is one of the pioneer district of sustainability of Micro Hydro Projects. A total of 30 Micro Hydro projects have been constructed with producing 700 KW of energy in northern side of the Kavre district. This study shows that 67% of projects have been affected by devastating earthquake in April and May, 2015. Out of them 23% are completely damaged. Most of the structures are failure like Penstock 71%, forebay 21%, powerhouse 7% have been completely damaged and 91% Canal & 44% Intake structures have been partially damaged by the earthquake. This paper empathizes that the engineering design is the vital component for sustainability of Micro Hydro Projects. This paper recommended that technicians should be considered the safety factor of earthquake and provision of disaster recovery fund during design of Micro Hydro Projects.

Keywords : micro hydro, earthquake, structural failure, sustainability

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