

Floods in mountain watershed: A case of Madi River, Central Nepal

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ABSTRACT:

This paper highlights the type, magnitude, recurrence interval of floods in Madi River and the damages associated with it. Historical information on floods in the watershed before 1978 was collected through group discussions in different parts of the watershed. Attempt has also been made to analyze the data compiled by the Department of Hydrology and Meteorology, HMG/Nepal at Sisaghat located in the middle part of the watershed after 1978. Analysis of the data so far available shows that high magnitude destructive floods in the mountain areas are triggered by landslide and debris flow. They are associated with high intensity precipitation. Many of the destructive floods occurred in the 1950's and confined either in areas with narrow river channel or upstream of the confluence point of two major tributaries. They were associated with blocking, damming and backwater effects. The downstream areas are highly affected by the floods triggered due to landslide and debris flow in the remote upstream areas.