

Cloudburst-Triggered Natural Hazards in Uttarakhand Himalaya: Mechanism, Prevention, and Mitigation

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Abstract : This article examines cloudburst-triggered natural hazards mainly flashfloods and landslides in the Uttarakhand Himalaya. It further describes mechanism and implications of natural hazards and illustrates the preventive and mitigation measures. We conducted this study through collection of archival data, case study of cloudburst hit areas, and rapid field visit of the affected regions. In the second week of August 2017, about 50 people died and huge losses to property were noticed due to cloudburst-triggered flashfloods. Our study shows that although cloudburst triggered hazards in the Uttarakhand Himalaya are natural phenomena and unavoidable yet, disasters can be minimized if preventive measures are taken up appropriately. We suggested that construction of human settlements, institutions and infrastructural facilities along the seasonal streams and the perennial rivers should be avoided to prevent disasters. Further, large-scale tree plantation on the degraded land will reduce the magnitude of hazards.

Keywords : cloudburst, flash floods, landslides, fragile landscape

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