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## >> SYNTHESIZE MOUNTAINS OF KNOWLEDGE <<

## Submitted Abstract

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Abstract

Progress in climate change assessment studies has revitalized the concept of vulnerability. Who is vulnerable and for what reasons has considerable diversity. Some societies, age groups, regions, environments, and nations are predominantly more vulnerable to climate change. An understanding of spatio-temporal patterns of present and projected future climates is critical for the mankind to get better equipped for addressing the impacts of climate change by formulating locally relevant mitigation and adaptation strategies. Here we applied an indicator based assessment for understanding the extent and spatial variations in vulnerability to climate change over Beas river basin. The extent of vulnerability was derived using relevant indicators determining the exposure, sensitivity, and adaptive capacity for each district falling in the study area. A huge difference in relief, climate, soil, altitude, demographics, culture, beliefs and society were noted in the upper and lower basin. The upper Beas river basin was found to be primarily dominated by mountainous relief and the lower basin was occupied with alluvial depositional plains. Further, it was observed that the high altitude mountainous regions of upper basin were frequently exposed to hazards like earthquakes, landslides, cloudbursts, avalanches, flash floods etc. Therefore, it had lower capacity to adapt to the adverse conditions. Whereas, the lower basin with supportive relief and developed socio-economic infrastructure had high adaptive capacity. It was concluded that Beas basin as a whole was moderately vulnerable to climate change with moderate exposure, low sensitivity and moderate adaptive capacity.

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