META-ANALYSIS

ASSESSMENT TYPE          GENERAL

CLIMATE CHANGE    LONG TERM IMPACT    LAND COVER    POLICY

Vulnerability Assessment ▾          PLANNING    SCIENCE

'DIRECTLY' BEFORE A FLOOD

FORECASTING    EARLY WARNING SYSTEM    ANTICIPATORY RESPONSE

'DURING' A FLOOD

FLOOD DETECTION    EMERGENCY MANAGEMENT    COMMUNITY ACTIONS

IMPACT          METHODS

☐ Fatalities          ☐ Remote sensing & weather modelling
☐ Economic            ☐ Machine learning
☐ Health              ☐ Mapping & GIS
☐ Psychological       ☐ Simulations or scenarios
☐ Community           ☐ Community guidance & tools
☐ Infrastructure      ☐ Interviews/surveys
☐ Other [leave a note] ☐ Social media or crowd sourcing

GEOGRAPHY          SELECT FLOOD TYPE

Urban ▾             Landslide/Mudslide ▾

Notes

NEXT

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AB

Inherent vulnerability assessment of rural households based on socio-economic indicators using categorical principal component analysis: a case study of kimsar region, uttarakhand

RAJESH S, 2018, ECOL INDIC

The recent trend of shifting focus from hazard centric drivers of vulnerability towards the social and economic drivers of vulnerability has led to a number of conceptual frameworks for social vulnerability assessment. Contributing towards this growing trend of social vulnerability assessment, this study proposes a framework to measure inherent vulnerability, which is centered on hazard generic and livelihood oriented socioeconomic factors of vulnerability. Inherent vulnerability is defined as the predisposition of a household to suffer harm. The study focuses on the mountainous communities in kimsar region, located in uttarakhand state, india. The communities in the region suffer from multiple stressors including extreme precipitation, drought, landslides, cloudbursts and flash floods. Vulnerability indicators with mixed scaling are used, to capture household's perception and other socio-economic attributes, which contribute towards its inherent vulnerability. Data was collected by conducting household surveys in nine villages of kimsar region. In order to process the indicators with mixed scaling, and obtain an empirical summary of the data set, the method of non-linear principal component analysis was used for computing a household level inherent vulnerability index. Results obtained revealed that principal components explaining a major variance in the data set were access to resources, educational attainment and access to water. It was observed that the villages of dharkot, kandakhal and bhumiyakisar have the highest percentage of households, which were relatively less vulnerable to environmental stressors. Higher vulnerability was observed in majority of households in the village kimsar, ramjeewala and malls banas. A majority of households in talla banas, jogiyana and kasan were moderately vulnerable. Inherent vulnerability assessment has the potential to predict the future harm a household might suffer due to hazard events.

Assessment Definitions:
Risk Assessment – including creating risk (or susceptibility) maps, risk analysis, and resilience assessments
Vulnerability – Vulnerability assessments, creating vulnerability maps
Risk Perception – e.g. interviews about individuals perspectives on flash flood risks, risk cognition, awareness.

Flash Flood Type Definitions:
Not specified – flood type not definied or explicitly stated, unclear
Rainfall – runoff, cloudburst, pluvial, caused by heavy precipitation (no river involved)
Dam/levee breach – anything to do with dams or levees
Speedy river – river height changes rapidly, fast onset riverine flood
Landslide/mudslide – explicitly mentions landslide/mudslide or debris in water
Snowmelt – caused by melting snow

General Planning – select if the paper is not explicitly related to a single event and is about preparing or planning for future even
If the paper is about impacts in general, not related to a specific event, make sure 'general' is clicked before selecting the impact
General Science – select if paper is about science-based general planning – ie developing geophysical risk maps