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# Community resilience under multi-hazards: time series measurement and it's strategies for improvement

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Multi - hazards stress is a big obsession that hampers the social and economic development in disaster - prone areas. There is a need to understand and manage drivers of vulnerability and adaptive capacity to the system of multiple geological hazards. Here we pilot three methods namely the multi - hazards resilience assessment model (new framework), the entropy weight method, and the assess social resilience to flood hazards model to measure the resilience to natural hazards of landslide and debris flow on community scale. Using one typical multi – hazards affected county in southwest China, 32 resilience indicators belonging to antecedent conditions, coping responses, adaptation (including learning), and hazard exposure are selected, and a composite index was calculated under the three methods mentioned above. Results show that the new framework reflected a more detailed fluctuation among the 16 years, despite of the overall similar trend between 2000 and 2015 under the three methods. Medical insurance coverage, unemployment insurance coverage, education degree, and hazard exposure are the main drivers of resilience. The most effective strategies for improving community resilience to multiple hazards are likely to be accelerating the development of education, improving the level of medical security, increasing unemployment insurance, and establishing multi - hazards prevention and mitigation systems.