



## **Participatory and Collaborative Digital Mapping to Enhance Disaster Resilience**

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Critical knowledge gaps seriously hinder disaster risk reduction and resilience building efforts, especially in disaster prone least developing countries. The information scarcity is highest at local levels, in terms of the spatial information of risk, resources and capacities of communities. We propose a general procedure that combines community-based participatory mapping processes, which has been widely used by in various government and non-government organization projects in the fields of natural resources management, disaster risk reduction and rural development, and the emerging collaborative digital mapping techniques to tackle this challenge. We demonstrate the value and potential of this general participatory and collaborative digital mapping by conducting a pilot study in the flood prone lower Karnali River basin in Western Nepal. We engaged a range of stakeholders to generate geographic information on resources, capacities and flood risks of pilot communities according to local needs. The new digital community maps are richer in contents, more accurate, and easier to update and share than those produced using conventional Vulnerability and Capacity Assessments (VCAs), a variant of Participatory Rural Appraisal (PRA) that is widely used by in various government and non-government organizations. This approach, as an inclusive form of risk knowledge co-generation, can play a critical role in improving evidence-based understanding of disaster risk and enhance disaster resilience worldwide.