Kathmandu Institute of Applied Sciences
Center for Conservation Biology

POLICY BRIEF

Traditional and local knowledge to disaster risk reduction
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Strengthening traditional institutions for community-based disaster risk reduction

SUMMARY

The Koshi River in Nepal is prone to recurrent flooding. Local communities have been using their indigenous resources and knowledge to manage disasters through local institutions. However, government-led initiatives have largely ignored these institutions, resulting in missed opportunities to utilize proven and widely accepted practices at the local level to address the problem.

Background

The Koshi River, originating in Tibet and flowing through Nepal, is known for its frequent floods, particularly during the monsoon season (Zhang et al. 2017). These floods caused extensive damage to crops, livestock, and infrastructure, displace thousands of people, and resulted in fatalities along the riverbanks. Despite the Government of Nepal and international aid organizations implementing various measures to mitigate the impact of the floods, including building embankments, constructing flood shelters, and developing early warning systems, these measures have been insufficient in addressing the recurring problem. There is a need for a more comprehensive approach to disaster risk reduction in the region, with a focus on reinforcing existing traditional institutions utilizing community-based approaches, which have been observed to be more effective than government-sponsored mechanisms.

This policy brief specifically emphasizes the importance of reinforcing traditional institutions for effective community-based disaster risk reduction, rather than solely relying on government-sponsored mechanisms. To illustrate the need for this approach, the brief presents the case study of Gobargada village, located in East-South Nepal and vulnerable to floods due to its proximity to the Koshi River. Despite several government programs, including early warning systems, flood shelters, and community awareness campaigns, the community continues to face significant challenges.

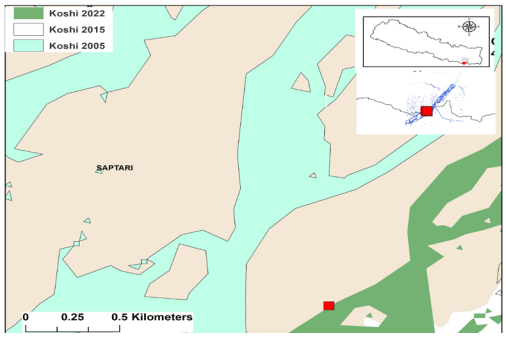

Figure 1. Gobargada village marked in red color. River shift is shown for 2005, 2015 and 2022. (Inset: Location of village in Nepal).

Figure 2. Gobargada village

The challenge

Religious institutions and social networks, including local leaders, play a crucial role in various aspects of disaster risk management. These informal institutions have existed for centuries and have developed their own systems and mechanisms to deal with disasters. For instance, the village has an informal mechanism to share information about impending hazards and potential actions to be taken. However, traditional institutions like these have been largely neglected by local governments when developing disaster management programs.

Importance of traditional institution

Community institutions play a crucial role in reducing the impacts of flood disasters (Seddiky et al. 2020). These organizations have a deep understanding of the local context and are well positioned to identify the most vulnerable households (Shaw & Izumi 2014) and the appropriate responses to be taken (Dewan 2015). In Gobargada, the community employs customary techniques to evaluate the likelihood of flood occurrence by closely monitoring the attributes of the adjacent river. The community's elderly members spearhead informal organizations that identify suitable relocation sites and initiate the relocation of households. This relocation process typically lasts between a few months and three years and involves intense discussions among community members before a decision is made.

Recommendation

We recommend recognizing existing traditional institutions while developing disaster risk reduction programs. This involves delivering training and capacity building programs and providing essential resources, including financial and technical support, to carry out disaster risk reduction activities.

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