

Title: Documenting and Mapping Local Ecological Knowledge and Practices around Watersheds to Inform Community-Based Sustainability and Conservation Policy in Nepal

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Abstract

At present, there is a large communication gap between conservation policy makers and disadvantaged local communities in Nepal. With a noticeable increase in the establishment of settlements close to freshwater sources, there is a need for conservation policy and water resource management in these settlements given the negative effects climate change and hydropower dams have on these communities' livelihoods. Despite a desire for conservation policy implementation, such as river control methods and irrigation support, these settlements have not been able to voice their needs to government officials and conservationists and have not received compensation due to limited access to communication technology and geographical remoteness.

Here, we document and map local ecological knowledge and conservation policy recommendations within settlements along the Karnali and Marsyangdi rivers as a first step in bridging the gap between communities and policy makers in Nepal. Utilizing questionnaires, focus group discussions, and participatory GIS techniques, we highlight recurring themes within each settlement - an urgent need for addressing biodiversity conservation and water resource management. We particularly emphasize the negative impacts drying water sources, pollution, and hydropower dams have on these communities.

Through ArcGIS Story Maps, policy briefs, and Nepalese community newsletters, this study illuminates the unique stories and pressing environmental challenges these communities face, fostering a deeper understanding of specific sustainability issues and advocating realistic policies in order to ensure effective community engagement in conservation policy at all levels.