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Perceptions of Climate Change Risk to Forest Ecosystems: A Case Study of Patale Community Forestry User Group, Nepal

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Abstract : The purpose of this study was to investigate perceptions of climate change risk to forest ecosystems and forest-based communities as well as perceived effectiveness of adaptation strategies for climate change as well as challenges for adaptation. Data was gathered using a pre-tested semi-structured questionnaire. Simple random selection technique was applied. For the majority of issues, the responses were obtained on multi-point Likert scales, and the scores provided were, in turn, used to estimate the means and other useful estimates. A composite knowledge index developed using correct responses to a set of self-rated statements were used to evaluate the issues. The mean of the knowledge index was 0.64. Also all respondents recorded values of the knowledge index above 0.25. Increase forest fire was perceived by respondents as the greatest risk to forest eco-system. Decrease access to water supplies was perceived as the greatest risk to livelihoods of forest based communities. The most effective adaptation strategy relevant to climate change risks to forest eco-systems and forest based communities livelihoods in Kathmandu valley in Nepal as perceived by the respondents was reforestation and afforestation. As well, lack of public awareness was perceived as the major limitation for climate change adaptation. However, perceived risks as well as effective adaptation strategies showed an inconsistent association with knowledge indicators and social-cultural variables. The results provide useful information to any party who involve with climate change issues in Nepal, since such attempts would be more effective once the people's perceptions on these aspects are taken into account.

Keywords : climate change, risk perceptions, forest ecosystems, forest-based communities
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