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Title: Economic Analysis of Biodiversity Conservation: The Case of Similipal Tiger Reserve in Odisha, India

Abstract

The continued loss of biodiversity has compelled researchers and policy makers across the globe to rethink on the existing natural resource management practices and explore alternative approaches that are effective in preventing further ecosystem degradation. Forest dwelling communities and indigenous tribes have for centuries depended on PA resources for their livelihoods. The restrictions imposed both by the government on forest resources lead to clashes and confrontation between local people and PA managers and many times results in acute human-wildlife conflicts. Eviction of local traditional communities is often regarded as an extreme social outcome of biodiversity conservation which has the unintended consequence of displacing people and cutting them off from their principal source of economic livelihood. With the attempt to comprehensively investigate the possible factors for more effective policies towards participatory management and the avoidance of conflicts, the present study focuses on the complex interactions of local communities within PAs keeping the geographical scale of the study as the Similipal tiger reserve (STR) in Odisha. A variety of econometric techniques have been employed to analyze the data. The result reveals that rich communities are largely responsible for adopting degrading resource use practices, contrary to conventional thinking that poor degrades environment more in a subsistence economy. Households are found to be engaged in collection of variety of NTFPs; however, the extent and pattern of NTFPs collection differ widely across households that belong to different socioeconomic and demographic characteristics. The result also discloses that wealthy households prefer to use clean energy for lighting, while poor and illiterate households and households in the lower quartiles tend to use dirty sources of fuel. Besides, lack of adequate provision of technical and financial inputs for the creation of better agricultural livelihoods for the relocated people are found to be the principal cause of failure in recent relocation mechanism. Varieties of capacity building measures, skill development programmes and motivation for the stakeholders are required for successful collective action and institutional building. The study suggests that a 'bottom-up' approach rather than 'top-down' should be more effective while addressing the issue concerning biodiversity conservation and local livelihood improvement.

Key Words: Biodiversity; Institutions; Collective action; Property rights; Similipal; Odisha