

## **Bamboo as the Frontier for Economically Sustainable Solution to Flood Control and Human Wildlife Conflict**

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**Abstract :** Bamboo plantation can be integrated for natural embankment against flood and live fencing against wild animals, at the same time provide economic opportunity for the poor farmers as a sustainable solution and adaptation alternative. 2010 flood in the Rui River completely inundated fields of four VDCs in Madi, Chitwan National Park with extensive bank erosion. The main aim of this action research was to identify an economically sustainable natural embankment against flood and also providing wildlife friendly fencing to reduce human-wildlife conflict. Community people especially poor farmers were trained for soil testing, land identification, plantation, and the harvesting regime, nursery set up and intercropping along with bamboo plantation on the edge of the river bank in order to reduce or minimize soil erosion. Results show that farmers are able to establish cost efficient and economically sustainable river embankment with bamboo plantation also creating a fence for wildlife which has also promoted bamboo cultivation and conservation. This action research has amalgamated flood control and wildlife control with the livelihood of the farmers which otherwise would cost huge resource. Another major impact of the bamboo plantation is its role in climate change and its adaptation process reducing degradation and improving vegetation cover contributing to landscape management. Based on this study, we conclude that bamboo plantation in Madi, Chitwan promoted the livelihood of the poor farmers providing a sustainable economic solution to reduce bank erosion, human-wildlife conflict and contributes to landscape management.

**Keywords :** climate change and conservation, economic opportunity, flood control, national park

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