



Agriculture Sciences
and Resource
Management in the
Tropics and Sub-tropics
(ARTS)



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**Decision Analysis: Turmeric vs Maize and Millet Value Chain in Pyuthan
District, Nepal**

by

Aditi Bista

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First examiner Prof. Dr. Eike Luedeling
Second examiner Dr. Cory William Whitney

Decision Analysis: Turmeric vs Maize and Millet Value Chain in Pyuthan District, Nepal

Abstract

My research addresses the need to improve the living standards of farmers in rural areas of Pyuthan in Nepal, by assessing the profitability of turmeric as a crop. In these rural mountain regions, food security and poverty are serious issues. To help farmers in this region choose the best crops, I used a cost-benefit approach based on a unique decision analysis method that incorporates risks, uncertainties, and complexities. I conducted focus group discussion with 107 farmers and interviews with 34 key informants and 6 experts in order to gather the necessary data. Following this, I developed both a conceptual model and an analysis model. Based on the model results, turmeric has a higher net present value than cereals, indicating its economic viability. Additionally, it is a climate-resilient crop and helps prevent animal damage. The NPV of turmeric when sold raw was higher; however, the NPV of turmeric when processed was lower. This indicates that turmeric farmers should be cautious when entering the turmeric value chain. The turmeric value chain in this region is plagued with challenges, from price fluctuation to post-harvest processing and inadequate infrastructure. In order to achieve sustainability, farmers should receive support in areas such as training, forming cooperatives, land pooling, improved storage and processing facilities, better transportation, marketing support, growth expansion, and sustainability are necessary. In addition, while the study focused primarily on economic factors, further research is needed to emphasize the importance of considering ecological and social factors as well.