TRADITIONAL FARMING SYSTEMS AND SUSTAINABILITY ISSUES: A CASE FOR THE GARHWAL HIMALAYA, INDIA

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ABSTRACT

This paper examines the traditional farming systems and their sustainability, in terms of food security, and what measures to be adapted for enhancement of livelihood of the inhabitants in the Garhwal Himalaya. The Garhwal Himalaya is located in the centre of the Himalayan Mountain System. Characterised by harsh climatic conditions, rough, rugged and precipitous terrain, fragile landscape and economic backwardness, about 95 per cent of the total population are inhabited in rural areas. Traditional cereal farming is the main occupation of the populace as about 80 per cent population are engaged in the production of cereal crops and livestock farming. The farming system in Garhwal Himalaya is peculiar, which is based upon the centuries old practices and carried out mainly on the narrow patches of the terraced fields. The main crops grown are paddy, wheat, barley, millets, pulses, and oilseeds. The economic viability of these crops is insufficient even to meet the food requirement of the populace but these crops are environmentally sound and suitable for this ecologically fragile terrain. The scope for further expansion and modernisation of agriculture practices is not viable due to the fragility of terrain and precipitous slope. Therefore, an exodus of population emigrated to the foothills of Himalaya and major urban centres of country for the search of job or recruited in national Army. Enhancing and diversifying livelihood options, other than biomass-based production, will definitely raise the income and food-security of the rural mountain people, as the agro-climatic conditions in this region are very much feasible for the cultivation of cash generating crops. Therefore, the scope of cultivation of off-season vegetables, fruits, medicinal plants and collection of non-timber based forest products are tremendous. Cultivation of fruits will also manifest a way for ecological restoration of the fragile terrain and will enhance the economic level and sustainable livelihood of the inhabitants. Thus, it is suggested that the optimum harnessing of these products will surely provide a base for sustainable livelihood in the region. Data on farming systems were gathered from the primary and secondary sources. Primary data were gathered through structured questionnaire and household survey was done to study agricultural pattern and production trend. Case studies of the villages were also done for collection of data on horticultural practices.