



Tropentag, October 6-8, 2009, Hamburg

“Biophysical and Socio-economic Frame Conditions
for the Sustainable Management
of Natural Resources”

Spatial Differentiation in Farming Practices and their Impact on Rural Livelihood: A Case from Nepal

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Abstract

Farming practices adopted by the farmers in the hills of Nepal differ owing to spatial differentiation leading to differential resource availability, infrastructure development and external intervention. This paper presents the spatial differences in farming practices and their impact on rural livelihood in a small hilly transect from urban centre to rural areas in central Nepal. Farming practices and rural livelihood were assessed through farming system approach and spatial differentiation was assessed by means of GIS. Socioeconomic data were collected through household survey from spatially randomly selected farm households and linked to GIS using household's geographical position.

Spatial differentiations are noted in adoption of farming practices. In remote rural villages where lands are sloppy, irrigation facility is lacking and livestock keeping is almost default, maize-dominated subsistence farming is available. Farmers in the lower hill villages are following intensive inorganic farming especially in rice and other vegetables. In the mid hill villages most of the farmers are following organic practices at least in small parcel of land for themselves and for the niche market. These differences in farming practices are mainly due to the spatial location of the settlement, land quality, infrastructure and resource availability and external intervention. As one moves from higher to lower altitudinal gradient and from remote to urban centres, these factors start becoming favourable. Yields of food crops are higher in the lower altitude as compared to that of higher altitude. Income differentiation in the space shows a higher farm and family income in the most favourable zones- villages nearby market centres and in lower altitudinal gradient. Off-farm income, which contributes much on family income, is appreciably higher in lower hills as compared to higher hills where agriculture is the mainstay of livelihood. Spatial results show higher level of living standard parameters over the space. Opportunities for quality education, health and housing are better as one moves from remote to urban area while provision of quality drinking water is better in rural villages. In order to deliver the benefit to the distant inhabitants, there is the need to develop infrastructure and hammer future strategies of increasing land productivity.

Keywords: Family income, farming zones, GIS, spatial differentiation, standard of living