

## **Project intervention and Sustainability: Implication on Poverty Alleviation and Sustainable Livelihoods**

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### **Abstract:**

The number of people living under poverty is still very high despite numerous poverty alleviation programs launched over the years. Although several development models and approaches have been practiced, 38% population in Nepal still lives in dire poverty. Many of the projects to trim down poverty have been supported by multi and bilateral agencies in one or the other form. However, assessment of impact of such interventions has yet to emphasize specifically at micro level.

A randomized household survey was conducted to collect field data applying a multi-stage random sampling technique for 60 households in the mid hills, Nepal. The data have been analyzed using descriptive statistics, qualitative tools and econometric models. To net out the impacts due to project intervention on peoples' livelihood, income measures, consumption pattern, and head count index of the respondents have been used.

The results of the regression model reveal that family labor working on the farm has negative, whereas total livestock, and non-farm activities reveal positive relationship on the level of household income. Despite having very low size of land holding, beneficiary are motivated to allocate 9% of the arable land to cultivate forages because of the project's implication. Positive attitude towards continuation of project activities implies that human capacity of the beneficiary has been improved substantially.

**Keywords:** project intervention, beneficiary, household income, poverty

### **Background information:**

Poverty defined as "pronounced deprivation in well-being", is linked both to the presence of low income and to the lack of assets (education, health, adequate nourishment). From the multidimensional perspective, people are poor when their level of income does not allow them to buy the minimum amount of food required to carry out daily duties and tasks, nor to obtain a minimum level of education nor medical attention when necessary, that is, when they are not able to satisfy their basic needs (WDR, 2000). The characteristics of the poor in Nepal are too apparent and poverty remains at endemic level. The population living in poverty has been increased from 33% in 1976/77 to 42% estimated by the World Bank in (1999). However, this figure has been reported to 38% according to NPC, (2002) and have declined to 31% NLSS (2004). Poverty in mountain region is much higher than the Terai and hill and it increases with the remoteness. As guided by the millennium development goal, poverty alleviation is the first objective in The Tenth Development Plan (2002-2007) of Nepal, and as a road map, Poverty Reduction Strategy Paper has also been prepared and brought into action. Presently, Nepal's 144<sup>th</sup> rank (0.474 value) out of 174 countries shows low human development status.

Of the many programs implemented to reduce the level of poverty in rural areas, the IFAD, FAO and SNV the Netherlands funded Hills Leasehold Forestry and Forage Development Project implemented in 1991 was one of them in the field of agriculture and livestock. It was designed to work with small farmers, belonging to below the poverty line (farmers having less than 0.5 ha arable land, and annual per capita income less than 2,500/- NRs. (Nepalese currency equivalent to US\$ 44 in 1993).

### **Type of project interventions:**

The implemented activities have been grouped into: (1) Fodder & forage development (2) Training & visit (3) Institutional development (4) Animal health & breed improvement services (5) Strengthening farmers' groups

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## Factors determining household income:

$$\Pi = \gamma_0 + \beta_1Ledu + \beta_2Lhol + \beta_3Tlvu + \beta_4Nwfl + \beta_5Amkt + \beta_6Offi + \varpi_i$$

Where,  $\Pi$ =total income of the farm (NRs),  $Ledu$ =level of education of the head,  $Lhol$ =land holding size,  $Tlvu$ =total livestock unit,  $Nwfl$ =number of family labor working in the farm,  $Amkt$ = access to local market,  $Offi$ =non-farm activities/income,  $\varpi_i$ =error term

## Results and discussions:

### *Household characteristics & division of labor*

Out of the sixty sample households interviewed from three villages intervened by the project, nine ethnic groups<sup>3</sup> is found (Figure 1). Among them, Damai, Pahari, Danuwar, Tamang and Magar are considered unprivileged castes in Nepalese society as they have considered lagging behind in almost all socio-economic and political activities.

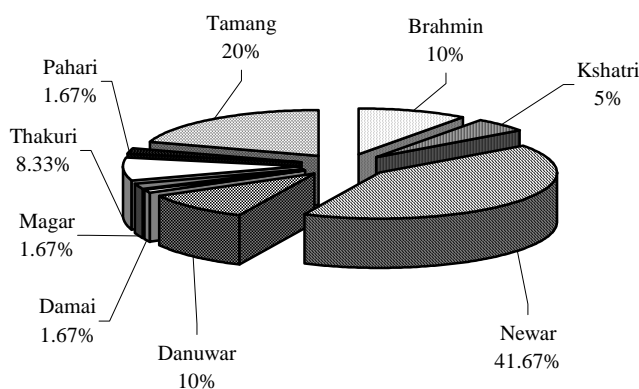


Figure 1: Ethnic composition of sample households in the project area

On an average a household is composed of 8.4 persons, which is found to be quite higher than the national average (5.44). Besides the land and livestock, human labor is the most important asset at rural farm households. Division of labor is found working in a participatory approach on the farm activities. Of the routine task, 55% male are involved in grazing, feeding and management. Similarly, 49% males are involved in marketing of live animals and livestock products. Female involvement is higher than that of males in milking, milk processing and shed cleaning (56%). Their involvement is even higher in fetching forage and crop by-products (60%).

Of the total respondents, 62% are literate, but women literacy is only 44%. It is found that 55% of them have attended formal Schooling but varying number of years. If we group them 40%, 13% and 2% have attended primary, secondary and college education respectively implying very high rate of school dropout.

### *Farm resources & employment*

Rural households mostly own land, and livestock as major farm resources in rural areas. The average land holding size is 0.508 ha. A large portion of the land (83%) is allocated to crop production followed by 9% to kitchen gardening and 9% to forage cultivation. Allocating land to forage cultivation is not a

<sup>3</sup> Different castes of people socio-culturally classified in Hindu religion. Each ethnic group differs from another in certain cultural taboos

common customary because of not having enough land to produce food for own consumption. Livestock is found the most common asset to rural households. The average total livestock LU<sup>4</sup>/farm is 2.75.

### ***Factors increasing farm income***

Of the factors included in the regression model, family labor working on the farm shows negative relationship, whereas total livestock unit at the farm, and non-farm activities reveal positive impact on the level of household income implying areas of concern for further improvement.

Table 1: Factors determining household income

<b>Variables</b>	<b>Coefficients</b>	<b>t value</b>
Total livestock unit at the farm	0.269**	2.211
Education of the house head	-0.103	-0.843
Land holding size	0.026	0.203
Family labor working on the farm	-0.255**	-2.120
Access to local markets	0.105	0.820
Non-farm activities	0.295**	2.192
Constant	0.218	1.910
Adjusted R <sup>2</sup>	0.487	
No. of observations	60	

\*\* indicates significant at 5% level

### ***Social sustainability of the project activities:***

Three variables are taken as indicators of social sustainability: social acceptance of the project activities, social status of the project farmers, and the level of household income. The impact of the project can only remain longer after the termination of the project if introduced technologies are widely accepted by not only the beneficiaries, but also by other stakeholders in the community. Introduced technologies would be adopted in the community only if the beneficiaries and other stakeholders find them useful to raise their socio-economic status. The response of the farmers to the project activities in terms of social sustainability is presented in the Table (2).

Table 2: Farmers' perception about impact of project on social sustainability

Description	No. of farmers and their perception (N = 60)				Score-ranking*
	Very good	Good	Fair	No change	
Social acceptance	20	29	10	1	188
Social status	18	27	12	3	180
Household income	8	34	3	15	155

\*:Very good = 4, Good = 3, Fair = 2, No change = 1

The scored ranking indicates that the project activities are well accepted in the community. Beneficiary also realised the improvement in their social status and household income due to project activities.

### ***Farmers' perception for the continuation of the project***

The results in Table (3) show that farmers are aware of the positive impact of the project on different socio-economic and ecological aspects at both farm household and community level. The positive impression of the project intervention motivated the farmers to continue the prioritized activities implemented by the project. The opinions of the farmers for the continuation of the project activities are summarized in Table (3). Eighty-three percent of the farmers have advocated for the continuation of the project activities. The major reasons for their opinions are for developing human capital, rehabilitating

<sup>4</sup> 1 LU = 0.8 cattle, 1 buffalo, 0.1 goat, 0.01 poultry

local resources and increasing the productivity, and uplifting their living standard. Seventeen percent of the farmers are found to be against the continuation of the project activities, due to some conflicts that arose among some farmers and also due to less economic development than what they had expected. These results show that most farmers are eager to have more developmental activities to increase their socio-economic condition.

Table 3: Farmers’ desire and reasoning for project continuation

<b>Farmers’ reasoning</b>	<b>Reasoning farmers (N=60)</b>	
	<b>Number</b>	<b>Percent</b>
<b><u>Reasoning for the continuation</u></b>		
- to increase farmers’ living standard	50	83
- to increase productivity of livestock and limited land		
- to rehabilitate the degraded private and public land		
- to increase access to forage, fuel-wood and fodder production		
- to increase knowledge and skill of resource poor farmers		
<b><u>Reasoning for no more continuation</u></b>		
- no significant increase in household income	10	17
- conflict amongst the villagers and beneficiaries for resources and positions		
- no significant income generating activities implemented by the project		
- farm labor disturbed and diverted to social activities		

**Conclusion and policy recommendation:**

Assessment of impact of development activities helps allocate resources optimally thereby enhancing the benefits from future projects. Therefore, impact evaluation at grass-root level and beneficiaries’ participation in program planning and evaluating performances should always be given top priority.

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