



# Good livestock management practices to improve vegetable production, nutrition security and household income in Rural Nepal

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## Introduction

Our research examined relationships between level of vegetable production and consumption with adoption of four sustainable farming practices, i.e., livestock shed improvement, rain water harvest, vegetable production under poly houses, and marketing of farm products through grower-managed cooperatives.

## Objectives

To determine the contribution of good livestock management practices to vegetable production, consumption and income.

## Research Methods

Our multi-year research focused on linking good livestock management practices with household vegetable production and consumption. The research was conducted in Rupa Rural Municipality of Kaski district, Western Nepal (Fig.1). Descriptive statistics and a *t*-test were used to determine the effect of the intervention on vegetable consumption and income. This innovative approach helped in linking good livestock management practices to outcome variables such as production, consumption, and income.

Figure 1: Map of Nepal showing study area



## Research Results

Table 1: Paired *t*-test comparison of GLMP adopters and non-adopters on outcome variables

Variables	GLMP adopters	GLMP non-adopters	Mean Difference	<i>t</i> -stat/ <i>chi</i> <sup>2</sup>
Total vegetable production (kg)	573.81	206.69	-367.12	-2.41**
Total quantity of vegetable sold (kg)	437.64	167.18	-270.45	-2.01*
Revenue from vegetable sold (NRs.)	25939.2	9574.88	-16364.32	-2.09*
Home consumption of vegetable from own production (kg per HH per crop season)	136.17	39.51	-96.66	-3.78**
Off-season vegetable growers (%)	68.12	41.46	26.65	10.70**
Livestock (% of farmers raising livestock)	92.75	81.71	11.05	3.98*

**Note:** \*\*, \* Significant at 99 % and 95 % level of significance respectively; GLMP=Good Livestock Management Practices.

- Increased impact with greater intensity of participation in GLMP.
- The results support our hypothesis that GLMP has positive linkages with vegetable production, household income and nutrition.

Figure 2: A pathway of livestock-nutrition linkages at farm level



Major integrated components:

1. Good livestock management practices (GLMP),
2. Rain water harvest,
3. Vegetables production,
4. Consumption and marketing through cooperatives.

## Conclusion

- Increased income from selling vegetables can alter the amount, composition and quality of food consumed and facilitate the purchase of health and nutrition-related goods and services.
- Linking mechanism of various components in the pathway should be strengthened through technical support.
- Up scaling of this innovative approach is suggested.