

# Relationship Between Land Tenure Practices And Food Security At Bardiya

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## Abstract

*The essay explore about the relationship between Land Tenure Practice and Food Security at Bardiya. "Tenure" is a social construct that specifies the ties between persons and groups of individuals through which rights and obligations regarding land management and usage are established. It is commonly characterized as a "bundle of rights"—specific rights to do particular activities with land or property. Food security is the ability of all people, at all times, to have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The study's overarching goal is to determine the impact of land tenure practices on food security. The Secondary sources are the key for analyzing research. A Chi-square test was done on two category variables to see if there was a connection between land tenure and food security. According to the statistics, the variables Kitchen garden and Own agricultural land; Farm Categories and Food Consumed are associated. The p-value (.000) is found in the same row's "Asymptotic Significance (2-sided)" column. If this number is equal to or less than the requisite alpha level, the outcome is remarkable (normally.025). The findings indicate that there is a relationship between land tenure and food security.*

**Keywords:** land tenure, social construction, food security, nutritious food

## Introduction

The phrase "land tenure" comes from the Latin word "tenure." This translates to "keeping a renter." A renter is just someone who rents out their property. The landsman and his rights are important to land tenure. It refers to the form of legal estate that exists on a plot of land, such as freehold, leasehold, mortgage, or occupancy. It is sometimes described as a method of keeping land property that is based on social structure and religious conviction. Land tenure is frequently significant in an individual's feeling of community, as well as in the investment of effort and capital on any piece of land (Acharya, 2008).

Land tenure is important not just for the land market, land usage, and land rights, but also for the environment. The importance of land tenure may be acknowledged not only for the land market, use of land, and right over land, but also as the primary determinant of the land/property tax base. As a result, the institutions for determining ownership, right, and use of land, known as land tenure, are critical problems of human civilization. Land tenure is

important not just for the land market, land usage, and land rights, but also as the fundamental determinant of the land/property tax base. As a result, land tenure institutions, which determine ownership, rights, and use of land, are important challenges of human civilization (Bakrania, 2015).

Land tenure is a subset of natural resource tenure, which refers to the terms and conditions under which natural resources are held and utilized (Moyo, 2011; Shivji, 1998). The idea of “tenure” is a social construct that specifies the ties between persons and groups of individuals through which rights and obligations regarding land management and usage are established. The social interactions and institutions that control access to and ownership of land and natural resources are referred to as land tenure. It is commonly characterized as a “bundle of rights”—specific rights to do particular activities with land or property (Bruce & Migot-Adholla, 1993).

Food security is becoming an increasingly serious issue all around the world. More than a billion people are thought to be malnourished because of a lack of dietary energy, with at least twice that number suffering from micronutrient deficiencies. Because indicators drive action, most of the current research focuses on increasing food insecurity monitoring. However, future incidence rates and patterns remain uncertain because measuring food security, a vague concept, remains difficult (Barrett, 2010).

Food security exists at the individual, household, national, regional and global levels when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, access, utilization and stability. The nutritional dimension is integral to the concept of food security (FAO, 2009, p. 1).

Food security has a long history as a key policy issue in the twentieth century. On the subject of food security, there are two main points of view. One remedy to underconsumption and starvation was to increase product output. The other is a new social and ecologic strategy that acknowledges the need of addressing a wide range of production concerns. The first is mostly agricultural in character, whereas the second is a food systems approach. The United Nation and governments date have prioritized tackling hunger through a dynamic collection of policy efforts from its roots in post-Second World War international reconstruction. With its more intricate, multifaceted vision of social security, an illusory word that continues, the rising trend had called the production-oriented strategy or paradigm into question within a few days (Lang & Barling, 2012).

From its inception to the present day, the concept and definition of food security have remained mostly unchanged. The Summit, like previous summits, defines food security as the availability, access, usage, and distribution of food to all people in all seasons and across all communities (Rai, 2014a). According to Pinstrup-Anderson (2011a), food security is the ability of an individual, household, or nation to obtain sufficient food for nutrition and preference through legal, culturally acceptable means, and it incorporates the concept of

risk; that is, a person who has enough food today but may not have enough tomorrow is not food secure.

Food security is frequently associated with food safety: the food to which a person has access should keep him or her healthy. Food insecurity, by contrast, refers to the likelihood that a person will not have enough food throughout a specific period. It is more common among the impoverished or the socially excluded, and in places far from food markets. People living over the poverty level may be food insecure as well, depending on their availability to food (Pinstrup-Anderson, 2011b). Although this idea of food security and insecurity is somewhat broad, the position of the poor and low-income people, who are largely insecure and ignored, remains unchanged. This is a neoliberal notion that implies production and growth would eventually eliminate poverty and hunger from the world, which may not always be the case. There are several examples where worldwide market penetration has expanded the amount of poverty gap between affluent and poor to a greater extent. Many impoverished people are having a more difficult time surviving because of global capitalism than in the past. Food costs are increasing because of such penetration, and one of the key concerns in food security is the abrupt and unexpected rise in food prices (Rai, 2014b).

Food security is a conceptual and analytic notion used to identify households with substantial economic limitations to food intake, which has been applied to large samples in Nepal and throughout the world. "Food security exists when people have physical and economic access to sufficient, secure, and nutritious food to fulfill their dietary needs and food preferences for an active and healthy life at all times," according to the FAO's Rome Declaration on World Food Security. This notion has expanded to include additional dimensions. Three major conceptual trends may be identified: a move from measuring "inadequate access" with measures of food availability and consumption, a shift from objective to subjective measurements, and a rising emphasis on basic assessment rather than dependence on distal, proxy measures (Weed et al., 2006).

A sociological approach based on practice theories can help to develop this measuring instrument. Individuals or families must be considered as more than biological beings or "consumers," and food intake must be understood as a social activity having a major effect on everyday life, wellness, social integration, and involvement in society. Qualitative investigations revealed new characteristics of food insecurity that are not currently recognized to be a component of food insecurity (Bourdieu, 1992). Giving the idea sociological depth might expand the population deemed food insecure, not just to homes with financial limits, but also to households experiencing stress, a lack of time, or a lack of psychological inclination to engage in dietary practices. The food insecurity questionnaire is composed of questions that are centered on the budget and family, concealing inequities in food access as well as various degrees of limitation. Second, even if the food consumption unit is the family, disparities among household members (i.e., adults/children, women/men, active/unemployed) should be investigated (Warde, 2017).

International organizations and scholars define food security in a variety of ways. There are around 200 definitions of food security, according to Smith (2017) cited in c Maxwell (1994). Since the 1974 World Food Conference, definitions have shifted from a focus on national food security or increased supply to those advocating for greater food access in the 1980s (FAO, 1983). Improved access was redefined in the 1990s by taking livelihood and subjective issues into account (Maxwell, 1996). After the 1996 World Food Summit, when the definition was broadened to include achieving food security “at the individual, household, national, regional, and global levels when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life,” definitions underwent another round of evolution (FAO, 1996). Organization for Food and Agriculture (1996) Currently, a workable definition in international organization initiatives is a mixture of these concepts, with the major emphasis on availability, access, and use.

According to Sen (1981), securing access to food, rather than just raising food supply, should be considered the most important pillar of food security. This assumption is supported by actual data that show that food supplies were typically accessible even during periods of famine, even in areas where significant numbers of people perished of starvation. The issue is that many who require food do not have the financial wherewithal to obtain it (Sen, 1985).

### **Objective**

The overall research objective of the study is to assess the effect of land tenure practice on food security. The specific research question of the study is to:

1. To access the relationship between land tenure practice and food security

### **Research Methodology**

To develop this research, a secondary data collection from my PhD dissertation was used to examine the research in this study. The study picked 371 houses at random from a total of 5981 households in Barbardiya municipality, ward numbers 8, 9, 10, and 11. Several research on land tenure and food security were reviewed. Google Scholars, JSTOR, Z-library, Research Gate, and the Central Bureau of Statistics of Nepal are the primary search engines for locating relevant publications. The key variables Kitchen garden and Own agricultural land; Farm Categories and Food Consumed are used to check association between land tenure and food security. A Chi-square test was performed among two categorical variables to see whether there is a connection between land tenure and food security.

### **Relationship between Family Member Having Kitchen Garden and Own Agriculture Land**

The crosstabs analysis for two categorical variables, Kitchen garden and Own agricultural land, is shown below in table 1. Each variable can take one of two values: Yes or No. The hypothesis might be stated as follows:

**Null hypothesis:** *There is association between family members having kitchen garden and own agriculture land.*

**Alternative hypothesis:** *There is no association between family members having kitchen garden and own agriculture land.*

There are several elements in the outcome of a cross tab analysis. Let's take a look at each one separately. The case processing summary, as the name implies, is just a summary of the cases that were processed when the crosstabs analysis was run. As can be seen in the table below, we have 371 legitimate cases and no missing cases.

**Table 1:**

*Case Processing Summary*

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
kitchen garden * own agricultural land	371	100.0%	0	0.0%	371	100.0%

**Source: Field Survey, 2022**

The crosstabs are shown in the table below, and they include a wealth of information that may be used to evaluate the chi - square test results. Our crosstabs table contains information regarding observed counts (also known as "Counts" in SPSS) and predicted counts.

### **Observed Count**

The observed count is the frequency observed in a certain cell of the crosstabs table. For example, our data reveals that 8 households (out of a total of 47) do not have a kitchen garden, but 316 Own agriculture land (out of a total of 355) have.

### **Expected Count**

The expected count is the estimated frequency for a cell if the null hypothesis holds true. The null hypothesis in this situation is that there is no link between the Kitchen garden variable and the Family Own Agriculture land variable, which implies that the anticipated count is the estimated frequency for a cell under the premise that eating and religion are unrelated.

**Table 2:**

*Observed and Expected Value for Family Member Having Kitchen Garden and Own any Agriculture Land*

Relationship Between Family Member Having Kitchen Garden and Own Agriculture Land		Do you/your family members own any agricultural land?		Total	
		No	Yes		
Do you have kitchen garden?	No	Count	8	39	47
		Expected Count	2.0	45.0	47.0
	Yes	Count	8	316	324
		Expected Count	14.0	310.0	324.0
Total		Count	16	355	371
		Expected Count	16.0	355.0	371.0

**Source: Field Survey, 2022**

To comprehend the outcome of a chi square test, I have payed particular attention to the observed and predicted numbers. Simply said, the greater the divergence between these numbers, the higher the chi square score, the more likely it is to be significant, and the more likely we will reject the null hypothesis and conclude the variables are related..

If you look at the crosstabs table above, It is seem that there are more People having Kitchen garden having own agriculture land than would be expected were the null hypothesis (that the variables are independent) true. The question is whether these differences are big enough to allow us to conclude that the Kitchen gardening variable and Own agriculture land variable are associated with each other. This is where the chi square statistic comes into play.

**Table 3:**

*Chi-Square Tests for Family Member Having Kitchen Garden and Own any Agriculture Land*

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	21.063 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	17.684	1	.000		

Likelihood Ratio	13.989	1	.000
Fisher's Exact Test			.000 .000
N of Valid Cases	371		

- a. 1 cells (25.0%) have expected count less than 5.
- b. The minimum expected count is 2.03.
- c. Computed only for a 2x2 table

**Source: Field Survey, 2022**

The Pearson Chi-Square metric is of significance to us. The chi square statistic appears directly to the right of "Pearson Chi-Square" in the Value column. In this case, the chi square statistic value is 21.061.

Under the same row, in the "Asymptotic Significance (2-sided)" column, the p-value (.000) shows. If this number is equal to or less than the prescribed alpha level, the result is significant (normally .025). Because the p-value is less than the normal alpha value in this circumstance, we would reject the null hypothesis that the two variables are independent of each other. Simply put, the finding is important - the data reveals that the variables Kitchen garden and Own agricultural land are associated.

**Relationship between Farm Categories and Food Eaten in Household**

The following crosstabs analysis demonstrates how two category variables, Farm Categories and Food Eaten in Household, each have four alternative values: For Farm Categories, Landless, Marginal, Medium, and Small; Enough but not always the sorts of food we want, Enough of the kinds of food we want to eat, Often not enough to eat, and Sometimes not enough to eat for Food consumed in Household. The hypothesis might be stated as follows:

**Null hypothesis:** There is association between Farm Categories and Food Eaten in Household

**Alternative hypothesis:** There is no association between Farm Categories and Food Eaten in Household

There are several elements in the outcome of a cross tab analysis. Let's take a look at each one separately. The case processing summary, as the name implies, is just a summary of the cases that were processed when the crosstabs analysis was run. As can be seen in the table below, we have 371 legitimate cases and no missing cases.

**Table 4:**  
*Case Processing Summary*

	Cases		
	Valid	Missing	Total



	N	Percent	N	Percent	N	Percent
Farm Categories *						
Food eaten in household	371	100.0%	0	0.0%	371	100.0%

**Source: Field Survey, 2022**

The crosstabs are shown in the table below, and they include a wealth of information that may be used to evaluate the chi - square test results. Our crosstabs table contains information regarding observed counts (also known as "Counts" in SPSS) and predicted counts.

**Observed Count**

The observed count is the frequency observed in a certain cell of the crosstabs table. For example, our chart reveals that 5 Landless households (out of a total of 6) have enough but not necessarily the sorts of food we desire and 78 households (out of a total of 306) have Small Farm categories.

**Expected Count**

The expected count is the estimated frequency for a cell if the null hypothesis holds true. The null hypothesis in our situation is that there is no link between Farm Categories and Food Eaten in Household, which implies that the anticipated count is the estimated frequency for a cell under the premise that eating and religion are unrelated.

**Table 5:**

*Observed and Expected value for Farm Categories of a Family and Status food eaten in household in the past 12 months*

			Which of these statements best describes the food eaten in your household in the past 12 months?				
			Enough but not always the kinds of food we want	Enough of the kinds of food we want to eat	Often not enough to eat	Sometimes not enough to eat	Total
Under which Farm Categories do you want to keep your	Landless	Count	5	0	1	0	6
		Expected Count	4.9	0.5	0	0.5	6
	Marginal	Count	209	5	2	31	247
		Expected Count	203.7	20	2	21.3	247
	Medium	Count	14	14	0	0	28



family?	Expected Count	23.1	2.3	0.2	2.4	28
	Count	78	11	0	1	90
Small	Expected Count	74.2	7.3	0.7	7.8	90
	Count	306	30	3	32	371
Total	Expected Count	306	30	3	32	371
	Count					

**Source: Field Survey, 2022**

To comprehend the outcome of a chi square test, I have payed particular attention to the observed and predicted numbers. Simply said, the greater the divergence between these numbers, the higher the chi square score, the more likely it is to be significant, and the more likely we will reject the null hypothesis and conclude the variables are related.

Looking at the crosstabs table below, it is seem that there are more People having Enough but not necessarily the kind of food they desire on Small Farm Categories households than would be predicted if the null hypothesis (that the variables are independent) were true. The question is whether these variations are significant enough to establish that the small farm categories variable and enough but not necessarily the types of food they seek variable are linked. The chi square statistic comes into play here.

The Pearson Chi-Square metric is of significance to us. The chi square statistic appears directly to the right of "Pearson Chi-Square" in the Value column. In this case, the chi square statistic value is 111.205.

**Table 6:**  
*Chi-Square Tests*

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	111.205 <sup>a</sup>	9	.000
Likelihood Ratio	75.961	9	.000
N of Valid Cases	371		

a. 9 cells (56.2%) have expected count less than 5. The minimum expected count is .05.

**Source: Field Survey, 2022**

In the "Asymptotic Significance (2-sided)" column, the p-value (.000) is found in the same row. If this number is equal to or less than the prescribed alpha level, the result is significant (normally .025). Because the p-value is less than the typical alpha value in this circumstance, we'd reject the null hypothesis that the two variables are unrelated. Simply

put, the finding is noteworthy - the data indicates that the variables Farm Categories and Food Consumed in the Household are linked.

## Conclusion

The article investigates the relationship between land tenure and food security in Bardiya. "Tenure" is a social concept that defines the connections that bind people and groups of individuals, establishing rights and duties related to land management and use. The kind of legal estate that exists on a block of land, such as freehold, leasehold, mortgage, or occupation, is referred to as "land tenure." It is estimated that over a billion individuals are malnourished due to a lack of dietary energy. The majority of current research focuses on improving food insecurity monitoring because indicators drive action. Because assessing food security, a nebulous notion, is difficult, future occurrence rates and trends are unknown. The study's overarching goal is to determine the impact of land tenure practices on food security. To gain access to the paper that summarizes the link between land tenure practice and food security. The research in this study was examined using data from my PhD dissertation. From a total of 5981 households, 371 were chosen at random for the research. To examine if there is a link between land tenure and food security, a Chi-square test was used on two category variables. The key variables Kitchen garden and Own agricultural land; Farm Categories and Food Consumed are linked, according to the data. The p-value (.000) appears in the "Asymptotic Significance (2-sided)" column of the same row. The result is noteworthy if this value is equal to or less than the required alpha level (normally.025). The result shows that there is relationship between land tenure and food security.

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