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# Agriculture Production Pattern and Economic Impact of the Magar Community: A Study of Kalika Municipality Chitwan

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#### **Abstract**

The Magar is one of the indigenous nationalities of Nepal having with special practice and pattern of agriculture-based economy. The study analyzes agriculture production pattern and economic impact of the Magar living in Kalika municipality Chitwan. The main objective of the study is to analyze how agricultural practice and pattern supports in the livelihood strategy the major. It follows more qualitative and quantitative research design and used both primary and secondary source of data. Findings and conclusion of the study is based on primary data collected from the field study. Primary data were collected through individual interviews and observation. In the course of field visit 50 farmers were randomly selected as respondents. It is found that traditional agriculture based economic pattern of the Magar of study area is changing due to the shifting pattern of livelihood.

Keywords: Magar, economic pattern, agriculture, livelihood

## Introduction

Economic pattern of Nepal is based on agriculture economic survey report 2022 noted that 60.4 % population followed agriculture is the main occupation. (Economic Survey Report, 2022). Livelihood strategy of majority population Nepal based on agriculture. Basically, economic pattern of indigenous people like the Magar, Tamang, Tharu is based on agriculture. In this study, it is analyzed agricultural practice, pattern and economic impact of the Magar living in Kalika municipality Chitwan. The Magar is one of the largest indigenous nationalities of Nepal having with indigenous knowledge of agriculture. Agriculture is the main and traditional economic source of them Hagen, (1980). The settlement of the Magar scattered across the

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nation. Magar (1992) notes about the settlement of Magars as, "According to the group was first mentioned in AD 1100, when the Magar king of Palpa and Butwal, Mukunda Sen, invited first and conquered the Nepal (Kathmandu Valley). It is always understood that resided around Palpa from time immemorial and that they were probably the earliest settlers from the north" (p.45). According to CBS report 2022 total population of Magars confined in 7.6 percentages which is 0.5% higher than the previous census 2011. Historical record showed that traditionally Magars were settled in surrounding area of Gandaki province and hill area of Lumbini and Karnali province like Gulmi, Rukum Argha, Khanchhi, Ghiring, Rising, Bhirkot, Payung, Garhung, Dhor, and Satung. Rana (1981 notes " it is probable that some of the latter places should have been excluded in favour of Palpa, Galkot, Dhurukot, Char Hajar, Parbat, and even Piuthan and Salyan" (1). No doubt that Magars are the traditional dwellers of Nepal having separate indigenous identities. In this regards Shephard (1982) highlights:

Magar is one of the indigenous ethnic nationalities of Nepal. It is one of the bravest communities with its own ancient rich culture. The religions that the Magar tribe inhabit are the districts of Palpa, Gulmi, Argha Khanchi, Syangja, Baglung, Parbat, Myagdi, Tanahu, Gorkha, Nawalparasi, Rupandehi, in the western region, Rolpa, Rukum, Dolpa, Dailekh, Jajarkot, Pyuthan in the Mid-Western region and Ilam, Taplejung, Dhankuta, Sunsari, Sarlahi, Okhaldhunga, in the Eastern region. Besides these areas there are small pockets of Magars spread out in the regions of the hot terai both east and west, and also in the hills and the areas around the central region of Nepal. (p.56)

Above lines indicate the indigenous identities of Magars and their settlement. Magars are not confined in a certain area but also scattered across the nation including neighboring cities of India like Sikim, Simala and Darjali. During the time of unification the great king prithivi Narayan shaha also misused Magars and many of them sacrificed in war under the kingship of Gorkha. Many Magars were killed in war but they are unknown and negated. During later phase of Rana regime, they were involved in British army as name of Gorkha and earned some money as salary. National Planning Commision, (2022). At the same time they joined in other jobs like business, and handicraft that play role on enhanced the economic benefit of the community. Cross (1948) highlights the militant job of the Magar and notes:

The Magars are prominently represented in Nepal's military as well as in British and Indian Gurkha regiments along with the Gurung, Rai and other martial ethnic groups from the hills of Nepal. Magars are spread not only within Nepal but also in other neighboring countries of Nepal like Bhutan, Burma, and Bangladesh and in Dehradun, Sikkin, Assam, Nagaland and Bhaksu in India. (3)

During the period of working military force, Magar settlement was scattered outside the nation because British company play role to disperse the population from one nation to another nation for militant purpose. Magar, (1992). Army job not only destroyed the traditional skills and crafts of Magar but also encouraged them to shift from traditional identities to new one, however, the process brings certain positive transforms on economic status. Bhusan (2009)

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highlights, "The terms 'socio-economic' status means in a system of social stratification, it refers to combination of various social and economic indexes of rank which are used in research studies. The term is offer used to deal with stratification in a society without the need for the assumption that these are distinct social classes" (p.5). In economic status various components like jobs, pattern of life style, manner of spend money and nature saving and earning. Agriculture is the most important and sustainable economic source of the Magar of study area so production pattern of agriculture is analyzed in this study.

#### **Reviews**

The Magar is one of the interests of subject on research so that various researchers and writers from home and abroad Dahal (2007) notes," The Magar could not get benefit from agriculture due to certain regions like lack of sufficient cultivate land, irrigation facilities in the land and fertilizers' facilities. If they product in the surrounding of difficult they do not get reasonable price in market"(9). Like that, Neupane (2020), analyzed that "The poverty is one of the social phenomena of the Magar that is related to illiteracy, working age, occupation, size of land holding, low health condition, low sanitation provision, polluted water supply, low income, unemployment, low participation in decision making is the cause poverty and which are social norms" (p. 8). Economic situation of the Maagr is not so good in Nepal due to various reasons; however, they are one of the oldest indigenous of Nepal. William, Kirkpatrick (1969) notes with his book, "An Account of the Kingdom of Nepal (1811) is the first scholar who wrote about the Nepal and encouraged other to establish a tradition to study in Nepal. The other foreign scholars mainly such as Hodgson (1970) had made a study on Nepal and Nepalese societies whose contribute are also must valuable for ethnic and tribe study. Bista (1976), describe the Magar economy depends on agriculture. They grow the standard food grains; corn; millet, wheat and barley in the dry terraced field. Besides these many varieties of vegetables and fruits are grown up by them. From agricultural field Magars were more dependable they bought everything from the agricultural products. Like that Hitchcock (1976), said "The Magars of Banyan hill are subsistence farmer and buck of their food comes from maize, millet. wheat and barley. They grow rice in irrigated land" (p. 4). Magars are actively involved in agriculture related activities with emphasizing the production of maize, millet and rice in pain area; however, they do not like to grow vegetables and fruit in their land. Including agriculture, they also follow animal husbandry as supporting of livelihood. Specially, they keep pig, goat sheep and chicken as main. These animals are used for meat.

# Study Area and Methodology

Kalika municipality ward no 8 is the study area of this study that is located in 150 km far from Kathmandu, capital city of Nepal. It is located in Bagamati province of Chitwan district. The area is one of the core areas of the Magar where Magars have been living for hundred years around. They follow agriculture and animals' husbandry as main source of livelihood. According to the recorded of municipality (2021) there are 171 Magars' households are remained. More than 90% household follow agriculture as main source of livelihood.

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The study follows the more qualitative and quantitative research design and analyzed the data collected from the field. Both primary and secondary source of the data were included in this study. Primary data were collected through interview schedule and observation. During the time of field visit I had observed the livelihood pattern of the respondents related agriculture and animal husbandry. Purposive random sampling method was used and 50 respondents were selected for this study and questions were asked to them in according to the objective. Secondary source of the data was collected through library research method. Books, articles, reports and other published documents were the main source of secondary data. Conclusion of this study has been made on the basis of primary source of the data.

## **Socio Economic Status of the Respondents**

In this study 50 respondents were participated. All of the respondents are from Magar community and all of them are farmer, however, their age, sex, education status and marital status is different. The following table shows the sex, age and education status of the respondents.

Table 1: Sex, Age and Education status

S.N.	Age	No	%	Sex	No	%	Education	No	%
1.	15 to 25	4	8	Male	24	48	primary	20	40
2.	25 to 35	6	12		26	52	Secondary	16	32
				Female					
3.	35 to 45	10	20	Total	50	100	Bachelor	10	20
4.	45 to 55	20	40	-			Above	4	8
							bachelor		
5.	Above 55	10	20	-	-	-	Total	50	100
6.	Total	50	100	_	-	-	-		

Source: Field Survey, 2023

Table 1 notes the social status of the respondents like age, sex, education status. Data indicates that 8% are between 15-to-25-year age group, 12% are age group 25 to 35 year and 20% are 35 to 45 years age group. Like that 40% are between 45-to-55-year age group and 20% are above 55 years. While analyzing the sex status of the respondents it is found that 48% are male and 52% are female. Like that 40% respondents are only literate and 32% are only passed secondary, 20% passed bachelor and 8% passed above bachelor. The following table highlights land holding size, annual income and annual expenditure.

Table 2: Land Holding Size, Annual Income and Annual Expenditure

	Land Holding	No	%	Annual	No	%	Annual	No	%
S.N.	Size			Income			Expenditure		
1.	up to 10	16	32	up to 2lakh	10	20	up to 2lakh	8	16
	kathha								

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2.	10 to 20 katha	14	28	2 to 4 lakhs	14	28	2 to 3 lakhs	14	28
3.	20 to 40 katha	12	24	4 to 6 lakhs	16	32	3 to 4 lakhs	16	32
4.	above 40 katha	8	16	above	10	20	Above 4 lakhs	12	24
				6lakh					
5.	Total	50	100	Total	50	100	Total	50	100

Source: Field Survey, 2023

Above table notes the land holding size, annual income and annual expenditure of the respondents. Data indicates that 8% have up to 10 kath land and 28% have 10 to 28 lands, like that 24% have 20 to 40% land and 16% have more than 40 kath land. While analyzing annual income of the respondents 20% earn up to 2 lakhs, 28% earn 2 to 4 lakh and 20% earn above 6 lakhs. In expenditure, 16% spend up to 2 lakhs, 28% spend 2 to 3 lakhs, 32% spend 3 to 4 lakh and 24% spend above 4 lakhs.

## Agriculture as Main Livelihood strategy

In study area respondents have no other resources to sustain their livelihood except agriculture and animal husbandry, however, since last 30 years their life style dramatically changes and economic responsibility also increase with the changing status of life style. This pattern has changed gradually with the implementation of the state rules in the area, at the same time the private ownership of land was institutionalized all over Nepal. Nowadays every family owns a few numbers of livestock and a piece of land. Similarly, cultivation pattern and livestock raising practices changed widely. To survive in the changing economic environment Magar community also follows the certain rules of adaptation and fit them with changing environment. Fricke, (1990) highlights, "In the beginning adaptation was considered as coping mechanism with local environment. The earlier studies had tendencies to stress equilibrium aspect of cultural adaptation to environment" (p.4). In study area many people depended on agriculture, animal husbandry, trade, labor and employment for their survival. However, many traditional communities have now been exposed to outside world and monetized economy due to the national and international intervention and development. The Magar community mainly depend on agriculture and herding. However, there are differences in economic strategies among them. While observing their adaptive strategy for survival, it is found that the access to pasture land, trade pattern, seasonal labor availability, cultural attitude towards animal husbandry and education. These constraints have determined the adaptive process of the community. Depending not only on prime or major crops (rice, maize) but also on alternative crops/vegetables (cauliflower, tomato, cabbage, spinach, and seasonal fruits) that could help them to sustain everyday life in a better way.

Agriculture as a Primary Source of Economy Agriculture is a very important occupation for most of the Nepalese people. It plays a significant role in socio-economic lives of most of the people of Magars. Paddy, maize, millet and wheat are the major crops grown in study area. Cultivation pattern is being changed because of the various reasons. Maize, millet, wheat is

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produced to fulfill the need of family, however, pumpkin, bean and ladies' finger are produced as vegetable for sale in the summer season. Like that in winter season, cauliflower, radish, and other green vegetables are produce in winter season and sell in local market. The following table shows the crops calendar of study area.

**Table 3: Crops Calendar of Study Area** 

Major Crops	Planting Months	Harvesting Months
Paddy	Ashadh (June)	Mangsir (November)
Maize	Both Summer and Winter	Summer and Winter
Millet	Falgun (March)	Ashad (June)
Wheat	Mangsir (December)	Chaitra (March)
Seasonal	All over the year	All over the year All
Vegetables		over the year
Seasonal Pulses	Bhadra – Asoj (Sep. – Oct.)	Mangsir to Falgun
		(November to March)
Seasonal Fruits	All over the year	All over the year

Source: Field Survey, 2023

In the study area major crops are cultivated during summer and rainy season and harvest in winter season. The above table shows that the Magars produce different types of crops over the year. Mostly they grow paddy, millet, maize and wheat. They also grow pulses, seasonal vegetables and fruits to sustain their life. Most of the Magars grow these things in their own field or share crops system. Basically, pulses like bean, gram, lentil / black bean are produced during winter season and other vegetables produce in summer and rainy season. The following table shows the production pattern of crops and vegetables by respondents.

**Table: 4 Production Patterns of Crops and Vegetables** 

S.N.	Crops and Vegetables	No	%	Production	Earning Per	
	Names	Respondents		Quantity Per	Years	
				Years		
1.	Crops (maize / paddy /	30	60	20-30 quintal	1 to 150 lakhs	
	white / millet)					
2.	Pulses (bean/ horse gram/	12	24	up to 6 quintals	60 thousand to	
	gram, white bean / lintel				1 lakh	
3.	Vegetables/ fruit	8	20	up to 15 quintals	up to 2 lakhs	
4.	Total	50	100	-	-	

Source: Field Survey, 2023

Table 4 shows the pattern of crops and vegetable production and the earning from this agricultural product. It is found that 60% respondents only product crops like maize rice millet

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and 24 product pulse and only 20% involved in vegetable faring and also earn up to 2 lakhs from vegetable. Comparatively respondents get more income from pulses and vegetable.

#### **Animal Husbandry as Secondary Occupation**

In study area animals' husbandry is taken as secondary occupation or complementary of agriculture. The area is known as pocket zone of goat. Goat selling is the main source of income of the respondents after vegetables and cash crops; however, animal husbandry system has changed slowly. Animal husbandry was numerically more in the past, but these days' people keep only a limited number with stall fed system. One of the reasons is their children started to go to the school. Therefore, they felt difficulties to handle large number of animals. Similarly, those who were mostly dependent over community forest reduced the number of their animal because of a regulatory harvesting in order to prevent resource degradation. Thus, community forestry has restricted trans-human herding. Animal husbandry is secondary occupation of Magar community in the study area. It provides subsistence for Magar people. Buffalos and cattle are kept for milk, manure and as plough animal. Most of poor households of Magar community are farming small animal like chicken, goats, pigs etc. for consumption and money for emergency expenditure. The following table shows the situation of having animals with respondents.

**Table: 5 Animal Husbandry of the Respondents** 

S.N.	Animals having respondents	Respondents no.	%
1.	Cow / buffalo	20	40
2.	Cow /buffalo / goat / pig	14	28
3.	Cow / buffalo / pig/ goat / chicken	6	12
4.	Only goat and chicken	10	20
5.	Total	50	100

Source: Field Survey, 2023

Table 5 notes the respondents having animals in their home. Data indicates that 40% respondents have only caw and buffalo, 28% have cow/ buffalo/ goat/ pig and 12% have cow/ buffalo/ pig/ goat / chicken, however, 20% only have goat and chicken. Majority of the respondents have cow and buffalo because they need manure for land.

## Conclusion

Magars are one of the indigenous nationalities of Nepal known as the children of land so that their livelihood is based on agriculture related to work. They are expert in crops production in both hill and plain area. In the past crops production was main activities of agriculture but now they are involving in vegetable farming and animal husbandry. From vegetable farming and animal husbandry, they earn higher than the crops production. From agriculture work it is difficult to maintain livelihood of the respondents, however, they have no other option so that they are compel led to change the pattern of agriculture work with the demand of time. They

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want to increase production of cash crops like green vegetables and spices; however, government and non-government organizations could not think about such direction. Annual income of the respondents is not so lower than the national per capita income. They earn more than 2 lakh per years which is higher than the national per capita income. From this study it is proved that agriculture related work is also maintain the basic needs of people living in rural area if government bring proper policy on that. Animal husbandry also play role to increase income of the respondents so that government should bring the policy to enhance program related to both animal husbandry and cash crops for sustainable livelihood of the Magar people living in study area.

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