

RESEARCH ARTICLE

Migration and Agricultural Production: Analysis of Farming Communities of Lamjung District of Nepal

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Received: 10-09-2018; Revised: 11-10-2018; Accepted: 12-01-2019

ABSTRACT

123 household from Madhya Nepal Municipality of Lamjung District was selected to study socioeconomic trend of the remittance-receiving households and the effect of international labor migration in agricultural activities management. Purposive snowball sampling technique and semi-structured questionnaires were used. The study showed that majority of household heads were male (61%) and female (39%), were involved in agriculture occupation. Migration is the major source of income followed by agriculture. The main destination of migrant was gulf country, i.e., 81% followed by India (16%) and 3% were in developed countries such as the UK and the USA. Major affected factor by migration was found to be agriculture labor shortage (32%). Correlation showed that there is negative and significant relation between migration and labor used (-0.216^*) and change in cropping pattern (-0.275^{**}). It implies that migration leads to labor shortage which leads to change in cropping pattern.

Key words: Agriculture, remittance, youth migration

INTRODUCTION

An increasing number of people worldwide are migrating to improve or secure their livelihoods, and mountain regions play an important role in this trend. Migration is often the result of a combination of push factors (e.g., conflict, poverty, and disaster) and pull factors (e.g., job opportunities).^[1,2] Migration is the continuous process. Whether migration will improve or worsen the condition in these farm household and their community in the long run is a debate. As migration, in one hand, can have a positive impact on young people by opening up new opportunities, a path to participate in higher education, a better and decent job, and thus solve a crucial problem of unemployment, in other hand, it can reduce farm labor and subsequently lowered down the agricultural production. In Nepal's case, at present, remittance is becoming the backbone of Nepalese economy and it is widely believed

that 22% of GDP is contributed by remittance resulting from the involvement of almost 2 million of Nepalese youths in foreign employment.^[3] The unemployment rate of male was 6.6 and female was 4.0 and average was 5.3%.^[4] Considering that, much of Nepali society is still agrarian and most of its labor force is in the agriculture sector, the dismal economic scenario has influenced many individuals to look at foreign employment as an alternative livelihood strategy.

MATERIALS AND METHODS

The study was carried out in Madhya Nepal Municipality of Lamjung district midhills of Nepal during 2015/16, which lies in the geographical coordinates of 28° 12'0"North 84°22'0"East [Figure 1]. Randomly selected 123 households, of which 40 were from Brahmin ethnic group while 57 were from Janajati community and 26 from Dalit community. Firsthand information was obtained by face-to-face interview based on prestructured questionnaire. Snowball sampling design was done for survey and key informant

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interview was carried out. Secondary data were taken from DADO Lamjung, books, internet along with reports of different INGO/NGOs. The pre-testing of questionnaire was done on five households of Sundarbazar Municipality and correction was made in finalized questionnaire. After, collection of primary data from the field survey was entered into MS Excel version 2010. Data were analyzed using descriptive statistics such as frequency counts, percentages, mean, and median while Pearson’s correlation analysis, etc., by SPSS version 16.0. The analyzed data were presented using text, table, graph, and pie charts with the help of MS Excel.

RESULTS AND DISCUSSION

Sociodemographic status of respondents and their households

Table 1 represents the sociodemographic characteristic of the respondents, there are 61% of male while 48% were female. It was found that most of the responded/farmers were Janajati which was 46.6%, the number of Brahmin/Chhetri was 32.5 and the number of Dalit was 21.1%, respectively. Among the total number of respondents, illiterate respondents were 52, literate respondents (read/write) were 13.8%, and respondents with primary, secondary, and intermediate level of education were 13%, 18.7%, and 2.4%, respectively. Most of respondent children enrollment in government school, i.e., 73.2% followed by 16.3 and five in private school, whereas 10.6% of children’s still not involved in school. It was found that 67.5% of responded family were nuclear family type, whereas 32.5% were lived in joint family.

Migration status in foreign (abroad)

Majority of youth migrate to gulf country, i.e., 81% followed by India (16%), developed country (3%) such as Japan and the USA. Until 1981, India was the only destination for Nepalese workers, except for a few joining the British army and some movement to other countries. However, now, migration to the Gulf States and Malaysia has dramatically increased.^[5] In our study [Figure 2], 41% of migrant involve in wage labor followed by 21% in service, 17% in private security, and 2% in agriculture and government services, whereas 11% were

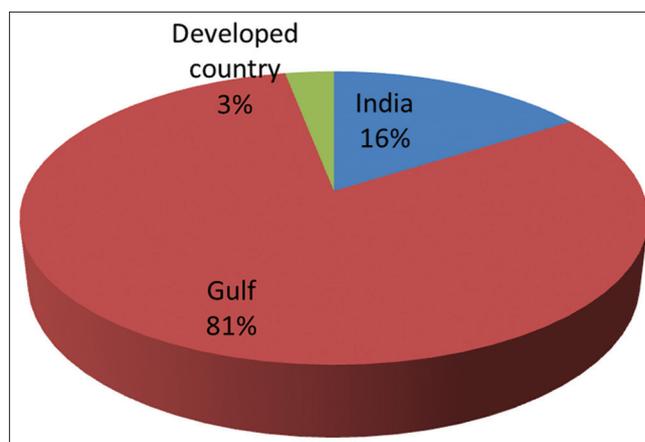


Figure 1: Destination of migrants in abroad at Madhya Nepal Municipality of Lamjung during 2018. Source: Field Survey, 2018

Table 1: Sociodemographic youth migrant at Madhya Nepal Municipality of Lamung during 2018

Parameter	Total (%)
Gender	
Male	75 (61)
Female	48 (39)
Total	123 (100)
Ethnicity	
Brahmin/Chhetri	40 (32.5)
Janajati	57 (46.3)
Dalit	26 (21.2)
Total	123 (100)
Education status	
Illiterate	64 (52)
Read and write	17 (13.8)
Primary	16 (13)
Secondary	23 (18.7)
Intermediate	3 (2.4)
Total	100
Type of school	
Private	20 (16.2)
Government	90 (73.3)
Do not go school	13 (10.6)
Total	123 (100)
Family type	
Joint family	83 (67.5)
Nuclear family	40 (23.5)
Total	123 (100)

Source: Field Survey, 2018

involved in other serviced (Undefined). As per a joint national report of GIZ and ILO, 74% of migrant workers are unskilled in Nepal during the FY2014/15.^[6] The proportion of the skilled migrants at Sundarbazar was found to be quite high than the national average. The number of the skilled migrants was almost proportionate to the status of the training received by them.

Effect of migration on agricultural labor

Significant result was found between labor problems and migration. It means that migration leads to problems in labor force [Table 2]. The study done in Portugal on migration and agricultural development showed that the lost labor was not replaced by remittances; in fact, remittances are seldom invested in land or other capital inputs needed to improve the agricultural sector,^[7] which is accordance to our finding. Majority of household who were depended on family labor for major agricultural activities have now turned to hired labor with the increased agriculture workload by the remaining family

Table 2: Problem of agricultural labor due to migration at Madhya Nepal Municipality of Lamjung during 2018

Labor problem due to migration			
	Observed N	Expected N	Test value
Yes	85	61.5	Chi-square 17.959**
No	38	61.5	Sig. 0.000
Total	123		

**Data are significant at $P=0.01$. Source: Field survey, 2018.

Table 3: Solution of problem of agricultural labor due to migration at Madhya Nepal Municipality of Lamjung district during 2018

Solution of labor problem	Frequency
Hiring of labor	20 (16.3)
By working with neighbor	18 (14.6)
With the help of children	7 (5.7)
Reducing area of cultivation	22 (17.9)
Hiring and working with neighbor	56 (45.5)
Total	123

Source: Household Survey, 2018

members. The study conducted in Syanjha district during 2013 showed that migrant HHS used significantly more hired labor and less family labor than non-migrant households.^[8] Rozelle *et al.*^[9] found that, in China, even though overall remittance had a positive impact the loss of labor had negative impacts on maize yields. The negative impact through labor loss was not sufficiently replaced by remittance investment in farming, thereby leading to an overall negative impact on maize yield.

In contrary to that, there are other studies that have found that migration leads to an improvement in agricultural production. In one such study reported that migration and remittance positively influenced smallholder agriculture in the Southern Ecuadorian Andes.^[10] The study reported that “outmigration has lost labor effects, but international remittances have investment promotion effects” that result in increased maize production.

Solution of problem of agricultural labor

For addressing the labor problems in agriculture farmers adopt the different technique such as labor hiring, help of children, and old [Table 3]. In our study, Table 4 showed that farmers of Lamjung district purchase of hire the neighbor labor which account 45.5% followed by hiring the labor from outside which account 16.3%. Only 7% of farmers involved their children in agriculture cultivation activities. Seasonal unavailability of labor reduced the cultivation area. Farming was also not disrupted due to the absence of male laborers from out

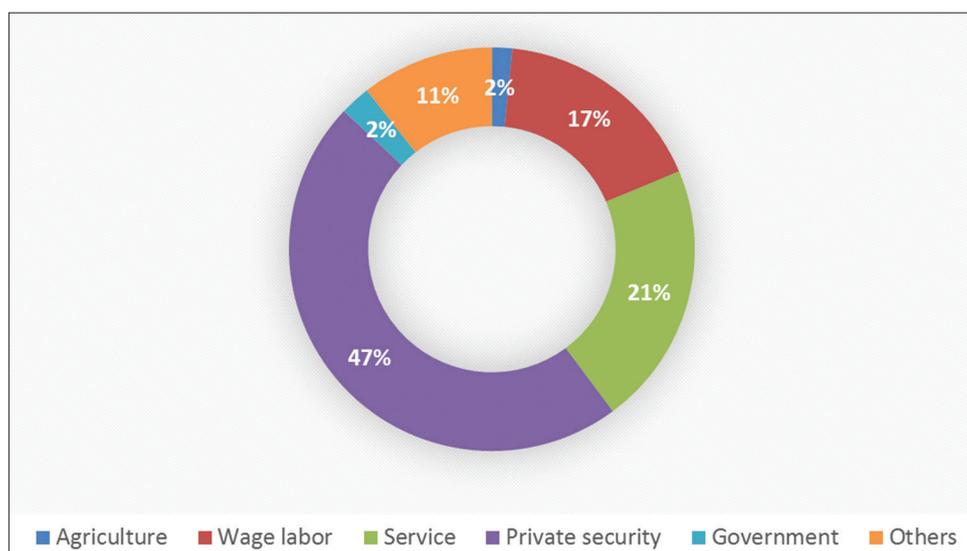


Figure 2: Work sector of migrant in abroad at Madhya Nepal Municipality of Lamjung district during 2018. Source: Field Survey, 2018

migrant households due to the growing land renting practices. Unproductive and distant land was converted to plantation, thus playing a positive role in the conservation of resources.^[11] Reduction of cultivation area is not effective solution for labor problems.

Effect of migration on agricultural production, food, and income

Major impact of migration in agriculture production was found to be low income, low agriculture productivity, and low labor shortage [Figure 3]. We argue that migrate has negative impact on agriculture production. Figure 4 shows that agriculture labor shortage is the main impact of migration, i.e., 32% which ultimately lower the productivity of agriculture. Germenji and Swinnen^[13] reported that the major reason for the lower crop output can be attributed to changes in the type of labor involved in farming, with less family labor and more hired labor, leading to a reduction in labor efforts. In contrary to that, there are other studies that have found that migration leads to an improvement in agricultural production. In one such study, Gray^[10] reported that migration and remittance

positively influenced smallholder agriculture in the Southern Ecuadorian Andes.

Correlation between the effect of migration (i.e., number of migration) to labor problems and change in cropping pattern

Table 4 shows that negative and highly significant relation between migration number and change in cropping pattern it means that number of migration increases it leads significantly reduced in cropping pattern. Negative and significant correlation exists between migration number and labor problems. It means that more the numbers of migration more will be labor problems. From this correlation table, we concluded that migration leads to reduction in labor number its ultimately reduced the cropping pattern and agriculture production because Nepalese agriculture is labor oriented. A study conducted in Bihar, India showed that the migrant HHs had utilized human labor more judiciously than non-migrant households in rice cultivation where regression coefficient of labor was positive and statistically significant on migrant HHs which was negative in the case of non-migrant households,^[12] which is lined with our finding.

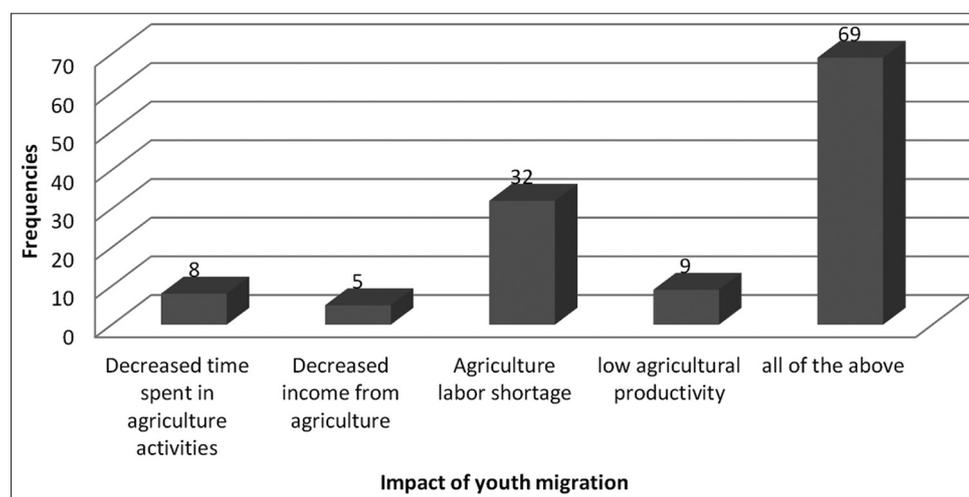


Figure 3: Impact of youth migration in agriculture at Madhya Nepal Municipality of Lamjung during 2018. Source: Field survey, 2018

Table 4: Correlation between the effect of migration (i.e., number of migration) to labor problems and change in cropping pattern at Madhya Nepal Municipality of Lamjung during 2018

Migration	Total number of members abroad	Change in cropping pattern due to migration	Labor problem due to migration
Total number of members abroad	1		
Change in cropping pattern due to migration	-0.275**	1	
Labor problem due to migration	-0.216*	-0.247**	1

Source: Field survey, 2018. **Correlation is sig. at the 0.01 level (two tailed). *Correlation is significant at the 0.05 level (two tailed)

CONCLUSION

The effects of youth migration on rural farming communities had been a contending issue in literature and based on the economic theory of migration, people migrate because it is for their benefit. However, the study revealed that youth migration has some negative consequences on the rural areas where the migrants left. Migration of these active and agile people may result in leaving farming activities in the hands of the women and aged people, thereby causing a drastic reduction in the level of food production in the state. From the study, it has been revealed that agriculture and remittance are the major income activities. The root causes of outmigration include but not limited to rural poverty, food insecurity, increased competition for natural resources and environmental degradation, limited income generating activities, poor infrastructure, and social services. Gulf countries were main destination of migration and chiefly migrants were involved in private security and service sector employment. After migration of youth, majority of the agriculture activities were managed through hired labor after the migration which was before managed through family labor. The major effect of youth foreign migration was labor scarcity which effected in the agricultural production, food, and income of the households.

ACKNOWLEDGMENT

Authors were grateful to Mr. Shishir Sharma, Mr. Bhanubhakta Adhikari, Mr. Nirmalsapkota, Mr. Balkrishna Dahal, Mr. Santosh Subedi, and Mr. Kamal Regmi for their support and valuable suggestion.

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