

CASE STUDY

Effect of Remittance on Farmer's Livelihood: A Case of Sundarbazar Municipality, Lamjung

Nawaraj Dulal¹, Mahesh Jaishi¹, Santosh Khanal², Lal Bahadur Chhetri³, Bishnu Prasad Kandel⁴

¹Department of Agriculture Extension, Tribhuvan University, Institute of Agriculture and Animal Science, Lamjung Campus, Sunderbazar, Lamjung, Nepal, ²Department of Agriculture Extension, Tribhuvan University, Institute of Agriculture and Animal Science, PG Program, Kirtipur, Kathmandu, Nepal, ³Department of Horticulture, Tribhuvan University, Institute of Agriculture and Animal Science, PG Program, Kirtipur, Kathmandu, Nepal, ⁴Department of Plant Breeding, Tribhuvan University, Institute of Agriculture and Animal Science, PG Program, Kirtipur, Kathmandu, Nepal

Received: 20-10-2018; Revised: 26-11-2018; Accepted: 04-12-2018

ABSTRACT

The study was conducted in Sundarbazar Municipality, Lamjung, western part of Nepal with primary objective of studying socioeconomic trend of the remittance-receiving households (HHs) and the effect of international labor migration in agricultural activities management. For the study, 60 HHs where at least one of the members were international labor migrant for >1 year; 20 each from Brahmin/Chhetri, Janajati/Ethnic, and Dalit community were selected purposively. The HH snowball sampling technique and semi-structured questionnaires were used. The study showed that majority of HH heads were female (68.3%), 80% of whom were involved in agriculture occupation with 50% HHs food insecure. Out of the total monthly cash income, 86.65% was contributed by remittance and 29.83% was used for food expenditure. The major push factor for migration was found to be unsatisfactory income (40%) where the 38.3% of the migrants were 26–30 years of age at the first migration with major destination as Gulf countries (80%). Similarly, 21.7% of HHs purchased agricultural land and the landholdings after the migration were found higher than before (7.3 vs. 6.2, $P < 0.05$). The major part of the agricultural activities after the migration was done with the hired labor (41.7%). Agricultural workload was perceived to be increased by 56.7% of HHs. Further, 26 HHs responded that livestock number decreased and 43% of HHs perceived no change in overall land productivity. Scaling technique showed that the average scale value for the inputs (chemical fertilizers, farmyard manure, and improved seeds) used after the migration was found to be 0.75 where 34 HHs had higher scale value than average which was moderately correlated (0.38) to the duration of migration.

Key words: Agriculture, livelihood, remittance

INTRODUCTION

In Nepal's case, presently, remittance is becoming the backbone of Nepalese economy and it is widely believed that 22% of gross domestic product is contributed by remittance resulting from the involvement of almost 2 million of Nepalese youths in foreign employment.^[1] Although out-migration of human resources itself is not an encouraging sign for any economy, the further

disappointing fact is that only negligible numbers of migrants from Nepal are involved in skilled job. It is widely believed that alarming number of migrant workers from Nepal is unskilled (69.1%) while corresponding figures of semi-skilled, skilled, and highly skilled are only 27.1%, 3.4%, and 0.4%, respectively.^[2] In addition, the unemployment rate of male was 6.6 and female was 4.0 and average was 5.3%.^[3] While seasonal migration to India, especially from certain areas of Nepal, has had a long history, the liberalized economy and political environment of the nation after the 1990s formalized labor migration as an opportunity for employment. The lack of

Address for correspondence:

Nawaraj Dulal,
E-mail: ndulal@email.uark.edu

jobs and increasing income gaps acted as push factors for the youth to explore foreign markets for employment opportunities.^[4] Further, national report of National Pan-Hellenic Council^[5] showed that one in every 1 h (25.42%, 1.38 h) reported that at least one member of their household (HH) is absent or is living out of country.^[6]

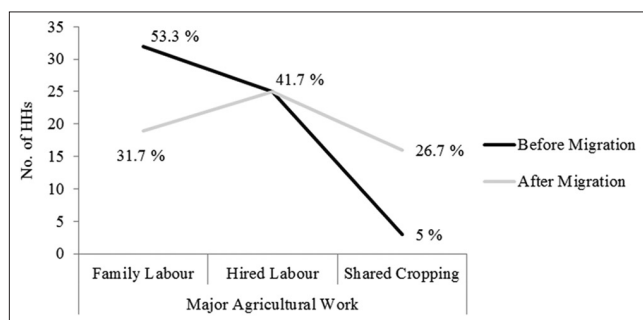


Figure 1: Major agricultural activities labor management in migrant households (HHs) before and after migration in Sundarbazar, 2016. Source: HH Survey, 2016

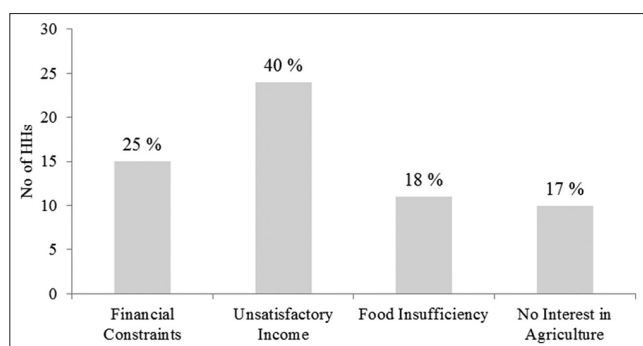


Figure 2: Reasons behind the migration in Sundarbazar, 2016. Source: Household survey, 2016

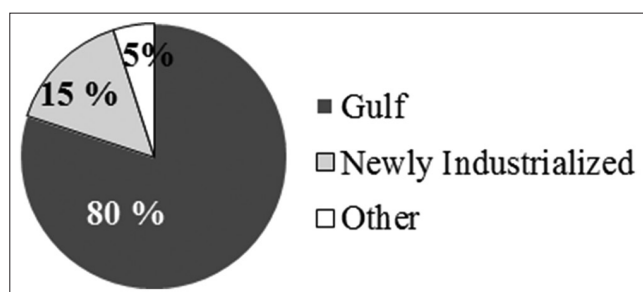


Figure 3: Migrants destination countries' categories. Source: Household survey, 2016

Migration may also have direct effects on agricultural production. If rural markets function well, the effects of migration on agricultural production should be minimal. HHs that send out migrants would be able to hire labor to substitute for the labor that migrants would have provided on the farm, and if necessary HHs could borrow money for inputs before production. However, if land, labor, or credit markets are incomplete, migration could have either positive or negative effects on HH production. If HHs lack access to liquidity or credit, migrant remittances may help relax other constraints on agricultural production; as a result, HH production or productivity may rise with migration. Therefore, the possible effects of migration on agricultural production are theoretically indeterminate. Essentially rural agriculture HH livelihood strategy in Nepal is categorized into three division such as subsistence agriculture, livelihood diversification through non-farm activities, and seasonal or permanent migration. Moreover, in the macroeconomic context, the percentage of HHs receiving remittance has increased from 23% in 1995/96 to about 56% in 2010/11 and the share of remittances in HH income increased from about 27% to about 31% during the same period.^[7] However, contrary to above context, only 2% of remittance is used for capital formation^[6] and instead of generating demand for domestically produced goods, remittances are leading to more consumption-led imports. Although migration has positive impact on macroeconomic indicators and livelihood of rural population, nevertheless, it is imperative to recognize the consequences on the rural agriculture sector in short and long run both.

MATERIALS AND METHODS

Selection of the study site

The study was carried out in different wards of Sundarbazar Municipality, Lamjung, that is, from 2 to 10 during January 2016. The feasibility of the study

Table 1: Landholdings before and after migration in different ethnic community in Sundarbazar, 2016

HH Ethnicity	Landholdings category before migration (ropani)				Landholdings category after migration (ropani)			
	<2	≥2-<5	≥5-<10	>10	<2	≥2-<5	≥5-<10	>10
Brahmin/Chhetri (number of HHs)	1	7	5	7	1	3	9	7
Ethnic/Janajati (number of HHs)	2	11	4	3	1	11	5	3
Dalit (number of HHs)	10	6	1	3	10	5	2	3
Total number of HHs	13	24	10	13	12	19	16	13

Source: HH Survey, 2016, HH: Household

was determined through the evaluation of the site with reference to the previous research works in the place of the similar nature. Basis of the selection of the site was as follows: (a) High labor migration, (b) higher number of farm HHs, (c) ethnic diversity, (d) mixed settlement of different ethnic communities, (e) rural-urban continuum, and (f) accessibility.

Sampling design and sample size

Snowball sampling design was used for the selection of the HHs for the survey which was purposively selected as per the objectives of our study. Sample

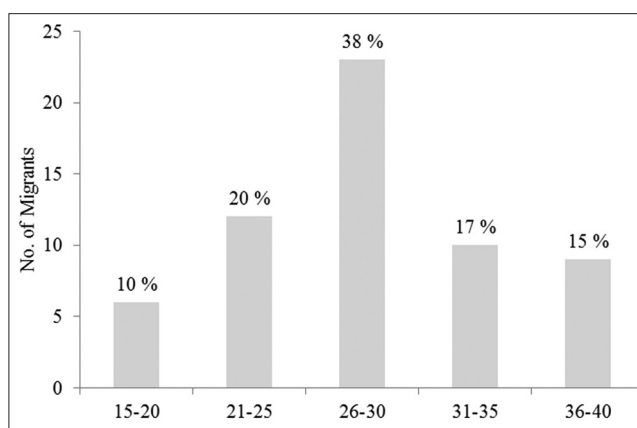


Figure 4: Age of migrants at the first migration in Sundarbazar, 2016. Source: Household survey, 2016

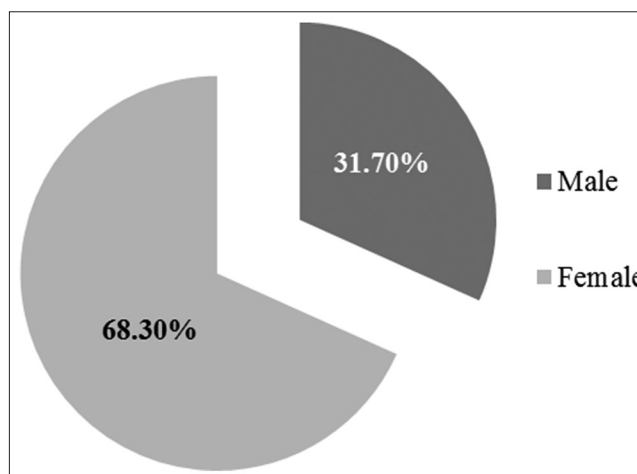


Figure 5: Household (HH) head gender in migrant HHs in Sundarbazar, 2016. Source: Household survey, 2016

size was 60. The size was stratified as 20 each from Brahmin/Chhetri, Janajati/Ethnic, and Dalit/oppressed community. The samples were basically remittance-receiving farm HHs with at least one of the members of the family was international labor migrant for more than a year. Similarly, the returnees were also included in the survey.

Questionnaire design

The type of questionnaire was the combination of both close ended and open ended, that is, mixed/semi-structured. Type of administration of the questionnaire was face to face on the doorstep setting.

Sources of information

Primary information

Primary information was collected using semi-structured questionnaires.

Secondary information

Secondary sources of information were different online publications of the Central Bureau of Statistics regarding migration, international journals on migration, different reports issued by migration-related organizations, etc.

Methods and techniques of data analysis

The obtained information was entered through MS-Excel and analyzed with SPSS V16.0 using descriptive statistics (frequency, means, and crosstabs) and inferential statistics (correlation and paired sample *t*-test).

Similarly, scaling technique was used to determine change in use of agriculture inputs.

$$\text{Scale Value} = \frac{\text{Summation of individual scale value}}{\text{Summation of highest possible scale value}}$$

Table 2: Average and change in landholdings before and after migration in Sundarbazar, 2016

Ethnic community	Average landholdings before migration (ropani)	Average landholdings after migration (ropani)	Change in landholdings (mean) in ropani
Brahmin/Chhetri	8.3	10.58	2.28
Janajati	7.1	7.5	0.41
Dalit	3.32	3.77	0.45
Average (ropani)	6.2	7.3	1.05*

Source: HH Survey, 2016, HH: Household. *Significant ($P < 0.05$), 1 ropani 71 ft×71 ft (1 hectare=19.6 ropani)

Different scale values:

1=Decreased inputs.

2=No change in inputs.

3=Increased inputs.

Average scale value=Arithmetic mean of the scale values of 60 HHs.

RESULTS AND DISCUSSION

Effect of remittance on agriculture on sampling HHs

Landholdings

Majority of the HHs had the land category between 2 and 5 ropani both before and after the migration shown in Table 1. Comparing among the ethnicity, migrant HHs from Dalit community majority of them had landholdings <2 ropani before and after the migration.

A study conducted by swiss agency for development and cooperation in two village development committees of Khotang and in Ghaighat, Udaypur, showed remittance was driving social transformation with the exit of wealthier, mainly high-caste HHs to areas of Nepal offering better access to opportunities. Similarly, those who had less assets use remittance to exit from villages to

Table 3: Responses of HHs regarding land productivity in Sundarbazar, 2016

Land productivity of HHs after migration	Frequency (%)
Increased	25 (41.7)
Decreased	9 (15)
No change	26 (43.3)

Source: HH Survey, 2016, HH: Household

Table 4: Responses of HHs regarding livestock number in Sundarbazar, 2016

Change in livestock after migration	Frequency (%)
Increased	9 (15)
Decreased	26 (43.3)
No change	25 (41.7)

Source: HH Survey, 2016, HH: Household

Table 5: Average scale value of the agriculture inputs in Sundarbazar, 2016

Description	Average scale value	HHs with scale value greater than average (%)	HHs having scale value lower than average (%)
Agriculture inputs	0.75	57	43
Chemical fertilizers	0.73	30	70
FYM	0.61	73.3	26.7
Improved seeds	0.9	73.3	26.7

Source: HH Survey, 2016, HH: Household

the district headquarter or to areas closer to markets or buy land in the villages. Similarly, the study also showed that women from poor and medium HHs estimated that they were able to save about 25% of the remittance once the loan had been repaid. The money was invested in education of children, house improvement, and land purchase.^[8]

Change in landholdings

Paired sample *t*-test conducted with landholdings before and after the migration showed significant result. Similarly, landholdings change was higher in Brahmin/Chhetri community presented in Table 2.

Change in land productivity

Regarding the responses of HHs regarding the land productivity, 43% responded that there was no significant change in land productivity after the migration shown in Table 3. In rural part of China, remittances helped loosen constraints on crop production and boosted productivity.^[9]

Change in livestock

Contrary to the response regarding land productivity, the responses regarding livestock trend were just opposite, that is, 43% responded decrement in livestock number shown in Table 4. A study conducted by SDC in Khotang and Udaypur also showed decrease

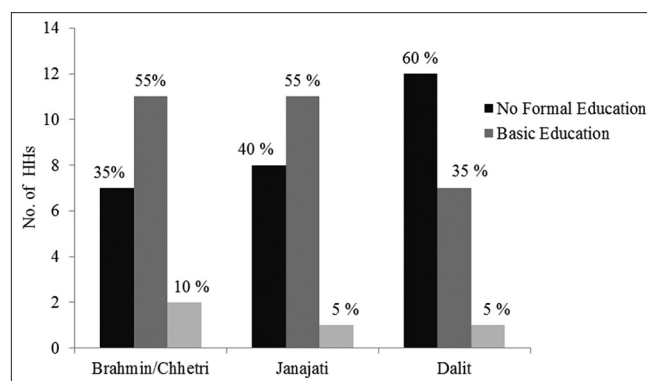


Figure 6: Educational status of the household head in Sundarbazar, 2016. Source: Household survey, 2016

in large livestock due to a lack of labor where high level of labor inputs required for fodder cutting and collection. Similarly, large livestock were replaced by small, less labor-intensive livestock, that is, goats, chickens, and pigs.^[8]

Average scale value of agriculture inputs

Here, in the study, it was found that increased use of the improved seeds was attributed to the higher average scale value of the agricultural inputs shown in Table 5. Similarly, the study conducted on Bihar, India, showed that 7% of the remittance was spent on farm input.^[10] Quinn^[11] argues that while migration has a positive impact on agricultural investment as it reduces credit and risk constraints faced by the farming HH; this positive impact depends on the amount of remittances received by the HH. However, Jokisch^[12] argued that migration did not significantly alter HH cultivation patterns and remittances were also not used for agricultural improvements in Canar Province of Ecuador.

Agricultural activities labor management

Figure 1 present the major activities of labour management before and after migration Majority of the agriculture adopted by farming HHs were of subsistence type with lower landholdings (7.3 ropani). Hence, labor exchange was adopted by most of the farming HHs in the area. The HHs who followed sharecropping were generally found to the HHs with nuclear family type where the adult member was absent. The decreased family labor and increased sharecropping can be justified by the findings that 45% of the HHs were of nuclear family type where the average family members were four with only one family member actively involved in agriculture. A study conducted in

Syanjha district during 2013 showed that migrant HHs used significantly more hired labor and less family labor than non-migrant HHs.^[13]

Reasons behind the migration

In the study, the unemployment as the cause of the migration was included under unsatisfactory income as the migrants were unsatisfied with the type of job and remuneration offered shown in Figure 2. The food insufficient HHs were more related to the Dalit community. The majority of the migrants were 26–30 years of age at the first migration who just completed basic education. Hence, financial constraints and unsatisfactory income were major push factor. Similarly, the survey conducted to study the effect of migration in Bihar, India, showed that remittance contributed 45% of total income of migrant HHs where 31% of total remittance was spent on food.^[10]

Destination countries

Figure 3 shown the migration destination countries The newly industrialized countries included Malaysia and Korea. Similarly, the developed countries and other relatively newer destinations like Afghanistan were included in “other” category. A national level study reported that not only the volume of migration that has changed but also the type with a shift away from India as the dominant migration destination to a more diversified set of destinations. 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.^[7,14]

Socioeconomic trend of migrants

In the survey, it was found that migrants were most productive force of the population where the average current age of the migrants was 33 years. A national study revealed that the highest proportion (44.81%) of absent population is from the age group of 15 to 24 years.^[5]

Age at first migration

In the survey it was found that migrants were most productive force of the population where the

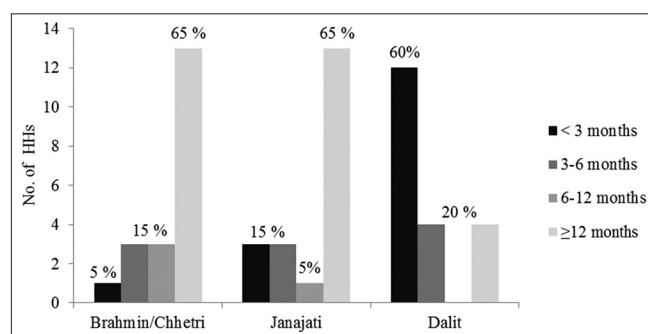


Figure 7: Food sufficiency status of the migrant households from owned land in Sundarbazar, 2016. Source: Household survey, 2016

average current age of the migrants was 33 years shown in Figure 4.

Socioeconomic trend of remittance-receiving HHs

HH head gender

The female-headed HHs had certainly been increased after the migration where nearly half of the total HHs was nuclear type shown in Figure 5. Role of women had changed from a mere family worker to a manager. The change of women's role was more evident in nuclear family HHs where husband had migrated. In joint families, migration did not have much influence on role of women, as head of the joint family generally takes the responsibility of decision-making.

HH head educational status

Figure 6 present the education status of household. Here, in the study, it was found that the educational status of the HH heads of Brahmin/Chhetri and Janajati was somewhat similar, that is, majority of them received formal education. Similarly, majority of the Dalit HH heads were deprived of formal education.

Food sufficiency from owned land

In the HH survey, it was found that half number of the migrant HHs was food insecure from their owned land and among which Dalit community was more affected presented in Figure 7. Similarly, in the national context, the food security is alarming. Out of the 75 districts in the country, 42 are food insecure based on local production.^[15]

CONCLUSION

From the study, it has been revealed that majority of the agriculture activities were managed through hired labor after the migration which was before managed through family labor. Similarly, landholdings changed significantly after migration where the mean change was higher in Brahmin/Chhetri community. Moreover, agricultural inputs use was seen significantly higher with the increasing duration of migration. In addition to that, amount of remittance did not have significant effect on agriculture inputs and livestock. Majority

of house was headed by female, with increased agriculture load. Unsatisfactory income was found to be the major push factor.

REFERENCES

1. Labour Migration for Employment (LME). A Status Report for Nepal: 2013/2014. Available from: <https://www.asiafoundation.org/resources/pdfs/MigrationReportbyGovernmentofNepal.pdf>. [Last cited on 2016 Mar 24].
2. Gurung PK. Dynamics and Dimensions of Labour Migration from Nepal (Final draft). Kathmandu: Council for Technical Education and Vocational Training; 2014.
3. ILO. Labour Migration for Employment. A Status Report for Nepal 2015/16-2016/17; 2017. Available from: <https://www.nepalisansar.com/wp-content/uploads/2018/04/nepal-employment-rate.jpg>. [Last cited on 2018 Aug 03].
4. Sijapati B, Bhattarai A, Thapa D, Pathak D. Analysis of Labour Market and Migration/Trends in Nepal. Kathmandu: Deutsche Gesellschaft for Internationale Zusammenarbeit(GIZ) GmbrH and International Labour Organization; 2018.
5. National Population and Housing Census 2011 (National Report) Volume 01, NPHC; 2011. p. 1-270.
6. Central Bureau of Statistics (CBS). Agriculture Census, 2011. Kathmandu: Central Bureau of Statistics; 2011.
7. MOF. Economic Survey. Kathmandu: Ministry of Finance; 2012. Available from: <http://www.mof.gov.np/files/economy/2011/pdf/chapter6.pdf>. [Last cited on 2016 Mar 24].
8. Adhikari J, Hobley M. Everyone is Leaving-Who will Sow our Fields? The Effects of Migration from Khotang District to the Gulf and Malaysia. Kathmandu: SDC; 2011.
9. Rozelle S, Taylor E, de Brauw A. Migration, remittances and agriculture productivity in the [people's republic of] China. *Am Econ Rev* 1999;127:287-91.
10. Singh RK, Singh K, Jha A. Effect of Migration on Agriculture Productivity and Women Empowerment in Bihar; 2012. Available from: <http://www.dx.doi.org/10.2139/ssrn.2111155>. [Last cited on 2013 Mar 13].
11. Quinn MA. Estimating the impact of migration and remittances on agricultural technology. *J Dev Areas* 2009;43:199-216.
12. Jokisch BD. Migration and agriculture change: The case of smallholder agriculture in highland Ecuador. *Hum Ecol* 2000;30:523-50.
13. Maharjan A, Bauer S, Knerr B. Migration for Labour and its Impact on Farm Production in Nepal. Kathmandu: Centre for the Study of Labour and Mobility; 2013.
14. MOLTM and IOM. Foreign Labour Migration and Impact of Nepalese Economy. Kathmandu: Ministry of Labour and Transport Management and IOM; 2010.
15. FAO. Assessment of Food Security and Nutrition Situation in Nepal. Kathmandu: Food and Agriculture Organization; 2010.