Push and Pull Factors Associated with Migration in Nepal: An Economic Perspective

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Introduction

- Weak performance of agricultural sector, high population growth and unstable political situation prompted many of the most productive members of rural households to migrate internally or internationally in recent years from Nepal (ADB, 2013).
- Nepal's economic growth fell to 3.6% due to political uncertainties, shortfalls in public expenditure and low agricultural output in 2013. Growing trade deficit in the country continues to be financed by robust remittance transfers (World Bank, 2013).
- According to the Central Bureau Statistics (CBS, 2011), the percentage of households receiving remittances increased from 23.4% in 1995/96 to about 55.8% in 2010/11 and the share of remittance in the household income increased from about 26.6% to 30.9%.
- India hosts the largest number of Nepalese workers anywhere in the world due to no visa and work permit restrictions although the share of remittance from India is the lowest among major international destinations.

Objectives

- To determine the effects of individual, household and social network characteristics associated with migration decision.
- To determine the effects of pull factors associated with migration destinations choice.

Survey and Data

- This study has used household survey data of Nepal Ethno Survey of Family, Migration and Development which was carried out by researchers from Louisiana State University in March-May, 2013.
- A stratified random sample was used to select the farming households from several village development committees (VDC) in East Chitwan, an Inner Terai district by geographic location in Nepal (Figure 1) .

Figure 1. Map showing the study area-Chitwan, Nepal

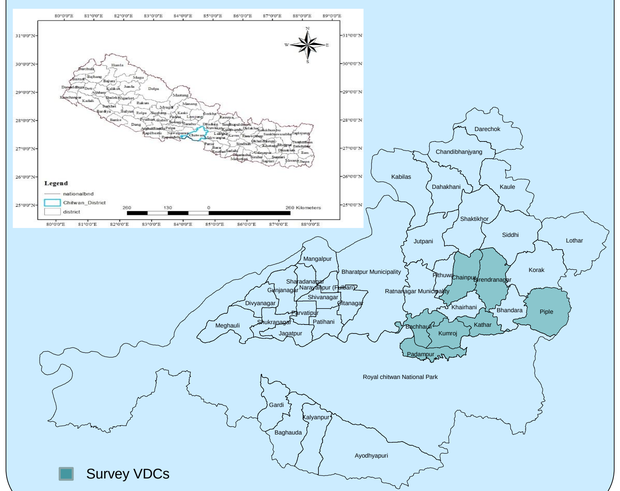
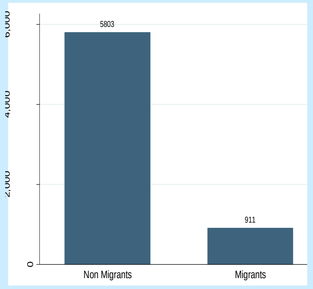
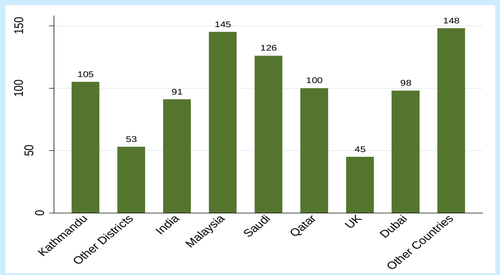


Figure 2. Number of non-migrants and migrants in sample households



- Migrants from the study area were 13.57% of the total population (911 from 249 households) (Figure 2).
- Among 158 internal migrants, 105 individuals went to Kathmandu and remaining 53 individuals went to other districts than Kathmandu.
- Likewise, among 753 international migrants; 91 individuals went to India, 145 individuals went to Malaysia, 324 individuals went to Gulf countries (126 in Saudi Arabia, 100 in Qatar and 98 in Dubai) and 193 individuals went to other countries (highest was 45 for the United Kingdom) (Figure 3).

Figure 3. Number of migrants in different internal and international migration destinations from sample households



Models

1. Binary Outcome Probit Model for Migration Decision

$$Pr(w_{ij} = 1 | x_{ij})$$

For individual i from household j, the possible two choices y_{ij} can be represented as:

$$w_{ij} = \begin{cases} 0 \; if \;\; household \; j \; has \; not \; sent \; a \; family \; member \; i \; for \; migration \\ 1 \; if \;\; household \; j \; has \; sent \; a \; family \; member \; i \; for \; migration \end{cases}$$

2. Multinomial Logit Model for Migration Destination Choices

$$\Pr(z_{ij} = k | x_{ij})$$

For individual i from household j, the possible three choices can be represented as:

$$z_{ij} = \begin{cases} 1 \; if \;\; household \; has \; not \; sent \; a \; family \; member \;\; for \; migration \\ 2 \; if \; household \; has \; sent \; a \; family \; member \; at \; internal \;\; destination \\ 3 \; if \;\; household \; has \; sent \; a \; family \; member \; at \; international \;\; destination \end{cases}$$

3. Four Sector Multinomial Logit Model for International Migration Destination Choices

$$\Pr(y_{ij} = k | x_{ij})$$

For individual i from household j, the possible four choices can be represented as:

$$y_{ij} = \begin{cases} 1 \; if \;\; household \; has \; sent \; a \; family \; member \;\; towards \; India \\ 2 \; if \; household \; has \; sent \; a \; family \; member \; towards \; Malaysia \\ 3 \; if \;\; household \; has \; sent \; a \; family \; member \; towards \; Gulf \;\; countries \\ 4 \; if \;\; household \; has \; sent \; a \; family \; member \; towards \; other \;\; countries \end{cases}$$

The variables used in these regression models are shown in Table 3. Individual and the household level variables used in this study are standard Mora and Taylor (2006) variables.

Table 3. Descriptive statistics of independent variables

Variables	Variable label
Individual Characteristics	
house_head	Are you household head? (1=yes, 0= no)
all_gender	What is your gender? (1=male, 0=female)
age	Age of the individual (number of years)
agesq	Age square of the individual
all_marital	Are you married? (1=yes, 0= no)
school_year	How many years of education? (number)
Household Characteristics	
male_num	What is the number of males above 15 years of age? (number)
female_num	What is the number of females above 15 years of age? (number)
male_educ	What is the number of males in family with secondary education? (number)
female_educ	What is the number of females in family with secondary education? (number)
hh_educ	What is the number of schooling years of household head? (number)
land_area	Land area (number in Kattha)
anim_unit	Household's animal unit (number)
wealth_indx	Wealth index (number)
wealth_indxsq	Wealth index square
Social Network Characteristics	
in_network	How many internal migrants are there from the household head's extended families? (number)
out_network	How many international migrants are there from the household head's extended famiiesl? (number)

Results

Table 4. Binary Probit Marginal Effects for Migration Decision and Multinomial Logit Marginal Effects for Migration Destination Choices

	Migration Decision (Probit Estimates)	Migration Destination Choices (Multinomial Logit Estimates)				
		All Destinations (Base: No Migration)		International Destinations (Base: India)		
Variables	All Migration (Base: No Migration)	Internal	International	Malaysia	Gulf	other
house_head	-0.077**	-0.017	-0.074***	0.035	0.262*	-0.501***
	(0.030)	(0.017)	(0.028)	(0.101)	(0.147)	(0.112)
all_gender	0.301***	0.247	0.208	0.670	-0.616	-0.115
	(0.020)	(11.189)	(3.694)	(94.021)	(66.508)	(11.730)
age	0.031***	0.003	0.032***	0.076**	-0.035	-0.016
	(0.004)	(0.003)	(0.004)	(0.030)	(0.036)	(0.020)
agesq	-0.000***	-0.000	-0.000***	-0.001**	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
all_marital	0.021	0.028*	-0.006	-0.179***	0.375***	0.043
	(0.024)	(0.015)	(0.022)	(0.058)	(0.083)	(0.080)
school_year	0.002	0.009***	-0.008**	-0.007	0.007	-0.174***
	(0.002)	(0.002)	(0.002)	(0.009)	(0.011)	(0.033)
male_num	0.032**	0.019***	0.007	0.040	0.139***	-0.002
	(0.013)	(0.007)	(0.012)	(0.034)	(0.041)	(0.031)
female_num	-0.018*	-0.011**	-0.005	0.077**	-0.011	0.128***
	(0.010)	(0.006)	(0.010)	(0.031)	(0.045)	(0.034)
male_educ	-0.056***	-0.012**	-0.029**	-0.006	-0.151	0.030
	(0.012)	(0.007)	(0.011)	(0.030)	(0.038)	(0.030)
female_educ	0.053***	0.012***	0.030***	-0.077***	-0.066	0.007
	(0.010)	(0.005)	(0.009)	(0.034)	(0.047)	(0.007)
hh_educ	0.002	0.002	-0.002	0.022***	0.013	0.009***
	(0.002)	(0.001)	(0.002)	(0.009)	(0.012)	(0.002)
land_area	-0.002***	-0.001***	-0.002***	-0.002	0.006	0.005**
	(0.001)	(0.000)	(0.001)	(0.003)	(0.004)	(0.002)
anim_unit	-0.001	-0.005	0.001	-0.005	0.003	-0.093***
	(0.001)	(0.003)	(0.001)	(0.006)	(0.006)	(0.023)
wealth_indx	0.023***	-0.004	0.024***	-0.008	0.127***	0.036***
	(0.007)	(0.004)	(0.003)	(0.024)	(0.033)	(0.011)
wealth_indxsq	-0.003	-0.002	-0.000	-0.040	-0.31	-0.174***
	(0.003)	(0.002)	(0.003)	(0.029)	(0.0026)	(0.033)
in_network	0.001	0.001*	0.000	0.007***	0.011**	-0.006*
	(0.001)	(0.001)	(0.001)	(0.004)	(0.005)	(0.003)
out_network	0.000	0.006***	-0.005*	-0.015*	0.017	-0.012
	(0.003)	(0.002)	(0.003)	(0.009)	(0.013)	(0.008)
N	1688	1688		208		
pseudo R^2	0.409	0.460		0.619		

Note: standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01

- Choice of migration decision can be explained positively by:
  - Individuals who are males, younger and non-household head
  - Households with higher number of adult males, lower number of adult females, lower number of males who have attained above secondary level education, higher number of females who have attained above secondary level education and lower land holding size.
- Choice of internal migration destination can be explained positively by:
  - Individuals who are married and educated
  - Households with higher numbers of adult males and lower numbers of adult females, households with lower numbers of males and higher numbers of females with secondary education, lower land holding size, and higher number migrants from household head's extended families
- Choice of international migration destination can be explained positively by:
  - Individuals who are younger, other than household heads and with lower schooling years
  - Households with lower number of males and higher number of females with secondary education, households with a lower land holding size, higher wealth index and lower number of international migrants from household head extended families
- Choice of Malaysia as migration destination can be explained positively by:
  - Individuals who are younger and unmarried
  - Households with higher numbers of adult females and higher numbers of females with secondary education, educated household heads, higher number of migrants in internal destinations from the household head's extended families and lower number of migrants in international destinations from household head's extended families
- Choice of Gulf countries as migration destination can be explained positively by:
  - Individuals who are household heads and married
  - Households with higher number of adult males, higher wealth index value and higher numbers of migrants in internal destinations from the household head's extended families

Conclusions

- Both individual and household level characteristics determine the migration decision of a in Nepal.
- Along with individual and family characteristics, migration network is a crucial factor for the selection of migration destinations from Nepal.
- Large number of Nepalese migrants in Malaysia and Gulf countries may be due to easy visa process and comparatively higher wage rate.
- Largest number of Nepalese migrants in India is contributed by the fact that migrants require very little skill, and they do not need visa to go to India.
- Large number of Nepalese migrants in Malaysia than in Gulf countries may be due to the working climate and safety concern rather than the wage rate. However, further research is needed to support this fact.

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