

## **Remittances and their effects in Nepal: a microeconomic study**

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**Introduction:** Theory suggests that international migration is generally beneficial to both the source and host countries. To the extent expectation of higher incomes drives migration, the world economy is better off because the migrant produces more in the host country than in the source country. From a purely statistical standpoint, however, the source country may gain little from emigration under certain circumstances. Before emigration, income produced at home by the migrant in excess of what the individual consumed was shared by others, either in the family or outside. If the remittance sent home later by the emigrant falls short of this share for others, the household and the society in the source country may be worse off. It is likely that in Nepal this has not been the case and the net gain has been highly positive. Observers believe that remittances by individuals working abroad have become an important source of income for many poor households in Nepal.

Unfortunately, not much empirical evidence is available on the impact of international remittances in Nepal. Most of the studies on remittances in South Asia have been conducted on one or more of the following four countries: Bangladesh, India, Pakistan, and Sri Lanka. A recent World Bank study by Maimbo, *et.al* (2005), for instance, also limits itself to these countries. Some of the important questions that have motivated my project, in the context of Nepal, include the following: “Do remittances facilitate consumption smoothing (Yang and Choi, 2005), or investments in human and physical capital (Rapoport and Docquier 2004), or help households overcome liquidity constraints (Taylor and Rozelee, 2003)?”

**The Survey and data:** This research is part of a project that is based on primary data collected from a survey of 166 households in Nepal. Of several hundred households approached, approximately 200 had one or more members who had either returned home temporarily or permanently after working abroad or were still working there. The response rate was over 80 percent. Three interviewers were hired and trained to fill out the survey questionnaires. The survey was conducted in the summer of 2007 in three village clusters, or village development committees (VDCs), and in several hotels of Kathmandu where migrants

were temporarily staying on the way back to their homes in Nepal or to the country of work at the end of their leave.

Well over 90 percent questionnaire completion rate was achieved in the VDCs of two districts, namely, Makwanpur and Lalitpur. A high attrition rate of over 50 percent, however, occurred in the VDC chosen from Dhanusa district. In this VDC, interviews were refused outright in many cases, and in many others, the respondents agreed to being interviewed but withdrew upon hearing specific questions. The break-offs occurred when questions were asked about the migrant's earning abroad or the amount remitted home. The survey design was sensitive to the ethnic tension brewing in many parts of Tarai at the time of the survey. All the households in the chosen VDC in Dhanusa were Maithili speaking.<sup>\*\*\*\*</sup> The interviewer selected to conduct the survey there was from a neighboring VDC and possessed the cultural and ethnic (including caste) characteristics of most of the residents of the survey VDC. Despite such care taken to maximize cooperation from the households, relatively few (22) usable responses could be elicited.<sup>\*\*\*\*\*</sup>

The interviews in Lalitpur and Makwanpur, and most at the Kathmandu hotels were conducted in Nepali. Because of inadequate information, 8 questionnaires from there were discarded from the study. The results are discussed next.

*Regional profile of workers:* The usable sample size consists of 156 households. Hills contributed 55 percent (86) to the sample whereas Tarai's share was 36 percent (56) and Kathmandu valley's 9 percent (14). Besides Dhanusa where a survey met with a partial success with 22 individuals interviewed, the Tarai districts represented in the sample from the Kathmandu interviews were Rupandehi (8), Morang (6), Siraha (6), Kapilbastu (4) and Sarlahi (4), plus three other districts with two individuals each. The hill representation came from Makwanpur (48), mostly as a result of a direct survey conducted there, Sankhuwasabha (10), and nine other districts (28). From Kathmandu valley, Lalitpur contributed all 14 to the sample.

*Age and education:* The mean age of migrant workers at the time of migration was 26.8 years and the standard deviation 6.8 years which shows significant dispersion. Dropping two outliers from the sample leads

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<sup>\*\*\*\*</sup> The single Nepali-speaking household that had lived in that VDC for three generations had migrated about a dozen years ago to Janakpur or Kathmandu.

<sup>\*\*\*\*\*</sup> The interviewer noted a few concerns raised in the villages that the survey could be a ploy to extract private information and could be used against the respondents.

to an approximately normal distribution for the age at migration with little skewness and thin tails. Individuals going abroad for work had a median education of 7 years with a standard deviation of 3.5 years. Eighty seven percent of migrants were 40 years of age or younger. Three countries in the Middle East – Qatar, Saudi Arabia, and UAE – had a 75 percent share in our sample of migrant workers while Malaysia accounted for 22 percent. Forty percent of all workers had gone to Qatar alone. There was little variation in the mean years of education across workers going to the four main countries, with Malaysia receiving slightly more educated workers (7.5 years) and Saudi Arabia slightly less (6.8 years).

*Household Income:* There were some gaps in the information on total income and consumption from domestic sources. Four households were therefore dropped from the sample since their total income was equal to zero despite the fact that they had some cultivated land. This reduced the sample size to 150. The median household now has 7 members and per capita income for all households is Rs.13,927 per year. The sample income distribution is highly positively skewed, with median (Rs. 7,390) just over half (53 percent) of the mean. Though none of the households in the sample can be called very rich, the degree of income inequality is still very high. The poorest 50 percent of the households earned only 11 percent of total income whereas the richest 10 percent received 33 percent, and richest 5 percent 21 percent of income. The richest 10 percent of the households earn 4.4 times the income of the poorest 40 percent.\*\*\*\*\* Finally, the regional distribution reveals that the per capita income in the Hills is the lowest at about Rs 11,000, the Tarai averages Rs 15,000, and Kathmandu valley Rs 30,000.†††††

*Asset distribution:* The main forms of household wealth are land, houses and livestock. The households also have durable goods such as radios, bicycles, TVs, and gold and silver. Since houses are not actively traded in villages, a better indicator of marketable assets would include land and livestock. The value of land around home, cropland and dry land, and the value of different livestock animals together constitute household wealth in this study.

We find some amount of wealth diversification by the sample households. Instead of relying on land as the main source of income, more households get income from their labor services and small businesses. The

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\*\*\*\*\* The calculated Gini index of income inequality equals 0.556 which exceeds national inequality substantially. However, note that income is a poorer base on which to measure inequality than is consumption.

††††† Note, however, that the valley supplied only 14 households to the sample.

correlation between total income and total wealth is indeed positive but rather low at 0.228. Much like income, the wealth distribution is highly skewed to the right with thick positive tails.

*Types and conditions of work:* Over 60 percent (90 of 148) of respondents who worked abroad had an unskilled job. Of the rest, skills were smoothly distributed over a few categories, namely, machine workers (8), carpenters (6), salesmen (6), and others including drivers, cooks, and painters and decorators (4 each). Trying to correlate unskilled jobs with education, we find 66 of the 90 workers with an education level 2 (5<sup>th</sup> to 8<sup>th</sup> grade) or level 3 (9<sup>th</sup> to 12<sup>th</sup>).

The median length of work abroad for sample workers is 36 months. That is also true of workers who went to work in Malaysia despite the fact that emigration to Malaysia is of a relatively recent origin. The minimum work period was recorded at 12 months and the maximum at 11 years. Many migrants had to work outdoors and over 40 percent of the sample complained about extreme hot or cold conditions in which they had to work. About a third (48 of 150) also reported that they were not able to secure the type of jobs they were promised back home by the manpower agencies that sent them. All migrants had a full time job, but many (about a half) would have worked elsewhere if a choice was available. Work at a second job was explicitly discouraged and people found working elsewhere would be harshly treated. Only 10 individuals reported having taken a second job. Most workers (74 percent) did, however, get to work overtime at their place of work.

*Wages and benefits:* The median monthly wage of migrants was Rs10,500 (roughly \$150) and the interquartile range (IQR) Rs3,000. Eight percent of individuals were outliers and five percent extreme outliers.\*\*\*\*\* These high wage individuals worked as housekeepers, cooks or drivers. The median overtime pay was Rs 2,300, a relatively small number because of the fact that 26 percent of the respondents did not work overtime. Most workers also received in-kind benefits such as free residence (70 percent), free transportation to and from work (65 percent), and health care for non-major illnesses and accidental insurance (60 percent).

*Remittances:* Average remittances equal Rs 6,847, or about \$100, per person per year. The largest annual average remittance is Rs 12,766, sent by individuals in their first year. This may not fully reflect the actual pattern because of the small subsample of only 8 people (or 5 percent) out

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\*\*\*\*\* outliers are over 1.5 times the IQR above the third quartile, and extreme outliers are over 3 times the IQR above it.

of 148 in the 12-month category. Those who have completed 2 or 3 years of stay abroad are found to remit the lowest amounts but the amount remitted rises as length of work increases beyond 3 years. There are a few clear outliers in the group with the longest stay where the standard deviation of the money remitted far exceeds its mean.

*Before-after comparison:* We also look at the economic situation of the households with a migrant before migration and after. Most of the respondents were recent returnees who completed their contracted time and its extension abroad, and were starting to adjust back to their conditions at home. Only 20 percent of people surveyed were on vacation or leave visiting their families in Nepal, and were in the process of going back to their work. This helps our analysis in one sense. It indicates that the respondents could assess a little better the change in the household consumption and standard of living because of migration. In comparison, the relatives of those who worked several years abroad may have some recall problems about not so recent past if they have gone through a gradual improvement in their standard of living due to remittances.

The mean difference test indicates that the total expenditures of households before and after are significantly different. The logarithms of these expenditures are approximately normally distributed. The calculated *t*-statistic on the log-differences equals 13.83, well above the critical *t* of 2.36 at one percent level. This shows that the sample households have achieved a significant improvement in their living standards. The median difference in total expenditure (in level form) equals Rs. 52,000 per household or 175 percent more than before.

**Regression results:** Finally, our basic econometric analysis shows that the household spending has a significant positive relationship with income, wealth and remittances. The basic results appear below:

$$spend_i = -5.0432 + 0.1554incm_i + 0.1931wlth_i + 1.0824remit_i + \varepsilon_i$$

$$\begin{matrix} (-2.27) & (2.38) & (2.74) & (5.79) \end{matrix}$$

$$\bar{R}^2 = 0.292, \quad N = 142, \quad F_{3,138} = 20.41,$$

where all the variables are defined as natural logarithms of their levels and all except *wlth* are annual flows in rupees, *spend* is the total household spending on consumption and other things, *incm* is the household income other than remittances received, *wlth* is the value of household wealth other than houses, and *remit* is the average amount of remittances received per year. Income and wealth, or wealth and remittances are not highly correlated which indicates a large influence of remittances on

consumption. The significant and large coefficient for the remittance variable exhibits its huge influence on spending (one for one in percentage terms) that might reflect a high degree of household optimism about future. Remittances do not seem to have a large effect on wealth although some households are found to use a significant part of the remittance money on the purchase of land and improvement of housing.

**Conclusion:** It would be interesting to analyze the dynamics of the use of remittances on consumption versus home improvements and acquisition of land. Our estimation on the remittances averaged out for the years migrants have stayed abroad has suppressed any such dynamics from analysis. Furthermore, while the present segment of our project has highlighted the change in household consumption and expenditure, the causal relationship between remittances and poverty of the surveyed households needs to be established. This part of the study is currently under way.

### **References**

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