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Migration, remittances and rural development

Findings of a case study in the Indian Punjab

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Introduction

Research into rural-urban migration in developing countries has hitherto been mainly concerned with its effects on urban economies, and considerably less attention has been paid to the effects on rural areas. These may include the loss to rural society of its more dynamic members as well as the diversion of national investment resources towards the towns. But not all of them are necessarily detrimental. For example, if large numbers of migrants to urban areas send back remittances, this may raise rural incomes and consumption; it may also encourage technological change, which can further increase rural incomes.

The net effect of remittances on the rural economy is difficult to determine *a priori*. They may add to productive investment for the development and diversification of agriculture or of non-agricultural activities in the rural areas, or be spent on housing and education, or be used to relieve the poverty of those who remain behind. On the other hand they may be used unproductively—for conspicuous consumption or in order to build an excessive degree of capital intensity into agriculture, with adverse effects on employment. Remittances may even erode good work habits, since they increase resources without the need for any effort on the part of the recipient, thus reducing the pressure for economic and social change.

In addition, the full effects of remittances on the level and distribution of income in rural areas will of course depend on their size and frequency. These in turn depend on the type of migration (whether temporary, quasi-permanent or permanent), the type of job on which migrants are employed, their income, their living costs (which determine their capacity to save) the extent of their interest in the household's land, and the needs of the family members they have left behind. Even more important is the question

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whether the inflow of remittances exceeds or falls short of the reverse flow.

The present study, based on a rural household survey carried out by the ILO in the Ludhiana district of the Indian Punjab, investigates the nature and role of remittances in rural development.[1] A number of important policy-related questions are examined. For example, which types of migrant are more likely to send remittances? Who sends most? And what are remittances used for? The field survey, covering 2,124 households (13,058 persons), was carried out during March-April 1977. Of these households, 504 had at least one out-migrant each, 327 at least one in-migrant each, and 137 at least one returned migrant each. Some of the households had more than one category of migrant. The number of households that had no migrant was 1,228.[2]

For the purposes of this study, an out-migrant was defined as a person who had previously been a member of the household but had left since 1961 to live or work elsewhere. The survey identified 1,646 such persons. Of these, 949 were women who out-migrated for marriage, and children below 12 years of age; no detailed information was collected concerning them and they were therefore excluded from the subsequent analysis. Information on whether the households had ever received remittances from out-migrants and how much they received during the 12 months preceding the date of the survey (i.e. in 1976/77) was gathered for the remaining 697 persons who had out-migrated for economic and related reasons. Of these, 395 were reported to have sent remittances at one time or another and 374 had sent remittances during 1976/77.

The socio-economic background of out-migrants and the decision to send remittances

Table 1 gives the distribution by socio-economic background of all out-migrants and those who have ever sent remittances. The data show that while nearly all husbands who have out-migrated have sent remittances, only half of those classified as children have done so. Parents and grandchildren are the second and third categories most likely to remit, but their number is relatively small. Married out-migrants (two-thirds of the total) are a little more likely to remit than the unmarried.

Education appears to be a more or less neutral variable. Assuming education to be a proxy for current income, this also implies that the out-migrant's income does not affect his decision to remit, although it may affect the amounts remitted.[3] The position is somewhat different with respect to caste. There is a higher propensity among artisans and low castes to send remittances than among agriculturalists and high castes, but this may well be due to the fact that the former are low-income groups whose households are in greater need of remittances to meet current consumption

Table 1. Distribution of all out-migrants and those who have ever sent remittances,[1] by socio-economic background

Socio-economic background	No. of out-migrants	Migrants having ever remitted[1]	
		No.	%
All out-migrants	**697**	**395**	**56.7**
1. Relationship to head of migrant's household *			
Husband/wife	59	56	94.9
Son/daughter	501	263	52.5
Son/daughter-in-law	15	4	26.7
Grandchild	18	11	61.1
Parent	7	5	71.4
Brother/sister	69	39	56.5
Other	28	17	60.7
2. Marital status *			
Married	443	268	60.5
Unmarried	254	127	50.0
3. Education ***			
No formal	80	43	53.8
Below higher secondary	272	153	56.3
Higher secondary	279	165	59.1
Graduate and above	66	34	51.5
4. Present place of residence			
India			
(a) By state**			
Punjab	325	171	52.6
Elsewhere	313	194	62.0
(b) Urban/rural***			
Urban	511	298	58.3
Rural	127	67	52.8
Abroad	50	24	48.0
Unknown	9	6	66.7
5. Caste **			
(a) High castes	81	44	54.3
Cultivating castes	409	221	54.0
(b) Artisans	102	61	59.8
Low castes	105	69	65.7
6. Years since out-migration *			
0-4	307	135	44.0
5-9	197	121	61.4
10-14	139	99	71.2
15-16	54	40	74.1
7. Household members working (%) *			
None	155	118	76.1
≤25	251	146	58.2
26-50	263	117	44.5
>50	28	14	50.0
8. Type of household *			
Cultivating	383	195	50.9
Non-cultivating	314	200	63.7
9. Land status of household **			
Landless	314	200	63.7
Less than 7.5 acres	199	107	53.8
7.5 acres or more	184	88	47.8
10. Household's income group (excl. remittances) *[2]			
Bottom 30%	216	155	71.8
Middle 40%	233	122	52.4
Top 30%	248	118	47.6

* Difference in group proportions significant at the 1 per cent level. ** Difference in group proportions significant at the 5 per cent level. *** Difference in group proportions not significant at the 5 per cent level.

[1] Of the 395 out-migrants who have ever remitted, 374 also sent remittances during 1976/77 (i.e. the 12 months preceding the survey). The basic results presented in this table are therefore largely applicable to those currently sending remittances. [2] Percentiles refer to the over-all income distribution of the survey population.

expenses. Like education, distance does not appear to loosen family ties; on the contrary, a larger percentage of those who have migrated outside the state have sent remittances. As between the urban and the rural groups, there is no significant difference. However, since most migrants from rural areas go to the towns, the flow of remittances is largely from urban to rural areas. The data on years since out-migration show a steady improve-

ment in the percentage of remitters over time. This may be due to two factors: migrants take time to become established, and some of them have to reach a certain level of income before they start sending remittances.[4]

The decision of out-migrants to remit is negatively related to the proportion of persons working in the household at the place of origin. This is understandable, as the loss of labour by a household with few or no working members remaining is greater than that of one with many.

That out-migrants from cultivating households appear to be less likely to remit than those from non-cultivating households is explained by the fact that cultivating households can more easily draw on the land for support. Out-migrants from landless households and those with small holdings are relatively more likely to send remittances than those from households with large holdings. It is also interesting to observe that there is a strong negative relationship between the decision to remit and the household income before remittances. This suggests that out-migrants from relatively poorer households are more likely to send remittances. But this may not necessarily be true. Some households may appear poorer simply because they have lost earning members. The distribution of household income before remittances partly reflects the effect of the lost earnings of out-migrants, which may cause the whole income distribution to shift downward. However, the effect will not be equally distributed over all income classes. It will be greater if the household has lost its only earning member or members or if it has no other source of income.

Frequency of remittances

Table 2 investigates how frequently remittances are sent and whether the frequency diminishes with the length of absence. It shows that most of those who send remittances do so fairly frequently, although there is a slight decline over time. Of remitters, 94.7 per cent sent money during the last year for which they gave information (1976/77). Even the number of those who sent money in the last quarter is more than half the total of those who have ever remitted.

Table 3 highlights the fact that it takes about three years for the majority of out-migrants to feel settled and start sending remittances. It may be noticed that the proportion of remitters rises with duration of migration; this tendency is particularly marked among out-migrants from cultivating households, who are slower to start remitting. But, on the whole, the analysis shows that once the migrants start sending remittances, they continue to do so and the proportion remitting does not decline with the length of time the migrants have been away. There is thus no evidence (through remittances) that family ties weaken over time.[5]

Table 2. Distribution of out-migrants who have ever sent remittances, by period since last remittance was sent and years since out-migration (Percentages in parentheses)

Period since last remittance was sent	Years since out-migration				
	0-4	5-9	10-14	15-16	All durations
0-2 months	81 (60.0)	70 (57.9)	46 (46.5)	20 (50.0)	217 (54.9)
3-5 months	25 (18.5)	8 (6.6)	15 (15.2)	3 (7.5)	51 (12.9)
6 months-1 year	29 (21.5)	34 (28.1)	27 (27.3)	16 (40.0)	106 (26.8)
More than 1 year	–	9 (7.4)	11 (11.1)	1 (2.5)	21 (5.3)
All periods	**135** (100.0)	**121** (100.0)	**99** (100.0)	**40** (100.0)	**395** (100.0)

Table 3. Total out-migrants and percentage of those who sent remittances during 1976/77, by years since out-migration and type of migrant household

Years since out-migration	Total out-migrants from—			% of out-migrants who sent remittances during 1976/77		
	Cultivating households	Non-cultivating households	All households	Cultivating households (N = 186)	Non-cultivating households (N = 188)	All households (N = 374)
0-2	114	91	205	28.9	45.1	36.1
3-4	60	42	102	50.0	64.3	55.9
5-9	107	90	197	49.5	68.9	58.4
10-14	75	64	139	70.1	62.5	66.9
15-16	27	27	54	63.0	66.7	64.8
All durations	**383**	**314**	**697**	**48.6**	**59.9**	**53.7**

Size of remittances

Table 4 shows the size of remittances sent by out-migrants by the type of household to which they originally belonged and by their present place of residence and the length of time since they migrated.

The average annual remittance per out-migrant works out at Rs. 839 if the divisor is "all out-migrants" and Rs. 1,564 if the divisor is "out-migrants sending remittances".[6] Those who have migrated to rural areas send about as much as those who have migrated to urban areas[7] (except in the case of those from cultivating households, where the former remit considerably more than the latter[8]). Similarly, all remitting out-migrants

Table 4. Distribution of mean remittances sent by out-migrants during 1976/77, by type of household of origin and *(a)* present place of residence and *(b)* years since out-migration
(In rupees)

Present place of residence and years since out-migration	Out-migrants from cultivating households		Out-migrants from non-cultivating households		All out-migrants	
	Mean per out-migrant (N = 383)	Mean per remitting out-migrant (N = 186)	Mean per out-migrant (N = 314)	Mean per remitting out-migrant (N = 188)	Mean per out-migrant (N = 697)	Mean per remitting out-migrant (N = 374)
(a) Present place of residence						
In India:						
Urban	614	1 206	854	1 396	728	1 304
Rural	667	1 549	751	1 376	703	1 464
Other countries	1 792	4 420	3 315	6 158	2 188	4 972
All	752	1 549	946	1 579	839	1 564
(b) Years since out-migration						
0-4	591	1 633	889	1 738	720	1 687
5-9	705	1 423	887	1 287	788	1 349
10-14	1 088	1 540	1 049	1 679	1 070	1 600
15-16	1 043	1 655	1 178	1 767	1 110	1 713
All durations (0-16)	752	1 549	946	1 579	839	1 564

from cultivating households tend to send about as much as those from non-cultivating households,[7] but the average per head for all out-migrants from cultivating households is lower since a smaller proportion of them send remittances.[8] Distance does not appear to affect the size of remittances, except that those who have gone abroad send considerably more than those who have migrated within India.[9] The average remittances sent by out-migrants do not vary much with the length of time they have been away.

Table 5 contains disaggregated data on the distribution of remittances received by out-migrant households and shows three main features. First, remittances are received by all income classes, although on average the better-off groups receive more, thus widening the gap between rich and poor in absolute terms. Secondly, the proportion of all remittances going to each income group rises with income so that the top 10 per cent receive more than one-third and the top 20 per cent almost one-half of the sum of remittances. Thirdly, remittances as a percentage of household income decline as one moves up the income scale. This is because the distribution of household income is less equal than the distribution of remittances. For the bottom decile, remittances account for the entire income of the household, and for the next decile, more than half. Since the relative impact of remittances is larger on poorer households, there is a visible

Table 5. Distribution of remittances received by out-migrant households during 1976/77, by level of household income

Decile group[1]	No. of out-migrant households	% receiving remittances	Mean remittance per out-migrant household (Rs.)[2]	Mean household income (Rs.)[3]	Remittance as % of—	
					Household income	All remittances
1	42	50.0	415	−184[4]	−	2.4
2	32	75.0	726	1 414	51.3	3.2
3	31	71.0	779	1 964	39.7	3.3
4	43	58.1	717	2 486	28.8	4.3
5	48	56.3	912	3 195	28.5	6.0
6	57	54.5	994	3 861	25.7	7.8
7	50	64.0	1 446	4 930	29.3	10.0
8	69	62.3	1 509	6 501	23.2	14.4
9	55	65.4	1 652	8 869	18.6	12.5
10	77	66.2	3 387	17 126	19.8	36.0
All	**504**	**61.9**	**1 437**	**6 112**	**23.5**	**100.0**

[1] Deciles refer to the income distribution of all 2,124 sampled households and not just the 504 out-migrant households. There are 212 or 213 households in each decile in the over-all income distribution. [2] Includes remittances from those who migrated before 1961. Mean corresponds to all out-migrant households and not merely to those receiving remittances. [3] Includes remittances from out-migrants. [4] Some cultivating households reported a negative income because of loss of crops.

improvement (as we shall also see later) in the distribution of income within the category of out-migrant households.

Remittances to out-migrants

The volume of remittances *to* out-migrants is insignificant compared with the total inflow of remittances *from* them. Only 51 out of 697 out-migrants (including seven students) ever received such payments, the figure for 1976/77 being 26. Most remittances go to out-migrants in urban areas. Half of them are from high-income and another one-third from middle-income groups. Forty out-migrants (78 per cent) received remittances for less than three years and only two for more than five years.

The amounts remitted are also quite small. Although the average per receiving out-migrant in 1976/77 was Rs. 1,369, this included three out-migrants who had bought land in a neighbouring state and had received an average of Rs. 6,867. If they are excluded, the average per receiving out-migrant comes down to Rs. 652 and per out-migrant to Rs. 22.

Transfer of resources to rural areas

Another significant finding of this study is the large transfer of resources to the rural areas of Ludhiana District resulting from out-

migration. The total net transfer in a single year, estimated on the basis of remittances received during 1976/77 from 374 out-migrants who migrated since 1961, works out at approximately Rs. 36 million. Its breakdown by origin shows that 60.8 per cent comes from outside the state. Only a small part of the total net inflow (12.4 per cent) originates in rural areas. It is interesting to observe that there is a net outflow of over Rs. 1 million per annum to the rural areas of neighbouring states. This appears to be the result of transfers by the farmers of Ludhiana District who have acquired farming interests in these states.

It should be pointed out that these figures are only a part of the over-all flows of resources into the rural areas of the district resulting from remittances of all sorts. First, persons who left before 1961 may have sent remittances. Secondly, money may be received from persons other than out-migrants. Thirdly, both in-migrant and returned-migrant households may be receiving remittances from (or sending remittances to) places from which they have migrated or returned. None of these flows has been taken into account.

Main uses of remittances

Table 6 shows that more than three-quarters of the households concerned spend their remittances on food and clothing and more than one-quarter on household items, the only other priority item being "ceremonies including weddings" (9.6 per cent of households). Only a small proportion of households (6.1 per cent) use remittances for productive investment, much of it for the purchase of agricultural land, farm equipment, and inputs such as seeds, fertilisers and pesticides.

If we divide households receiving remittances into three broad categories—farming (or cultivating), non-farming entrepreneurial, and non-farming non-entrepreneurial—we find that it is the first category that makes the greatest use of remittances for investment. This is also reflected in the fact that only 2.4 per cent of non-farming non-entrepreneurial households spend their remittances on anything but consumption, revealing the low-income wage-earning status of many households in this category, which contains a fair number of low-caste people. There is no expenditure on debt repayment in the case of non-farming entrepreneurial households; they are perhaps money-lending, not borrowing, classes. The importance of ceremonial expenditure can be appreciated only in the context of the largely customary character of India's rural society. It is noteworthy that neither group of non-farming households spends any part of its remittances on children's education; probably the entrepreneurial households can educate their children without remittances and the others are too poor to afford education.

The over-all pattern of expenditure depicted in table 6 appears to be consumption-oriented, but should not be interpreted as being mainly

Table 6. Percentage distribution of households that have ever received remittances, by major items on which the remittances were spent[1]

Item of expenditure	Farming households (N = 195)	Non-farming entrepreneurial households (N = 36)	Non-farming non-entrepreneurial households (N = 170)	All households[2] (N = 395)
1. Productive investment	11.3	5.6	0.6	6.1
2. Children's education	2.1	–	–	1.0
3. Debt repayment	6.2	–	1.8	3.8
4. Ceremonies (incl. weddings)	11.3	11.1	7.1	9.6
5. Food and clothing	70.3	83.3	78.8	75.9
6. Housing and household goods (incl. luxury items)	23.6	19.4	27.1	25.1
7. Consumption (4+5+6)	89.2	94.4	98.2	92.7

[1] The column percentages are not additive since some households spent remittances on more than one item. [2] The sum of different types of household does not add up to 395 because of overlap. Some of the farming households also own non-farming rural enterprises.

unproductive; in an economy in which levels of living are low, consumption expenditure may often be functional and may induce significant improvements in labour productivity.[10] There are also indirect effects that ought to be reckoned with. Households may not be spending the actual money remitted on certain items, but remittances may free other funds for such use. In order to capture the full effect of remittances, information was also gathered on whether or not households were able to spend more on certain items of expenditure because of the remittances they received. The results are presented in table 7. Although only 12 to 15 per cent of farming households were able to spend more on productive uses (the first four items) further analysis of the data indicated that 37.4 per cent of them could spend more on *at least one* of those items. Thus a much larger percentage of households could undertake investment because of remittances.

Almost all of the households that use remittances for productive purposes are cultivating households. The data in table 8 show that these are heavily concentrated in the middle range of land holdings (5 to 15 acres) but have enough income to qualify for a place among the richest 30 per cent of the sampled households. For other items of expenditure, such as household goods and food and clothing, the percentages of households that spend more because of remittances are more evenly spread across different land holding and income groups.

The data in tables 6 and 7 taken together show that about one-quarter of households receiving remittances spend them on household goods and housing improvements, which suggests that remittances do matter in raising their standards of living. Further, since household goods are mainly

Table 7. Percentage distribution of households that have ever received remittances, by major items on which they were able to spend more because of remittances[1]

Item of expenditure	Farming households (N = 195)	Non-farming entrepreneurial households (N = 36)	Non-farming non-entrepreneurial households (N = 170)	All households[2] (N = 395)
Purchase of land	12.3	5.6	0.6	6.3
Purchase of implements	14.9	2.8	1.8	8.4
Land improvements	13.8	–	–	6.8
Purchase of seeds, fertilisers, etc.	12.8	–	0.6	6.6
Housing and household goods	40.0	19.4	30.0	34.4
Food and clothing	79.5	80.6	77.1	79.0
Ceremonies (incl. weddings)	30.8	19.4	18.2	24.3
Luxury items[3]	7.2	–	4.7	5.6

[1] The column percentages are not additive since some households spent on more than one item. [2] See footnote 2 to table 6. [3] Of households spending on luxury items, 59 per cent belong to the middle 40 per cent, and 41 per cent to the top 30 per cent of income recipients. As for their land status, 68 per cent either have no land or have less than 5 acres and 32 per cent have between 5 and 15 acres.

Table 8. Percentage distribution of households able to spend more for productive purposes because of remittances, by farm size and income class

Item of expenditure	Farm size			Income class (incl. remittances)		
	0-5 acres[1]	5-15 acres	15+ acres	Bottom 30%	Middle 40%	Top 30%
Purchase of land	24.0	68.0	8.0	4.0	24.0	72.0
Purchase of implements	18.0	70.0	12.0	9.1	36.4	54.5
Land improvement	15.0	78.0	7.0	–	25.9	74.1
Purchase of fertilisers, seeds, etc.	24.0	64.0	12.0	7.7	30.8	61.5
% of households that have ever received remittances	67.3	25.1	7.6	18.5	36.1	45.4

[1] Includes the 198 landless households among the 395 that have ever received remittances.

produced in urban centres, remittances may have an important effect on the demand for industrial and other urban goods. On the other hand, the changing pattern of consumption and the rising demand for industrial goods may adversely affect the growth of employment opportunities in rural areas and induce further migration. These and other effects of the circular flows of resources between rural and urban areas ought to be borne in mind when the over-all influence of remittances is evaluated.

Effects on the level and distribution of income

Table 9 presents data on changes in the level of income and its distribution among out-migrant households resulting from remittances. It can be seen that remittances raise the average income of out-migrant households by 30.7 per cent, from 4,676 rupees to 6,112.

The table also shows that there is a decline in the Gini coefficient of 16.5 per cent, from 0.515 to 0.430. This means that the distribution of income tends to become more equal when we include remittances, which confirms our earlier finding that the relative effect of remittances is much greater on poorer households. If we look at the average level of incomes received by each of the decile groups, a similar picture emerges of remittances reducing the relative gap between the bottom and the top income groups. For example, when remittances are excluded, the top 10 per cent of income recipients earn 32 times as much as the second decile, whereas the differential is only 11 times when remittances are added to income. The breakdown of data also reveals that remittances raise the share of the bottom 30 per cent of out-migrant households from 2.35 per cent of income to 7.03 per cent. These are no small gains if we bear in mind that they result from the poor trying to lift themselves by their own bootstraps.

The distribution of income was also examined with and without remittances for all households in the rural survey. The results show that the Gini coefficient declines by 2.6 per cent when remittances are added to other income. Thus remittances improve not only the distribution of

Table 9. Effect of remittances on level and distribution of incomes of out-migrant households (N = 504), 1976/77

Decile group	Income excluding remittances			Income including remittances		
	Mean (Rs.)	% of total income	Cumulative %	Mean (Rs.)	% of total income	Cumulative %
1	—906			81		
2	534	2.35	2.35	1 752	7.03	7.03
3	1 438			2 495		
4	2 219	4.71	7.06	3 265	5.19	12.22
5	3 000	6.37	13.42	3 880	6.42	18.64
6	3 730	7.76	21.18	4 918	8.14	26.78
7	4 853	10.30	31.48	6 246	10.14	36.92
8	6 434	13.38	44.86	7 830	12.96	49.88
9	9 143	19.02	63.88	10 840	17.60	67.48
10	17 368	36.12	100.00	20 030	32.51	100.00
All groups	4 676			6 112		
Gini coefficient	0.515			0.430		

income among out-migrant households but also the over-all distribution of income in rural areas.[11]

Conclusions

The general picture that emerges from the study is that remittances from out-migrants raise the incomes as well as the levels of living of rural households. A significant proportion of households receiving remittances use them for productive investment. This is particularly true of cultivating households, which have investment opportunities in the rural areas. The evidence also suggests that remittances serve to redistribute incomes between rural and urban areas. Moreover, the huge transfer of resources from the urban areas has a large potential for strengthening the rural economy.

All this leads us to conclude that remittances have a positive impact in the rural areas.[12] But it should be borne in mind that this conclusion is based on the direct, micro-economic effects of remittances on rural development. There are other micro- and macro-economic effects, both of migration and of remittances, which have not been analysed here. To assess the over-all impact of migration on rural development has not been the purpose of this study. For that, it would be necessary to consider, besides the flow of funds, that of human and physical capital and the way these flows together affect consumption and investment patterns, population structure, levels of employment, agricultural production and productivity, patterns of land use, etc., in the rural areas. This analysis of migration in a broader macro-economic framework is the subject of a forthcoming report[13] of which the present study is a part.

However, in view of the large and growing volume of remittances and their positive impact on the rural areas, the research reported here does suggest that these should not be overlooked when population redistribution policies are formulated. It also suggests that there is a need to provide investment opportunities for households that do not own agricultural land or enterprises, so that the remittances they receive may find a profitable use. Of course, all this will have to be accomplished within the framework of national migration policy, and presupposes acceptance of migration as an essential element in the over-all dynamics of economic development.

Notes

[1] Other implications of migration for rural areas are not discussed here. An urban survey covering 2,617 households was also carried out as part of the Indian study in order to investigate the effects of rural-urban migration on income distribution, employment and unemployment in urban areas, and on the structure of the urban labour market. A broader study by the present authors entitled *Causes and consequences of internal migration in a developing economy* is in preparation.

[2] All types of flow, i.e. rural-rural, rural-urban and urban-rural, were identified in the survey. The sampling design is explained in A. S. Oberai: *Methodology and research design of the case study in the Indian Punjab* (Geneva, ILO, n.d.; mimeographed).

[3] The survey data show that mean values of remittances rise with level of education. Graduates remit, on average, nearly two-and-a-half times as much as those with no formal education.

[4] A seasonal or "target" migrant may start sending remittances fairly quickly.

[5] This conclusion is based on data for a 16-year period. Nothing can be said about whether or not it would hold true for longer periods.

[6] At the time of the survey the US dollar was worth 8.8 Indian rupees. Mean per capita and per household incomes (including remittances) were calculated from the survey to be Rs. 845 and Rs. 5,198 respectively.

[7] Difference between group means is not significant at the 5 per cent level.

[8] Difference between group means is significant at the 10 per cent level.

[9] Difference between group means is significant at the 1 per cent level.

[10] See, for example, Gunnar Myrdal: *Asian drama. An inquiry into the poverty of nations* (New York, Pantheon, 1968), Vol. III, Appendix 2, p. 1912. Myrdal draws pointed attention to the fact that "in poor countries a change in the levels of living affects the contribution men make to production".

[11] Ideally, in order to measure the net effect of migration on income levels and income distribution, one should take into account the contribution an out-migrant would have made to household income and consumption if he had stayed in the village. But because of its complexity this task has not been attempted in the present paper.

[12] Ludhiana District is atypical to the extent that it has been the seat of the Green Revolution in India, and one should therefore be careful in generalising these results to other areas. But the study does provide an insight into the nature and use of remittances in an area where rapid socio-economic transformation is taking place.

[13] Oberai and Singh, op. cit.