Migration and Development in Pakistan: Some Selected Issues

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INTRODUCTION

Economic progress entails various shifts in resource allocations. A progressive redeployment of factors of production from the primary-goods-producing sector to secondary and tertiary sectors is regarded as a vital concomitant of economic transformation. This inter-sectoral transfer of resources, both human and capital, very often involves geographic transfer because of imbalances which manifest themselves as shortages or surpluses. Viewed in this context, migration performs a useful role by transferring excess labour from the agricultural (rural) to the modern industrial sector in urban areas. In fact, a vast amount of literature, under the rubric of the Labour Surplus' models, has evolved, especially during the 1950s, in which migration is seen as an equilibrating and growth-promoting mechanism leading to reductions in wage differentials, equitable income distribution and elimination of surpluses and shortages. Evidence accumulated during the 1960s and 1970s has also shown that migration could lead to worsening geographic and socio-economic inequalities. This has led quite a few scholars to characterize migration as a disequilibrating rather than an equilibrating mechanism. Not only are the theoretical possibilities varied, but the empirical evidence is also mixed and inconclusive.

There is, however, a continuing interaction between migration and economic growth. Whilst the resource base and economic development, in conjunction with population growth of an area, influence human mobility, the latter, in turn, tends to affect the pace and character of development and fertility. The conditions which generate migration flows are altered by the very process of labour mobility.

The effects and consequences of human mobility on the society and the economy depend mostly on flows such as human resources and income, and the adjustment of the supplying and receiving areas necessitated by these flows. Thus the size, composition and sectoral or regional patterns of human-resource flows

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influence labour market structure and productivity levels, and may induce technological changes. Income and capital flows through remittances bear upon consumption and investment behaviours and income distribution, besides other aspects such as labour-leisure choice and investment in human capital. Admittedly, the totality of the effects of migration can hardly be encompassed by a single exercise. The problem is further compounded by the lack of a proper data-set. Utilizing various sources of cross-sectional data, some of the interrelationships between migration and development, particularly the effects on the labour-exporting rural areas of Pakistan, are discussed below.

HUMAN-RESOURCE FLOW

A precise estimate of the level of mobility is precluded by the lack of a proper data-set. Varying definitions, inadequate sampling procedures and other problems faced in this context are discussed elsewhere [6]. Given these limitations, the available data yield a range of estimates. Around 7-10 percent of the population has changed residence during the 1970s.

Interestingly, the incidence of migration is higher among females than among males. Women's higher propensity to migrate is mostly attributable to patrilocal marriage customs wherein a significant proportion of female migration for marriage. particularly in the case of rural areas, is observed. According to the Population, Labour Force and Migration Survey of 1979 (hereafter referred to as PLM Survey). the share of migrants in the total female population falls from 11.8 percent to 4.8 percent when migration for marriage is excluded.

Mobility in Pakistan is predominantly local or involves short distances only. According to the data from the PLM Survey, 42 percent of the migrants moved within districts, while 39 percent changed their district but remained within the same province. Only 19 percent of the internal migrants crossed provincial boundaries. Around two-fifths of the migration flow is between rural areas, while less than onethird (29.8%) of the flow is from rural to urban areas. The remainder of the volume of internal migration is equally shared by inter-city and urban-to-rural migrants. Although a larger fraction of migrants opt for rural areas as their destination, the net migration flow to urban areas is quite significant. According to the 1981 Population Census, net migration to urban areas during the 1972-81 period involved as many as 2.5 million persons which accounts for 15 percent of the urban population in 1972.

The varying definitions of mobility used by different surveys do not permit a conclusive inference regarding intertemporal changes in the level of mobility. A comparison of the two labour force surveys conducted during the 1970s - the PLM Survey of 1979 and the Government of Pakistan's Housing, Economic and Demographic (HED) Survey of 1973 — does suggest a rise in the level of internal migration, although this result does not seem to emerge from a comparison of the 1981 Population Census (10% count) with the HED Survey of 1973. The PLM survey indicates that internal migration in Pakistan is increasingly becoming a long-distance and ruralto-urban affair.

Not only the size of the flow but the characteristics of those who dominate the migration flow are inextricably related with the consequences of human mobility for both the supplying and receiving areas. Migrants are generally regarded to be younger and better educated. In the Pakistani context, the coincidence of the timing of marriage and entry into the labour market in individuals' life cycles generates a peak for the 15-24 age group in the age-mobility curve.

When female migration is excluded, which presumably does not alter the regional population distribution significantly, the age-mobility relationship differs for migrants from rural and urban areas. In the case of migrants from rural areas, this relationship is in the shape of an inverted U, wherein the peak occurs at the age group of 15-24 years. Nearly 16 percent of this age group from the rural areas migrated during the 1972-79 years. In the case of urban areas, this group is still the most mobile. The differentials between various age groups are not as sharp as in the case of rural migrants. The spatial pattern of the flow appears interesting. Whilst two-thirds of those belonging to the 15-24 year age bracket migrated from rural areas to urban areas, only one-fourth of this group from urban areas left for rural areas. In the case of urban-to-rural migrants, it is the age group of 60+ years which exhibited the highest propensity to move. It must be noted that returnmigrants are excluded from these calculations, whose incorporation would have resulted in a very high fraction of aged movers landing in rural areas (Table 1 A).

Table 1 A Propensity to Migrate by Rural-Urban Direction and by Age Group

	Age Groups					<u> </u>	
Rural/Urban Move	0-9 Years	10-14 Years	15-24 Years	25-34 Years	35-44 Years	45-59 Years	60+ Years
Rural-Rural	0.0215	0.0392	0.0622	0.0291	0.0344	0.0300	0.0198
Rural-Urban	0.0068	0.0235	0.0991	0.0310	0.0243	0.0106	0.0299
Urban-Urban	0.0186	0.0297	0.0661	0.0357	0.0447	0.0239	0.0281
Urban-Rural	0.0156	0.0207	0.0172	0.0148	0.0274	0.0131	0.0253

A positive association between education and the propensity to migrate is obtained (Table 1B). In terms of origin, the propensity to move exhibited by the higher educational group was higher (33%) in rural areas than in urban areas (10%). An overwhelming majority (83%) of this group from rural areas moved to urban centres, while most of the urban migrants (80%) of the same educational background chose another urban centre as destination. The propensity to move to urban areas declines with lower levels of education. In the case of illiterates, only 5 percent from rural areas moved, with the majority of them ending up in other rural areas. By contrast, 4 percent of the illiterates from urban areas changed their residence during the period under reference and more than half of these migrants from urban areas ended up in urban areas. This pattern of human-capital flow — the young and the better educated to urban centres and the illiterates to rural areas — has been noted by various researchers in different settings too [13 for Tanzania; 4 for the Philippines].

Table 1 B

Propensity to Migrate by Rural-Urban Direction and Education

	Education Achievement				
Rural/Urban Move	Illiterate	1-5 Classes	6-10 Classes	10+ Classes	
Rural-Rural	0.0329	0.0406	0.0379	0.0582	
Rural-Urban	0.0141	0.0412	0.1547	0.2753	
Urban-Urban	0.0190	0.0308	0.0523	0.0880	
Urban-Rural	0.0204	0.0171	0.0108	0.0152	

Source: PLM Survey, 1979. (In-migrant and out-migrants for marriage excluded).

Contrary to the salutary effects of the labour exodus on the productivity levels in agriculture and in the supplying regions implicit in the dualistic models, through decline in the labour/land ratio and technological change induced by migration as well as remittances, the non-homogeneous labour outflow, wherein a disproportionate exodus of workers with "positive characteristics" occurs, may have adverse repercussions on the supplying areas. Indeed, this migration selectivity served as a basis for Myrdal's characterization of rural-urban migration as a disequilibrating process [10]. Similarly, in a study on U.S. agriculture, Hathaway [5] observed that outmigration of young workers led to a higher average age of workers in the family,

resulting in lower productivity. That the out-migration of the able-bodied had an unfavourable impact on productivity and income in the supplying areas was also a finding of other studies as well [3,11].

There is hardly any evidence on the effects of out-migration and the attendant qualitative change in the labour mix on the productivity levels in agriculture or in the rural areas in Pakistan. That the prime-aged and better-educated males have a higher level of earnings than their counterparts is borne out by the earning functions fitted to Pakistan's data on urban and rural areas. More specifically, in a regression framework the per acre income, as reported by PLM survey, is found to be significantly affected by per acre working males (see Appendix Table No. 1). The coefficient of males per unit of land is thrice that of females and six times that of children (10–14 years) per unit of land. This is clearly suggestive of the fact that primeaged males, who are generally syphoned off by migration, are more productive than those left behind. In addition, the above finding runs counter to the perception that the marginal product of male workers in agriculture is zero or near zero.

REMITTANCES

Estimation of remittances on regional or national level is a formidable task. The data may suffer from reporting errors in addition to being unrepresentative. The problems are more relevant for remittances generated through internal migration than for remittances from abroad. Given these limitations of data, the remittances estimated due to internal migration, on the basis of the PLM survey, amounted to 3 billion rupees¹ in 1978. Net flow of remittances by rural/urban area and provinces provided in Table 2 is suggestive of the fact that more than half of the amount so generated represents a net flow from urban areas to rural areas, wherein rural areas receive 71 percent and remit 18 percent of the gross remittances. Urban areas of all the provinces emerge as net suppliers with the major contributors being the urban areas of Punjab and Sind. Except in Sind, rural areas in three provinces are net recipients, with three-fourths of the net flow being to rural Punjab followed by rural areas of the NWFP. In the context of the provincial accounting framework, Sind contributes more than nine-tenths of the interprovincial net flow of remittances (see Table 3).

Remittances, on the average, account for 35 percent of the earnings of the migrants. This represents a higher percentage than reported for Africa by Amin and Rampel. It must be noted that average remittances are substantially less than the earnings of non-migrants of comparable skill and education in the supplying areas. The cost associated with the reaping of this potential for income growth of labour supplying regions or provinces, through provision of jobs for those who migrated, has to be reckoned with to determine whether the inter-regional relationship is parasitic or symbiotic.

Table 2 Net Flow of Remittances by Rural/Urban Area and Province

Provinces	Percentage of Total Inflow of Remittances	Percentage of Total Outflow of Remittances	Total of Net Flow of Remittances (1-2)
PAKISTAN	100	100	_
Urban	28.62	81.79	-53.17
Rural	71.38	18.21	53.17
PUNJAB	69.41	51.01	18.40
Urban	15.87	41.54	-25.67
Rural	53.54	9.47	44.07
SIND	9.45	33.38	-23.93
Urban	8.15	29.11	-20.96
Rural	1.30	4.27	-2.97
NWFP	20.53	14.32	6.21
Urban	4.60	10.35	-5.57
Rural	15.93	3.97	11.96
BALUCHISTAN	0.61	1.29	-0.68
Urban	0	0.78	-0.78
Rural	0.61	0.51	0.10

Table 3 Interprovincial Net Flow of Remittances

(Percentages

			(1 of contagos)
Province	Inflow	Outflow	Net Flow
Pakistan	100	100	-
Punjab	67.75	18.70	48.05
Sind	8.97	64.92	-55.95
NWFP	23.12	13.62	9.50
Baluchistan	1.16	2.76	-1.60

The rate of return, realized through remittances, to the investment embodied in the rural out-migrant can be estimated. According to the PLM survey, the mean age of out-migrants at the time of migration is 22.07 years. The cost of rearing to this age can be roughly estimated by making an assumption that, on the average, the rural family of the out-migrant was just at the poverty line. In terms of the 1979 prices, this would imply a food expenditure of Rs 65 or income of Rs 118 per adult equivalent, which permits this food expenditure in addition to other necessary expenditures. Assuming a 10-percent per annum opportunity cost of the money spent on the out-migrant and using the adult equivalence nutritional scales for different years of life, the value of investment embodied in the 1979 prices at the end of the 22nd year of life amounts to Rs 86,000. If one confines the exercise to food expenditure only, it amounts to Rs 48,000. According to the PLM Survey, on the average, a rural out-migrant remits Rs 3,200 per year. The returns realized by the family through its remitting son works out to be 3.7 percent for all expenses and 6.7 percent for food expenditure only. In this context, it would be instructive to have some idea about the rural-to-urban resource flow through out-migration. A rough exercise presented in Appendix Table 2 indicates that rural areas do transfer

INCOME DISTRIBUTION AND MIGRATION

substantial resources to urban areas.

Migration may lead to an improvement in income distribution because labour exodus may generate tight labour-market conditions in supplying areas, resulting in increased wages of rural workers. This tendency may be reinforced by the remittances if the poorer households receive more than the richer ones. Contrary to these expectations the migrant stream can be so structured as to worsen the overall distribution [8].

It is argued, for instance, that it would be tantamount to committing an 'ecological fallacy' to suggest that poor villagers are the likeliest to migrate. Evidence from a survey of villages in Mymensingh (Bangladesh) and in the Indian Punjab has indicated that households with large farm-sizes have more out-migrants than those with smaller farms [1]. Similarly, Peek and Antolinez [12] found a U-shaped relationship between farm size and out-migration from the household. Thus, households with the largest and smallest farms exhibited higher propensities to move.

Evidence on Pakistan tends to replicate the above findings. According to the PLM Survey findings, a higher level of out-migration is recorded for owner-operators, followed by share-croppers, while landless labour ranks the lowest. Whilst outmigration as a fraction of the population aged 10 years and above shows a gradual and marginal decline across these tenurial groups, there is much more variation in participation in the Middle East labour market. The corresponding percentages for sofficial Salar Pitters

share-croppers and landless labour are 10 percent and 4 percent respectively. Outmigration from a household tends to bear an inverse relationship with the farm size in the case of owner-operators. For sharecroppers, the highest percentage of outmigration is reported for households farming 12.5–25 acres. There are corresponding variations in the contribution of remittances to household income, the lowest being for landless labour (4%).

The Household Income and Expenditure Survey (HIES) does not report remittances separately, which makes it difficult to assess their impact on income distribution. Under the assumption that 90 percent of the income reported under unspecified or other sources constitutes remittances both from abroad and from within, the income distribution with and without remittances is worked out (Table 4). It should be borne in mind that remittances are subtracted from the regional incomes but not added to the incomes of contributing regions. This procedure simply yields inferences regarding the distributional implications of the remittances received. Admittedly it is a crude procedure. However, as shown by Table 4, Gini Indices without remittances, in majority of the cases, reflect an improvement in income distribution. This is reflective of the fact that remittances have led to a concentration of income. For reasons relating to adequacy of data and the sampling procedure of the HIES, however, much needs to be exercised in interpreting these findings.

Irrespective of the distributional implications, the remittances are mostly consumed by the recipient households. Evidence on use of remittances from the Middle East suggests that an overwhelming proportion is straightaway spent on consumption. Consistent with this evidence, the marginal propensity to consume out of remittances is 0.86 for Pakistan. Consumption liberalization rather than addition to productive capacity has been the effect of remittances on the receiving areas.

The hypothesis that migration induces technological change by creating labour shortage, which is further spurred by remittances which remove financial constraints [14], can hardly be substantiated with Pakistani data. The areas known for outmigration such as barani (i.e. rainfed) districts of northern Punjab, and the NWFP, except the districts of Peshawar and Mardan, hardly present scenes of areas with an above-average level of technology.

Migration and Fertility

Very often an unfavourable labour/land ratio or increasing population pressure has been identified as a major factor responsible for rural out-migration. How far this migratory process tends to rectify these imbalances can be partly assessed from the impact of migration on fertility of the supplying areas. The presumption that urban areas have lower fertility rates than rural areas is at the back of the view that rural-urban migration will lead to a decline in fertility. This phenomenon derives its explanation from the so-called adoption of lower family-size norms by rural migrants

Table 4
Income Distribution with and without Remittances

Provinces/ Rural/Urban Area	Gini with Remittances	Gini without Remittances
PAKISTAN	.376	0.362
Rural	0.320	0.302
Urban	0.401	0.389
PUNJAB	0.375	0.350
Rural	0.328	0.313
Urban	0.379	0.373
SIND	0.382	0.384
Rural	0.256	0.168
Urban	0.398	0.406
NWFP	0.425	0.363
Rural	0.354	0.327
Urban	0.493	0.377
BALUCHISTAN	0.355	0.347
Rural	0.280	0.274
Urban	0.363	0.370

Source: Pakistan. Statistics Division. Federal Bureau of Statistics. Household Income and Expenditure Survey, 1979. Karachi. 1983.

because of changes in the cultural milieu and income-wage configuration. Besides, mobility may disrupt the child-bearing process, either because of separation of the spouses or because of unsettled conditions during the early periods of migration. Lower fertility of rural out-migrants in comparison with rural non-migrant is also associated with the selectivity of migration, the contention being that migrants differ substantially from non-migrants in various characteristics like age and education, resulting in different fertility levels irrespective of spatial mobility. In addition, the exodus of a working hand from the family may lead to increased role of children as workers, which may influence reproductive behaviour. Furthermore, if an out-migrant is a husband and his wife is left behind, the effect on fertility through separation will be negative.

In order to assess the effects of migration on fertility, the data needs are not fully met by any cross-sectional data, such as those provided by the PLM Survey.

Some of the multivariate regressions for urban married females suggest a negative relationship between children ever born and premarital residence in rural areas. This disruptive effect is not only marginally significant but also specific to parity and age of the female.

Out-migration from the household is generally negatively associated but is significant only in the regression equations of younger and middle-aged cohorts in rural areas. For high-parity females in rural areas, the coefficient for out-migrant switches the sign and is significant. The bivariate relationship is provided in Table 5. The precise nature of interaction between out-migration and fertility is complex but the results reveal that at lower parity its negative effect stems from the prolonged separation of the spouses. The positive influence of out-migration for old-age (30–50 years) females finds its explanation in the increased value of children due to labour exodus. It can also be explained in terms of higher dependency-load resulting in job hunting.

Table 5

Mean CEB and Out-Migrants from the Household

Age of Female	No Out-Migrant	One or more Out-Migrant
Less than 24	1.12	1.20
25–35	3.84	2.97
36–44	5.92	6.93
45+	6.43	6.72
All Ages	4.06	4.26

Source: PLM Survey, 1979.

The enhanced value of children leading to higher fertility norms is also borne out by provincial data. Females in the NWFP, a province with higher incidence of migration, have higher fertility than those in the Punjab or Sind. Admittedly, drawing an inference about the complicated interaction between migration and fertility from cross-sectional data is hazardous. The provincial fertility differentials in rural areas of Pakistan, however, emphasize to the importance of understanding the migration-fertility nexus.

CONCLUDING REMARKS

Admittedly, in the presence of the opportunities and constraints engendered by structural and macro-level forces, migration appears to be a maximizing behaviour of the individual. The possibility of such mobility having an adverse repercussion on the economy of the labour-exporting areas can hardly be ruled out. Some limited evidence on Pakistan suggests that rural-urban migration syphons off the young and the better-educated workers, which fact, in turn, may have negative effects on productivity levels in agriculture and rural areas in general. Remittances sent back yield a very low rate of return on the investment embodied in the out-migrants. In addition, the remittances may worsen income distribution.

It must be noted that this exercise has been confined to the repercussions at the rural end. There exists a real possibility that by juxtaposing the effects of migration on the urban destination one may arrive at a different conclusion for the economy as a whole. Migration performs a very important role of reallocation of human resources among the changing demand-and-supply conditions. Whilst resistance to any interference in this reallocation process is understandable, reduction in the cost of resource-transfer among activities constitutes an important element of an optimal policy. In this context, the decentralization and diversification activities which facilitate intersectoral labour transfer without sizeable geographic mobility merit consideration.

Appendix Table 1

Determinant of per Acre Income in Farm Households: 1979

Independent Variable	Regression Coefficient	Standardized Beta
Tractor (yes or no)	0.103*	0.035
Share-cropper (yes or no)	-0.204*	-0.10
Female per Acre	0.311*	0.06
Male per Acre	0.902*	0.37
Child per Acre	0.06	0.01
Land 25 Acre (Dummy)	-0.70*	-0.37
Constant	4.08	

Source: PLM Survey, 1979.

Note: $\bar{R} = 0.46$ N = 2938 F = 240.6.

*Significant at the 5-percent level of significance.

Dependent variable log of per acre income.

Appendix Table 2

Interprovincial Flow of Resources Through Out-Migration: 1972-79
(Million Rupees)

				(Million Rupocs)
Province		Inflow	Outflow	Net Gain/Loss
Punjab	+	3364.3	- 13786.1	- 10421.8
Rural	+	207.8	- 11932.8	– 11725.0
Urban	+	3156.5	- 1853.3	+ 1303.2
Sind	+	14631.3	_ 175.2	+ 14456.1
Rural	+	1006.2	_	+ 1006.2
Urban	+	13625.1	- 175.2	+ 13449.9
NWFP	+	3173.6	- 9171.2	- 5997.6
Rural	+	181.1	- 8582.4	- 8401.3
Urban	+	2992.5	_ 588.8	+ 2404.5
Baluchistan	+	2321.3	_ 358.0	+ 1963.3
Rural	+	189.9	- 358.0	- 168.1
Urban	+	2331.4		+ 2131.4

Source: PLM Survey, 1979.

Notes: (i) Value of investment embodied in each out-migrant at the end of the 22nd year of his life is assumed to be Rs 86,000.

(ii) The above table pertains only to interprovincial out-migration. Since in-migration is excluded, the resource flow should be an under-estimate.

REFERENCES

- 1. Bilsborrow, R. E., A. S. Oberai and G. Standing. *Migration Surveys in Low Income Countries*. An I.L.O. WEP Study. London and Sydney: Croom Helm. 1984.
- 2. Connel J. et al. "Migration from Rural Areas: The Evidence from Village Studies". New Delhi: Oxford University Press. 1976.
- 3. Gaude J., and Peek P. "The Economic Effects of Rural-Urban Migration". International Labour Review. Vol. 114. 1976.
- 4. Hart, "Philippine Rural-Urban Migration". Behavioural Science Notes. 1971.
- 5. Hathaway, D. E. "Migration from Agriculture: The Historical Record and Its Meaning". In C. Eiches and L. Witt (eds.), Agriculture in Economic Development. New York: McGraw Hill. 1964.
- 6. Irfan, M., Lionel Demery and G. M. Arif. "Migration Patterns in Pakistan:
 Preliminary Results from the PLM Survey, 1979". Islamabad: Pakistan
 Institute of Development Economics. 1983. (Studies in Population, Labour
 Force and Migration Project Reports, No. 6)
 - Irfan M., and G. M. Arif. "Migrant Characteristics and Reasons of Mobility: Evidence from PLM Survey, 1979. Islamabad: Pakistan Institute of Development Economics. (Studies in Population, Labour Force and Migration Project Reports) (Unpublished)
 - Lipton, Michael. "Migration from Rural Areas for Poor Countries: The Impact on Rural Productivity and Income Distribution. In R. H. Sabot (ed.), Labour Markets and Urbanization.
 - Maddox, J. G. "Private and Social Cost's of Movement of Rural People out of hard Agriculture". American Economic Review. Vol. 70, 1980.
 - Myrdal, Gunnar. Economic Theory and Underdeveloped Regions. London: Duckworth. 1957.
- Oberai, A. S. Causes and Consequences of Internal Migration in a Developing Country: A Case Study in Indian Punjab. New York: Oxford University Press. 1984.
- Peek, P., and Antolinez P. "Migration and Urban Labour Market: The Case of San Salvador". World Development. Vol. 5. 1977.
- 13. Sabot, R. H. "Education, Income Distribution and Rates of Urban Migration in Tanzania". Economic Research Bureau, University of Dar-as-Salam. 1972.
- Stark, O. "Technological Change and Rural to Urban Migration of Labour:

 A Micro-Economic Crusal Relationship in the Context of Less Developed Economies". Leige, Belgium: IUSSP. 1979.
- 75. Todaro, M. P. "Urbanization in Developing Countries: Trends, Prospects and Policies". New York. The Population Council, Centre for Policy Studies.

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