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LABOUR MIGRATION FROM PAKISTAN TO THE MIDDLE EAST AND ITS IMPACT ON THE DOMESTIC ECONOMY
PART I

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INTRODUCTION

Migration is a topic which has recently generated a lot of interest in government and academic circles in different parts of the world. Books, articles in journals, news-papers features, and official and unofficial reports are appearing on this subject. However, all of them complain about the scarcity of empirical data. This is true for Pakistan as well as for other labour-exporting countries.[1] Discussions and arguments on the cost-benefit of migration reach a dead-end in the face of scanty empirical evidence.

With this background, the study of the International Migration Project can claim to be the first empirical research on the cost-benefit analysis of labour emigration. It drawa on original data collected through interviews of more than 15000 statistically selected migrant workers and their families. These migrant workers were interviewed at the three international airports of Pakistan and a sub-sample of their families was traced to approximately 250 villages and 50 towns and cities. This unique effort has not yet been attempted by other labour-exporting countries.

It is hoped that this study, in addition to making cost-benefit estimates of Pakistani emigration, will provide a comprehensive empirical base for the analysis of the general phenomenon of international labour migration. Also, by intensively analyzing the situation of one country, this study may contribute to the theory of international migration and

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[1] The most recent example is an article by Anand Chandavarkar published in Finance and Development (June 1980) in which the author makes repeated complaints about absence of reliable data.

methodology for analysing various aspects of it from which future studies in other parts of the world can benefit.

The immediate use of this study would, however, be for the policy-makers dealing with issues related to migration. This study, for the first time, has provided reliable estimates of the very essentials of policy-making, like the number of Pakistanis working in the Middle East, the volume and pattern of remittances and the purposes for which they are used. Likewise, the study has generated extensive data on a broad range of subjects dealing with emigration and migrants' behaviour. We are confident that the immediate research requirements of most policy-makers dealing with issues relating to migration can be met either by this study itself or by further analysis of its data.

The present volume is the first part of the Report of the International Migration Project of the Pakistan Institute of Development Economics. The second part, which deals with the cost-benefit calculations, is being published separately. The table of contents for that volume is given at the end of this Report.

The first chapter of this Report deals with the volume of migration and makes an estimate of the total number of Pakistanis working in the Middle East.

Chapter 2 describes the occupational composition of migrant workers and the existing labour market conditions in the country. In Chapter 3 an attempt is made to assess the impact of labour emigration on domestic wages and output. Chapter 4 deals with the costs of training which would be necessary to replace the migrant workers in various skills.

In the next three chapters we discuss the money and goods sent by emigrants to their families in Pakistan and the manner in which they are used by their families. Chapter 5 lays out some of the issues relating to the classification of data and their analysis. In Chapter 6 we present our estimates of the volume of remittances and try to identify the channels used by emigrants to transmit those remit; ances home. In the final chapter of this report, we have analysed hov the money coming in is being utilized by the migration households.

CHAPTER 1

THE NUMBER OF PAKISTANI MIGRANTS IN THE MIDDLE EAST

To count a sedentary population is difficult enough; to enumerate persons who keep moving in and out of a given area is infinitely more so. That is why few countries, Pakistan included among them, can boast of a reliable count of their nationals living abroad. In this exercise, an attempt is made to estimate as correctly as possible the number of Pakistanis working in the Middle East.

The number of such migrants in any given area at any given time can be estimated either by adding up the annual outflows of the migrants to that area up to the time of the exercise, presuming, of course, that records of annual outflows have been carefully maintained, or by organizing a reliable count of the migrants present in that area at that particular time.

For Pakistani migrants, the major source of data for the first method is the Bureau of Emigration and Overseas Employment (BEOE). A second source can be the traffic data provided by the Pakistan International Airlines (PIA) and other passenger carriers.

The second method implies a census or a sample survey to obtain an estimate of the number of migrants. This census or sample survey can be conducted in the home country or in the host country. The major source of data for a sample survey in the home country (Pakistan) providing the number of migrants is the Pakistan Institute of Public Opinion (PIPO) a private market-research organization which conducts nation-wide quarterly surveys. The major source of data on the number of Pakistanis collected through census/surveys (or their working equivalents) in the host countries is the Work Bank EMENA-DED study. The host country information is also available from an estimate provided by Pakistani diplomatic missions abroad to the Ministry of Manpower. In Table 1 we list the five different sources mentioned above and evaluate their suitability:

Table - 5

AN EVALUATION OF DIFFERENT METHODS OF ESTIMATING THE NUMBER OF MIGRANTS

Method	Data Sources	Period Covered	Estimate of Migrants	Evaluation
Flow Method	Bureau of Emigration and Overseas Employment	1971-79	489,696	Until October, 1977, the data exclude all migrants who obtained visas directly, i.e. neither through the Government nor through a licensed'recruiting agent. Since migration by direct visas is very substantial (in the Bureau data it is 142,363 between October 1977 and December 1979, or approximately 80,000 per year), the Bureau's estimate is considerably below the actual number. Furthermore, the Bureau data exclude all illegal migrants. -
	Source: Pakistan. Ministry of Labour and Manpower. *Emigration Statistics of Pakistani Manpower.* Islamabad. 1980.			If we add up annual averages of 80,000 migrants for the period beginning in 1973 up to 1978, when direct visa migrants began to be registered by the Bureau, it would mean an addition of 480,000 persons. Adding 20% of this number as illegal migrants would bring the total to approximately 1.2 million.
	Air Traffic Date	1977-78	Variant 1:703,836 Variant 11:1041,863	Firstly, the data exclude migrants who left the country by land or sea route. Secondly, it does not differentiate between the passengers who are leaving for the. first time and those who were visiting home on temporary visit. The estimates are based on [1] informed judgement' about the frequency with which migrant workers visit home. The results arc highly- sensitive to this judgement which is arrived et without much scientific basis.
	Source: Abbas and Tariq Javed, "Estimation of Volume of Emigration from Air Traffic Data", International Migration Project Monograph No. 1, 1980. (mimeo)			
Stock Method	Pakistan Institute of Public Opinion	Up to 1979	1,250,000	The PIPO nation-wide survey used the Labour Force Survey sample. It estimated the number of migrants on the basis of information provided by migrant households. It is the closest to a census of migrant work force conducted in the home country.
	Source: The as-vet-unpublished data on the subject, kindly provided by the PIPO, which had collected them in surveys of Pakistani households.			It is the only method among the ones available to us which can capture the number of both legal and illegal migrants, because it sought information from the household which was not obliged to make this distinction, as it was simply asked: "How many people from this household are working abroad and where?"
	World Bank	Stock [U]P to 1975	205,800	The figures provided by EMENA-DED do not mention either the source or the method by which its estimates were made. We can presume that the information was collected from official documents of the labour-importing countries and discussions with their officials. Alternatively, another source for this estimate could be the official figures provided by Pakistani Government - sources, namely, Bureau of Emigration, which for the same period (up to 1975) quotes a figure of 230,077 . . In that case the incomplete character of Bureau data mentioned above is equally applicable to EMENA-DED. '

Source; EiiENA-DED Data on migrant population in labour-importing countries El-XENA-DED study is conducted by the Vcrld Bank in selected labour-importing countries of the Middle Last. The data were provided to us f>y the World Bank.			Both the possible sources for EMENA-DED .information greatly underestimate the total number of foreign workers, for reasons of policy or lack of knowledge. Nevertheless, unless the method and source of the EMENA-DED estimate is articulated, it is not possible to meaningfully evaluate it.
Ministry of Labour and Manpower *Source:* Data based on reports by Foreign Missions in labour-importing countries. Discussions with relevant officials	Up to 1979	1,120,000	This is an informed judgement by labour attaches in the Middle Eastern countries. Since the labour attaches are intimately involved with the issue, they are likely to have fairly accurate information." However, there is no scientific basis for these judgements.

Since the *PIPO* survey data are based on the most reliable method, we have decided to use this method to estimate the number of Pakistani migrant workers in the Middle East.

Given the shortcomings in the published data on the flow of migration, it is clear that objective estimates could only be made on the basis of some reliable demographic survey which collects information on the number of emigrant workers. The Pakistan Institute of Public Opinion (PIPO) collected precisely such information in two surveys conducted in October 1979 and January 1980. The surveys were conducted at a total of 175 locations spread all over the country (and different for different surveys). The complete sample design is based upon that adopted by the Statistics Division, Government of Pakistan, for their labour force surveys. The reliability of the PIPO surveys can, therefore, be considered comparable with that of the Labour Force Survey. The sample locations are divided into urban and rural areas on the basis of the definitions adopted by the Statistics Division. The information collected by PIPO in these two surveys is given in Table 2.

Table 2

PIPO Survey Results on the Number of Migrants

Description	Location	Symbol	October (1978) Survey	January (1979) Survey
Percentage of households in the sample having *at least* one member working abroad	Rural	$P_{r=}$	9.8	8.7
	Urban	P_u	15.1	16.6
Average* number of migrant members abroad per household in the sample	Rural	m_r	1.57	1.63
	Urban	m_u	1.46	1.59

Average is taken only for those households who indicated that at least one of their members was working abroad.

Since the estimates from the two surveys differ, this requires a test of significance. For this purpose we use the estimate of the standard error of the difference between the two values for each sub-group. Table 3 summarises the position:

Table 3

Test of Significance of Difference Between the Results of Two PIPO Surveys ..

Parameter	Estimated Value			Standard Error of the difference
	October	January	Difference	
P_r	9.8	8.7	1.1	4.5
P_u	15.1	16.6	-1.5	4.9
m_r	1.57	1.63	-0.06	0.185
m_u	1.46	1.59	-0.13	0.130

The difference in estimates for all the parameter values lies well within one standard, error of the variable, and is not significantly different from zero[1]. As such, we can use the arithmetical average of the two estimates for computation of the total volume of migration. Keeping in view the sampling error, we have constructed 95% confidence intervals on these parameters which can provide upper and lower bounds on the computed volume of migration.

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[1] It may be noted here that due to the high rate of emigration from Pakistan, we may expect a slight increase in parameter values for January 80 over those for October 79. The data appear to be consistent with this expectation, in so far as 3 out of 4 parameters do register an increase, while in the case of the fourth parameter, the decline is not statistically significant.

METHODOLOGY

The method for the estimation of the total number of migrants is straightforward. The following formula is used, in which the subscripts 'r' and 'u' stand for rural and urban

$$M = M_r + M_u$$

$$= m_r \cdot P_r \cdot H_r + m_u \cdot P_u \cdot H_u$$

M, M_r, M_u = Number of migrants

H_r, H_u = Number of households

p is the percentage of households in the sample having at least one member working abroad and m is the average number of migrants per household in the sample.

However, in order to use this formula, we need an estimate of the total number of rural and urban households in the country. From the 1971 population, census and its projections, we do have estimates of rural and urban *Populations*. We decided to use these figures along with estimates of average household size in deriving household estimates. The projected figures for the total rural and urban populations in 1979-80 are 57.5 million and 22.7 million respectively. Unfortunately, there are many estimates of household size, all of which differ from each other. We have the following three figures:

	Source	*Household Size*
1.	Statistics Division: Household Economic and Demographic Survey	5.2
2.	PIPO Surveys 1979-80	7.8
3.	International Migration Project sample survey of Migrant households, March 1980	8.5

We have decided to adopt the figure of 7.8 from the PIPO survey because of the following reasons:

1. Casual observation indicates that the HED figure of 5.2, despite the respectability of its source, is unreasonably low for Pakistan.

2. The estimate of 7.8 is closer to the figure 8.5 family size obtained from the survey of migrant households in the International Migration Project.

3. The estimate was obtained in the same survey in which PIPO collected the information on migrants. In order to be consistent, it was considered reasonable to use both figures from the same data source.

We should observe here that the final estimate of the number of migrants is directly related to the estimate of household size we choose to adopt. As such, the results are quite sensitive to our assumptions regarding this figure. Were we to adopt the HED figure, our estimate of the number of migrants would have increased by 55%.

The calculation of the number of migrants is now straightforward and is presented in Table 4.

Table 4

Calculation of the Number of Migrants

Parameter	Symbol	Rural	Urban	Total
1. Percentage of household in the sample having at least one member working abroad	P	9.3*	15.9*	-
2. Average number of migrant members per household	m	1.60*	1.49*	-
3. Estimated household size	s	7.6	8.1	7.8
4. Total Population 1979-80 (millions)	n	57.5	22.7	80.2
5. Estimated Number of Households (H=n/s) in millions	H	5.57	2.80	10.3
6. Estimated Number of Migrants (M=m.p.H) in millions				
Total	M	1.13	0.66	1.79
As % of Total		63.1%	36.9%	100.0%
7. 95% confidence interval for the number of migrants:				
Lower limit:	-	0.79	0.53	1.32
Upper limit:	-	1.40	0.80	2.20

* Average figure from the two household surveys.

Here it is worth mentioning that the rural-urban distribution of the sample of migrant households selected for the International Migration Project is different from the 63-37 ratio obtained here. This difference arose because in order to save costs fewer interviews were conducted in the rural areas than in the urban. Already the rural respondents were tracked in approximately 250 villages. Additional rural interviewing would have been extremely expensive. In order to deal with this discrepancy, the analysis of the project data has been done separately for rural and urban areas, wherever possible. We have also devised a weighting scheme which can correct this and other biases introduced by the sampling methodology. Its application has, however, been postponed for subsequent analysis.

Provincial Composition

The PIPO data also provide similar information on the provincial composition[2] and country of destination of the migrants. The provincial breakdown is as follows:

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[2]These estimates however exclude emigrants from the following regions of the country because of the exclusion of these regions from the sample design of the PIPO.

1. Azad Kashmir
2. Malakand Division in the NWFP
3. Federally Administered Tribal Areas

The exclusion of the emigrants from these regions, however, is not expected to affect substantially the estimated total number of emigrants due to the relatively small size of the population involved.

Table - 15

Provincial Composition of Migrants

(Numbers in Millions

Provinces	Rural Area Migrants		Urban Area Migrants		Total Migrants	
	Number	As Percent of total Rural Migrants	Number	As Percent of total Urban Migrants	Number	As Percent of total Migrants
Punjab	0.83	73.6	0.43	64.7	1.26	70.4
Sind	0.10	9.2	0.15	22.9	0.25	14.0
NWFP	0.16	14.1	0.05	7.8	0.21	11.7
Baluchistan	0.04	3.1	0.03	4.6	0.07	3.9
Total	1.13	100.00	0.66	100.00	1.79	100.00

Country of Destination

The above estimation of emigration refers to all those who are abroad irrespective of the countries they migrated to. The International Migration Project is, however, concerned with the emigration to the Middle East only. The PIPO survey indicated the destination of emigration also. Table 6 gives the distribution of Pakistani migrants (by their rural and urban origin) in the Middle East in terms of both numbers and percentages. Similar information has also been provided for the rest of the world as a whole.

Table 6

Estimated Number of Pakistani Migrants in Middle Eastern Countries

(Numbers in Millions)

Countries/Area	Rural Area Migrants		Urban Area Migrants		All Pakistani Migrants	
	Number	As % of All Rural Area Migrants	Number	As % of All Urban Area Migrants	Number	As % of All Pakistani Migrants
Saudi Arabia	0.446	39.5	0.162	24.6	0.608	34.0
United Arab Emirates	0.236	20.9	0.122	18.5	0.358	20.0
Other Middle East Countries	0.158	14.0	0.122	18.5	0.280	15.6
Total Middle East	*0.840*	*74.4*	*0.406*	*61.6*	*1.246*	*69.6*
All Other Countries	0.289	25.6	0.255	38.4	0.544	30.4
Grant Total	1.129	100.00	0.661	100.00	1.790	100.00

Thus we estimate that there are approximately 1.25 million Pakistani workers in the Middle East.

CHAPTER 2

OCCUPATIONAL COMPOSITION OF MIGRANTS AND THE EXISTING LABOUR MARKET CONDITIONS

I. LABOUR SUPPLY AND DEMAND SITUATION IN PAKISTAN

The available data on labour supply and demand are very scanty and imprecise. The only source of statistics on the employment situation in the country is the Statistics Division of the Government of Pakistan which conducts periodical labour force surveys. The last labour force survey whose results are available was conducted in 1974-75. A later labour force survey was launched in 1978-79 but its results are not yet available. As a result, all the information on the employment situation in the economy is based on the 1974-75 survey. The Planning Commission and the Manpower Division have made their own projections up to 1979-80 on the employment situation but they cannot be considered very reliable because they simply inflate the 1974-75 statistics on the basis of the Planning Commission's investment programme. No account is taken of the changes in labour productivity, real wages or technology. During the 1970-75 period, real wages of labour increased substantially which might have created a bias towards a capital-intensive technology. Also there was a considerable decline in labour productivity during the 1970s due to non-economic factors (Meekal Ahmed 1979), causing a shift towards capital-intensive technologies. On the supply side, considerable structural changes might have taken place since 1974-75. Up to early 1970s there was substantial disguised unemployment in the country.

Apart from that, there were many who would not report themselves to be in the labour force because they believed that there were no jobs available for them. With labour emigration, not only is the disguised unemployment declining but those who were not in the labour force are also entering into it because they are not hopeful of getting a job, provided they tried for it. Thus a substantial increase (over and above the 3 percent assumed by the Planning Commission) in labour supply is

likely to have occurred during the second half of the 1970s. The projections of the Planning Commission and the Manpower Division, which ignore the above-mentioned developments have thus, considerable lost their usefulness. However, the available official data on labour supply and demand can be seen in Tables 1, 2 and 3.

TABLE - 1

Unemployment in Pakistan

(Millions)

	1974-75	1977-78	1978-79	1979-80
Labour Force	20.42	22.22	22.93	23.68
Those employed	20.07	21.84	22.54	23.25
Those unemployed	0.35	0.38	0.39	0.43
Unemployment Rate (%)	1.7	1.7	1.7	1.8

Table - 2

Unemployment Rates (1974-75)
By
Rural/Urban Areas and by Age

Age	Rural Areas	Urban Areas
10-14	2.2	9.3
15-19	2.7	7.1
20-24	2.2	4.6
25-34	1.0	1.5
35-59	0.7	1.2
60-64	1.0	1.2
65	0.8	1.9
All Ages	1.3	2.7

Table - 3

Unemployment Rate by Education

Level of Education	Urban Areas	Rural Areas	Pakistan
Illiterates	2.2	0.8	1.1
Literates			
No education or less than primary	3.4	0.2	1.2
Primary education but less than Matric	2.6	3.0	2.8
Matric but less than Degree	4.0	8.4	5.7
Degree (General Education)	3.2	1.5	5.6
Degree and Postgraduate Diploma other than education	3.1	-	2.6
All Groups	2.7	1.3	1.7

Source: Labour Force Survey, 1974-75

Table - 4

Employment Opportunities in Agriculture
And Non-Agricultural Sector

Sectors	Jobs Available (Millions) 1974-75	1978-79	Increase, 1978 over 1974-75
Agriculture	11.0	12.7	1.7
Non-Agriculture	9.1	9.8	0.7
Total	20.1	22.5	2.4

Source: Pakistan Economic Survey

According to these statistics the overall unemployment rate is less than 2 per cent. The unemployment is generally higher in urban areas and in the younger age groups. The unemployment rate among the literates is also very low - only 3-6 per cent in the country as a whole.

Mainly for the two reasons given below, we feel that these statistics give an unreliable picture of the labour market in the economy from the labour-supply point of view.

(a) The employment statistics mark disguised unemployment, particularly in the agriculture sector. The institutional arrangements that allow a family member to share farm/family income even if his marginal product is zero fail to show any substantial unemployment. Most of the labour supply that is generated by the rural areas (carrying 70 per cent of the country's population) gets absorbed into the agricultural sector under institutional arrangements if employment opportunities in the non-agricultural sector are not available. For example, during the period from 1974-75 to 1978-79, a 3 percent increase per annum implies an addition of 2.4 million in the labour supply. The non-agricultural sector during the same period provided only 0.7 million job opportunities (Table 4). The remaining 1.7 million just joined the already over-loaded agricultural sector in which, according to an estimate 2 million persons or 30 per cent of the population are in disguised unemployment. This role of traditional sector is also evident from Table 5.

Table - 5

- Employment Pattern 1974-75
(by Sectors and Rura.l/Urban Areas)

(Percentages)

Sectors/Areas	Employers	Self-Employed	Family Helpers	Employees	Total
Agriculture and allied activities	0.6	29.4	23.5	4.5	58.0
Manufacturing	0.2	5.5	2.3	4.9	12.9
Construction	-	2.3	0.2	1.7	4.2
Transport	0.1	2.0	0.3	2.3	4.7
Trade	0.2	7.6	1.7	1.3	10.8
Service & Others	0.2	2.7	0.5	6.0	9.4
Total	1.3	49.5	28.5	20.7	100.0
Urban Areas	2.3	41.9	10.2	45.6	100.0
Rural Areas	0.9	51.6	34.0	13.5	100.0

Source: Planning Commission

(b) Due to the lack of job opportunities a large part of the population in the working age group refrains from reporting as a part of the labour force. The total population in the working age group was 68.5 per cent of the total population according to the 1971 Census. This means there were 56 million persons in the working age group. Out of these, 32 million were not registered as part of the labour force. Though, out of this, about 24½ million were females, there were still 6½ million males in the working age group, who were neither working nor looking for work. A large part of this may be due to the very low labour force participation in the younger age groups. Even if we exclude the age group 10-15 and

also the children in school (in the age group 15-19) and army personnel, there are still a couple of million males out of labour force. Those males, plus some part of the female population, are most likely refraining from expressing their desire to work, if there is no work in their area or if they believe that there is no job for them anywhere. This pool of idle human resources is likely to get mobilized as soon as opportunities arise.

The survey of migrant households conducted for the International Migration Project also supports this situation. About 42 percent of the population in the working age has been reported to be out of labour force (i.e. neither working nor looking for work). Of the male population only, one-third of those in the working age are not reported in the labour force. This low participation is generally among younger age groups but it is still sizeable among older groups as shown in Table 6.

Table - 6

Labour Force Participation Among the Male Members of the Migrant Households

Age Groups	Working Male Members of Migrant Households as percentage of Total Working Age-Group Population		
	Rural Areas	Urban Areas	Total
10 - 14	8.3	3.9	5.3
15 - 19	40.2	24.0	29*2
20 and above	86.6	80.6	82.6
Total	71.8	63.4	66.6

These figures indicate that the number of those unemployed or economically inactive in the country is fairly large. In the presence of this population, international migration from Pakistan could scarcely be blamed for any short fall in domestic output at least to the extent of unskilled labour's emigration.

During the last five years, the labour market in the Middle East has provided promising job opportunities for Pakistani labour. It can be assumed that this may have induced many in the working age group, who previously did not register themselves as part of the labour force, now to report that they are looking for work. This would mean a higher reported rate of unemployment in employment statistics. The results of the Labour Force Survey of 1978-79 might throw some light on this issue. The labour situation in the skilled labour, however, may not be as clear. This is discussed in the following section:

Occupational Composition of
Labour Supply in the Country

The level of unemployment is not uniform across all occupations/ professions in the economy. A number of skills and professions are believed to be scarce in the country. Unfortunately, no official statistics are available on unemployment rate by occupations. The Labour Force Survey provides only the demand side (Table 7). Information about the supply of jobs in major occupations is not available to indicate unemployment by occupations. It is generally believed that there is an excess demand rather than unemployment in all skilled and professional occupations. Any unemployment in these occupations is only minor or it indicates the search period. There was substantial unemployment among engineers during the 1960s which is believed to have long been eliminated by emigration during the 1970s.

There is, however, still believed to be substantial unemployment among the educated labour force with only general education. The Labour Force Survey 1974-75 reported the highest unemployment rate for those whose education ranged between Matric and (general) degree (Table 3).

Table - 7

Employment Opportunities by Major Occupations

(Million)

Major Occupational Group	1978-79
Professional, Technical and related workers	1.07
Administrative and Managerial Workers	0.18
Clerical and Related Workers	0.96
Sales Workers	1.95
Service Workers	1.77
Agriculture, Animal Husbandry, Forest Workers, Fishermen, Hunters	11.93
Production and Related Workers Transport equipment, Operators and Labourers	
Not Classified	0.06
Total Labour Supply	22.93
Total Employed	22.54
Total Unemployed	0.39

Source: Manpower Division

II. OCCUPATIONAL COMPOSITION OF MIGRANT WORKERS

Existing Data

For the identification of occupational composition of migrant workers the only available official source was the Bureau of Emigration. Their data, however, suffered from a number of limitations. For example, the coverage of data is very limited. The data up to 1978 refer to only those emigrants who obtained jobs through the Government or licensed recruiting agents. Since a very substantial part of migration during the period was channelled through sources other than the Bureau, its statistics are incomplete. It was only in 1979 that a legislation was passed to require every migrant to get registered with the Protectorate of Emigrants. The Bureau of Emigration covered a total of only 182,000 migrants during the period 1970-77 whereas several informed sources placed the figure at more than a million. It is very likely that workers going through the Bureau of Emigration have a serious bias for certain classes of occupations. Also the statistics of the Bureau of Emigration did not provide a meaningful classification of the occupation of emigrants. They specify only some major occupations and the rest are covered by all other categories, which constitute one-fourth of the total migrants. The failure to identify them as unskilled, skilled or professional workers makes the entire occupational classification of limited data.

The data from the Bureau of Emigration can be seen in Tables 8, 9 and 10.

These statistics show a number of workers going abroad into 24 major occupations. While presenting the data in the tables these, 24 occupations have been classified into 5 major categories, namely:

1. Productive Workers

   Unskilled Labour

   Skilled Labour

2. Professional & Managerial Workers

3. Clerical Staff and

4. Service Workers

These not only provide a summary of the occupational profile but also make them comparable with the data from the IMP airport surveys which will be discussed later. These groups, however, exclude occupations that are lumped by the Bureau of Emigration into the 25th category named as "Other Categories". This category which may have some occupations falling into the above five major groups covers quite a large number of workers. The presence of this category, therefore, may put some limitation on the analysis of the occupational profile.

Table - 8

Occupational Profile of the Workers Going Abroad Through Bureau of Emigration During 1971-77

Profession	No. of Migrated Workers	% of total migration
Production Workers	123,796	68.1
1. Unskilled Labourers	59,869	32.9
2. Skilled Labour	63,927	35.2
a) Masons	15,485	8.5
b) Carpenters	15,812	8.7
c) Steel Erectors	6,856	3.8
d) Painters	2,568	1.4
e) Foreman	2,757	1.5
f) Electricians	4,564	2.5
g) Plumbers	2,391	1.3
h) Welders	2,846	1.6
i) Cable Jointers	1,281	0.7
j) Technicians	4,307	2.4
k) Mechanics	5,060	2.8
Other Workers	57,933	31.9
3. Professionals Managerial Workers	7,528	4.1
a) Engineers	1,718	0.9
b) Accountants	699	0.4
c) Managers	274	0.1
d) Teachers	1,772	1.0
e) Nurses	1,462	0.8
f) Doctors	1,603	0.9
4. Clerical Staff	5,372	3.0
a) Stenographers	634	0.3
b) Clerks/Typists	3,501	.19
c) Storekeepers	1,237	0.7
5. Service Workers	4,586	2.5
a) Cooks	2,990	1.6
b) Waiters	1,596	0.9
6. Miscellaneous	40,447	22.3
7. Total	181,729	100,0

Table - 9

Occupational Profile of Workers in Middle Eastern Countries Who Migrated Through Bureau of Emigration

Profession	No. of Migrants	% of Total Migrants for Middle East
Production Workers	112,421	71.5
1. Unskilled Labour	54,746	34.8
2. Skilled Labour	57,735	36.7
a) Masons	10,579	6.7
b) Carpenters	11,840	7.5
c) Steel Erectors	6,269	4.0
d) Painters	1,943	1.2
e) Foremen	2,478	1.6
f) Electricians	3,485	2.2
g) Plumbers	1,630	1.0
h) Welders	2,380	1.5
i) Cable Jointers	682	0.4
j) Technicians	11,085	7.0
k) Mechanics	5,364	3.4
Other Workers	44,985	28.5
3. Professional & Managerial Workers	3,773	2.4
a) Engineers	1,040	0.7
b) Accountants	487	0.3
c) Managers	306	0.2
d) Teachers	396	0.2
e) Nurses	904	0.5
f) Doctors	640	0.4
4. Clerical Staff	4,422	2.8
a) Stenographers	541	0.3
b) Clerks/Typists	2,776	1.8
c) Storekeepers	1,105	0.7
5. Service Workers	2,852	1.8
a) Cooks	2,030	1.3
b) Waiters	822	0.5
6. Miscellaneous	33,938	21.5
7. Total	1,57,466	100.0

Table - 10

Migrants Occupation Profile During 1971-77 As Reported By Bureau of Emigration For the Private Sector

Profession	No. of Migrated Workers	% of Total Migration
Production Workers	120,758	72.3
1. Unskilled Labour	59,655	35,7
2. Skilled Labour	61,103	36.6
a) Masons	15,485	9.3
b) Carpenters	15,687	9.4
c) Steel Erectors	6,757	4.0
d) Painters	2,563	1.5
e) Foremen	2,690	1.6
f) Electricians	4,469	2.7
g) Plumbers	2,380	1.4
h) Welders	2,831	1.7
i) Cable Jointers	1,081	0.7
j) Technicians	2,270	1.4
k) Mechanics	4,890	2.9
Other Workers	46,193	27.7
3. Professional and Managerial Workers	2,037	1.2
a) Engineers	861	0.5
b) Accountants	554	0.3
c) Managers	272	0.2
d) Teachers	159	0.1
e) Nurses	185	0.1
f) Doctors	6	0.4
4. Clerical Staff	5,301	3.2
a) Stenographers	632	0.4
b) Clerks/Typists	3,482	2.1
c) Storekeepers	1,187	0.7
5. Service Workers	4,586	2.8
a) Cooks	2,990	1.8
b) Waiters	1,596	1.0
6. Miscellaneous	34,269	20.5
7. Total	166,951	100.0

International Migration
Project Data

Considering the inadequacies of the Bureau data, a sample survey was considered desirable to complement the existing information.

In the absence of any frame from which we could draw a sample of the emigrant households, a survey of passengers departing for the Middle East was conducted on the three main international airports of the country in order to locate the areas from where the workers were emigrating and hence to arrive at a basis for a sampling of households. A total of approximately 12,500 passengers going to the Middle East were interviewed during the airport surveys, whose detail is provided in Appendix A of this Report.

A slightly modified form of standard embarkment card was used as a questionnaire. The answers to the questions on occupation were utilized for the calculation of the occupational composition of migrants. A question was also asked about the duration of their stay abroad. This question was utilized to identify the time trend in the occupational composition of the migrant.

The information on occupational profile from this source (airport survey) however, suffers from the following limitations:

a) The occupation of the emigrants recorded during this survey was the one shown in their passports. It is possible that, in some cases, this might not be reflecting the work, he has been doing in the country and instead will be indicating the work that he will be doing abroad. For example, a case was found where the person had been a photographer during all his employed career in the country but he was going abroad as a welder and that is what his passport showed. Such cases are, however,

rare and should not seriously distort the overall picture.

b) Since the information was collected from the passport/embarkment cards, there was not enough time to ask further details. The airports survey therefore did not say anything about the education/training background of the migrants. These details were left for the household survey that was to follow the airports survey.

The occupation of the workers was recorded according to the list of occupations shown in Appendix C. These occupations were later on grouped into the following six major classes:

1. Production Workers
   (a) Skilled
   (b) Unskilled
2. Professional and Managerial Workers
3. Clerical Workers
4. Service Workers
5. Sales Workers/Businessmen
6. Miscellaneous

The occupations included in these major groups are shown in Appendix C along with their two-digit PSCD - 68 codes.

The percentages of workers going to the Middle East by major occupational classifications and by individual occupations as obtained from the airport surveys, are shown in Table 11.

Table - 11

Classification of Migrants by Major Occupational Groups (IMP Survey)

	Occupational Groups	% of Migrant Workers
	Total	100.0
1.	Production Workers	83.2
	a) Unskilled Workers	42.6
	b) Skilled Labour	40.6
2.	Professional Workers	4.3
3.	Clerical Staff	1.5
4.	Service Workers	2.2
5.	Salesman/Businessmen	6.0
6.	Miscellaneous	2.9

Production workers constitute 83 percent of the migrating labour force, of which more than half were unskilled. The rest of the 17 percent migrants mostly fell under the heading of professional workers, businessmen or salesworkers, service workers and clerical staff. Details of these occupational groups can be seen in Table 12.

About 12 percent of the unskilled labour emigrating to the Middle East were reported to be agricultural labour. The other 88 percent of the unskilled labour included general labourers and loaders.

Among skilled labour, the prominent emigrating professions were drivers, masons, electricians, carpenters and tailors, covering 28 percent of the migrating labour (70 percent of skilled migrating labour). The other skills migrating to the Middle East were machine operators, mechanics, welders, steel binders/fixers, denters, etc.

Among professional workers, engineers were the major migrants. Accountants and teachers ranked next though the proportion was very small.

Cooks and security guards/watchmen were the main service workers going to the Middle East.

Table 12

Occupational Composition of Migrants
(IMP Survey)

Occupations	Percent
Total	100.0
1. Production Workers	83.16
a. Unskilled Labour	42.55
i) Agricultural Labour	5.12
ii) Non-Agricultural Labour	37.43
Skilled	40.61
Drivers	7.85
Carpenters	6.23
Masons	6.08
Tailors	4.72
Electricians	3.34
Steel Binders/Fixers	2.47
Mechanics	2.44
Machine Operators	2.22
Painters	1.57
Welders	1.38
Plumbers	1.32
Denters	0.38
Goldsmiths	0.31
Blacksmiths	0.12
Turners	0.09
Watchmakers	0.07
Furnace Fitters	0.04

Table (continued)

Service Workers	2.19
Cooks	1.11
Security Guards/Watchmen	0.47
Bakers	0.31
Peons	0.17
Laundrymen	0.14
Clerical Workers	1.52
Accounts Clerks	0.54
Storekeepers	0.37
Typists	0.29
Site Clerks	0.17
Telephone Operators	0.14
Professional Workers	4.32
Engineers	2.67
Accountants	o.55
Teacher/Professors	0.35
Nurses	0.20
Computer Programmers/Operators	0.19
Doctors	0.18
Executives	0.09
Photographers	0.08
Sales/Business Workers	5.95
Miscellaneous	2.85

Table - 13

Major Occupational Groups of Migrants
(By Provinces)

Occupational Group	Punjab	Sind	NWFP	Other Provinces/ Areas *
Total	100.0	100.0	100.0	100.0
1. Production Workers	82.4	71.2	92.1	87.9
Unskilled Labour	33.9	33.8	58.8	53.0
Skilled Labour	48.5	37.4	33.3	35.0
2. Professional and Managerial Workers	4.4	8.4	1.7	2.1
3. Clerical Staff	1.7	2.6	0.5	1.1
4. Service Workers	2.0	2.5	1.8	3.7
5. Sales Workers and Businessmen	6.3	12.0	1.8	2.8
6. Miscellaneous	3.1	3.5	2.1	2.3

* This includes Azad Kashmir, Federally Administered Areas and Baluchistan.

Intertemporal Changes in Occupational Composition of Migrants

The airport surveys included a question about the migrants'duration of stay abroad. This information is utilized here to determine if any changes are occuring in the composition of the labour demanded abroad. The distribution of migrants, covered by the airport surveys, according to their duration of stay abroad is as below:

Table - 14

Duration of Stay	Proportion of Migrants Covered During the Airport Survey
Less than a year	33.3
1 to 2 years	30.5
3 to 4 years	18.9
5 to 6 years	7.8
Above 6 years	9.5

Table 15 shows the composition of migrants' occupations and the time of their migration:

Table - 15

Interter poral Composition of the Migrant Professions

Profession	The Date of Migration				
	Within a year	Between Last 1 and 2 years	Between last 3 and 4 years	Between last 5 and 6 years	above 6 years
Unskilled Labour	50.6	46.4	39.3	39.6	30.2
Agricultural	3.0	8.1	3.7	0.0	3.9
Non-Agricultural	47.6	38.3	35.6	39.6	26.5
Skilled Labour	38.2	44.6	48.6	45.3	47.0
Carpenters/Masons	11.6	14.6	16.1	11.8	11.7
Technicians/Mechanics	17.9	19.5	20.8	15.2	17.4
Tailors	4.6	4.0	3.9	7.5	9.3
Drivers	4.1	6.5	7.8	10.8	8.6
Clerical Workers	0.6	0.7	2.7	3.8	3.5
Professional and Managerial Workers	4.4	2.6	2.7	2.8	3.1
Business Workers	4.4	4.6	5.8	6.6	10.9
Service Workers	1.8	1.1	2.9	1.9	5.1
Total	100.0	100.0	100.0	100.0	100.0

According to the above table, the proportion of unskilled labour has gone up over time compared to the proportion of skilled labour. While six years ago only 30 percent of the unskilled labour migrated to the Middle East, its corresponding percentage in the last year was as high as nearly 51 percent. On the other hand, the proportion of skilled labour declined to 38 percent from a level of 47 percent recorded for labour who migrated six years earlier.

Intertemporal Changes in the Composition
of Migrating Professions

CHAPTER 3
IMPACT OF EMIGRATION ON LABOU MARKET, WAGES AND OUTPUT

IMPACT ON OUTPUT

The statistics on the volume of migration discussed in Chapter 1 estimate a total of 1.79 million Pakistani migrant workers abroad. This constitutes 7.7 percent of the total recorded labour force of the country. However, keeping the peculiarities of the labour-supply situation in Pakistan, (discussed in Section I of Chapter 2) the migration has not yet assumed an alarming proportion.

This will, however, be true only on the aggregate. At micro level the picture may be serious for certain professions. Most of the Pakistani labour is illiterate, with no substantial skills. The technical, skilled and professional labour is scarce in the country. Migration of persons possessing scarce skills will have a harmful effect on the labour-supply situation of the country and can slow down Pakistan's economic development.

The fact that about 83 percent of the migrants are production workers is likely to adversely affect the percentage of the country's labour force belonging to this category of workers if adequate and appropriate replacements are not forthcoming at the same rate. The changes in the composition of the labour force by major professions during the 1972-79 period are shown in Table 1 along with the composition of the migrants.

The occupational category "7/8/9", which includes skilled and unskilled labour working in the non-agriculture sector, accounts for 78 percent of the migrating labour, which may create bottlenecks for the development of the non-agricultural sector in the country.

Table 1

Occupational Composition of the Labour Force Compared with Occupational Composition of Migrants

(Percent)

PSCO 68	Occupation Group	Labour Force (1972)	Labour Force (1979)	Migrants' Composition (1979)
0/1	Professional & Technical Workers	2.1	4.7	4.2
2/3	Clerical & Administrative Workers	2.8	5.0	1.6
4	Sales Workers	12.1	8.6	5.6
5	Service Workers	3.7	7.9	4.7
6	Farmers, Fishermen etc.	57.2	53.3	4.8
7/8/9	Production and Related	22.1	20.5	78.9

Source: Planning Commission for Labour Force, and Table 2 for Migrants' Composition.

The emigration of production workers, therefore, means a reduction of output in Pakistan's non-agriculture sector, particularly in the sectors of construction, manufacturing/mining, transport and communication.

Since surplus unskilled labour can be assumed to be available for employment, the loss of output in the two sectors will depend upon the extent of emigration from the skilled labour which is assumed to be fully employed. (Any reported unemployment in the skills can be assumed to be showing only search period for suitable jobs). With 40.6 percent of the emigrating labour compared of skilled persons and with a total of 1.2 million Pakistani emigrants in the Middle East, the total skilled emigrants number 0.487 million.

According to the composition of labour force given in the 1961 Census, the skilled and unskilled labour were employed in the ratio of 4:1 in the non-agricultural sector. Thus the economy has lost the output of 0.122 million unskilled workers along with the output of 0.487 million skilled workers. Alternatively, however, it can also be assumed that since it is not too costly in term of time and money to acquire a skill, the large number of unemployed unskilled labour can always be converted into skilled labour to meet all the skill requirement. Hence the emigration of even skilled labour may not have caused any loss of output in Pakistan. However, large difference (100% to 200%) in the wages of unskilled and skilled labour indicates some sort of impediments in the way of acquiring skills. The number of unskilled workers out of the total 1.2 million emigrants to the Middle East comes out to be 0.511 million. According to this analysis, 76 percent of the emigrating unskilled labour will not cause any loss of output to the economy because it was either unemployed or was a part of disguised unemployment in the agriculture and traditional sectors.

There is no evidence of unemployment among professional workers, and the economy has, therefore, lost the output of 52,000 professional workers who accounted for 4.3 percent of total emigrants from the country.

The Labour Force Survey of 1974-75 indicated a 5.7 percent unemployment in the educated (general degree certificate) labour force (Table 3) which generally represents the clerical labour force in the country. The emigrants have been found to include 18,000 clerical workers, or of the total emigrants. It can be inferred that the emigration of clerical workers does not cause any appreciable loss of output.

Service workers which include cooks, laundrymen, watchmen/guards, barbers, though they are not unskilled workers, can be assumed to have caused no loss of output by their emigration, mainly because their skills can be acquired easily and quickly.

In view of the unemployment among people with general education the supply of salesmen/business workers, who require only general education, can also be assumed to be elastic. Thus their emigration can also be assumed to cause no substantial loss of output.

Apart from the above-mentioned effects, emigration may also have effects on techniques of production, composition of skill and demand patterns which in turn affect the output. These impacts will be evaluated in subsequent analysis.

IMPACT ON LABOUR MARKET

No detailed estimates are available about Pakistan's supply of and demand for workers in various occupations. Hence it is difficult to assess the impact of the emigration of workers belonging to various occupational categories on the labour market conditions for those occupations. The estimate of percentage share in employment is given by only major occupational groups by the Planning Commission and Manpower Division for the current year. In view of the growth rates implied in these estimates and on the basis of detailed occupational composition published for the 1961 Census, a crude exercise on the domestic demand for major emigrating occupations is shown in Tables 2 and 3. The tables also compare the estimated increase in the domestic opportunities and the estimated number of emigrants by major emigrating occupations. In the preliminary analysis, the supply side has been ignored, although emigration may also have affected it. It will, however, be taken up in the subsequent analysis.

Table 2

Estimated Domestic Demand for Major Migrating Occupations

(000)

Occupation	1961 (Census Figures)	1971-72[a]	1974-75[a]	1978-79 (Estimate)	1982-83 (Projections[b])	Increase 1971-72 to 1978-79 (Estimate)	Estimated No. of Emigrants to the Middle East[c]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mason	69	171	229	244	278	73	73
Carpenter	59	147	197	210	239	63	75
Electrician	24	59	79	84	96	25	40
Plumber & Pipe Fitter	4	10	13	14	16	4	16
Painter	11	27	36	38	43	11	19
Machine Operator	15	21	25	27	31	6	27
Mechanic	64	89	106	113	130	24	29
Blacksmith	84	117	139	148	170	31	1
Driver	183	504	551	574	649	70	94
Tailor	126	247	361	394	445	147	57
Goldsmith	41	80	117	128	145	48	4
Engineers	11	20	31	53	60	33	32
Doctors, Medical Workers, Medical Technician	35	62	99	166	188	104	5
Teachers	94	167	261	466	504	279	4
Executives etc.	90	98	148	180	203	82	1
Clerical & Related Workers	374	440	560	960	1085	520	18
Service Workers, Barbers, Peon, Cooks Laundrymen etc.	709	710	931	1770	2000	839	26
Business/Sales Workers	130	387	349	327	380	22	7

[a] Based on the growth rates implied in the Labour Force Surveys of 1971-72 and 1974-75.

[b] As implied by Planning Commission and Manpower Division Statistics on Employment.

[c] Almost all of this emigration has been during 1972-79 period.

Table 3

Comparison of the Estimated Number of Migrants Abroad With the Number Employed in Pakistan by Major Occupations of the Migrants

(in Thousands)

Occupation	Estimated Employment in Pakistan in 1978-1979	Estimated Number of Migrants Abroad in 1979
Mason	244	73
Carpenter	210	75
Electrician	84	40
Plumber & Pipe Fitter	14	16
Painter	38	19
Machine Operator	27	27
Mechanic	113	29
Blacksmith	148	1
Driver	574	94
Tailor	394	57
Goldsmith	128	4
Engineers	53	32
Doctors, Medical Workers Medical Technician	166	5
Teachers	466	4
Executives etc.	180	1
Clerical & Related Workers	960	18
Service Workers, Barbers, Peons, Cooks, Laundrymen etc.	1770	26
Business/Sales Workers	327	7

According to these estimates, the skills required for Pakistan's construction and manufacturing sectors are emigrating excessively as compared to the growth in their domestic supply. The transport sectors is also found to be facing shortages of drivers when we compare the total increase in the domestic demand with the number of emigrated drivers. An important factor that these statistics fail to reflect but which has been mentioned by the employers of workers is that the workers who are emigrating are of better quality and are more experienced thus leaving behind low-quality and less-experienced workers to meet the domestic requirements. This results not only in reduced output but also in declining quality of production in the manufacturing sector; it also leads to increasing accidents on the road. Since a substantial number of skilled workers get their skills through informal arrangements (either through learning-by-doing process or by an informal apprenticeship: see Chapter 4), the decline in the quality of workers is understandable.

Scarcities are being observed for engineers also. Since it takes much longer time to produce an engineer than the skilled workers mentioned above, the emigration of engineers is creating more serious shortages for the economy.

The emigrating occupations like teachers, clerical workers, businessmen and service workers, however, is not causing any alarm as the proportion of their emigration to increase in their demand is not yet very significant.

The emigration of doctors and medical personnels is also not very significant but that might be mainly because of the government control on their migration.

IMPACT ON WAGES

According to the data collected by the Censuses of Manufacturing Industries (CMI), wage increases during the 1970s have been much higher than the increase in the cost of living. This increase in real wages has been unprecedented and unaccounted for by the domestic demand for labour. The wage increases during the 1960s in real terms were not as marked as the increases during 1970s. This was despite the fact that during the 1970s the economic activities in general and industrial activities in particular were considerably slower than during the 1960s (Table 3).

Though the period from 1969 to 1975 witnessed massive government intervention in the form of labour/wage policies, most of the wage hikes during the 1970s are generally attributed to the international migration of workers. Not enough data, however, are yet available to support this hypothesis. Some evidence is available from the data on wage rates of skilled and unskilled labour in the construction sector made available by the Statistics Division on an annual basis since 1969-70 (Table 4-iii).

It can be seen that the spurt in the wage rates of both skilled and unskilled labour started in the mid-Seventies which is also the period when the migration gained momentum. Also it can be noted that the higher ratio of the wage increases of unskilled labour to skilled labour's wage increases in Karachi and Peshawar corresponds to higher ratio of unskilled labour migration to the skilled (Mason and carpenter) migrants in Sind and NWFP (Table 4) when compared to similar ratios for the Punjab.

Table 4

Wage Rates of Skilled and Unskilled Labour in Construction

(Rs. Per Day)

	Lahore	Karachi	Peshawar
(i) Carpenter			
1969-70	10.00	14.50	10.31
1970-71	10.67	15.33	99.62
1971-72	11.75	16.01	9.94
1972-73	12.09	16.15	11.09
1973-74	17.82	19.33	13.65
1974-75	22.68	27.42	17.17
1975-76	28.12	31.90	24.92
1976-77	33.16	40.74	30.80
1977-78	38.79	51.25	37.68
Percent increase during 1970-78	287.9	252.4	265.5
(ii) Masons			
1969-70	10.67	15.25	10.13
1970-71	11.17	15.86	11.00
1971-72	12.00	17.08	11.88
1972-73	12.09	17.84	11.88
1973-74	17.82	20.20	14.12
1974-75	22.68	27.54	17.76
1975-76	28.12	31.86	25.36
1976-77	35.94	40.70	32.31
1977-78	41.38	51.56	39.05
Percent increase during 1970-78	287.8	238.1	278.8
(iii) Unskilled Labour			
1969-70	4.65	5.48	3.00
1970-71	4.75	5.98	3.54
1971-72	5.21	5.53	3.65
1972-73	5.52	5.80	3.80
1973-74	9.20	7.96	4.96
1974-75	11.25	12.41	6.87
1975-76	14.07	15.00	9.68
1976-77	17.34	18.48	11.01
1977-78	17.49	25.17	13.88
Percent increase during 1970-78	276.1	359.3	362.7

If the hypothesis of positive impact of emigration on real wages is true then it has implications for the industrial sector of the economy over and above the output foregone mentioned earlier. A substantial part of the manufacturing sector is export-oriented so that it does not have much leverage to increase its prices without price increases in the international market. The wage increases causing the costs of production to go up not only causes the employment to go down in these industries but also has a destructive effect on industrial development, which has been one of the major development objectives of the country. Also, in the presence of increasing wages, the industrial development gets biased towards capital-intensive technology which conflicts with the objective of improving exports, employment and income distribution situation in the country. There are indications that such industries as are capital-intensive or do not produce for export markets (like cement, fertilizer, vegetable ghee) are growing more than export industries (like textiles).

These adverse consequences will continue to intensify unless the wage increases are backed up by a corresponding increase in labour productivity by enhancing their human capital through massive training programmes.

The available statistics on wages are not enough to indicate the impact of migration on the labour market. The Census of Manufacturing Industries publishes periodical data on wages, but the last published data are for 1975-76 only. The Statistics Division publishes statistics on the daily wage rates of labour working in the construction sector (Table 4). In the absence of any statistics on the number of days a labourer has been employed during a year, any inference made from these will be of limited

use. If we can assume that the number of employment days for all the labour have remained constant during the last five years, then the statistics indicate significant improvements in the real wages of both skilled and unskilled labour. It may seem curious that wages have increased in the presence of substantial unemployment among the unskilled.

A number of factors have been mentioned by various studies to explain the rising real wages in Pakistan. These include reservation wage (based on per capita income) as mentioned by Fahim Khan, 1978 and rural wages as mentioned by Guisinger and Irfan. If rural wages are to be taken as the explanatory factor behind the rising urban wages, then we would still have to explain what has been causing rural wages to raise. The rising reservation wage, however, can be explained by the rising per capita income in rural areas resulting from the remittances from abroad. Though non-market factors, like government intervention, have also been mentioned as significant factors in explaining the wage increases, the government intervention in wage determination was effective mainly during the 1969-75 period. Beyond 1975, it could not be the main determinant of wages.

CHAPTER 4
THE COST OF TRAINING FOR REPLACEMENT OF MIGRANT WORKERS

Our findings show that a substantial number of Pakistani emigrants to the Middle East are skilled and professional persons. While it is possible to replace them, of course with a certain time lag, by providing training to some from the pool of unskilled labour, the question arises: How much would such replacement effort cost? Consequently, the cost of education and training for various migrating skills becomes an important element of the cost-benefit analysis of international migration.

This is the subject of the present chapter. Here we make an attempt to determine the cost of education and training and the value of output foregone during the period of training. Tables 1 and 2 give the summarised results of our findings. They provide the costs of different levels of education (Table 1) and different occupations (Table 2). In the rest of this chapter we explain the method by which we arrived at our cost estimates.

DETAILS OF CALCULATIONS OF EDUCATION AND TRAINING COSTS

Introduction

Costs are to be calculated for the following categories:

1. General/Professional Education
2. Technical Training
   a) Formal Training
   b) Informal Training

The former category includes general and specialized education while the latter refers only to technical education which can be obtained either through formal training or can be received in the informal sector.

Table 1

Annual Cost of Different Levels of Education 1978

(Rupees)

Educational Level	Year of schooling	Annual Govt. Cost.	Annual Private Cost		Annual Cost		Total Social Cost	
			Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone
1	2	3	4	5	6	7	8	9
School								
Primary	5	250	30	455	280	705	1400	3225
Secondary	5	800	56	2048	856	2848	4280	14240
College								
Intermediate	2	2000	460	2940	2460	4940	4920	9880
Degree	2	2400	460	3072	2860	5472	5720	10944
Technical								
Diploma	2	76000	445	10290	7445	17290	14890	34580
Degree	4	14500	2755	18560	17255	33060	69020	132240
Teacher Training Certificate	1	1200	230	1536	1430	2736	1430	2736

Table 2

Total Cost of Specific Professions*

(Rupees)

Profession	Total cost without earning foregone	Total cost with earning foregone
1. Engineer	79620	159885
2. Teacher	17750	41325
3. Clerk	10600	27645
4. Technician	25490	62225
5. Salesman	16320	38589

* This table is based upon the cost estimation in Table 1. A further breakdown of these cost calculations is given in Appendix 1, Tables 3-7.

Data are available on the cost of general education from the Planning Commission and the Ministry of Education. The cost of formal training is available from the National Training Bureau. However, there are no data available on the cost of training obtained in the informal sector, and a survey was conducted for the same.

The occupational profile of the labour migrating to the Middle East has been found to include the professions shown in Table 3.

Table 3
Classification of Emigrating Occupations

1. Production Workers

   a. Unskilled Labour

      i) Agricultural Labour

      ii) Non-Agricultural Labour

   b. Skilled Labour

      i) Masons
      ii) Carpenters
      iii) Electricians
      iv) Welders
      v) Plumbers and Pipe Fitters
      vi) Machine Operators
      vii) Mechanics
      viii) Steel Binders/Fixers
      ix) Painters
      x) Drivers
      xi) Tailors
      xii) Blacksmiths
      xiii) Goldsmiths
      xiv) Denters
      xv) Watchmakers
      xvi) Turners

2. Professional and Managerial Workers

      i) Engineers
      ii) Doctors
      iii) Teachers/Professors
      iv) Executive Managers
      v) Accountants
      vi) Computer Programmers/Operators etc.
      vii) Nurses
      viii) Laboratory Technicians
      ix) Photographers

3. Clerical Workers

i) Stenographers
ii) Typists/Clerks
iii) Site Clerks
iv) Telephone Operators
v) Accounts Clerks

4. Service Workers

i) Cook
ii) Laundrymen
iii) Security Guard and Watchmen
iv) Barber
v) Peon

5. Salesman/Businessman

i) Salesman
ii) Businessman

In view of the proportions of occupations observed during the present study of international migration, it was found that the following major occupations will cover more than 90 percent of the migrants. (See the report on the occupational profile of emigrants.)

General/Professional Education

1. Engineers
2'. Teachers
3. Clerks
4. Nurses
5. .Salesmen
6. Accountants

Formal/Informal Training

1. Masons
2. Carpenters
3. Electricians

4. Welders
5. Plumbers and Pipe Fitters
6. Machine Operators
7. Mechanics
8. Steel Binders/Fixers
9. Painters
10. Drivers
11. Tailors
12. Blacksmiths
13. Goldsmiths
14. Denters
15. Watchmakers
16. Turners

The cost of education/training, therefore, has been studied only for these professions.

I. Cost of General/Professional Education

The cost of general/professional education e.g. for Doctors, Teachers, Nurses, Accountants, etc. includes both Government Costs and Private Costs.

Government Costs

This is the cost that government incurs in providing the educational facilities;

The data on government cost are available from the Planning Commission.

Private Costs

Private cost of education consists of:

a. Tuition costs that the student bears; and

b. Earnings foregone during the period of study.

No. systematic information is available on private costs particularly on the earnings foregone during the period of study. Some unofficial studies, however, have been made in this respect. Though these studies are subject to their own limitations and cannot be used with much confidence, yet in the absence of any official source, these unofficial studies have to be used in order to get some estimates on the cost of education.

The available information on these costs is discussed below.

Cost Calculations

Government Costs

Table 4 gives the statistics prepared by the Planning Division for the Fifth Plan (1979-83).

Table 4

Unit Cost of Different Levels of Education, 1978

Level of Education	Development	Recurring	Total Amount
Primary	100	150	250
Secondary	400	400	800
College			
(a) Intermediate	1000	1000	2000
(b) Degree	1200	1200	2400
Technical			
(a) Diploma	5000	2000	7000
(b) Degree	10000	4500	145000
University	10000	4500	14500

Sources Planning Division, Government of Pakistan.

Private Costs

Hamdani's* study for Rawalpindi is adopted to estimate the private costs of education.

This study on education andincome differentials, is for males in Rawalpindi City only. It is based on a socio-economic survey conducted by The Pakistan Institute of Development Economics in 1975. The study estimated an earnings function to find out the effect of education on the incomes after controlling other variables.

Table 5

Ratio of Private Cost to Government Cost

Educational Level	Government Cost	Private Cost		Ratio of Private to Government Cost	
		Without Earning Foregone	With Earning Foregone	Without Earning	With Earning
School					
Primary	246	30	448	.12	1.82
Middle	507	40	1616	.08	3.18
High	710	48	1814	.07	2.56
College					
Intermediate	1931	445	2811	.23	1.47
Degree	2441	469	2811	.23	1.47
University	17414	769	4571	.04	0.26

Source: Khalil A. Hamdani, *op.cit.*

Assuming that the above ratios hold for the whole country, the total education cost per year for different, levels of education is shown in Table 6.

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* Khalil A. Hamdani. "Education and Income Differential: An Estimation for Rawalpindi City". *Pakistan Development Review*. Vol.XVI, No.2. Summer 1977.

Table 6

Annual Unit Cost at Different Levels of Education 1978

Level of Education	Government Cost	Private Cost		Total	
		Without	With	Without	With
School					
Primary	250	30	455	280	705
Secondary	800	56	2048	856	2848
College					
Intermediate	2000	460	2940	2460	4940
Degree	2400	460	3072	2860	5472
Technical					
Diploma	7000	445	10290	7445	17290
Degree	14500	2755	18560	17255	33060
University	14500	580	3770	15080	18270

That part of the private costs which is a result of earnings will be a part of the social cost only if there is full employment among the educated/trained people. In the presence of unemployment, the output foregone will be zero.

The total education cost of specific professions with and without earnings foregone is summarized in Table 7.

Table 7

Total Education Cost of Specific Professions

Profession	Total Cost without earning foregone	Total Cost with earning foregone
1. Engineer	79,620	159,885
2. Teacher	17,750	41,325
3. Clerk	10,600	27,645
4. Technician	25,490	62,225
5. Salesman	16,320	38,589

A further breakdown of these costs is given in Appendix 1, Tables 3-7.

Cost of Technical Training at Formal Institutions

At present there are several government training centres providing training courses in various trades. These are of the following types:

1. Government Technical Training Centres (TTC)
2. Government Apprentice Training Centres (GATC)
3. Government Vocational Institutes (GVI)

There are also schemes for giving partial or total -on-job or in-plant training, which are:

4. I.D.A. Vocational Training Project
   (a) Institution-Linked Scheme
   (b) Wholly In-Plant Scheme

The estimated cost per year per trainee from these training centres is given below in Table 8.

Table 8

Estimated Costs Per Trainee Per Year

Institution		Cost Per Trainee Per Year (Rs.)
1.	Technical Training Centre	3979
2.	Apprentice Training Centre	2266
3.	Government Vocational Institute	1366
4.	IDA Vocational Training Project:	
	a. Institution Linked Scheme	2075
	b. Wholly In-Plant Scheme	1460

Source: National Vocational Training Programme, National Training Bureau, Manpower Division.

All the skills taught in the centres are spread over a period of less than one year. The annual costs, therefore, again prevent obtaining the total cost of training. The training costs for different skills have

Table 9

Trade-Wise Unit Cost With Regard to the Training.of Skilled and Semi-Skilled Workers \

(Rupees)

S. No.	Trade Category	Recurrent Cost	Depreciation Cost		Total Annual Trainee Cost Col.2 + Col.3
			Building	Equipment	
1.	Mechaniest/Fitter	2439	1222.06	1500	2722.06
2.	Turner	2439	1214.52	4000	5214.52
3.	Welding	2439	1301.27	5000	6301.27
4.	Electrician	2439	1184.345	2000	3184.35
5.	Radio/TV Mechanic	2439	1169.25	2000	3169.25
6.	Auto-Diesel Mechanic	2439	1384.25	2500	3884.25
7.	Carpenter	2439	1501.18	6000	7501.18
8.	Plumbing Pipe-Fitting	2439	1380.48	1100	2480.48
9.	Textile Machine Maintenance Mechanic	2439	2036.77	3100	5136.77
10.	Weaving	2439	1357.85	2000	3357.85
11.	Air Conditioning	2439	1380.48	2000	3380.48
12.	Sheet Metal Work	2439	1316.27	1000	2316.27
13.	Civil Draughtsman	2439	1056.105	100	2056.11
14.	Painting & Denting	2439	1301.25	1500	2801.25
15.	Farm Mechanic	2439	1471.00	6000	7471
16.	Leather Work	2439	1184.35	1500	2684.35
17.	Foundry	2439	1801.27	2000	2801.27

Source: National Vocational Training Programme, National Training Bureau, Manpower Division.

been calculated by the National Training Bureau for 17 trades, and are given in Table 9. Further breakdown of the cost estimates is given in the Appendices.

The estimates in Table 9 show that the trades with the highest costs of training are those of carpenters, farm mechanics, textile mechanics, and welders, while for the civil draughtsmen, mechanics/fitters, leather workers and sheet metal workers the training costs are relatively low.

These costs, however, do not include the earnings foregone by the trainees during the period of training. It can be assumed that the trainee would have been working as unskilled labour had he not been getting the training. In this case an additional cost will be incurred by the individual in terms of earnings foregone equal to the accumulated wages for the training period. From the point of view of the society, however, this will be a cost only if we can assume that there is full employment of the unskilled labour.

II. The Cost of Informal Training

A person can obtain a skill without going to school or any other formal institution. This is done either through the process of learning through work or by being attached as a helper to a skilled persons.

All such occupations as do not require a degree or deploma from a recognised institution can go to those persons also who have only informal training. No study exists on the costs of obtaining skills through informal channels. The International Migration Project, while conducting a survey of returned migrants, included a couple of questions on the costs of informal training. The sample size was not large enough to help investigate the issue in detail and only the following basic questions were asked:

1. Did you get any technical training before leaving the country Yes____ No_

2. If yes, what is the

   a) Nature of Training _____

   b) How did you get this training

      i) Through vocational Institutes_____

      ii) Through learning by doing _____

      iii) Through informal apprenticeship_____

      iv) Other_____

   c. How much did you spend monthly on this training Rs. _____

   d. How much time did you spend to get this training _____

One hundred and twelve respondents, of 40% of the total sample, had had technical training. Out of these 112, only 26 respondents had obtained training from a formal Vocational Institute. The reamining 86 respondents obtained their skills from informal sources. This indicates the prominent role played by informal training in producing human capital in the country. Most of the informal training is obtained through the arrangements of informal apprenticeship as shown in Table 10.

Table 10

Rate of Informal Training

	Rural	Urban	Total
Workers who obtained			
(a) Through learning by doing	4	12	16
(b) Through informal apprenticeship	32	38	70
Workers with Informal Training			
From Vocational Institutes	5	21	26
Total No. of Workers with Technical Training Covered in the Survey.	41	71	112

The above survey indicated the acquisition of the following major skills

Mason

Carpenter

Mechanic

Pipe Fitter and Plumber

Painter

Tailor

Electrician

Welder

Electroplating

Goldsmith

Driver

Telephone Operator

It is possible that our small sample may not have covered all the skills that can be obtained from informal training. In fact, all the skills that were mentioned in Table 9 and which are provided by vocational institutes could be included in the above list.

The survey has indicated that the period required to obtain these skills through informal arrangements varies from 1 year to 4½ years (Table 11).

Table 11

Average Time Spent in Informal Training

Skills	No. of Respondents	Average No. of years spent in informal training
Mason	18	2 1/3 years
Mechanic	14	2½ years
Driver	11	3¼ years
Carpenter	12	4½ years
Tailor	7	4¾ years

Table contd.

Electrician	6	2¼ years
Painter	6	1 year
Welder	3	2 years
Power Loom Operator	3	1 year
Telephone Operator	2	1¼ years
Goldsmith	2	4½ years
Pipe Fitter and Plumber	2	4¼ years
Electroplating	1	3 years
Suit-case Maker	1	4 years
All above skills	86	2 years 8 months

The time spent in informal training is generally greater than the time spent in formal training. Nothing, however, can be said about the quality of skill obtained through formal and informal trainings.

So far as the cost of informal training is concerned, no significant amount has been indicated by the respondents in the survey which means that they do not have to pay much to learn the skills as apprentice. This is because as an apprentice, a worker provides substantial help to his trainer and it is possible that as an apprentice he might even be getting some petty pocket money. In a few cases where some costs have been indicated, the amount did not exceed Rs. 200 for the entire period of training. The wages that a trainee would have got had he worked (as an unskilled worker) instead of learning the skill are component of his private cost. For the society this will be a cost only if there is full employment of the unskilled workers. However, in the presence of substantial unemployment among the unskilled workers the time spent by an unskilled worker in learning a skill will cause no loss of output to the society.

Appendix 1

TRAINING COST CALCULATIONS

Table 1

Trade-wise Equipment Cost and Depreciation

S.No.	Trade Category	Equipment Cost Per Place (Rs.)	Depreciation * Cost @ 10%
1.	Mechanic/Fitter	15,000	1500
2.	Turner	40,000	4000
3.	Welding	50,000	5000
4.	Electrician	20,000	2000
5.	Radio/T.V Mechanic	20,000	2000
6.	Auto-Diesel Mechanic	25,000	2500
7.	Carpenter	60,000	6000
8.	Plumbing * Pipe Fitting	11,000	1100
9.	Textile Machine Maintenance Mechanic	31,000	3100
10.	Weaving	20,000	2000
11.	Air-Conditioning	20,000	2000
12.	Sheet Metal Work	10,000	1000
13.	Civil Draughtsman	1,000	100
14.	Painting & Denting	15,000	1500
15.	Farm Mechanic	60,000	6000
16.	Leather Work	15,000	1500
17.	Foundry	20,000	2000

*Life of equipment is assumed to be 10 years.

Appendix No.1

Table 2

Trade-wise Building Cost

S. No.	Trade Category	Trade Area	Construction Cost @Rs.148 Per Sq Ft.	Cost of Land @ Rs.2.872/- Per Sq Ft.	Total Building Cost/Trade Col.3+ Col.4	Depreciation @ 2.5%
1.	Mechanist/Fitter	324	47952	930.5	48882.5	1222.00
2.	Turner	322	47656	924.8	48580.8	1214.5
3.	Welding	345	51060	990.0	52050.8	1301.2
4.	Electrician	314	46472	901.8	47373.8	1184.32
5.	Radio/TV Mechanic	310	45886	890	46770	1169.2
6.	Auto-Diesel Mechanic	367	54316	1054	55370	1384.25
7.	Carpenter	398	58904	1143.1	60047.1	1501.18
8.	Plumbing & Pipe Fitting	366	54186	1051.2	55219.2	1380.48
9.	Textile Machine Maintenance Mechanic	540	79920	1550.9	81470.9	2036.73
10.	Weaving	360	53280	1033.9	54313.9	1357.85
11.	Air Conditioning	366	54168	1051.2	55219.2	1380.48
12.	Sheet Metal Work	345	51060	990.9	52650.8	1316.27
13.	Civil Draughtsman	280	41440	804.2	42244.2	1056.10
14.	Painting & Denting		51060	990.8	52050.8	1301.25
15.	Farm Mechanic	390	57720	1120.1	58840.1	1471.00
16.	Leather Work	314	46472	901.9	47373.9	1184.35
17.	Foundry	345	51060	990.9	52050.8	1301.27

*Statistical Division.

Table 3

Annual Education Cost For An Engineer

Educational Level	Year of Schooling	Annual Government Cost	Annual Private Cost		Total Cost		Total Social Cost	
			Without Earnings Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone
1	2	3	4	5	6	7	8	9
School								
Primary	5	250	30	455	280	705	1400	3225
Secondary	5	800	56	2048	856	2848	4280	14240
College								
Intermediate	2	2000	460	2940	2460	4940	4920	9880
Technical								
Degree	4	14500	2755	18560	17255	33060	69020	132240

The total education cost for an engineer comes out to be:Rs.79,620 (without earning foregone)
:Rs.159,885(with earning foregone).

Table 4 Appendix No.1

Annual Education Cost for A Teacher

Education Level	Year of Schooling	Annual Government Cost	Annual Private Cost		Annual Cost		Total Social Cost	
			Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone
1	2	3	4	5	6	7	8	9
School								
Primary	5	250	30	455	280	705	1400	3225
Secondary	5	800	56	2048	856	2848	4280	14240
College								
Intermediate	2	2000	460	2940	2460	4960	4920	9880
Degree	2	2400	460	3072	2860	5472	5720	10944
Teacher Training Certificate	1	1200	230	1536	1430	2736	1430	2736

The cost of Education for Teacher = Rs.17750 (without earning foregone)
Rs.41325 (with earning foregone)

Table 5

Annual Education Cost for
A Clerk

Educational Level	Year of Schooling	Annual Government Cost	Annual Private Cost		Annual Total Cost		Total Social Cost	
			Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone
1	2	3	4	5	6	7	8	9
School								
Primary	5	250	30	455	280	705	1400	3525
Secondary	5	800	56	2048	856	2848	4280	14240
College								
Intermediate	2	2000	460	2940	2460	9440	4920	9880

The total education cost for a cleark : Rs.10600 (without earning foregone)
: Rs.27645 (with earning foregone).

Table 6 Appendix No.1

Annual Education Cost for a Technician

Educational Level	Year of Schooling	Annual Govt. Cost	Annual Private Cost		Annual Cost		Total Social Cost	
			Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone
1	2	3	4	5	6	7	8	9
School								
Primary	5	250	30	455	280	705	1400	3225
Secondary	5	800	56	2048	856	2848	4280	14240
College								
Intermediate	2	2000	460	2940	2460	4940	4920	9880
Technical								
Diploma	2	76000	445	10290	7445	17290	14890	34580

The total education Cost for a technical : Rs.25490 (without earning foregone)
Rs.62225 (with earning foregone)

Annual Education Cost for a Salesman

Educational Level	Year of Schooling	Annual Govt. Cost	Annual Private Cost		Annual Cost		Total Social Cost	
			Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone	Without Earning Foregone	With Earning Foregone
1	2	3	4	5	6	7	8	9
School								
Primary	5	250	30	455	280	705	1400	3225
Secondary	5	800	56	2048	856	2848	4280	14240
College								
Intermediate	2	2000	460	2940	2460	4940	4920	9880
Degree	2	2400	460	3072	2860	5472	5720	10944

The total education cost for a Salesman: Rs.15320 (without earning foregone)
Rs.38589 (with earning foregone)

Appendix 2

EARNING FUNCTION

An earnings function has been estimated by Hamdani for each educational level.

For each educational level the earnings foregone or opportunity cost is the difference income for that level and its preceding one.

Data has been used for a survey of Rawalpindi city conducted by PIDE in 1975.

Since individual life time longitudinal data was unavailable, the earnings function was fitted on cross-section data for employed individuals of varying ages at given educational level. Income was regressed on age, for each level of education, using the following form of regression.

$$I_n(Y) = a + bA - CA^2 + dz: + u$$

where, $I_n(Y)$ = natural logrithm of income

A_i = Age

Z_i = Standardization variables

u = regression error

a,b,c,d= regression coefficients

The results of the regressions are given in Table 1.

Table 1

Appendix No.2

Earnings Function by Educational Level

Educational Level	Sample Size	Regression Coefficients (t-statistic value)								
		Constant								
Unschooled	432	-1.1410	0.0686 (9.20)	-0.0007 (8.14)	0.3108 (5.92)	0.5534 (4.78)		0.0220 (0.27)	.32 (40.12)	.423	.42
Incomplete Primary	119	-1.3744	0.0800 (5.83)	-0.0008 (4.52)	0.2391 (2.51)	0.6662 (3.33)		.43 (21.88)		.435	.32
Primary	285	-0.7955	0.0615 (5.49)	-0.0006 (4.65)	0.3113 (3.32)	0.2825 (1.93)		.20 (16.94)		.504	.30
Secondary	375	-1.0190	0.0962 (7.97)	-0.0011 (7.30)	0.0807 (0.71)	0.6085 (3.88)		.20 (25.58)		.866	.30
Post-Secondary	77	-1.1389	0.1166 (2.89)	-0.0012 (2.47)	0.0208 (0.05)	0.0012 (0.00)	0.3781 (1.95)	.23 (4.18)		1.387	.30

CHAPTER 5

FOREIGN REMITTANCES: ANALYSIS AND DATA ISSUES

INTRODUCTION

The dramatic rise in the inflow of home remittances from Pakistani workers in the Middle Eastern countries is a phenomenon of great importance for Pakistan. From an insignificant level of Rs. 155 million in 1972-73, the volume of remittances rose to an estimated 1807 million in 1979-80. Valued at market prices, remittances now comprise 8% of the GNP and 40% of the total foreign exchange earnings, and finance 86% of the trade deficit. It may be observed that viewed purely as an inflow of foreign resources, the current size of the inflow is very large in comparison to the other type of foreign exchange transfer, namely, foreign assistance. The latter (including loans as well as grants) never exceeded $ 1250 million in any one year, and was often much below that figure.

It is being increasingly recognized that migration is not an unmixed blessing. On the benefit side, remittances are the major (if not the sole) benefit from labour migration. They are net addition to our society's resources; they ease balance-of-payments constraint; and they boost development by permiting imports of capital goods and raw materials; and by improving capacity utilization in industry. Remittances may also channel resources into the hands of the government and thereby enable it to increase development expenditure. Furthermore, if the labour migration is taking place from the relatively less affluent sections of society, such as the unskilled, semi-skilled and service workers, remittances, by raising the consumption level of their families, may result in an improvement in income distribution.

Arguments regarding disadvantages of remitances raise broad issues such as unpredictability of remittance flows, and unproductive use of remittances by the emigrants' families. Since the level of remittances depends on a host of factors, mostly outside the control of the receiving country's government, the government cannot predict the future flow of these remittances with any degree of confidence; nor can it, therefore, base its long-run development plans on the expectation that remittances will continue to flow in at a known rate. Also, the ad hoc planning of consumption and imports in the presence of a large inflow of remittances may result in an irreverisible dependency on imports and high consumption levels which would be difficult to maintain if this source dries up or shrinks in size.

It is also argued that the pattern of use of remittances by the emigrants' families washes away most of the gains from the inflow. A large part of the remittance money is spent on raising current consumption (largely of imported consumer goods), and on unproductive investment such as real estate, purchase of residential houses and consumer durables, etc. Such expenditure, apart from being inflationary, is quite often of the type which can be characterised as luxurious, and which may, therefore, have a strong demonstration effect on the consumption of non-migrants as well. This reinforces the initial inflationary impact, and is also likely to lead to other social problems like frustration among those who were not fortunate enough to migrate. Another aspect of the consumption-oriented use of remittances is the relatively high import content of the consumption demand generated by the remitted funds. If this is true, then some of the balance-of-payments gains are offset by the higher import demand.

The beneficial effects on income distribution may also not be fully realised if (i) the migration is not disproportionately from the lower income groups and (ii) the consumption and investment pattern generated by remittances favours the richer classes. For example, the higher demand for real estate favours the propertied classes by pushing up asset prices.

These disadvantages offset some of the gains from remittances, but which way the scale weighs, cannot be determined on *a priori* considerations. The magnitude of the net gain or loss is an empirical question. The cost-benefit exercise undertaken later in this study is meant to explore that question. However, before we do that, it is necessary to establish the volume of average remittances and the behavioural pattern of different socio-economic groups in this regard, so that the stage is set for exploring precisely the type of questions raised above.

In the following pages are set out the various issues and problems involved in the analysis of the use of remittances. The next two chapters take up the detailed examination in the light of this discussion.

I. ANALYTICAL ISSUES

Before proceeding to analyse the use of remittances, it is important to establish what appear to be the salient problems in a theoretical treatment of this question. The issues can be summarised as follows:

(i) Since it is difficult to directly ascertain what portion of the expenditure of a migrant's household is being financed by remittances as against other income, what method can be used to analyse the effect of remittances on the expenditure pattern.

(ii) A related question is whether the impact of remittances on consumption should be analyzed by looking only at those who actually receive remittances, or should we include in our analysis those who did not receive any remittances but nevertheless increased their expenditure on goods and services?

(iii) Our cost-benefit exercise attributes different social values to consumption and investment. This raises the question of classifying different expenditures into these two heads in an objective manner.

(iv) Related to the last point is a theoretical issue: whether we should expect stable consumer behaviour with regard to any classification scheme we may wish to adopt.

(v) What aggregation scheme should be employed to examine recruiting consumption expenditure together with infrequent lumpy expenditure.

(vi) Since remittances may be an irregular or infrequent source of income for migrants' families, does the irregularity influence the relative size of their outlays on consumptio n and investment/savings?

(vii) Is there any other form of income generated indirectly by the inflow of remittances? If so, what are its effects?

(i) Identification of Uses

In order to distinguish the uses of remittances from other "normal" expenditure, we propose to compare the behaviour of the migrant households with that of the control group. As described elsewhere in this report, the sample of families in the control group was chosen to correspond closely to the life-style and socio-economic status of the migrant households. Thus, the only difference between the two groups is that one receives remittances while the other does not. We can, therefore, assume that the behaviour of the control group reflects what the migrants would have done in the absence of remittances. Hence the comparison of the two groups will bring out the effect of remittances on the expenditure pattern.

This assumption may, however, be open to some reservations which should be mentioned. First of all, if we look at expenditure patterns disaggregated by income class (which may reflect status), it is not clear whether the income class of the migrant family should be determined on the basis of the migrant's pre-migration income or that of the post-migration income. The comparison on the basis of pre-migration income should help bring out the gross increase in consumption because of the inflow of remittances. On the other hand, the comparison on the basis of post-migration income would reveal the difference between the uses of domestically earned income, and those of home remittances. The two may have uses in different types of analyses. For purposes of this report, however, we are ignoring this distinction. We shall, in subsequent refinements of the analysis, try to deal with this issue by drawing conclusions and making comparisons separately on the basis of both the approaches (pre- as well as post-migration income classification). In addition, we shall also look at other dimensions of life-style, namely rural/urban residence, profession/skill, education of head of household, etc. These will provide additional details on the pattern of the use of remittances in the different sub-classes.

(ii) Impact of Remittances on Non-Migrants

Another problem with this method of analysis may be that the control group may have itself been influenced in its behaviour by the phenomenon of migration and its consequences. Thus the reference point we have chosen may not have been stable all this time, but may have been shifting in the same direction as the point whose distance from it we want to measure. There are three major reasons why this may have happened.

Firstly, there is the so-called "demonstration effect" of the high and conspicuous consumption of the migrant households. Since a large number of these households come from the middle and lower strata of the social hierarchy, the sudden rise in their consumption (especially of imported durables and clothing) places a great social pressure on all social classes which consider themselves equivalent or superior to the migrant classes, to raise their consumption in a like manner. To the extent that they cannot do so, it leads to frustration and dissatisfaction.

A *second* reason why the control group may now be behaving differently from what it did earlier, may be that domestic labour scarcity, by pushing up the real wage rate, brings about changes in income distribution and concomitantly in consumption propensity. This is, however, hypothesized to be captured by the income distribution weights in the cost-benefit analysis.

Finally, the rising real wage rate of urban labour may induce greater optimism about the future in this class, which may result in raising their consumption even higher than that warranted by the high wages. This effect is, however, expected to be rather weak and not of much consequence.

If we take the above three effects together, we can assert that the consumption of the control group will be higher than before, even though they are not receiving any remittances. Clearly this does not pose any problems for static comparisons, since we can reasonably assume that the consumption of the migrant group would similarly be high, even if one of the family had not migrated. Thus, since both the groups are in the same social millieu, all factors which influence the one also influence the other, and thus do not need to be accounted for.

If we were interested in the dynamic effects of migration, this is an issue we would have had to deal with. We would need a general equilibrium dynamic model with parameters simultaneously or recursively determined over time. This analysis would not be possible without extensive longitudinal data on incomes and expenditure.

In the cost-benefit framework also, the higher consumption propensity of the non-migrants poses a cost to society (as explained above) which can be attributed directly to migration. We do not have a simple and uncontroversial measure of these costs, and, as such, we are not in a position to arrive at precise estimates of the aggregate net social benefit of migration during the last 6 years. Since it may be desirable to make some reasonable estimates of these benefits, we do intend to deal with this issue in the subsequent refinements of our study. Similarly, questions like "economies of scale" in migration, or forecast of future cost-benefit streams with finite changes in migration flow are not measurable with any degree of precision in our framework. However, at this stage we are interested in the marginal net social benefit of migration, and in the policy implications thereof, for which the static model of comparison presented above is quite suitable.

(iii) Classification of Expenditure

Since in the cost-benefit analysis, we differentiate between the contributions of consumption and savings, a question arises regarding the classification of the different expenditure categories into these two headings. This classification needs to be made in view of both the theoretical basis for separate treatment of consumption/savings in our framework and the trade-off for the individual household between current

and future consumption as reflected in the savings decisions. The following discussion highlights the issues involved in deciding upon a classification.

We shall begin with three categories-consumption, investment and savings and discuss the reasons for distinguishing between them.

From the point of view of the *individual* decision-maker, the distinction between consumption on the one hand, and investment and saving on the other hand is indicative of his choice between current and future consumption. The only difference between private saving and private investment is one of control (and risk), because both reflect one's desire to postpone consumption. Both these actions provide the economic agent with a command over future resources which he can then choose to exercise. If we pursue this line of reasoning, it is evident that we should include in investment all purchases of real estate, machinery, financial instruments, residential house and even consumer durables, because these purchases reflect an outlay on durable goods against which there would be[a] flow of consumption services in future years.

From the *social* point of view, things are not so simple. First, the reason for distinguishing between consumption expenditure and investment expenditure is based on the fact that the latter type of expenditure results in raising the productivity of the workers in the society in addition to whatever it may provide to the investor. If this benefit does not exist, then as far as the society is concerned, there is no difference between consumption and investment; both types of expenditures use up real resources of the society, and both types of expenditure provide satisfaction to the decision-maker only.

The second point relates to the distinction between investment and savings. The term savings is being used here to denote the conversion of idle purchasing power into secure financial instruments. Examples can be time deposits, saving schemes, prize bonds, defence certificates, etc. We can assume with a reasonable degree of accuracy that this results in the transfer of liquidity to the government or quasi-government organizations through the monetary system or through financial intermediaries. The government or quasi-government organizations will, in turn, convert these funds (or most of them) into real physical assets with the qualities mentioned in the last paragraph. These benefits have, however, to be balanced against the likely additional consumption by the holder of financial instruments in later years.

The term private investment is distinguished from savings, as it is used to denote acquisition of real physical assets which can provide a stream of returns in the future. This can be of two types: (i) acquisition of assets which are a net addition to the society's capital stock, and (ii) purchase of existing assets from other owners. As far as the latter is concerned, its real implication for the society's welfare is based on what the seller of assets does with the money. Clearly, if, for example, he chooses to consume all of it, it would be as if the purchaser of assets had himself consumed it. However, it is very difficult to assert what would happen to the purchasing power now transferred to the seller of assets*. Since we do not have any definite information, we are assuming

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* Guisinger (1980), in a short note on this point, argues that Pakistani migrants, because of their age, education and skill level, are not the logical investors in "productive" assets. As such, transactions in real estate can be viewed as a (imperfect) form of financial intermediation.

that all of this money would be saved. This assumption, although unlikely to be true in a physical sense, is, however, not unreasonable as far as its general-equilibrium basis is concerned. We note that if the seller of assets had decided to dispose of his assets (because of consumption requirements, loan repayment, investment opportunities or what have you), his expenditure decision can be accepted as final irrespective of who buys his assets. As such, the purchaser's decision is to be viewed as an independent investing decision, not to be offset by the simultaneous disinvestment decision of the seller, which, despite its simultaneity, was made separately and independently. Another related point can be that in a general-equilibrium framework, the increased demand for existing capital stock pushes up its price (except in the case of inelastically supplied capital) and makes installation of new capital more attractive and desirable. In view of this, more capital may actually be added to society's resources in an indirect way because of the saving decision made elsewhere. We fell that these reasons are sufficient to justify the consideration of the purchase of old physical assets on a par with the acquisition of new capital as investment. In order to distinguish this category of investment, however, we have classified it separately as "Financial Investment".

In both the cases mentioned above, namely acquisition of new physical capital and that of old physical capital, we face another question of classification. As mentioned earlier, investment has the quality of raising the productivity of the work force and is therefore desirable. Now, there may be types of expenditure which have a stream of returns in the future, but no such benefit. Examples may be purchase of durable consumer goods, construction or improvement of one's own residential house, etc.

Such expenditures do provide a stream of future services to the decision-maker, but only to him. The question, then, is whether such expenditure is socially as desirable as, say, purchase of industrial machinery. We feel that this is not so and that such expenditure should properly be classified as consumption rather than investment*. In order to be able to treat such expenditure separately, we have decided to create a separate classification, "consumption-type investment". This category can then be added to either consumption or investment depending on the views on this question. Our cost-benefit analysis proceeds on the premise that this is a consumption expenditure.

One final point on classification of the use of remittances relates to health and education expenditures. Expenditure on these categories has some characteristics of consumption and some of investment. They may be considered to be consumption as they provide "utility" only to the decision-maker. However, they do increase the productivity of the worker and as such may be considered to be investment in human capital. We have classified them under a separate heading, "consumption-type investment", so that a reclassifications, if desired, can be done without any problem. However, we feel that the magnitudes involved are so small that the results won't be sensitive to this classification.

To summarise the foregoing discussion, the information on expenditures and savings shall be categorised as follows:

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* It may be observed that this assertion is not uncontroversial. Purchase of durable consumer goods may increase productivity (sewing machines, bicycles, e.g.), construction of one's own house may reduce pressure on housing, improvement in one's house may have impact on hygiene and physical well being of occupants and therefore raise productivity, etc. Despite these examples, we are of the opinion that *by and large*, such expenditure results in a satisfaction to the purchaser himself without major social externalities, and therefore needs to be classified as consumption.

(a) Consumption: This is further classified into two sub-categories:

(i) C_1, representing recurring personal consumption expenditures such as food, clothing, fuel, rent, household needs, transport, utilities etc.

(ii) C_2, made up of C_1 plus average annual expenditure on marriages.

(b) Consumption-Type Investment: Here we will use three sub-categories:

(i) C_3, which will refer to C_2 plus average annual expenditure on health and education;

(ii) C_4, which will be equal to C_3 plus average annual expenditure on consumer durables; and

(iii) C_5, which is C_4 plus purchase/improvement of residential property.

(c) Productive Investment: This is expenditure resulting in a net addition to society's productive resources in the form of either physical capital stock or increased working capital (inventories), e. g.

(i) Agricultural Investment which is for improvement of agricultural land, purchase of machinery, use of modern inputs, etc., and

(ii) Industrial/Commercial Investment meant for purchase of industrial machinery, investment in cottage industry, shop, hotel, commercial building, vehicles, etc.

(d) Financial Investment: This means expenditures resulting in transfer of control over productive resources without a net addition to the stock, e.g. purchase of agricultural land, livestock, purchase of shares/stocks, etc.

(e) Savings which represent purchasing power in liquid or semi-liquid instruments, e.g. Bank deposits, National Savings Schemes, Prize Bonds, NIT Units, etc.

(iv) Stability of Consumer Behaviour

A theoretical question related to this classification now arises. Since the theory of stable consumption functions is based on stable individual behaviour, which is related to present and future consumption and not to the existence of social externalities, it is not clear whether we can get a stable function under our assumptions. This may be a major problem but is not very damaging as far as this study is concerned. Since the estimation of costs and benefits of the migration hitherto observed is a descriptive exercise, the only question is whether the behaviour of the sampled households adequately represents the behaviour of the population of migrants, whether stable or not. If it does, then we have a good estimate of what the migrant households may have done. The problem arises in making the inference for what they will do in the future. If the behaviour is hypothesized to be unstable, we cannot make any dynamic inference. However, we are assuming that the behaviour is stable. The reason is that once an individual decides between present and future consumption, his decision on the distribution of both types of expenditures will depend upon a lot of things: his level of skill, education, social status, knowledge of investment opportunities, desires regarding location, etc. These things will determine for him the relative profitability of different investment possibilities. If we do not expect a major shift in the socio-economic profile of migrants, there is no reason to expect a major shift in any of the above determinants of the distribution of investment, unless the financial intermediation system becomes more sophisticated and increases credibility and information flow of alternative investment opportunities.

(v) Expenditure Aggregation

We shall mostly be looking at annual expenditures of the surveyd households on different heads of consumption and investment. Since some expenditures by their very nature are incurred only infrequently (such as expenditures on marriages, durable consumer goods, etc.), a question arises whether it is appropriate to add them directly to the ordinary recurring expenditure. We have adopted the following approach taken by most consumption function studies. If 20% of our sample are incurring such expenditure in one year,it can be assumed that everyone will, on an av average, incur it once in five years. Hence the expenditure should theoretically be spread out over 5 years instead of over one year. This amounts to the same thing if we average the total expenditure incurred by the 20% households over in the all sample of the households in the sample, which is what we have done.

For expenditure in other categories, namely productive investment, savings, etc., which has been analysed separately from consumption in this report, we have converted the total expenditure of the family since migration into annual figures by using the estimate of the average stay abroad.

(vi) Regularity/Frequency of Remittances

Another factor which may have some impact on behaviour is that remittances may be regular or irregular, frequent or infrequent. This causes the income flow to be intermittent or irregular, which can be hypothesized to influence peoples' expectations about income and, through that, their behaviour regarding aggregate expenditure on consumption as well as various sub-aggregates. In order to test this, we can divide the

households into those who received regular and frequent remittances and those who did not. The two subsets can then be compared to discover any systematic divergence in behaviour. For the purposes of this report, the possibility of such a divergence in behaviour has been assumed away on the assumption that a large majority of remitters remit money regularly.

(vii) Treatment of Capital Gains

A major issue which we are sweeping under the rug is the treatment of capital gains and its effects on consumption and investment. There is a general view among economists familiar with Pakistan that is recent years, real estate has been an extremely attractive investment, precisely because of huge capital gains from rapidly rising asset prices. Remittance inflow and idle liquidity with migrant families are among other things, considered to be responsible for this dramatic escalation in prices. There may be differences between the expected and realised rates of return on this investment, which could influence the choice between it and other alternatives, but it is true that real estate has realised a very high rate of return. Now, if a part of the migrant family's income goes into real estate, it seems likely that significant capital gains may have accrued to them over this period. Moreover, if prices have been going up, property owners in general have benefited through capital gains. This poses the question of consumption propensity out of capital gains as well as that of remittances causing adverse income distribution. As we do not intend to include capital gains in our calculation of income, this will cause an upward bias in our estimate of consumption propensity out of income. Our reason for its exclusion is that the bulk of the real estate investment by migrants is either in agricultural land or in residential part of capital gains remain unrealised; and we assume that unrealised

capital gains do not influence consumption. Some of the capital gains may have been realised by sale of assets by the sampled households, and the information on sale and purchase prices does exist in our data. This can be used for refinement in the analysis by incorporating such realised gains into estimation of household income. We may, however, not be able to adequately analyze the question regarding income distribution effect of rising property values.

II. DATA ISSUES

The nature of the sample survey, and the type of the data collected have been described elsewhere in this report. The following brief description is given as a recapitulation. The survey was conducted in two stages. In the first stage, names and addresses of approximately 12,000 passengers travelling to the Middle Eastern countries from Karachi, Islamabad and Lahore in September - October, 1979, were collected. This formed the larger sample from which a smaller sample of 1153 households, spread in 48 towns and 275 villages in Pakistan, was selected on the basis of cluster sampling techniques. These households were interviewed in February - April 1980 in considerable detail concerning their socio-economic characteristics. Simultaneously, the interviewers were directed to select and interview families in the control group and in the returnees group from the same locations as the ones from where the migrant families were being interviewed. They were also directed to try to select such control and returnees households as appeared to enjoy a life-style/social status equivalent to that of the migrant families. The following is a description of the information on incomes and expenditure so collected.

Income

The households in the sample survey were asked questions about the following sources of income:

(i) Remittances (migrants only)
   a) Amount remitted in one year;
   b) Amount brought by migrant on a visit
   c) Total amount remitted during stay abroad
   d) Frequency and regularity of remittances
   e) Channel of remittances
(ii) Wage/Salary earnings by other family members
(iii) Income from land
(iv) Income from business
(v) Income from rent

The following problems in the information obtained and its potential use can be envisaged.

Consumer durables sent by the migrant to his family should be treated as remittances in kind as well as expenditure. This poses problems of valuation of these items. We will include them in total remittances while comparing total remittance flow since migration and total consumption based upon it, but not when calculating the annual recurring consumption out of the income and remittances in one year.

There may be a problem of converting daily wages into annual earnings. We have done this by assuming 300 working days per year, which seems reasonable in the absence of any evidence to the contrary.

Another issue is that of house rent. Only 15.5% of the surveyed families were living in rented houses. Since comparing the incomes and expenditures of these families with those in their own houses may not be appropriate, we shall use an imputed house rent for the latter type of families, which can be calculated as follows:

(i) Whenever the respondent's own assessment of the rental value of his house is available, it may be taken as the estimated house rent;

(ii) Where the respondent's assessment of the sale value of his house is available, but not that of the rental value, then imputed yearly rent may be estimated at one-twentieth of the sale value of the house.

(iii) Where neither information is available, house rent can be assumed to be equal to the average rental value of the houses occupied by families within the same income class and rural or urban location.

In this form of calculation, imputed house rent should be added to both the incomes and the expenditures of the relevant families.

Expenditure/Savings

The household survey collected detailed information on expenditure and savings behaviour of the interviewed families. Separate figures were obtained for 25 major categories of outlays and on several subdivisions within each category. The time-base over which the sub-aggregated outlays are defined differ from category to category. In the case of ordinary recurring expenditure, a fixed time base was used: one month for small

items, and one year for large items. For the other, less frequent expenditure, the time base was less rigidly defined. The time when each expenditure had been made was inquired of the respondents along with the magnitude of the expenditure itself. Migrant families were asked about all such expenditures made by them since the migration of the member of their house. Other types of respondents were asked to list all such expenditures made in the last several years. The reason for giving such wide choice to the respondents was that such expenditure was quite infrequent, and limiting the base to one year may have reduced the size so substantially as to create possibilities of non-randomness in the total figures obtained. Moreover, since these are fairly substantial and lumpy expenditures, the respondents are not likely to have forgotten the amount spent by them even if it had been some time ago. The details of the categories, along with the time base for migrant families is presented below:

	Expenditure	Time Base
1.	Food/Fuel	per month
2.	Clothing/Shoes	per year
3.	Household Needs	per year
4.	Transport	per year
5.	House Rent	varying periods
6.	Electricity/Gas	per month
7.	Marriage Expenditure	since migration
8.	Charity	since migration
9.	Education of Children	no period
10.	Health	per month
11.	Consumer durables purchases	per visit

12. House Construction since migration
13. House Improvement
14. Real Estate Purchases
15. Agricultural Land Purchases
16. Cattle/Livestock Purchases
17. Agricultural Improvements
18. Agricultural Machinery Purchases
19. Commercial Vehicle(s) Purchases
20. Industrial Machinery Purchases
21. Investment in Cottage Industry
22. Investment in Saving Schemes
23. Investment in Finance Corporations
24. Investment in a Commercial Enterprise
25. Purchase of Shares/Stocks

The expenditure/savings of the control group and the returnees group is also disaggregated in the same manner except that, as noted earlier, for the former the qualification "since migration" is dropped in the definition of the time base,

The major data problems in income and expenditure relate to biases introduced by sampling methodology, and to aggregation of expenditure defined over different time bases. To caution the reader, a brief mention of these biases is appropriate here.

Due to the nature of sample selection, urban areas have been over-represented in the sample. As such, any systematic difference between rural and urban behaviours will bias the average figures estimated from

the national data. We have tried to account for it by calculating weights to be applied to the different sample points, which should partially correct this error.

The sample also contains a disproportionate number of fresh migrants which may influence our estimates of average remittances and average use propensities of these remittances. We have tried at times to distinguish between the behaviours of fresh and old migrants in order to establish this difference, and, if possible, to account for it qualitatively.

It should also be kept in mind that in some cases there may be more than one migrant from the household. However, the information collected pertains to only one migrant. Specifically, neither the remittances from other migrant(s) nor the expenditure incurred out of those remittances, was collected. To the extent that it is difficult for the respondent to remember out of whose income a certain expenditure was incurred, it may bias the figures.

Lastly, as mentioned elsewhere in this section, the survey collected information on consumption over the past one year, and on investment over several preceding years (ever since migration for migrants/returnees families, and without a time limit for the control group). Now,that, the expenditure has to be aggregated, we need to convert it to a single time base, which is problematic. What we propose to do is to examine consumption on an annual basis along with annual income and annual remittances. On the other hand, investment will be aggregated over the entire stay of the migrant abroad, and compared to

aggregate remittances since then. We also have figures on the amount of investment expenditure made by the respondent families in the last one year. Potentially, this can be used to calculate the total expenditure made in one year, and to provide a consistency check on the figure of remittances.

CHAPTER 6

FOREIGN REMITTANCES: VOLUME AND CHANNELS

I. STATEMENT OF ISSUES

The Examination of the volume of remittances shall focus on the following issues:

a) What is the proportion of migrants who send any remittances at all? Are there systematic differences in this behaviour across occupational groups?

b) What is the average amount remitted or brought home by a migrant in one year preceding the survey.

c) What is the average monetary value of "remittances in kind"? These may be substituting for cash remittances.

d) What are the causes of significant differences, if any, in remittances behaviour of different types of migrants. Some of the factors that may cause the differences in the average level of remittances between different types of migrants are:

   1. Occupation: This determines the income as well as consumption pattern abroad.

   2. Provincial and rural/urban origin. This will matter if there are regional differences in consumption and saving habits. Even within rural areas, migrants from barani* and irrigated areas may differ with respect to consumption/saving habits, and hence may differ with respect to their level of remittances. The same considerations may require one to look at the size of the city of the emigrants within the urban emigrants.

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* Barani areas are rain-fed areas, i.e. areas that are almost wholly dependent on rains for their irrigation.

3. Educational Level: This may not only determine may also affect the emigrants' willingness to remit money. The better-educated emigrants may lime to invest their savings abroad whereas the uneducated emigrants, being unaware of investment opportunities, may send all their savings back to their country.

4. Number of dependents left behind: Those who have lesser number of dependents left behind may remit less money. Thus young and unmarried migrants are likely to send lesser remittances.

e) What is the trend in average remittances? Whether the current average level of remittances will continue in future is an important issue for the cost-benefit analysis. The answer will depend on the behaviour of the factors that significantly affect the level of remittances (mentioned in "d" above). For example, if average remittances are lower for unskilled workers than for skilled workers, and the proportion of unskilled workers increases over time, then the level of future remittances per worker may decline. Similarly, if remittances depend on the number of dependents left hehind, and if more members migrate from the same family then the level of future remittances is likely to decline.

f) What proportion of remittances come through the banking channels? What are the other main channels of remittances? What are the factors influencing the individual migrant"s preference for one channel over another?

All the above issues have not been discussed in the present report. Substantive discussion on issues mentioned in 'd' and 'e' have particularly been left for subsequent analysis.

II. DATA

The following information was sought regarding the inflow of cash remittances from migrant workers:

a) Amount remitted in the year preceding the survey.

b) Amount brought by the migrant on the last visit home.

c) Total amount remitted since migration (including the amount brought by the migrant on visits).

d) Frequency/regularity of home remittances.

e) Channel (s) of remitting money.

In addition to these questions, the migrant households were also asked in detail about gifts/durable goods brought or sent home by the migrant. These are the 'remittances in kind', discussed above.

At the outset, it may be observed that the method of sample selection may have caused the following biases in the distribution of households:

1) Over-representation of migrants who have been abroad for less than one year.

2) Over-representation in the "less-than-one-year" category of migrants who have been abroad for less than six months.

3) Over-representation of urban migrants in the sample.

The first two biases can generally lead to an under-estimate of the propensity to remit money home. We can reasonably expect the less-than-one-year migrants to have higher than average chance of not remitting money.

Further-more, within this group, the less-than-six-months group will have a still lower chance of sending money due to unfamiliarity with channels of remittance, starting-up costs in foreign country, waiting period before sizeable savings are accumulated, etc. Hence, if the sample has a larger representation of such people, the sample propensity to remit will be below the true population propensity.

The net impact of the urban bias in our sample is not so clear. On the one hand, rural area migrants have stronger family bonds, and may have a stronger desire to remit money home, but on the other hand, they may feel lesser urgency about sending money home if the rural family structure is strong enough to enable the migrant's family to survive monetary hardships relatively easily. Moreover, it may be possible, indeed likely, that incomes of rural migrants are significantly lower than those of urban migrants, thus reducing total rural remittances even if there is a higher rural propensity or desire to remit. While a categorical statement on this issue cannot be made without a detailed examination of the data, the ag aggregate figures do indicate that in the provinces of the Punjab and Sind (which form the bulk of the population) urban remittances are significantly higher than rural remittances. Taking this result at its face value would lead us to conclude that the urban bias in the sample will over-estimate average remittances and therefore partially compensate for the errors introduced by the other two types of biases. However, this proposition can be tested by an econometric analysis of rural and urban behaviours after controlling all other influences.

Another problem concerning the use of these data is that on every question there is a small, but not negligible, fraction of respondents who did not or could not provide an answer. This is not surprising in

view of the details they were asked to supply. However, the treatment of these missing observations does pose a problem, because conventional wisdom states that we might expect a disproportionate representation of less educated/low-income families in these categories. This may cause systematic biases in our inferences. For the present, we are ignoring this issue and treating the missing observations as if they were random. However, in later refinements, it may become possible to explicitly take account of the biases introduced by this assumption, and to modify our conclusions accordingly.

III. ANALYSIS

This sub-section analyses the data from the household survey to arrive at some tentative answers to the issues raised in Section I above.

a) Proportion of Non-remitters

A total of 972 households reported having received some amount as remittances ever since the migration of a member of their household. This constitutes 84.3% of the sample of 1152 migrant families. One hundred and forty (140) households (12.1% of the sample) had not received any remittances so far, while there was no information on the remaining 40 respondents. It may be noted that included in the 180 households in the last two categories were those who had been abroad for a year or less. Hence a flow of remittances can be expected in the future from some of these migrants because people who have been abroad for less than a year may not yet have had the opportunity of remitting any money home despite their intention of doing so.

b) Level of Annual Remittances (1979)

The total cash remittances received by a family from the earnings of an emigrant worker comprises two kinds of amounts:

i) Amount sent by migrant through a banking or other channel (R_1); and

ii) Amount brought by migrant on a visit home (R_2).

Out of the 1152 households in our sample, 881 reported having received a positive amount in the one year preceding the survey, while another 108 reported having received no money in that year. About remaining 163 households we do not have this information. The total amount received by the 881 households in 1979 comes to Rs. 21.039 million. Excluding the respondents on whom we do not have any information with regard to this question to average amount remitted per migrant worker in the Middle East comes to Rs.21,273.*

Regarding the amount brought by migrants on home visits, 697 respondents indicated that the migrant had visited home. Of the remaining 455 migrants, 313 had not done so while there is no information on the other 142. A total amount of Rs. 7.77 million was reported to have been brought home by 532 migrants, while another 165 did not bring any money

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* If we take an average for only those who actually sent some money home, the figure comes to Rs.23,880. Note, however, that the sampling problems discussed above may bias both these estimates unless the different errors cancel each other out.

on the previous visit.* Again, the average inflow, excluding the households who did not give information on this issue, comes to Rs.7,693. Note, however, that the average amount brought by the people who brought any money at all comes to Rs. 14,605 per migrant.

In any case, taking these two figures at their face value, we arrive at an average annual inflow of Rs.28,966 per migrant in 1979. The most important point emerging from the discussion is that a significant past (27%) of the average inflow of emigrant workers' remittances is brought by the migrant himself on a visit. Since a large part of this inflow may not be channelled through the banking system, it is likely that the balance-of-payments statistics substantially under-report the total inflow. This is discussed further under the section on the channels of remittances.

c) Remittances in Kind (R_3)

In addition to cash remittances, durable consumer goods having a total value of Rs.10,336 million have been sent or brought home by migrant workers in our sample ever since they went abroad. Taking the average stay of a representative migrant as 3.5 years, we get an annual figure of Rs.2.953 million for remittances in kind for all migrants, which figure, when we exclude non-response, yields an average annual value of Rs.2637.

Clearly, this figure is small compared to the volume of the remittances in cash, it being only 9% of the cash remittances. Hence, we can confidently use the figures of cash remittances in our analysis of the use of remittances without risking substantial errors in inference. However, in the cost-benefit calculations remittances in kind will also be included.

d) Differences in Remittance Behaviour

We shall examine briefly the differences in remittances behaviour due to the following three characteristics of migrant workers:

1. Occupation
2. Rural/Urban and Provincial Origin
3. Duration of stay abroad

A thorough analysis of these and other factors influencing the behaviour is left for a subsequent paper.

Occupation of a worker may influence his remittance behaviour both because it reflects his social background and because of its correlation with his income. Social background of the worker is important for the following reasons:-

1. The nature of relationship to the family is influenced by a person's background. Strong kinship bonds impose strong obligations towards the family.
2. Life-style adopted abroad may have correlation to life-style within the country of origin. This has implications for rate and magnitude of savings accumulated abroad, out of which the remittances are sent.
3. Knowledge of investment opportunities abroad. People with a higher status/higher income may have knowledge of and desire for exploiting investment possibilities in the foreign countries, thus reducing the free savings from which remittances can be sent.
4. Earnings abroad will vary according to the occupation/skill.

The figures presented in Table 1 indicate that while there are significant differences in average remittances

Table - 1

Average Remittances* As Percentage of Earnings Abroad by Occupational Group of Emigrants: 1979.

Occupational Group	Average Earnings (AE)	Average Remittances (AR)	AR/AE
Unskilled	45.06	23.74	0.53
Skilled	53.80	28.34	0.53
Professional	117.60	53.68	0.46
Services and Clerical Workers	60.16	33.84	0.56
Business	77.92	31.94	0.41
Miscellaneous	82.50	46.10	0.56

* Sum of R_1 and R_2

across occupations, there is no significant difference in the proportion of the earnings remitted. The differences in average remittances arise mainly from differences in earnings. Average remittances as a proportion of average earnings abroad are quite similar except perhaps for businessmen who appear to be remitting a lower percentage of their earnings. The exceptional behaviour of businessmen, though not implausible, may in part be due to mis-reporting of income.

Another factor which may affect the remittance behaviour is the average expenditure of the migrants abroad. Average expenditure will affect not only the average level of remittances but also the relative remittance behaviour of different occupational groups. If migrants in some groups spend a disproportionately high percentage of their earnings, their average remittances are likely to be lower than those of other groups

Table 2 presents the figures for earnings, expenditure and savings by different occupational groups. The pattern of expenditure is very much in line with the theoretical expectation. The higher income professions have a higher propensity to save. As for their remittance behaviour, it is evident from the figures that skilled and unskilled workers remit a higher percentage of their savings than professionals and business workers. The reasons for this difference in remittance behaviour were indicated in the beginning of this section.

Another point to be noted is that, in general, most of the migrants' savings abroad are being remitted. It must be pointed out that remittances in kind have not been included in the above figures. If that is done, then clearly 80-90% of the savings of a large majority of workers are being sent home. Businessmen and professionals, however, retain 30-40 percent of their savings in their country of employment.

It may be appropriate to mention here that since figures of foreign income and expenditure of migrants have been obtained from their families in Pakistan who do not have direct information on these things, the data are likely to be somewhat soft, and all inferences should be treated with caution. In subsequent analysis, these figures will be compared with those from the Departure Lounge Survey which puts the same question directly to the migrants.

Next, we consider the influence of Provincial and rural/urban origins of migrants on their remittance pattern. We have data on 989 migrants, which have been given in Table 3.

The figures indicate that urban remittances are on an average considerably higher than rural remittances. The reason could be the greater urgency to remit money to urban families because of their lesser

Table - 2

Average Income, Savings and Remittances* by Occupational Groups of Emigrants: 1979

(Thousand Rupees)

Occupational Groups	Average Income	Average Expenditure	Average Saving	Saving Propensity	Average Remittances	AR/AS
Unskilled	45.06	13.31	31.75	.70	23.74	.75
Skilled	53.80	19.44	34.36	.64	28.34	.82
Professional	117.60	31.52	86.08	.73	53.68	.62
Service and Clerical Workers	60.16	20.80	39.36	.65	33.84	.86
Business	77.92	28.71	49.21	.63	31.94	.65
Miscellaneous	82.50	19.25	63.25	.77	46.1	.73

* Sum of R_1 and R_2

Table - 3

Provincial Base of Remittances

Province	Rural	Urban	Total
Punjab	15.56	25.41	22.54
Sind	5.00	26.11	25.92
NWFP & Tribal Area	16.14	15.59	15.92
Baluchistan	11.95	15.02	13.94
Azad Kashmir	18.47	18.80	18.54
Pakistan (complets)	15.64	23.78	21.27

ability to survive monetary hardships. Another reasons could be higher average incomes for urban workers because of greater proportion of professionals and skilled workers in urban migrants. Thus the above figures may in part be reflecting the effect of skill composition rather than that of rural/urban origin of the emigrants. This effect can be assessed by examining the figures for each occupation. Table 4 presents the relevant information.

It is evident from these figures that, with a couple of minor exceptions, the results arrived at earlier remain unchanged. In all occupations and in all provinces the urban remittances are higher than rural remittances. It may be noticed, however, that in the NWFP, rural remittances exceed urban remittances in all occupations except in that of skilled workers.

The high rate of rural remittances in the NWFP in most of the occupations may be due to a statistical problem of classifying rural and urban areas. If the social structure in almost all the cities in the NWFP (except Peshawar) is very similar to the rural family structure, we may not get much of a divergence between the two types of migrants (as appears to be indicated). Furthermore, the NWFP has traditionally been a high internal migration area. People from rural areas of the NWFP can be found in large numbers in all the major cities, on all construction projects and now in major labour-importing countries. These people, however, continue to maintain their rural links despits long periods of stay in other cities. Hence, while they may be nominally residents of the NWFP villages, they may not be very different, on an average, from the NWFP urban workers. It can be observed in Table 3 that the difference in urban and rural remittances is very small.

Table 4

Average Remittances by Emigrants' Occupations and Areas of Origin: 1979

Region	Rural/Urban Origin	Unskilled	Skilled	Professional	Service	Clerical	Business	Miscellaneous
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Punjab	R	16.10	13.38	8.00	31.00	20.67	12.00	0.00
	U	19.70	18.68	56.81	21.22	16.50	96.60	17.50
	T	17.92	17.29	51.38	23.03	17.46	91.31	17.50
Sind	R	5.00	0.00	0.00	0.00	0.00	0.00	0.00
	U	18.20	21.95	32.62	28.57	30.33	85.00	0.00
	T	14.42	21.95	31.96	28.57	30.33	85.00	0.00
N.W.F.P.	R	13.65	15.15	31.00	50.00	18.00	27.67	34.00
	U	10.00	19.83	1.00	8.86	8.33	10.75	0.00
	T	12.62	17.29	21.00	18.00	15.58	18.00	34.00
Baluchistan	R	8.00	15.2	0.00	0.00	0.00	0.00	0.00
	U	9.72	21.12	0.00	0.00	6.67	0.00	40.00
	T	8.78	19.71	0.00	0.00	12.5	0.00	40.00
Azad Kashmir	R	17.40	20.58	0.00	5.00	12.00	0.00	0.00
	U	0.00	22.75	0.00	0.00	0.00	3.00	0.00
	T	17.40	21.12	0.00	5.00	12.00	3.00	0.00
Pakistan	R	14.37	14.74	19.50	32.5	19.00	23.75	34.00
	U	15.91	19.01	38.09	19.70	20.50	69.37	25.00
	T	15.03	18.30	37.01	21.88	20.00	62.86	28.60

e) Trend in Annual Remittances

The trend in annual remittances will depend on the following factors:-

1. Trend in the number of migrants abroad. Given an average level of remittances, the greater the number of migrants, the larger the total remittances.
2. Composition of the migration flow. If the proportion of low-remittance migrants in the total is rising, the average remittance per migrant is likely to fall. Thus, if there is more rapid migration of unskilled workers, we may expect a decline in the level of average remittances.
3. Desire of the migrant to remit money. If a longer stay abroad reduces the migrant's willingness to send remittances, we may expect reduction in remittances due to entropy without there being any other change in behaviour. The desire to remit money may be influenced by the duration of stay abroad due to the following reasons:-
   a. The migrant's links with his family may become weaker due to exposure to external social values.
   b. A long duration of stay may induce or permit the migrant to get his immediate family to join him, thus removing a major incentive for sending remittances.
   c. The migrant may cease to view his stay abroad as temporary, and therefore may no longer be content with the low-consumption pattern adopted earlier. An increase in consumption abroad reduces savings and hence remittances.

d) Opportunities for foreign investment may present themeselves to the migrant, thus reducing the desirability of sending all his savings home.

A detailed examination of the time trend of remittances will be based on the analysis of the different influences outlined above. This will have to await further refinements of the sample data, and of the an analytical techniques. At this sta ge, we would like to present the aggregate figures to suggest some broad trends in the data. The information on remittances sent by people who have been abroad for various lengths of time is given in Table 5.

Table - 5

Emigrant's Average Annual Remittances (R_1) by Duration of Stay Abroad: 1979

Duration of Stay Abroad (years)	Total Home Remittances received in the House-hold in the Group (000 Rs.)	No. of Migrants in the Group *	Average Annual Remittances per Migrant in the Group (000 Rs.)
Less than one	1765	146	12.09
Greater than one, up to two	4679	225	20.80
Greater than two, up to four	7317	365	20.05
Greater than four, up to six	2582	116	22.26
Greater than six, up to eight	969	47	20.62
Greater than eight	3727	90	41.41

* Does not include those who did not send any remittances. Inclusion of these will lower all the figures of average remittances.

An examination of these figures indicates that while the remittances in the first year of migration are clearly lower than the average, there does not appear to be a significant trend after the first year. The unusually high figure for the last group may be due to a few extreme cases However, the aggregation over occupations and income groups may have helped to mask any trend that may have existed. This can, of course, be examined through standard econometric techniques and, as such, is another interesting area for further research.

We may remark here that the figures for total migrants in Table 5 do not include those who did not send any remittances. An inclusion of these will result in lowering all the average remittance figures, but since we expect a disproportionate number of people in the less-than-one-year group will be pushed down even more, relative to the other averages.

f) Channels of Remittances

Table 6 gives details of the channels of remittances used by 960 migrants on whom we have this information. It may be recalled that of the remaining 193 migrants, 145 did not send any remittance during their stay abroad.

In any case, it is clear that the bulk of the migrants (85.5%) used the formal banking channels to send their money home. In fact, if we exclude the NWFP, the percentage of the other migrants who used this channels rises to 93.9. This is due to the rapid increase in quality of service and coverage offered by the banking system for this purpose.

Table - 6

The Number of Migrants Using Different Channels of Remittances (R_i), by Provincial and Rural/Urban Origins of the Emigrants: 1979

		Bank	Hundi	On Visit Home	Others	Total
Punjab	Rural	126	1	0	4	131
	Urban	314	8	5	4	331
	Total	440	9	5	8	462
Sind	Rural	0	1	1	0	2
	Urban	208	6	2	1	217
	Total	208	7	3	1	219
NWFP	Rural	54	43	9	6	112
	Urban	47	24	6	4	81
	Total	101	67	15	10	193
Baluchistan	Rural	19	2	1	0	22
	Urban	30	4	6	0	40
	Total	49	6	7	0	62
Azad Kashmir	Rural	18	0	0	1	19
	Urban	5	0	0	0	5
	Total	23	0	0	1	24
Pakistan	Rural	217	47	11	11	286
	Urban	604	42	19	9	674
	Total	821	89	30	20	960

The Major divergence from this picture appears only in the case of NWFP, w here 48% of the migrants used channels other than banks to remit money. Of these, 34% use the informal bill of exchange (or hundi) for this purpose. The major explanation for this difference in behaviour has to do with the existence of a developed foreign exchange market in the tribal areas of NWFP, There are will-developed markets of smuggled foreign goods in these areas, which imply the existence of a demand for foreign exchange by the shopkeepers. Since legal restrictions, which apply to the rest of the country regarding smuggled goods, are fairly relaxed here, it is quite

likely that the major part of the scarcity premium on imported goods is captured by the smugglers. As such, they are in a better position to offer a premium to migrant workers for converting the foreign currency into rupees.

The reasons why the use of the informal channels has not spread to other areas of the country can be summarised as follows:-

1) The exchange rate is fairly close to its equilibrium level. This reduces the size of a potential premium wh ich can induce the shift to informal channels.
2) This informal system has established its credibility in the NWFP, but may not yet have done so in the rest of the country.
3) The demand for such "illegal" foreign exchange may be sufficiently limited, rendering unprofitable any expansionary actions on the part of the informal market.

Another aspect of the use of the informal hundi channel in the NWFP is that a higher percentage of rural migrants (38.4%) than of urban migrants (29.6%) use it. While we do not yet have the detailed breakdown of these figures, it is a testable (and probable) hypothesis that cities and villages closer to the tribal areas may have a larger incidence of this use.

The implication of the small informal channel of remittances, together with the large amount brought by migrants on home visits, is that the total foreign exchange inflow is sufficiently under-reported in the balance-of-payments statistics which use only the ank figures for this purpose. It is true, however, that the diversion of this money to the illegal market means that it finances an equivalent amount of imports, or of capital outflow. Hence this under-reporting does not have any implication for the true balance-of-payments constraints, although it may influence

the estimates of domestic savings rate marginal propensity to import,etc.

The small size of this channel also suggests, as mentioned above, that the rupee exchange rate is not very for from the equilibrium. If the divergence in domestic and international inflation rates increases the disequilibrium, we may expect the size and activity of this sector to grow.

CHAPTER 7

FOREIGN REMITTANCES; ANALYSIS OF THEIR USE

INTRODUCTION

A major issue in the literature on international labour migration and inflow of remittances relates to the uses to which such remittances are channeled. One commonly heard complaint is that the recipients of home remittances spend most of the money on consumption expenditure and the rest on "unproductive" investment.[1] The implication of this statement for the social costs and benefits from migration has been analysed in Chapters 9 and 10. The classification of expenditure into categories of consumption was discussed in Chapter 5. To recapitulate, we have divided the expenditure into the following four categories:

1. Consumption
2. Consumption-type Investment
3. Productive Investment
   a) Agricultural
   b) Industrial/Commercial
4. Financial Investment

The objective of this chapter is to examine the data in order to identify the classification of various types of expenditure in accordance with the above scheme and to make inferences about the change in the distribution of expenditure over these categories due to the inflow of remittances.

CONSUMPTION

In the category of consumption we include items like food/fuel, electricity/gas, transport, house rent,[2] clothing/shoes and other household

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[1] This is not to imply, of course, that if any other group had received this income they would have behaved in a socially more beneficial manner.

[2] Since only 15.5% of the sampled households are living in rented houses, the inclusion of house rent in consumption poses a problem. We have at this stage attributed a rent equal to the average for the appropriate income class to those living in their own houses.

needs. In other words, normal recurring expenditure of households has all been included in consumption.

The first point to observe is that a fairly high proportion of households indicated an increase in expenditure on various items of consumption after the migration of a member of the family. Table 1 lists the households who indicated increases or decreases in expenditure on various items.

Table 1

INCREASE/DECREASE IN EXPENDITURE OF EMIGRANTS' FAMILIES FOLLOWING REMITTANCES RECEIPTS

Items	Frequency of Households with			
	Increase in Expenditure	Decrease in Expenditure	No Change	Total
1. Milk	345	42	488	875
2. Dry Milk	98	4	96	198
3. Meat	353	49	523	925
4. Sugar	317	57	568	942
5. Ghee	331	36	564	931
6. Tea	283	57	553	893
7. Eggs	205	35	368	608
8. Fruits	226	30	431	687
9. Fuel	217	22	366	605
10. Cloth	577	55	36	668

The first point to note is that the missing observations in the total refer either to those who do not consume the relevant item, or to those who were not sure of the answer. Among these people we have a disproportionate number of rural households. This may be expected, because these households may not have a good estimate of their consumption of each item on account of their lower education, as well as because

only a small proportion of their consumption is through the market. In the sample survey an effort was made to try to neutralise this by asking households to list quantities where the respondent wished to do so instead of values of such items, but even this had the same problems.

Now there are two influences at work in this observation. First, the emigration of a member of the family should tend to reduce total household consumption (especially since in Pakistani family structure, adult males consume a relatively larger proportion of the total). On the other hand, the inflow of remittances have a positive income effect on the consumption of all items. The evidence seems to indicate that this latter effect is stronger. The exceptions should be of families whose size is relatively small so that the proportionate effect of the migration of one person is larger. This is supported by the fact that the households from urban Sind (predominantly, the city of Karachi), who are likely to be smaller than the average because of urbanisation, commercialisation, smaller houses etc., have a significantly higher than average representation in the number of households whose expenditure on food items showed a decrease. An average of 9.2 households from Karachi[3] reduced their consumption of food, against only 4.8 households from the country as a whole. On the other hand, however, Karachi households showed a dis-proportionate increase in their expenses on cloth, as compared to the national average (3.5 as against 8.2 households showing *decrease* in expenditure). Again this can be attributed to greater urbanisation in Karachi, where such expenditure may be important.

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[3] Karachi is referred to instead of Sind Urban areas, because 89% of the sample households in this category were from Karachi.

The other issue in this analysis is that of comparing the consumption propensities of the migrant group and those of the control group. Tables 2 and 3 give the incomes and consumption of migrants and control group households separated by rural/urban locations and income classes (the two major determinants of consumption behaviour). It can be observed that, a few minor exceptions apart, the consumption propensities of the migrant group are not significantly different from those of the control group. On the basis of this evidence it appears that either the general impression that the migrants' families spend lavishly is not true (at least as far as recurring consumption expenditure is concerned) or the control group is behaving like the migrants due to demonstration effect. It should be remembered that lumpy consumption expenditure, such as that on marriages, consumer durables and purchase/improvement of residential property, have not been included in the consumption figures reported in Tables 2 and 3 because the time base for such expenditure is different. It is quite possible that the migrant families spend more on such items, especially because these are "prestige goods". Some of these will be analysed later in this chapter.

The next question is to determine the proportion of remittances spent on consumption. To arrive at that figure we need an estimate of the marginal propensity to consume, which can be applied to the increase in migrant families' income due to remittances, to get the amount spent on consumption. In order to get an estimate of marginal propensity to consume, we have to estimate the consumption function. That is being done in a separate study. Until the results of that study are available, we will have to make do with the following crude estimates.

Table - 2

Income and Consumption (000 Rupees) of Migrant Families

(a) Rural

Income Group	No. of House-Hold[a]	Average Income Y	Average Consumption C_1	Average Consumption C_2[b]	Propensity to consume $C_{2/Y}$
Less than 10	30	6.5	13.77	15.98	2.46
10 - 20	86	14.1	19.25	22.33	1.58
20 - 40	100	28.0	21.77	25.12	0.90
40 - 7-	38	50.5	24.54	28.10	0.56
70 - 100	4	78.5	40.03	41.87	0.53
100 and above	6	139.8	37.81	42.61	0.30

(b) Urban

Less than 10	57	6.3	16.76	21.37	3.40
10 - 20	166	14.2	22.12	25.84	1.82
20 - 40	205	27.7	25.43	30.80	1.11
40 - 70	129	51.6	37.65	42.88	0.83
70 - 100	29	80.8	38.07	44.07	0.54
100 and above	36	166.6	45.90	54.32	0.33

Note:

a. The cases for which either consumption or remittances are not reported have been excluded.

b. C_2 includes only recurring consumption expenditure and is equal to C_1 (as defined in Chapter 5) plus average annual expenditure on health and education.

Table - 3

Income and Consumption (000 Rupees)
of Non-Migrant Families

(a) Rural

Income Group	No. of House-hold[a]	Average Income Y	Average Comsumption C_1	Average Comsumption C_2[b]	Propensity to consume $C_{2/Y}$
Less than 10	80	5.12	10.63	12.94	2.53
10 - 20	48	12.41	16.88	19.93	1.60
20 - 40	26	25.04	22.72	29.16	1.16
40 - 70	10	48.20	24.63	28.19	.58
70 - 100	4	63.0	15.73	16.23	.26
100 and above	3	144.33	67.18	70.51	.48

(b) Urban

Less than 10	90	5.11	14.65	17.59	3.44
10 - 20	86	13.17	17.51	21.12	1.60
20 - 40	38	28.05	31.64	35.14	1.25
40 - 70	22	51.50	38.71	44.37	.86
70 - 100	7	78.0	42.34	46.78	.59
100 and above	6	214.66	65.53	70.61	.33

Note:

a. The cases for which either consumption or income are not reported have been excluded.

C_2 includes only recurring consumption expenditure and is equal to C_1 (as defined in Chapter 5) plus average annual expenditure on health and education.

The migrant family' average income without remittances works out to be only Rs. 11,338. Their average consumption, however, works out to be Rs. 27,850. We assume that all of their domestic income would have been consumed (i.e. average propensity to consume is unity); the rest of the consumption is, therefore, the amount consumed out of remittances. Thus, it appears that (Rs. 27,850 -Rs. 11,338 =) Rs. 16,512 out of the average remittances of Rs. 28, 966 are being consumed, yielding an average of 57%.

Marriages

Another item of high expenditure is that of marriages. It is worth while examining the increase in this expenditure due to the remittance inflow. Generally, one hears that the migrant worker in the rural areas have to pay a higher price for brides than the non-migrants. Similarly one hears that more money is spent on dowries of daughters and sisters of migrants. All this should be reflected in the figures of average expenditure on marriages. The following table sets out of information on this issue collected from the household survey.

Table 5

Average Expenditure on Marriage

(Rupees)

	Average Expenditure		
	Migrants	Non-Migrants	Difference
Boy's marriage	4,480	3,600	880
Girl's marriage	2,750	2,950	-200

These averages are calculated after distributing the aggregate reported expenditure over all the households in the sample. The number of migrant households who reported having spent any money on a marriage

out of remittances is 345. Of these, 217 reported expenditure on a boy's marriage and 141 on a girl's marriage. Taking the average stay of migrant abroad as 3.5 years, this gives us an average of about 100 marriages per year. In other words, 1000 families[4] have approximately one marriage every 10 years, which does not appear unreasonable.[5] In any case, this gives an excess expenditure by migrants of Rs. 680 per migrant, which should be added to the figure of Rs. 16,512 which is the excess expenditure by migrants on other consumption. As such, total extra consumption expenditure out of remittances comes to Rs. 17,192 per year per migrant.

II. CONSUMPTION-TYPE INVESTMENT

The expenditure of this type includes the following:

a. Purchase/construction of own residential house

b. Improvement in own house

c. Purchase of other real estate

d. Purchase of consumer durables

e. Expenditure on health and education

A total of 526 families stated that they were living in non-inherited self-owned houses. Of these, 124 stated that they had bought or constructed the house with the remittance money, while another 113 had financed the purchase/construction partly from remittances. Presumably, the others had owned the house prior to migration, or before sizeable remittances had started coming in.

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[4] We are excluding 143 families who did not send any remittances.

[5] In fact, the number would be lower than this, because some families may have had marriages celebrated, but above-subsistence money may not have been high enough to enable them to spend money out of it on the marriage.

The average amount paid for the purchase/construction of a house was reported to be Rs. 74,719. Assuming that this was the price paid by those who purchased it entirely out of remittances and that half of this price was paid by those who financed it partially from remittances, we get an aggregate expenditure of Rs. 13,412,066 on house purchase/construction in 3.5 years since the start of migration. Thus the expenditure per migrant is Rs. 12,305 (excluding those who did not reply to this question). The annual expenditure per migrant works out to *Rs. 3,516*.

In the control group, we find that 65 families paid an average of 93,860 for the purchase of a house, while 167 families spent an average of Rs. 65,485 on the construction of their house. The gross expenditure works out to be Rs. 17,036,895. Excluding the 25 families who did not reply to this question, we get the per household expenditure as Rs. 32,024. This expenditure was made over an average period of 12.15 years, yielding an annual expenditure of Rs. 2,636 per household.

We should note here, however, that the relevant figure for use in our analysis is Rs. 3,516 which has been calculated directly as the expenditure out of remittances, not as aggregate expenditure by migrant families. However, the latter figure can also be calculated at a subsequent stage for comparison purposes.

Regarding *improvements* made in the residential houses, 224 migrant families reported making an expenditure of Rs. 4,170,550 for this purpose. Out of these, 81.5% families had made this improvement after the migration. Assuming that the expenditure made was the same, the aggregate amount spent after migration comes to Rs. 3,398,550, which, after allowing for missing observations and those in rented houses and taking an average duration of stay as 3.5 years, yields an annual expenditure of Rs. 1,033 per migrant.

Compared to this, 100 non-migrant families spent an amount of Rs. 1,205 million for this purpose in 7.96 years. Again excluding the missing observations and those in rented houses, we get an average annual expenditure of Rs. 375 on this head.

Thus the net increase in annual expenditure of migrant households due to remittances appears to be Rs. 658 to a first approximation. We should note here that these are very crude figures and are presented mainly as an introduction to the more refined analysis which will follow in the subsequent reports. These figures may be in error by a wide margin, but for the moment they are the only ones available.

In addition to the purchase of and improvement in migrants' own residential houses, the migrant families spent a large sum of money on the purchase of other real estate. A total amount of Rs. 8.50 million was spent by the migrant households on the purchase of houses, flats, hotels, shops, agricultural land/orchards, etc., out of remittance money. The average value of this expenditure comes to Rs. 7,372 per migrant. Using an average stay of 3.5 years abroad, we get a per migrant annual average of Rs. 2,106 on real estate.

The last item of expenditure under this head is that of purchase of consumer durables. It has to be clarified here that we are not including in this analysis the value of remittances-in-kind either as a source of income or as a part of consumption. This will certainly influence the results because the existence of remittances in kind is likely to depress the desire to purchase such consumer goods. However, in this aggregate analysis, all that can be suggested is that the results be should used with due caution.

Table 6

Productive Use of Remittances(Purchase of Agricultural Land) by Emigrants' Families by Provincial and Rural/Urban Origin of Emigrants. 1979.

(Rs. in Thousands)

Province	Rural/ Urban Classi-fication	Total Pur-chase	Total No. of Households	Average Purchase for House-hold	IRRIGATED LAND			BARANI LAND			ORCHARDS		
					T	HH	A	T	HH	A	T	HH	A
PUNJAB	R	328.0	10.0	32.80	310.0	10.0	31.00	18.0	10.0	1.80	0.0	10.0	0.0
	U	517.0	6.0	86.17	442.0	6.0	73.67	75.0	6.0	12.50	0.0	6.0	0.0
	T	845.0	16.0	52.81	752.0	16.0	47.00	93.0	16.0	5.81	0.0	16.0	0.0
SIND	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	115.0	6.0	19.17	100.0	4.0	25.00	0.0	0.0	0.0	15.0	1.0	15.0
	T	115.0	6.0	19.17	100.0	4.0	25.00	0.0	0.0	0.0	15.0	1.0	15.0
NWFP	R	680.0	14.0	48.57	650.0	14.0	46.43	30.0	14.0	2.14	0.0	14.0	0.0
	U	103.0	3.0	34.33	0.0	2.0	0.0	100.0	2.0	50.00	3.0	2.0	1.50
	T	783.0	17.0	46.06	650.0	16.0	46.43	130.0	16.0	8.13	3.0	16.0	0.19
BALUCHISTAN	R	30.0	2.0	15.00	30.0	2.0	15.00	0.0	2.0	0.0	0.0	2.0	0.0
	U	20.0	1.0	20.00	20.00	1.0	20.00	0.0	1.0	0.0	0.0	1.0	0.0
	T	50.0	3.0	16.67	50.0	3.0	16.67	0.0	3.0	0.0	0.0	3.0	0.0
AZAD KASHMIR	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	R	1038.0	26.0	39.92	990.0	26.0	38.08	48.0	26.0	1.85	0.0	26.0	0.0
	U	755.0	16.0	47.19	562.0	13.0	43.23	175.0	9.0	19.44	18.0	10.0	1.8
	T	1793.0	42.0	42.69	1552.0	39.0	39.75	223.0	35.0	6.37	18.0	36.0	0.50

Note : At the heads of columns,

T : Total Investment
HH : Number of Investing Households
A : Average Investment for Investing Household.

The available data indicate that apart from the items sent/brought by migrant from abroad, their families purchased from Pakistan 27 cars, 62 motorcycles, 3 airconditioners, 53 TV sets, 22 radio/tape recorders, 48 electric irons, 21 refrigerators, 5 sewing machines and 27 cameras, apart from other sundry items. The total value of these durable consumer goods comes to Rs. 3.3 million, which yields an annual average amount of Rs.820, using 3.5 years as the duration of stay.

As against this, the control group had purchased items worth Rs. 3.5 million during the recent years.

The discussion above yields an aggregate annual expenditure of Rs. 7,100 per migrant on consumption-type investment out of the remitted funds.

In some exercises, consumer durables are treated as regular consumption. If we do this, our figure for total consumption out of the remittances works out to Rs. 17,818 annually per migrant.

III. PRODUCTIVE INVESTMENT

The category of physical investment includes agricultural as well as industrial/commercial investment. The reasons for treating this separately were discussed in chapter 5.

Agricultural Investment includes purchase of agricultural machinery and livestock, improvements in agricultural land, and the use of better inputs in agriculture. Tables 7 through 10 present the figures for investment in these items.

In agricultural machinery, the following points are of interest. The migrant households in the sample purchased a total of 6 tractors and installed 4 tubewells. The total cost works out to Rs. 851,000,,which yields an annual average of Rs. 211 per migrant.

Purchase of livestock is fairly common in our sample. A total amount of Rs. 883,200 was spent for this purpose, yielding an annual average of Rs. 219 per migrant. We are assuming that all of this expenditure was for investment and not for consumption.

As far as the expenditure on agricultural land improvements is concerned, it is notable that this is concentrated in a fairly small group. Details are given in Table 9. Moreover, the average time since the investment is very long, indicating that such activities are normally undertaken by the relatively older migrants. In any case, once we deflate each expenditure category by the average time elapsed and by total number of migrants (excluding the missing observation), we get a figure of Rs. 450 per migrant for this category of investment.

The last major category of agricultural investment is that of the use of modern inputs in agriculture. As indicated in Table 10, this too appears to have been undertaken by a very small number (48) of households. Since this is an annual expenditure, we may not have to worry about the time when households started using these inputs, but it may again be noted that this average time in the past is fairly long. This seems to indicate that it is the older migrants who undertake such investments. In any case, the per household average works out to Rs. 77 per year. One special reason why this is so low may be that almost all the irrigated area in

Table 7

Productive Uses of Remittances (Purchase of Agricultural Machinery) by Emigrants' Families, by Provincial and Urban/Rural Origin of Emigrants. 1979

(Rs. in Thousands)

Provinces	Rural/Urban Classification	TRACTOR			TUBEWELL			AGRICULTURAL IMPLIMENTS		
		T	HH	A	T	HH	A	T	HH	A
PUNJAB	R	100.0	1.0	100.0	408.0	3.0	136.0	0.0	0.0	0.0
	U	71.0	2.0	35.50	0.0	0.0	0.0	0.0	0.0	0.0
	T	171.0	3.0	57.0	408.0	3.0	136.0	0.0	0.0	0.0
SIND	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NWFP	R	235.0	3.0	78.33	0.0	0.0	0.0	12.0	1.0	12.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	235.0	3.0	78.33	0.0	0.0	0.0	12.0	1.0	12.0
BALUCHISTAN	R	0.0	0.0	0.0	25.0	1.0	25.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	25.0	1.0	25.0	0.0	0.0	0.0
AZAD KASHMIR	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	R	335.0	4.0	83.75	433.0	4.0	108.25	12.0	1.0	12.0
	U	71.0	2.0	35.50	0.0	0.0	0.0	0.0	0.0	0.0
	T	406.0	6.00	67.67	433.0	4.0	108.25	12.0	1.0	12.0

Note : At the heads of columns,

T = Total Investment

HH = Number of Investing Households

A = Average Investment for Investing Household

Table 8

Productive Use of Remittances(Purchase of Livestock)
by Emigrants' Families, by Rural/Urban Origin of Emigrants 1979.

(Rs.in hundreds)

Provinces	Rural/Urban Classification	COW/OX			BUFFALO			SHEEP/GOAT		
		T	HH	A	T	HH	A	T	HH	A
PUNJAB	RURAL	399.0	22.0	18.1	1180.0	35.0	33.7	65.0	9.0	7.2
	URBAN	235.0	11.0	21.4	730.0	15.0	48.7	18.0	4.0	4.5
	TOTAL	634.0	33.0	19.2	1910.0	50.0	38.2	83.0	13.0	6.4
SIND	RURAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	URBAN	265.0	6.0	44.2	260.0	4.0	65.0	67.0	7.0	9.6
	TOTAL	265.0	6.0	44.2	260.0	4.0	65.0	67.0	7.0	9.6
NWFP	RURAL	865.0	27.0	32.0	1027.0	24.0	42.8	812.0	21.0	38.7
	URBAN	147.0	6.0	24.5	332.0	8.0	41.5	181.0	8.0	22.6
	TOTAL	1012.0	33.0	30.7	1359.0	32.0	42.5	993.0	29.0	34.2
BALUCHISTAN	RURAL	180.0	4.0	45.0	0.0	0.0	0.0	19.0	2.0	9.5
	URBAN	133.0	4.0	33.3	50.0	1.0	50.0	438.0	5.0	87.6
	TOTAL	313.0	8.0	39.1	50.0	1.0	50.0	457.0	7.0	65.3
AZAD KASHMIR	RURAL	160.0	4.0	40.0	302.0	6.0	50.3	4.0	1.0	4.0
	URBAN	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
	TOTAL	160.0	4.0	40.0	302.0	7.0	43.1	4.0	1.0	4.0
TOTAL	RURAL	1604.0	57.0	28.1	2509.0	65.0	38.6	900.0	33.0	27.3
	URBAN	780.0	27.0	28.9	1372.0	29.0	47.3	704.0	24.0	29.3
	TOTAL	2384.0	84.0	28.4	3881.0	94.0	41.3	1604.0	57.0	28.1

Table continued.

Table 8

Provinces	Rural/Urban Classification	CAMEL			HORSE			MULE/DONKEY			POULTRY BIRDS		
		T	HH	A	T	HH	A	T	HH	A	T	HH	A
PUNJAB	RURAL	0.0	0.0	0.0	30.0	1.0	30.0	24.0	2.0	12.0	0.0	0.0	0.0
	URBAN	0.0	0.0	0.0	0.0	0.0	0.0	10.0	1.0	10.0	405.0	2.0	202.5
	TOTAL	0.0	0.0	0.0	30.0	1.0	30.0	34.0	3.0	11.3	405.0	2.0	202.5
SIND	RURAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	URBAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N.W.F.P	RURAL	0.0	0.0	0.0	0.0	0.0	0.0	218.0	5.0	43.6	18.0	1.0	18.0
	URBAN	90.0	2.0	45.0	0.0	0.0	0.0	88.0	4.0	22.0	0.0	0.0	0.0
	TOTAL	90.0	2.0	45.0	0.0	0.0	0.0	306.0	9.0	34.0	18.0	1.0	18.0
BALUCHISTAN	RURAL	0.0	0.0	0.0	10.0	1.0	10.0	62.0	3.0	20.7	0.0	0.0	0.0
	URBAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0.0	0.0	0.0	10.0	1.0	10.0	62.0	3.0	20.7	0.0	0.0	0.0
AZAD KASHMIR	RURAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.0	2.5
	URBAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0	1.5
	TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	4.0	2.0
TOTAL	RURAL	0.0	0.0	0.0	40.0	2.0	20.0	304.0	10.0	30.4	23.0	4.0	5.8
	URBAN	90.0	2.0	45.0	0.0	0.0	0.0	98.0	5.0	19.6	408.0	4.0	102.0
	TOTAL	90.0	2.0	45.0	40.0	2.0	20.0	402.0	15.0	26.8	431.0	8.0	53.9

Note : At the heads of columns,

T = Total Investment

HH = Number of Investing Households

A = Average Investment for Investing Household

TABLE 9

PRODUCTIVE USE OF REMITTANCES INVESTMENT IN (IMPROVEMENT OF AGRICULTURAL LAND) BY EMIGRANTS FEMALES, BY RURAL/URBAN ORIGIN OF EMIGRANTS 1979.

(Rs. in Thousand)

Provinces	Rural/Urban classification	EMBANKMENTS FOR EROSION CONTROL			LEVELLED THE LAND			CHANNEL DUG/PAVED			NEW WELL DUG		
			H.H	A	T	H.H	A	T	H.H	A	T	H.H	A
PUNJAB	R	20.0	1.0	20.0	104.0	7.0	14.86	81.0	4.0	20.25	98.0	1.0	98.0
	U	38.0	2.0	19.0	90.0	3.0	30.00	50.0	2.0	25.00	60.0	2.0	30.0
	T	58.0	3.0	19.33	194.0	10.0	19.40	131.0	6.0	21.83	158.0	3.0	52.67
SIND	R	0.0	0.0	0.0	5.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	1.0	0.0	80.0	4.0	20.0	0.0	1.0	0.0	0.0	1.0	0.0
	T	0.0	1.0	0.0	85.0	5.0	17.0	0.0	1.0	0.0	0.0	1.0	0.0
NWFP	R	90.0	13.0	6.92	477.0	17.0	28.06	50.0	5.0	10.0	2.0	4.0	0.5
	U	53.0	5.0	10.60	14.0	3.0	4.67	10.0	4.0	2.50	0.0	1.0	0.0
	T	143.0	18.0	7.94	491.0	20.0	24.55	60.0	9.0	6.67	2.0	5.0	0.4
BALUCHISTAN	R	113.0	2.0	66.50	200.0	5.0	40.00	15.0	1.0	15.0	100.0	2.0	50.0
	U	20.0	2.0	20.0	6.0	1.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	153.0	3.0	51.0	206.0	6.0	34.33	15.0	1.0	15.0	100.0	2.0	50.0
AZAD KASHMIR	R	5.0	1.0	5.0	14.0	2.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	5.0	1.0	5.0	14.0	2.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	R	248.0	17.0	14.59	800.0	32.0	25.0	146.0	10.0	14.60	200.0	7.0	28.57
	U	111.0	9.0	12.33	190.0	11.0	17.27	60.0	7.0	8.57	60.0	4.0	15.0
	T	359.0	26.0	13.81	990.0	43.0	23.02	206.0	17.0	12.12	260.0	11.0	23.64

Note: At the heads of columns,
T= Total Investment
HH= Number of Investing Households
A= Average Investment for Investing Household

TABLE 10

PRODUCTIVE USE OF REMITTANCES EXPENDITURE ON (IMPROVEMENT IN CULTIVATION) BY EMIGRANTS FAMILIES, BY RURAL/URBAN ORIGIN OF EMIGRANTS. 1979

(Rs.in Thousands)

PROVINCES	Clasi-fication	BETTER SEED			USE OF FERTILIZER			MODERN AGRICUL-TURE IMPLEMENTS			USE OF MACHINERY		
		T	H.H	A	T	H.H	A	T	H.H	A	T	H.H	A
PUNJAB	R	131.0	7.0	18.71	113.0	12.0	9.42	9.0	2.0	4.50	13.0	3.0	4.33
	U	26.0	6.0	4.33	28.0	8.0	3.50	3.0	3.0	1.00	1.0	2.0	0.50
	T	157.0	13.0	12.08	141.0	20.0	7.05	12.0	5.0	2.40	14.0	5.0	2.80
SIND	R	2.0	1.0	2.00	2.0	1.0	2.00	0.0	0.0	0.0	0.0	0.0	0.0
	U	18.0	5.0	3.60	25.0	6.0	4.17	11.0	3.0	3.67	0.0	1.0	0.0
	T	20.0	6.0	3.33	27.0	7.0	3.86	11.0	3.0	3.67	0.0	1.0	0.0
NWFP	R	123.0	13.0	9.46	56.0	10.0	5.60	139.0	9.0	15.44	0.0	3.0	0.0
	U	49.0	5.0	9.80	38.0	4.0	9.50	2.0	3.0	0.67	0.0	2.0	0.0
	T	172.0	18.0	9.56	94.0	14.0	6.71	141.0	12.0	11.75	0.0	5.0	0.0
BALUCHISTAN	R	14.0	4.0	3.50	71.0	4.0	17.75	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	14.0	4.0	3.50	71.0	4.0	17.75	0.0	0.0	0.0	0.0	0.0	0.0
AZAD KASHMIR	R	11.0	4.0	2.75	8.0	3.0	2.67	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	11.0	4.0	2.75	8.0	3.0	2.67	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	R	281.0	29.0	9.69	250.0	30.0	8.33	148.0	11.0	13.45	13.0	6.0	2.17
	U	93.0	16.0	5.81	91.0	18.0	5.06	16.0	9.0	1.78	1.0	5.0	0.20
	T	374.0	45.0	8.31	341.0	48.0	7.10	164.0	20.0	8.20	14.0	11.0	1.27

Note: At the heads of columns
T= Total Investment
H.H= Number of Investing Households
A= Average Investment per Investing Household.

Pakistan had been converted to better seeds, fertilizer and insecticides by the early Seventies. Hence the recent remittance money could not be responsible for inducing this behaviour in these households. This may also partially explain the long average time elapsed since the use of these inputs.

The *total figure* for annual *investment in agriculture* per household works out to Rs. 957. Improvements in agricultural land form a large component of this investment. In the subsequent reports we may want to examine the differential behaviour in *barani* and irrigated rural areas in this regard to test the theory that these investments are more profitable in the irrigated areas and are therefore likely to be concentrated there. A more detailed analysis of the characteristics of the small group of households making these investments also proves to be an interesting exercise.

Industrial/ Commercial investment in our analysis comprises the following:

1. Purchase of industrial machinery
2. Investment in cottage industry
3. Purchase of comm-rcial vehicles
4. Investment in commercial ventures

Our data are presented in Tables 11 through 14. Even if there is no overlap between households (which appears unlikely) we get a total figure of 27 households (or about 2.3% of the sample) investing in industrial machinery, cottage industry and commercial vehicles. The amount invested by these people comes to Rs. 2.9 million, yielding an average figure of Rs. 2,515 per year and *Rs. 718* per migrant.

TABLE 11

PRODUCTIVE USE OF REMITTANCES (PURCHASE OF INDUSTRIAL MACHINARY)
BY EMIGRANTS FAMILIES, BY RURAL/URBAN ORIGIN OF EMIGRANTS. 1979

(Rs. in Thousands)

Provinces	Rural/Urban Clasification	LOOM			WORKSHOP			WELDING MACHINE			FLOUR GRINDER		
		T	H.H	A	T	H.H	A	T	H.H	A	T	H.H	A
PUNJAB	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0	20.0
	U	100.0	1.0	100.0	1050.0	3.0	350.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	100.0	1.0	100.0	1050.0	3.0	350.0	0.0	0.0	0.0	20.0	1.0	20.0
SIND	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0	20.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0	20.0	0.0	0.0	0.0
NWFP	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BALUCHISTAN	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AZAD KASHMIR	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0	20.0
	U	100.0	1.0	100.0	1050.0	3.0	350.0	20.0	1.0	20.0	0.0	0.0	0.0
	T	100.0	1.0	100.0	1050.0	3.0	350.0	20.0	1.0	20.0	20.0	1.0	20.0

Note: At the heads of columns
T= Total Investment
HH= Number of Investing Households
A= Average Investment per Investing Household.

Table 12

Productive Use of Remittances (Investment in Cottage Industry) by Emigrants' Families, by Urban/Origin of Emigrants. 1979

(Rs. in Thousands)

Provinces	Rural/ Urban Classi- fication	Loom			Textile/Printing		
		T	HH	A	T	HH	A
Punjab	R	0.0	0	0.0	0.0	0	0.0
	U	5.0	1	5.0	2.0	1	2.0
	T	5.0	1	5.0	2.0	1	2.0
Sind	R	0.0	0	0.0	0.0	0	0.0
	U	0.0	0	0.0	0.0	0	0.0
	T	0.0	0	0.0	0.0	0	0.0
N.W.F.P.	R	0.0	0	0.0	0.0	0	0.0
	U	0.0	0	0.0	0.0	0	0.0
	T	0.0	0	0.0	0.0	0	0.0
Baluchistan	R	1.0	1	1.0	0.0	0	0.0
	U	0.0	0	0.0	0.0	0	0.0
	T	1.0	1	1.0	0.0	0	0.0
Azad Kashmir	R	0.0	0	0.0	0.0	0	0.0
	U	0.0	0	0.0	0.0	0	0.0
	T	0.0	0	0.0	0.0	0	0.0
Total	R	1.0	1	1.0	0.0	0	0.0
	U	5.0	1	5.0	2.0	1	2.0
	T	6.0	2	3.0	2.0	1	2.0

Note: At the heads of columns,
T = Total Investment
HH = Number of Investing Households
A = Average Investment per Investing Household

Table 13

Productive Use of Remittances (Investment in Vehicles for Renting Purpose) by Emigrants Families, by Rural/ URBAN Urban Origin of Emigrants, 1979.

(Rs. in Thousands)

Provinces	Rural/ Urban Classification	CAR FOR TAXI			SUZ KI(TAXI)			WAGON			TRACTOR			TRUCK		
		T	HH	A	T	HH	A	T	HH	A	T	HH	A	T	HH	A
PUNJAB	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	0.0	0	0.0	0.0	0	0.0	50.0	1	50.0	100.0	1	100.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	0.0	0	0.0	50.0	1	50.0	100.0	1	100.0	0.0	0	0.0
SIND	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	0.0	0	0.0	80.0	2	40.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	80.0	2	40.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
NWFP	RURAL	50.0	1	50.0	50.0	1	50.0	0.0	0	0.0	230.0	3	76.67	320.0	1	320.0
	URBAN	60.0	1	60.0	30.0	1	30.0	0.0	0	0.0	100.0	1	100.0	330.0	1	330.0
	TOTAL	110.0	2	55.0	80.0	2	40.0	0.0	0	0.0	330.0	4	82.50	650.0	2	325.0
BALUCHISTAN	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	60.0	1	60.0	60.0	1	60.0	20.0	1	20.0	0.0	0	0.0	160.0	1	160.0
	TOTAL	60.0	1	60.0	60.0	1	60.0	20.0	1	20.0	0.0	0	0.0	160.0	1	160.0
AZAD KASHMIR	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
TOTAL	RURAL	50.0	1	50.0	50.0	1	50.0	0.0	0	0.0	230.0	3	76.67	320.0	1	320.0
	URBAN	120.0	2	60.0	170.0	4	42.50	70.0	2	35.0	200.0	2	100.00	490.0	2	245.0
	TOTAL	170.0	3	56.67	220.0	5	44.00	70.0	2	35.0	430.0	5	86.00	810.0	2	270.0

Note: At the heads of columns,
T = Total Investment
HH = Number of Investing Households
A = Average Investment per Investing Household.

Table 14

Productive Use of Remittances (Investment in Commercial Ventures) by Emigrants Families, by Rural/Urban Origin of Emigrants - 1979

(Rs. in Thousands)

Provinces	Rural/ Urban Class-ification	SHOP			AGENCY			WORKSHOP			HOTEL		
		T	HH	A	T	HH	A	T	HH	A	T	HH	A
PUNJAB	RURAL	90.0	3	30.0	0.0	0	0.0	0.0	0	0.0	0.0	1	0.0
	URBAN	2310.0	16	144.38	400.0	1	400.0	1480.0	2	740.0	0.0	0	0.0
	TOTAL	2400.0	19	126.32	400.0	1	400.0	1480.0	2	740.0	0.0	1	0.0
SIND	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	40.0	4	10.0	0.0	0	0.0	500.0	1	500.0	40.0	1	40.0
	TOTAL	40.0	4	10.0	0.0	0	0.0	500.0	1	500.0	40.0	1	40.0
NWFP	RURAL	250.0	6	41.67	0.0	0	0.0	0.0	0	0.0	30.0	1	30.0
	URBAN	490.0	7	70.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	740.0	13	56.92	0.0	0	0.0	0.0	0	0.0	30.0	1	30.0
BALUCHISTAN	RURAL	30.0	2	15.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	200.0	7	28.57	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	230.0	9	25.56	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
AZAD KASHMIR	RURAL	730.0	3	243.33	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	100.0	1	100.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	830.0	4	207.50	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
TOTAL	RURAL	1100.0	14	78.57	0.0	0	0.0	0.0	0	0.0	30.0	2	15.0
	URBAN	3140.0	35	89.71	400.0	1	400.0	1980.0	3	660.0	40.0	1	40.0
	TOTAL	4240.0	49	86.53	400.0	1	400.0	1980.0	3	660.0	70.0	3	23.33

Note: At the heads of Columns.
T = Total Investment
HH = Number of Investing Households
A = Average Investment per Investing Household.

Again this figure is fairly low, indicating perhaps the migrant family's unfamiliarity with investment opportunities. It may be an interesting exercise to examine the profile of the small group of investors to see if they are concentrated in the business and professional emigrants.

The investment in commercial ventures, namely shops, hotels, workshops, etc. amounts to Rs. 6.7 million which yields an average annual figure of Rs. 1,660 per migrant. The total industrial/commercial investment thus works out to *Rs. 2,378* per migrant per year.

IV. FINANCIAL INVESTMENT

In the category of financial investment we include purchase of a financial instrument of the following categories:

1. Purchase of shares in firms
2. Investment in financial corporations

Investment in Finance Corporations was made by 16 households to the tune of Rs. 141,000, yielding an annual average of Rs. 35 per migrant. Details are given in Table 16. The bulk of the investment (84%) was made in the Punjab while the remainder was made in the N.W.F.P.

Only two households reported investing Rs. 600,000 in the purchase of shares of Salva Ghee Industries and a textile mill. The average investment per migrant per year works out to Rs. 150.

The total expenditure on financial investment comes to Rs. 185 per year.

Table - 15

Productive use of Remittances (Purchase of Share of Business Organisations) by Emigrants' Families, by Rural/Urban Origin of Emigrants. 1979.

(Rs. in Thousands)

Provinces	Rural/Urban Classification	Salva Ghee			Textile Mill		
		T	HH	A	T	HH	A
Punjab	R	0	0	0.0	0	0	0.0
	U	500	1	500.00	100	1	100.0
	T	500	1	500.00	100	1	100.0
Sind	R	0	0	0.0	0	0	0.0
	U	0	0	0.0	0	0	0.0
	T	0	0	0.0	0	0	0.0
NWFP	R	0	0	0.0	0	0	0.0
	U	0	0	0.0	0	0	0.0
	T	0	0	0.0	0	0	0.0
Baluchistan	R	0	0	0.0	0	0	0.0
	U	0	0	0.0	0	0	0.0
	T	0	0	0.0	0	0	0.0
Azad Kashmir	R	0	0	0.0	0	0	0.0
	U	0	0	0.0	0	0	0.0
	T	0	0	0.0	0	0	0.0
Total	R	0	0	0.0	0	0	0.0
	U	500	1	500.0	100	1	100.0
	T	500	1	500.0	100	1	100.0

Note: At the heads of columns,

T = Total Investment
HH = Number of Investing Households
A = Average Investment per Investing Household

Table - 16

Productive Use Of Remittances (Investment in Finance Corporation) by Emigrants' Families, by Rural/Urban Origin of Emigrants. 1979.

(Rs. in Thousands)

Provinces	Rural/Urban Classification	Total Investment	Number of Investment Households	Average Investment per Investing Households
Punjab	Rural	49	6	8.17
	Urban	70	8	8.75
	Total	119	14	8.50
Sind	Rural	0	0	0.0
	Urban	0	0	0.0
	Total	0	0	0.0
NWFP	Rural	2	1	2.00
	Urban	20	1	20.00
	Total	22	2	11.00
Baluchistan	Rural	0	0	0.0
	Urban	0	0	0.0
	Total	0	0	0.0
Azad Kashmir	Rural	0	0	0.0
	Urban	0	0	0.0
	Total	0	0	0.0
Total	Rural	51	7	7.29
	Urban	90	9	10.00
	Total	141	16	8.81

Table 17

Productive Use of Remittances(Investment in Saving Schemes) by Emigrants' Families by Rural/Urban Origin of Emigrants 1979.

(Rs. in Thousands)

PROVINCES	RURAL/URBAN CLASSIFICATION	NATION SAVING SCHEME			POST OFFICE SAVINGS			TIME DEPOSITS			PRIZE BONDS		
		T	HH	A	T	HH	A	T	HH	A	T	HH	A
PUNJAB	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	8.0	4	2.0
	URBAN	42.0	6	7.0	64.0	5	12.8	77.0	5	15.4	241.0	22	11.0
	TOTAL	42.0	6	7.0	64.0	5	12.8	77.0	5	15.4	249.0	26	9.6
SIND	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	38.0	4	9.5	10.0	1	10.0	72.0	4	18.0	23.0	14	1.6
	TOTAL	38.0	4	9.5	10.0	1	10.0	72.0	4	18.0	23.0	14	1.6
NWFP	RURAL	0.0	1	0.0	0.0	0	0.0	0.0	0	0.0	23.0	7	3.3
	URBAN	5.0	1	5.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	5.0	2	2.5	0.0	0	0.0	0.0	0	0.0	23.0	7.	3.3
BALUCHISTAN	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	0.0	0	0.0	2.0	1	2.0	1.0	1	1.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	2.0	1	2.0	1.0	1	1.0	0.0	0	0.0
AZAD KASHMIR	RURAL	40.0	1	40.0	0.0	0	0.0	50.0	4	12.0	0.0	0	0.0
	URBAN	0.0	0	0.0	0.0	0	0.0	60.0	2	30.0	10.0	1	10.0
	TOTAL	40.0	1	40.0	0.0	0	110.0	110.0	6	18.3	10.0	1	10.0
TOTAL	RURAL	40.0	2	20.0	0.0	0	0.0	50.0	4	12.5	31.0	11	2.8
	URBAN	85.0	11	7.7	76.0	7	10.9	210.0	12	17.5	274.0	37	7.4
	TOTAL	125.0	13	9.6	76.0	7	10.9	260.0	16	16.3	305.0	48	6.4

continued.

Table 17 (page 2)

		NIT UNITS			INSURANCE			COMMITTEE (CO-OP. FINANCING)		
		T	HH	A	T	HH	A	T	HH	A
PUNJAB	RURAL	0.0	0	0.0	5.0	1	5.0	0.0	0	0.0
	URBAN	54.0	2	27.0	3.0	1	3.0	1.0	1	1.0
	TOTAL	54.0	2	27.0	8.0	2	4.0	1.0	1	1.0
SIND	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	83.0	5	16.6	20.0	1	20.0	0.0	2	0.0
	TOTAL	83.0	5	16.6	20.0	1	20.0	0.0	2	0.0
NWFP	RURAL	0.0	0	0.0	0.0	0	0.0	3.0	1	3.0
	URBAN	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	0.0	0	0.0	3.0	1	3.0
BALUCHISTAN	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
AZAD KASHMIR	RURAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	URBAN	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
	TOTAL	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
TOTAL	RURAL	0.0	0	0.0	5.0	1	5.0	3.0	1	3.0
	URBAN	137.0	7	19.6	23.0	2	11.5	1.0	3	0.3
	TOTAL	137.0	7	19.6	28.0	3	9.3	4.0	4	1.0

Note At the heads of columns,
T = Total Investment
HH = Number of Investing Households
A = Average Investment per Investing Household.

Savings

We have defined savings to include cash, time deposits, saving certificates, prize bonds, insurance, NIT units, etc. While figures for cash balances are not available, they can perhaps be obtained as a residual. The investment on the remaining heads is given in Table 17. The total amount thus saved amounts to Rs. 935,000, yielding an average figure of Rs. 232 per migrant per year.

The reasons for the low level of savings are similar to those adduced for low investment in industry.

V. CONCLUSIONS

The aggregate picture which emerges from this analysis is that the expenditures listed in Table 18 are made annually by migrant households out of the remittances received from abroad.

Despite the approximations used in calculating these figures, it is gratifying to observe that the total expenditure thus calculated, Rs. 28,044, is not very different from the total annual remittances, Rs. 28,966. The unexplained residual is only 3.18% of the total remittances. The residual comprises cash balances, current accounts, gold, etc.

Thus 62% of the expenditure goes into current consumption, 22% into real estate purchases, 11.5% into real physical investments and 1.4% into financial investments.

Table 18

Uses of Remittances

Expenditure		Amount (000 Rs.)	%
1.	*Consumption*	*18,012*	*62.19*
	a. Recurring consumption	16,512	57.00
	b. Marriages	680	2.35
	c. Consumer durables	820	2.84
2.	*Real Estate*	*6,280*	*21.68*
	a. Construction/purchase of residential house	3,516	12.14
	b. Improvement in house	658	2.27
	c. Commercial real estate	1,658	5.72
	d. Agricultural land	448	1.55
3.	*Investment/Savings*	*3,752*	*12.05*
	a. Agricultural investment	957	3.30
	b. Industrial/commercial investment	2,378	8.21
	c. Financial investment/saving	417	1.44
4.	*Residual*	*922*	*3.18*
	Total	28,966	100.00

Under our classification scheme, discussed in Chapter 5, we consider only the last two as having a social value. Hence the investment component of the inflow of remittances works out to 13%. If we include in our analysis the remittances in kind, this figure drops to 12%.

The significant amount of expenditure on real estate implies that there may be potential for tapping the sources of savings and productive investment. Of course, as Gulsinger (1980) suggests, it is not clear why real estate should be considered an unproductive investment if the proceeds of the sale of real estate are invested by the owner.

PART 2

(Pakistani Emigration to The Middle East: A Cost Benefit Analysis)

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