**DEDICATED TO**

My Beloved Parents

Whose Endless Love, Support and Devotion have
Always Inspired me

بسم الله الرحمن الرحيم

# POPULATION REDISTRIBUTION IN PAKISTAN

*By*

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## ABSTRACT

Population redistribution, including the process of migration, has been studied for over a century, but the complex inter-relationships between migration and demographic, social, and economic factors have made it difficult to analyze the phenomenon. Pakistan's rapid population growth has been accompanied by large scale internal migration resulting in the redistribution of population and subsequent undisciplined urbanization. This study deals with some important aspects of internal migration and uneven population distribution in the country during the present century. The literature review is followed by an analysis of population growth and distribution, with emphasis on the role of migration. The main sourcesof data are census publications. Important determinants of the decision to move, and the consequences of rapid urbanization are discussed in detail leading to a thorough analysis of the links between the intensity of internal migration and regional inequalities in socio-economic development. To explain the existing population distribution pattern, a critical evaluation of the impacts of various government policies (both explicit and implicit) has also been carried out in historical perspective. The findings of a sample survey of migrants in Karachi have been incorporated to obtain first hand information on the role of different demographic, social and economic factors which influence the decision-making process of migration

and their subsequent impacts at the individual or micro-level. The study recommends the adoption of specific long-term population distribution policies to tackle the increasing problems of over-concentration of population in a few large cities of the country. These need to be substantiated by national regional planning policies in order to provide a basis for the nationalization of regional plans, or for the regionalization of national plans.

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# CHAPTER-1

# INTRODUCTION

## LITERATURE REVIEW:

Distribution and redistribution of population as well as spatial patterns of population-related phenomena form very important aspects of research in Geography. Analysis and explanation of these patterns have not always been easy because of the dearth of spatially disaggregated data, and the variety of basic areal units. Moreover, for a long time these studies evinced little interest or understanding from representatives of other disciplines.

The situation has changed drastically during the last few decades, so that questions of population redistribution are now among top priority items for data experts, scholars, and administrators alike. The various factors responsible for this shift in emphasis are:

(i) The increasing role played by governments at different levels of economy and society along with the decentralization of decision-making combine to create a greater demand for spatially disaggregated data, which are vital for planning and management, particularly at regional and local levels.

(ii) Agencies responsible for data gathering and processing are under increasing pressure to provide more area-specific statistics, and they respond to this challenge.

(iii) Scholars are often asked to offer advice to the planners and politicians, and they too respond more frequently than before.

To sum up, it seems that spatially oriented studies of population demonstrate an increasingly practical relevance and applicability (Kosinski and Clarke 1982).

In the developed countries, converging and declining rates of natural increase mean that internal migrations play an increasing role in the process of population redistribution, while international migrations continue to be important not only in providing needed labour, but also in redressing deficits of births. On the other hand, in the developing countries, where natural increase is almost invariably high, massive flow of population towards rapidly growing cities is a major force of redistribution (Kosinski and Clarke 1982). International migration and particularly its rural-urban form, is inextricably linked with other demographic phenomena, as in the case where regional fertility differentials essentially reflect the age-sex selectivity of migration. Further, in assessing population growth, the contribution of natural increase cannot be clearly separated from that of migration. Migrants may bring some children with them and bear others at the destination (Pryor 1982).

Migrants contribute to changes in the spatial patterns of population. Migration can be perceived as a link, and often a strong one, in the process of change, in the sense that it involves changes in other sub-systems of the society. It both results from and results in changes, or is a concomitant of them (Ekanem 1982). In both developed and developing countries, the governments are becoming more interested in how redistribution of population can increase the efficiency of the economic system and the welfare of the inhabitants.

The study of migration is most fundamental to understand the everchanging 'space content' and 'space relations' of a

particular area. Geographers have shown interest not only in population distribution as a static phenomenon, but also in the reconstruction of population patterns in the pre-census era.

The first scientific study related to migration dates back to late ninteenth century when Ravenstein (1885,1889) presented his work before the Royal Statistical Society as the 'Laws of Migration'. Despite strong criticisms, Ravenstein's papers have stood the test of time and remain the starting point for work in migration theory. Ever since, this field has continued to be an important area not only to geographers and demographers, but also to economists, sociologists, anthropologists, psychologists and political scientists. This variety of interests has led to discipline-oriented treatments of the phenomenon. The vast amount of literature so generated in different periods can broadly be classified into the following seven types:

i) Studies placing emphasis on distance, direction, volume, streams, counterstreams and multistage migrations (Stouffer 1940 and 1960, Lee 1966, Mabogunje 1970, Crook and Dyson 1982, and Cole and Sanders 1985).

ii) Studies suggesting, analyzing or reconstructing models on migration (Lowry 1966, Todaro 1969, Johnson 1971, Bhagwati and Srinivasan 1974, Mc Fadden 1977, Ledent 1980 and Kelley 1982).

iii) Studies primarily concerned with the determinants of migration including behavioural aspects of decision to move (Wolpert 1965 and 1966, Greewood 1969, Zelinsky 1971, Gary 1979 and Schultz 1981).

iv) Studies dealing mainly with the consequences of migration/ urbanization i.e. impacts of migration on migrants and/ or places of origin and/ or destination and subsequent urbanization (Lipset and Bendex 1959, Sovani 1966, McGee 1971, Berry 1973a, Lipton 1977, Keyfitz 1978 and 1981, and Linn 1982).

v) Studies with major focus on the characteristics of migrants (Simkins and Wernstedt 1971, Ulack 1972, and Patterson 1978).

vi) Studies concentrating on population migration/redistribution policies (Gordon 1975, Alonso 1978, Linn 1979, Peck and Standing 1979, Rondinelli 1983 and Stern 1984).

vii) Studies concerned with reviewing literature, compiling bibliographies or collecting essays on migration (Pryor 1971, Kosinski and Prothero 1975, Yap 1975 and 1977, Todaro 1976 and Morrison 1983).

A review of these and other such studies shows that very few of them present a general theoretical framework for digesting all empirical findings from different migration studies. The theoretical statements which exist in the studies done so far are concerned only with interpreting a specific dimension of the migration phenomenon. These studies are detached and isolated in conceptual and methodological neatness (Haq 1979). They are in actual fact parts of a whole and complementary rather than competitive.

An overview of migration studies indicates that the trend of migration, its causes and implications on demographic, social and economic development have not been well understood in most of the countries of the world, mainly owing to the paucity of

data and of in-depth studies on migration and urbanization. In several countries, reliable data on internal migration and urbanization are not available. In fact, migration data, mostly obtained from population censuses, registration data, government reports, health statistics and demographic surveys are often inadequate and not comparable because of differences in definitions of concepts as well as errors of enumeration. In addition, the complex interrelationships between migration and demographic, social and economic factors have made it difficult to analyze migration phenomenon.

As a whole, social scientists in both western and non-western countries have contributed to the area of migration research. Nevertheless, the field has received more serious attention in the former than in the latter areas. Attempts have been made in the west for years to codify what is known about internal migration and to compile bibliographies. The last decade has, however, seen some important attempts to survey the literature on internal migration in the Third World. There has been a rapid increase in the number of articles and monographs, refinements in techniques of collection and processing of migration data, use of diversified variables, and a growing concern with theoretical aspects of the study of migration, clearly pointing to an increased awareness of the importance of studying migration. The rapidity of urbanization process both in technologically developed and developing nations had already engendered problems and challenges which necessitate thorough migration studies to devise long range solutions. The current state of interest in migration research,

particularly rural-urban migration in developing countries, is such that one can safely predict a rapid increase in migration studies in the near future.

Findley (1977) in an interesting work reviewed issues and policies for internal migration in the developing countries. During the 1978-80 period, I.G.U. Commission on Population Geography held four symposia in Nigeria, Finland, Pakistan and Japan respectively. As can be seen, three of these were concerned specifically with population redistribution in the non-western countries (Clark and Kosinski 1978, Kosinski and Elahi 1980, and Kosinski and Kawabe 1980). The symposium on 'Development and Population Redistribution in South Asia', held in Pakistan (Kosinski and Elahi 1980) identified development and improvement in the quality of living as two basic components involved in the study of the dynamics of population redistribution. A few resolutions adopted by the participants were:

(i) There is need to expand and improve the data sources. Preparation of census atlases and national population bibliographies is strongly recommended.

(ii) Critical evaluation of existing studies related to redistribution of population should be carried out.

(iii) There is a widely recognised need to integrate the components of population redistribution in the formulation of development plans at the national, regional, and local levels.

(iv) The development planners and scholars need to give special attention to the problems of ecological transformation and degradation in relation to the redistribution of population.

(v) The phenomenon of population redistribution has many facets which require the attention of a large number of disciplines. For a better comprehension of the associated problems, therefore, an interdisciplinary approach should be adopted.

Migration related literature on non-western countries, include some bibliographies and directories - one on determinants of population trends (UN 1978), the second on internal migration in the Arab World (UNECWA 1980) and the third is a series of directories on population projects in the developing world (UNFPA 1974/75). In addition, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP 1980) has compiled works on comparative studies of 'Migration, Urbanization and Development'. A collection of essays 'Circulation in the Third World' has also been published in the form of a book (Prothero and Champan 1980). Two recent seminars dealing with the problems of projecting migration for the purpose of planning integrated urban and rural development (IUSSP 1980) made two recommendations that clearly adopt the general approach to development. These were:

(i) Research on migration should be expanded to include all forms of territorial mobility.

(ii) There is need to pay more attention to comparative studies in order to widen the understanding of new trends and new forms of mobility.

The Economic and Social Council, in its resolution 1981/87 of November 25, 1981 decided to convene an international conference on population under the auspices of the United Nations to be devoted to the discussion of selected issues of the 'highest priority'. Four expert groups were formed which were interdisciplinary and concerned with the inter-relationships between economic, social and political factors in population and development with a problem-solving orientation. One of

these expert groups was on "Population Distribution, Migration and Development" (Hammamet, Tunisia: 21-25 March, 1983).

In Pakistan rapid population growth has been accompanied by internal migration especially from the countryside to large urban areas resulting in striking shifts in the location of population. Though social scientists have recognized the importance of migration studies in the country, and interest in the field is growing, yet very little has been published in major international journals on the magnitude, direction, causes and impacts of internal migration in Pakistan. A considerable amount of information does exist from various sample surveys, analyses of census data and other scattered sources, but they typically lack any larger theoretical or conceptual frame of reference within which to compare or summarize their results. These scattered studies are briefly reviewed here.

Davis (1951) in his study of the population of India and Pakistan, gave some estimates on lifetime migrants to different regions of Pakistan. The study was based on statistical tables on places of birth and enumeration contained in various censuses up to 1941. The conclusions drawn in the study about internal migration in pre-partition India were meager and tentative. The first systematic geographical analysis of urbanization in post-partition Pakistan was carried out by Ahmad in 1966. Based on census data for the 1941-61 period, he (Ahmad 1966) identified two classes of urban centres - towns of 'minor variation' in growth (ranging from 10 to 15 per cent), and towns of 'accelerating growth' (more than 15 per cent variation). The study

concluded that the development plans from 1951 onwards started making a great impact on urbanization trends in Pakistan. Rapid industrial and commercial expansion and integrated development of new areas resulting from the influence of new canals were the main factors behind the changing pattern of urbanization in 1960's.

In a study of internal migration to urban areas, Afzal (1967) used the Census Survival Ratio to separate the effect of mortality, leaving balance of net migrants of age 10 and above in a particular urban area. The study was limited to the intercensal period 1951-61, and revealed that in 1961 some 95 percent of the population of Pakistan were non-migrants. Only about 5 percent of the persons born in Pakistan were not living in their districts of birth. In estimating internal migrants to different areas, Khan (1972) used the ratios of population totals of the whole Sub-continent in consecutive censuses (1901-61) to separate the contribution of natural increase from intercensal growth in a particular urban area. Burki (1973) in a study, contradicting the picture of static village life, reported that 47 per cent of the out-migrants went to cities, 35 per cent to towns and 18 per cent to villages. He argued that the in-migrants from cities were returnees who had failed, whereas the movements between towns were genuine long-term moves based on changes in economic status or opportunity. In a latter work, Burki found that most of the migrants to smaller towns had been small farmers squeezed out by rising costs (Burki 1974).

Two other studies by Helbock and Khan concentrated on the use of models. Helbock (1975) used a gravity model to work out differential urban growth among Pakistan's 12 largest cities. It was based on the 1961 place of birth statistics. He found that on the average about 15 per cent of the residents of these

cities had come originally from other districts. The variation among cities ranged from 5 to 30 percent and appeared to be unrelated to the city size or the overall city growth rate. Helbock concluded that the urbanization process was more complex than had previously been realized. Khan (1980) compared population growth in censuses with the natural increase to present variation in time and space. The study based upon growth curves for rural Pakistan, identified three population growth regions of Slow, Rapid, and Very Rapid population growth. It was observed that these population growth patterns varied primarily in accordance with differences in internal migration and secondarily with those of natural increase.

Papers represented at the IGU Symposium in Pakistan (Kosinski and Elahi 1980) included research findings on various aspects of population redistribution and development in the country. Ahmad gave an account of major trends and implications of the distribution of population in Pakistan during the 1951-72 period. He emphasized that the country was getting over-urbanized without concomitant development (Ahmad 1980). Ahsanullah assessed the contribution of industry in urban growth for Pakistan using the location quotient. High indices showed that manufacturing was an important sector for the area concerned, conversely, low indices represented lesser importance of industry as a field of urban employment (Ahsanullah 1980).

Khan and Karim (1982) gave an account of internal and international migration in Pakistan during the 1970's. The links between the emigrants from Pakistan and the on-going process of internal migration were discussed in the study.

In a study focussing on development policies for Pakistan in the context of rapidly increasing urbanization and resulting problems, Lieberman (1982) emphasized the importance of agriculture to Pakistan's plans and prospects for improving levels of income and social development, and for providing employment for a growing work force. He critically examined the various rural development policies adopted so far to reduce rural-urban migration and suggested two alternatives; either (i) revival of Integrated Rural Development programme (IRDP) or (ii) a commercial holdings strategy -- relying on market oriented operators of medium-size farms in which the government's role is more focused and specialized than in the IRDP model.

In their study of migration and development in Pakistan, Shah and Karim (1982) concentrated on voluntary, peacetime migration, both internal and international, and attempted to analyze some of its possible socio-economic consequences. The consequences related to two major events-- immigration of Indian refugees after the 1947 partition, and influx of Afghan refugees after the Soviet invasion of Afghanistan, form the background for their discussion on migration in Pakistan. In a recent study on population redistribution in Pakistan, Ahmad (1985) discussed the impact of the early refugee influx on the growth of population in the country. The study underscored the significance of natural increase as the single factor affecting the pattern of population growth since the early 1950's.

In a provincial study, Khan (1985a) analyzed various types of mobility both before and after partition for the North West

Frontier Province (N.W.F.P.). Outmigrants and inmigrants from and to the province were estimated to be 7 per cent and 2.4 per cent respectively compared to the native population. 62.8 per cent of the inmigrants belonged to Punjab whereas 52.9 per cent of the out-migrants from N.W.F.P were directed towards Sind in 1973. Detailed analysis of refugees from India and Afghanistan, and repatriates from Bangladesh has also been carried out in the study. Two other provincial studies were conducted by Eckert for Punjab and by Siddiqi for Sind. In the former, Eckert (1972) reported that in a fairly large sample of villages in the Punjab in 1971, all of which had good highway access, 19 per cent of all households had at least one member who had migrated from the village, and some 5 per cent had one or more members who regularly commuted to some nearby urban area for employment. According to the study by Siddiqi (1978) temporary seasonal migration appeared important to several districts of Sind, where 25 per cent of the population in some areas migrated annually to work on farms in the north and east of Sind.

Small surveys of four cities-- Lulliani (Naeem and Mahbub 1969), Faisalabad (Haq 1977) Gujranwala (Social Sciences Research Centre 1977) and Peshawar (Khan 1977) also provide interesting information on some characteristics of migrants. The survey results for Lulliani revealed that inmigrants and outmigrants nearly balanced each other and most of the moves covered less than 50 miles. A majority of in-migrants came from smaller villages, while the out-migrants mostly went to larger places. Studies of Faisalabad and Gujranwala found that about half of

the recent in-migrants to the two cities came from other urban areas indicating urban--urban migration. Peshawar's study, however, revealed that most of the migrants there were rural labourers or tenant farmers.

Two special studies can be cited concerned with the economic impacts of migration on migrants. Klitgaard (1977) in a survey of fruit and vegetable hawkers of Karachi disclosed that they were primarily migrants who constituted a stable, economically viable group of professionals. Some were quite well off, but none were living in real poverty. Their education, skills and capital were limited, but they had carved out a successful 'niche' in the urban structure. Hamdani (1978) while examining a sample of street dwellers in Rawalpindi, found that this group of temporary urban residents was fairly homogeneous comprising of former rural residents. They were young, single males who lived alone but maintained frequent contacts with their families at their places of origin. They were not the 'poorest of the poor' and their incomes were sufficient to meet their basic needs. They mostly indicated an intention to return eventually to their rural homes.

A research conducted by Rauf in a Punjabi village near the Federal Capital Territory of Islamabad revealed the impacts of out-migration on the villages of Pakistan (Rauf 1980). The study found that the out-migration of males had altered the demographic balance of the village community, where 45 percent of the working males were residing and working outside the village. Field data indicated that the traditional arrangements of female functions had changed because of the physical absence of male heads. In addition to their primary responsibilities such as

maintenance of household and taking care of childern, they were obliged to undertake increased work load, make their own decisions in various spheres, and solve internal household problems as well as external problems pertaining to labourers, cropping patterns, irrigation management, harvesting supervision, and arrangements for the sale of produce in the market.

Apart from the aforementioned studies, a number of other sources provide data on internal migration in the country as secondary information. Examples of such studies include 'Labour Force Survey' (Statistics Division 1974) at the national and provincial levels, and 'Resource utilization in Murree-Kahuta Region' (Rathore 1979) at the local level.

STUDY AREA:

Pakistan occupies the eastern-most basin of the three great rivers that traverse the steppe Desert of the Old World - the Nile, the Tigris-Euphrates, the Hwang Ho, and the Indus. That these basins were the cradles of early civilization gives to the Indus a distinctiveness lacking in the other river basins in S.Asia (Johnson 1979).

The country emerged as an independent nation in 1947. It lies between 24°N and 37° latitude, 61°E and 75°30' E longitude covering an area of 796095 square km. It is divided into four provinces: Sind, Punjab, Baluchistan, and N.W.F.P. (North West Frontier Province) and two federally administered regions. Each province is further divided into divisions, districts, tehsils, cities and villages. The two federally administered

regions are the tribal areas (F.A.T.A.) bordering N.W.F.P. and the Federally Administered Capital Territory (F.A.C.T.) of Islamabad.

Before Pakistan emerged as a separate nation, the area now constituting Pakistan did not undergo many significant administrative boundary changes during the present century. At the time of independence in 1947, the western unit of the country (excluding Jammu and Kashmir, Gilgit and Baltistan, Junagadh and Manavadar) consisted of the provinces of Punjab, Sind, Baluchistan and the North West Frontier, the Frontier Regions, the Political Agencies and the States of Swat, Chitral, Dir and Amb, Bahawalpur, Khairpur, Kalat, Lasbela, Mekran and Khanate of Muscate - namely Gwadar (which became part of Pakistan in 1958). There were 43 districts and 5 Political Agencies (figure-1), with Karachi as the national capital. The provinces were merged into a single unit of West Pakistan in 1955 after the promulgation of the West Pakistan Act, 1955. Lahore became the capital of the unified province (Census Organization 1961).

Besides this merger, several other changes took place in the smaller administrative units i.e. divisions, districts and tehsils during the 1951-61 intercensal period. Thus, Sargodha was created as a new division, while the States of Khairpur Bahawalpur and Hyderabad in Sind; and Quetta and Kalat in Baluchistan were converted into divisions. Sanghar and Bahawalnagar emerged as new districts, while inter-district transfers of area also took place. Besides these, Mohmand Agency appeared as the sixth tribal unit between 1951 and 1961 (figure - 2). It was during this period that the country's capital shifted to




Figure-1: Administrative divisions of Pakistan, 1951.




Figure-2: Administrative divisions of Pakistan, 1961.

Rawalpindi, which served as the interim capital until the construction of Islamabad.

The 1961-72 period saw the revival of the previous provincial set-up with the breaking of one unit in 1969. Five new districts (Chitral, Malakand P.A., Dir, Swat and Kachhi) were also carved during the sixties (figure - 3).

The last intercensal period (1972-81) witnessed several changes in the administrative structure. A number of divisions and districts were reconstituted. The new divisions included Hazara in N.W.F.P., Karachi in Sind, and Sibi and Mekran in Baluchistan. The districts were Abbottabad, Mansehra and Kohistan in N.W.F.P.; Kasur and Vehari in the Punjab; Shikarpur, Badin, Karachi East, Karachi West and Karachi South in Sind; and Pishin, Nasirabad, Kohlu, Khuzdar, Gwadar, Panjgur and Turbat in Baluchistan (figure - 4). Besides, the Federally Administered Capital Territory of Islamabad was declared a district increasing the total number of districts to 65 in 1981. Similarly, a new agency namely Orakzai was added to the list of tribal agencies.

The total population of the country was 84.3 million in 1981. Pakistan ranks ninth in the world in terms of its population size after China, India, U.S.S.R., U.S.A., Indonesia, Brazil, Japan and Bangladesh. This, as in many other developing countries, is a double-faceted phenomenon. While the sheer numbers provide tremendous man-power, paradoxically, its rapid growth (3 percent per year) has diluted the efforts of economic development. A rapidly growing population is always accompanied by a larger population being in the younger age group with the result that the dependency ratio increases. Children (below 15 years) who

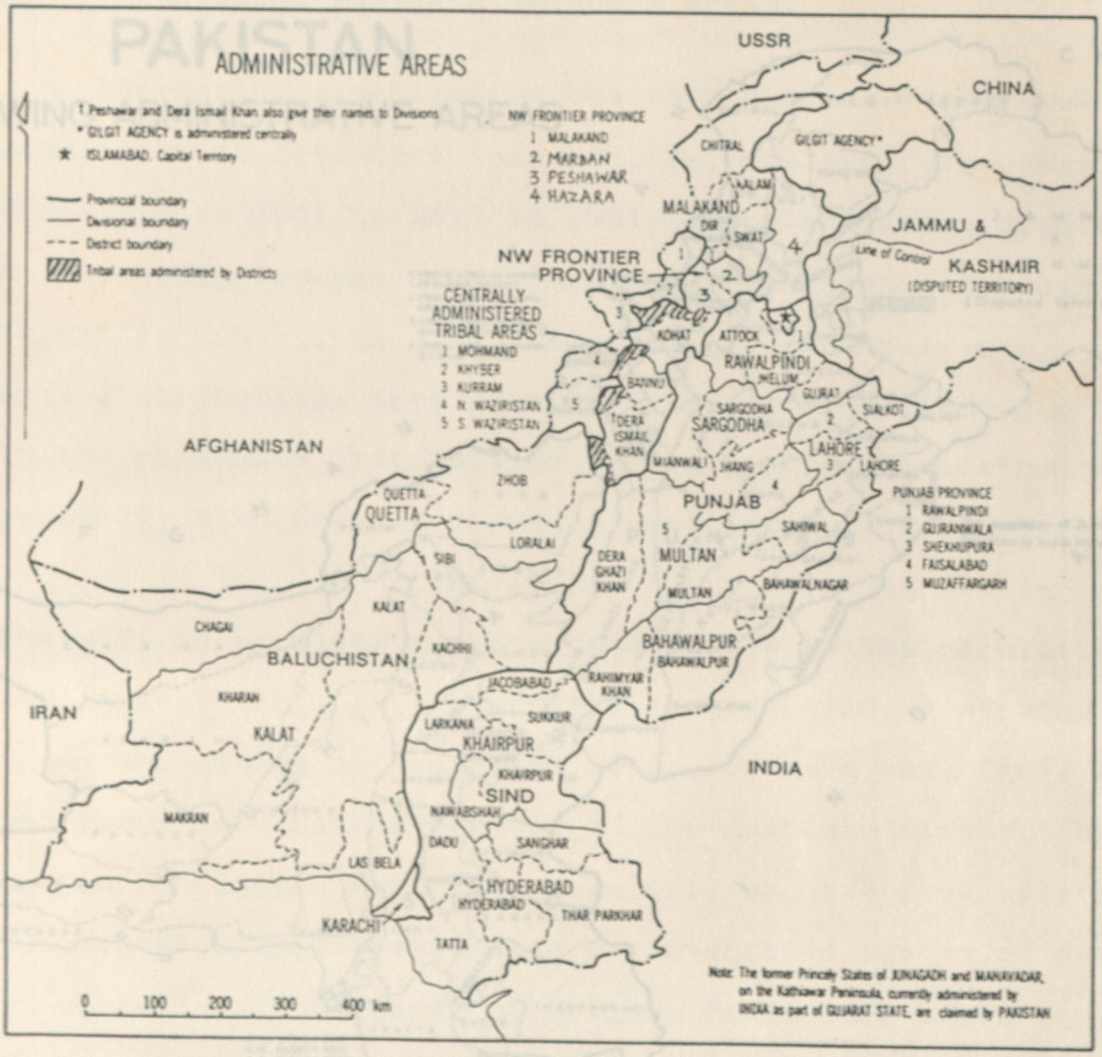
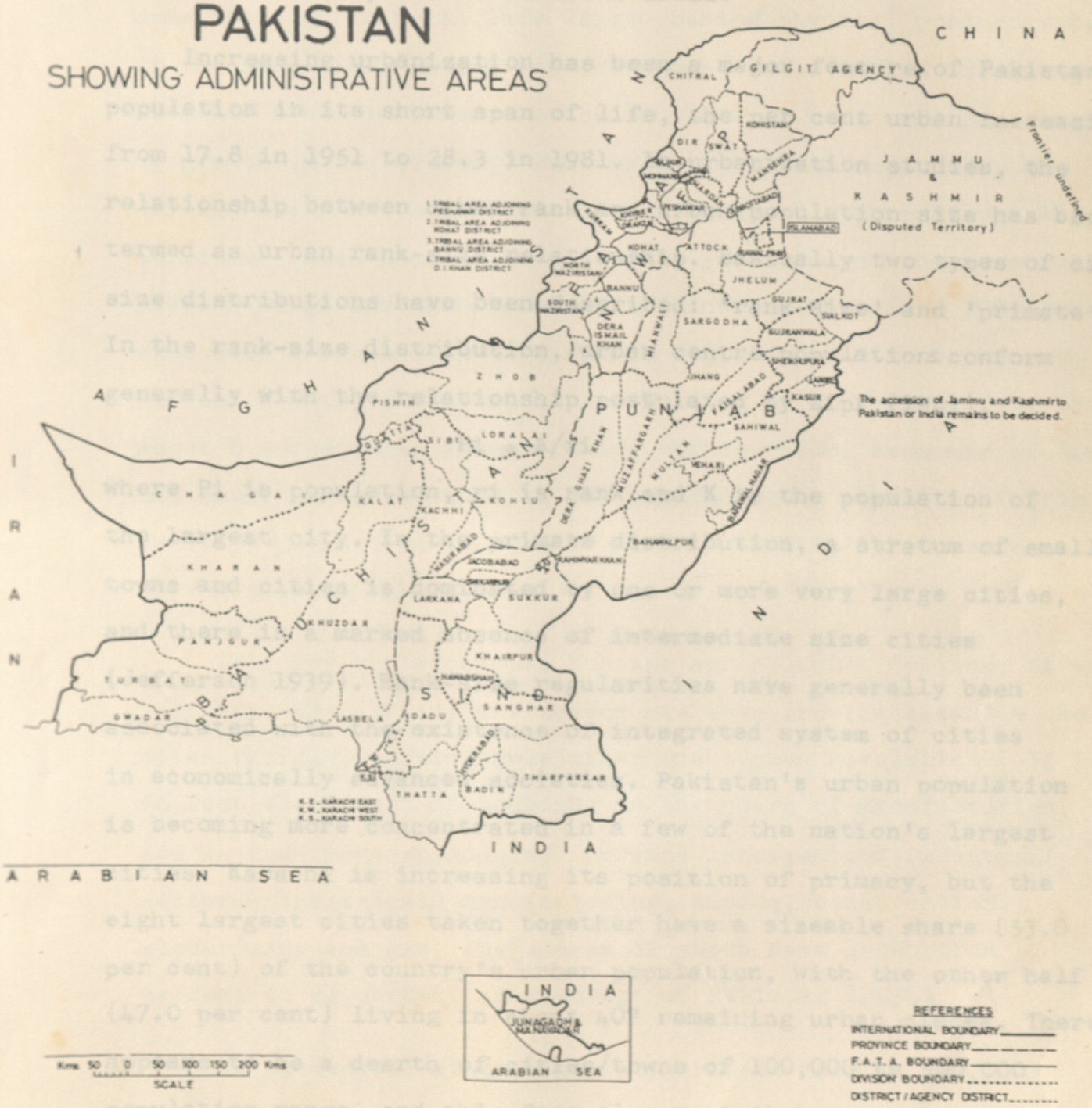



Figure 3: Administrative divisions of Pakistan, 1972

# PAKISTAN

## SHOWING ADMINISTRATIVE AREAS



constituted 43.84 per cent of the population in 1972, increased to 44.52 per cent in 1981. In the rural areas, the dependency ratio is even higher, because children under 15 years form a still larger proportion i.e. 45.86 per cent of the population as against 42.42 per cent in urban areas.

Increasing urbanization has been a major feature of Pakistan's population in its short span of life, the per cent urban increasing from 17.8 in 1951 to 28.3 in 1981. In urbanization studies, the relationship between urban rank and urban population size has been termed as urban rank-size relationship. Basically two types of city size distributions have been described: 'rank-size' and 'primate'. In the rank-size distribution, urban centre populations conform generally with the relationship postulated by Zipf (1941).

$$Pi = K/ri$$

where Pi is population, ri is rank and K is the population of the largest city. In the primate distribution, a stratum of small towns and cities is dominated by one or more very large cities, and there is a marked absence of intermediate size cities (Jefferson 1939). Rank-size regularities have generally been associated with the existence of integrated system of cities in economically advanced societies. Pakistan's urban population is becoming more concentrated in a few of the nation's largest cities. Karachi is increasing its position of primacy, but the eight largest cities taken together have a sizeable share (53.0 per cent) of the country's urban population, with the other half (47.0 per cent) living in about 407 remaining urban places. There appears to be a dearth of cities/towns of 100,000 to 500,000 population range, and this fact also contributes to the lack

of rank-size conformity. The 60 million rural population lives in areas spread over some 45,000 villages all over the country.

Economic planning in Pakistan started in 1951. During the first few years social services and programs for introducing modernization in rural life lagged behind physical productivity. At the same time, saving and investment rates, while improving steadily over time, remained below the full potential generated by growth in the economy. More recently a high dependency on foreign loans has been reduced to a manageable proportion. High inflation rates occasioned after the severance of the country's eastern wing, and the hike in oil prices in the early 1970's has also been brought down to a single digit rate--5 to 6 percent, and the country's economy is now growing at an average rate of about 6 percent per annum. During the course of economic growth, the share of agriculture in GDP has fallen by almost half from about 55 percent in 1948 to 29 percent in 1982-83 (Government of Pakistan 1983b).

This has not accounted for any agricultural decline; on the contrary, the agriculture sector has been growing steadily and often rapidly, particularly after the 'Green Revolution'. It is in fact the result of doubling in the share of manufacturing, and an even more pronounced increase in organized industrial sector-- large-scale manufacturing, mining, construction, electricity and gas, the shares of which have grown from 4 percent to 22 percent (Government of Pakistan 1983b).

No systematic attempt has so far been made to evaluate Pakistan's development experience in the light of the key factors of development. Many aspects have been analyzed, but

there are limited data on such subjects as income distribution and rural poverty. Very few studies on some of the qualitative aspects of development like impact of income change on social and religious values, and on the positive effects of social progress on economic parameters, have been carried out.

In purely economic terms, Pakistan's development performance has been quite encouraging. The overall growth in GDP has been on the average about 6 percent per annum, yielding a per capita growth of 2.7 percent per annum. This growth performance is among the best in the developing world. There have, of course, been high and low periods. In the 1950's, largely because of the economic and social problems with which Pakistan began its independent existence, the growth of the economy hardly kept pace with the growth of population, but in the 1960's, the growth rate in what was then West Pakistan exceeded 7 percent per annum. Between 1969-70 and 1976-77, the growth rates slowed down to 4.2 percent, but in the next six years (i.e. between 1977-78 and 1982-83) the pace of growth has accelerated to 6.8 percent per annum. Thus, with the average growth rate of 5.5 percent for the entire 30-year period, the per capita income which was Rs.342 ($70) in 1950 has increased to Rs.5,300 ($380) in 1983. Thus, Pakistan, which was at the bottom of the per capita income list in the 1950's, is now at the upper end of the list of countries called the 'low income' countries.

Pakistan's commendable economic progress is not, however, reflected in corresponding progress in the social sector. That is why, in terms of social indicators like low student enrollment and literacy rates, high infant mortality and low life expectancy

at birth, and the rapid rate of population growth, Pakistan is still at a relatively low level in the list of developing countries. A serious effort has been made to correct this imbalance in the Sixth Five Year Plan (1983-88) by making larger allocation to social sectors.

It is also evident that the problem of income distribution needs more attention. In the 1950's and 1960's, the benefits of economic progress went largely to higher income groups, and as a result there was considerable social unrest in the country. In the 1970's, the problem was moderated to some extent by the growing volume of remittances sent by Pakistani workers from other countries. Most of these workers belonged to lagging regions (rural and rainfed areas) and the remittances have had a dramatic impact on the lives of the people in these areas, However, if and when the flows of remittances begin to slow down, the problems of the rural poor, with the rapid population growth in the country, might surface again. Steps have to be taken to forestall that day, through consolidating and strengthening development efforts in lagging regions.

METHODOLOGY, SOURCES AND LIMITATIONS OF DATA:

This work analyses population distribution in time and space to study the dynamics of population redistribution in Pakistan during the present century. It examines the role of internal migration and its determinants and consequences in the redistribution process. Quantitative analysis in this connection has been carried out to find the interrelationship of internal migration and socio-economic development. Finally, the study focuses on the case of Karachi - the largest city of Pakistan.

It is based on the first hand information obtained from migrants in this primate city, which may prove valuable in devising suitable strategies for the redistribution of population in Pakistan.

Simple graphic and cartographic techniques have been used for illustrating the temporal and spatial changes in population distribution and internal migration.

The main sources of data for this study are census publications. Nine censuses have been carried out in the area from 1901 onwards at decennial intervals with the exception of 1972 census which was delayed due to war with India. The last census took place in the country in 1981. The data for degree, growth and distribution of urban population, and city size classification were obtained from these censuses. International sources of data, e.g., United Nations demographic publications, as well as different studies conducted by eminent scholars in the field of internal migration and urbanization for developing countries have also been utilized for comparing the growth trends of Pakistan with other countries of the Third World. Direct estimates on volume and direction of migration were not available in the censuses prior to 1973 and were calculated from tables on places of birth and enumeration. The resultant figures, however, have certain limitations:

(i) They are likely to be affected by such transitory phenomena as:

(a) Casual visits between villages on either side of a boundary.

(b) Temporary movements such as journeys connected with business, pilgrimage, labour or service.

(c) Periodic movements such as migration at harvest time or seasonal movements from the hills to the plains.

(ii) The data do not provide information on year to year movements.

(iii) They give no indication of the number of moves an individual may have made during his life time.

(iv) Place of birth and enumeration tables are published for a limited number of cities.

(v) Provinces are used for places of birth and cities for places of enumeration, so that movement from city to city or district to city could not be measured unless these moves crossed provincial boundaries.

Despite these limitations, place of birth and enumeration tables of respective censuses have provided very useful information on the size and pattern of flows to cities from different parts of the country at regular intervals since 1951. However, lack of necessary information makes it impossible to note the effects of changes in administrative and political boundaries on migration.

While the 1951 and 1961 censuses included questions on place of birth of persons enumerated, no such question was included in the 1972 census. A Housing, Economic and Demographic Survey (HED) was conducted in 1973 as a follow up of the 1972 census. It was designed to cover about 2 per cent of rural and 5 per cent of urban households in all the four provinces, and provide an estimate for the country after assigning proper weights.

The sample consisted of more than 255,000 households spread all over the country. However, about 6.5 per cent of the country's population living in Federally Administered Tribal Areas (FATA) in 1972 was not covered by the survey. The HED survey included questions on place of birth as well as period of countinuous residence at the place of enumeration. The 1981 census did not include a question on place of birth, however, on the pattern of the 1973 HED survey, it did have a direct question on migration by place of previous residence.

Methodological complications involved in the changing definitions of 'urban' in decennial censuses create problems of comparability in time and space, concentration of efforts therefore has been on recent trends.

The 1951 census definition of urban included all towns with population of 5000 and above plus all incorporated municipalities and towns managed by 'Notified Area Committees' despite their having a population less than 5000 (Census Organization 1961). In 1961 and 1972, the 1951 definition was maintained except that additionally the provincial directors were empowered to treat a settlement of continuous houses as urban even if it had a population smaller than 5000 but having urban characteristics (Census Organizations 1961 and 1972). In 1981, the definition of urban was revised to include those settlements that had local government or charter of their own, thus including Town Committees, Municipal Corporations, Metropolitan Corporations and Cantonments within the fold of urban (Census Organization 1981). The result of the difference of definitions in 1951 and 1961 was that the population of urban settlements having less than 5000 population constituted

3.5 per cent of the total urban population in 1951, 2.2 per cent in 1961, 1.0 per cent in 1972 and 0.29 per cent of the total urban population in 1981.

As regards the next section of the study, three major approaches have been used by researchers and planners to find regional imbalances. These include:

i) Basic Needs Approach: It is based on the definition of a family's basic needs, i.e., food, clothing, and shelter, and delimitation of a general poverty line on the basis of certain minimal standards (Bradshaw 1974).

ii) Latent Demands Approach: In this approach, needs are equated with wants or latent demands. These are interpreted as feelings of relative deprivation which arise when some goods or amenities wanted by particular groups or communities are not available to them, while being available to other communities in the same country or region (Runciman 1966).

iii) Comparative Approach: The third approach compares the actual provisions and conditions in different parts of an area indentifying gaps between the best-off area or community and the rest of the area (Coates et al. 1977).

Comparative approach is the most popular among geographers. It has been adopted for this study because of the availability of data in the required format.

Comprehension of the dynamics of regional inequalities requires an historical perspective. It would have been ideal to select recent data and go back in time. But the scarcity of

data was severe constraint in this regard and allowed a comparative study on quantitative basis only for two time periods (1961 and 1972). The statistical units best suited for the work were administrative districts, not only because of their convenient size, but also because in Pakistan, most of the data are collected and published for this basic unit.

Depending on data availability, the indicators thus selected were per capita value added by manufacturing and agriculture, banks per capita, consumption of electricity, road density, hospital beds per thousand persons, students per thousand persons, literacy ratio, population density, population growth, degree of urbanisation, and in-migration. Data for the first four variables were obtained from the Water and Power Development Authority (WAPDA), the National Transportation Research Centre (NTRC), the Ministry of Health, and the Ministry of Education respectively. Information on the remaining five variables was extracted from the Population Census of Pakistan. No argument is presented here that these indicators are the best, but they were selected as the most appropriate from the very limited available data.

The study of the intensity of regional inequalities in socio-economic development in Pakistan, and its relationship with internal migration was based on multivariate statistical techniques. It implied the application of ranking coefficient as well as factor analysis, cluster analysis and multiple regression analysis to the selected variables in time series (1961 & 1972). Different soft-ware packages of SAS were used for computing these statistical programmes on the IBM main frame

at the computation centre of the Pennsylvania State University, U.S.A. Unfortunately, due to several changes in district boundaries between 1972-81 and non-availability of data in a similar format, the analytical design used for 1961 and 1972 had to be modified for 1981.

The analysis of interrelationships of different factors with migration does help in identifying their statistical significance. However, census data are of limited use in understanding the behaviour of individual migrants. It was therefore imperative to fill this gap through a sample survey. Metropolitan Karachi, with the largest agglomeration of migrants in Pakistan was selected as a case study for this purpose. A survey was thus carried out by a random selection of migrants at their residences as well as at their places of work. The questionnaire (Appendix - A) was designed so as to identify the key factors influencing the decision of individuals to migrate as well as their characteristics with particular reference to their adjustments in the new environment.

# CHAPTER-2

## DYNAMICS OF POPULATION DISTRIBUTION

### Historical Perspective:

Pakistan is the ninth most populous country in the world. According the census of 1981, its population was 84.25 million (excluding roughly 3 million Afghan refugees) with a density of 106 persons per sq. km. The estimated population in 1985 was about 95 million (Govt. of Pakistan 1985). The growth of population in Pakistan since the turn of the century shows a gradual and continuous increase. Variation in the intercensal population during the last eighty years from 1901 to 1981 has been given in table - 1 and figure - 5.

The growth of population in Pakistan remained below the world's average growth rate of 2.0 percent per annum in the first half of the century except during the 1931-41 decade. In the fifties, it out-stripped the world's average rate of growth, and experienced even faster growth during the 1961-72 intercensal period when an annual growth rate of 3.7 percent was registered as against the world average of less than 2 percent per annum. Detailed analysis of each intercensal period reveals that except for the first two decades, the population of the country has been showing a continuously increasing rate of growth. During the 1901-11 decade, the population increased by 7.14 percent. The next decade 1911-21 recorded the lowest increase of 2.95 percent. Reasons for this decline in growth were high mortality rate due to the Malaria and Influenza epidemics, and casualties during the first World

TABLE - 1

PAKISTAN : INTERCENSAL VARIATION OF POPULATION 1901-81

| Year | Population* | Intercensal Increase | | Annual Growth Rate |
|---|---|---|---|---|
| | Thousands | Number | Percent | Percent |
| 1901 | 16577 | - | - | - |
| 1911 | 18805 | 2228 | 13.4 | 1.3 |
| 1921 | 20243 | 1438 | 7.6 | 0.7 |
| 1931 | 22640 | 2397 | 11.8 | 1.1 |
| 1941 | 28244 | 5604 | 24.8 | 2.2 |
| 1951 | 33740 | 5496 | 19.5 | 1.8 |
| 1961 | 42880 | 9140 | 27.1 | 2.4 |
| 1972 | 65309 | 22429 | 52.3 | 3.7 |
| 1981 | 84253 | 18944 | 29.0 | 3.1 |

SOURCES: Population Censuses of Pakistan 1961, 1972 and 1981

*Including Tribal Areas.

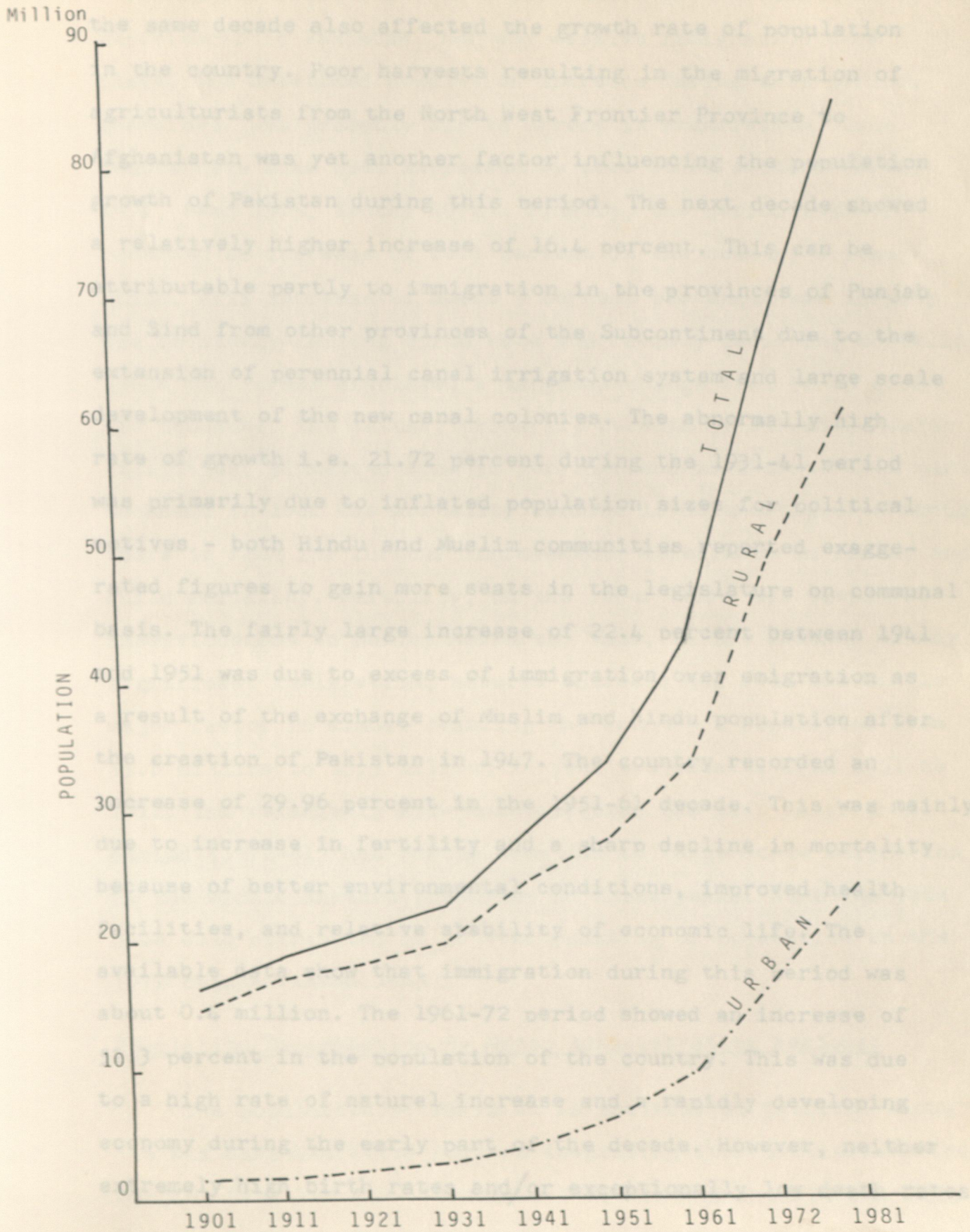



Figure-5: Growth of population in Pakistan, 1901-1981.

War. The outbreak of Cholera in the Baluchistan province in the same decade also affected the growth rate of population in the country. Poor harvests resulting in the migration of agriculturists from the North West Frontier Province to Afghanistan was yet another factor influencing the population growth of Pakistan during this period. The next decade showed a relatively higher increase of 16.4 percent. This can be attributable partly to immigration in the provinces of Punjab and Sind from other provinces of the Subcontinent due to the extension of perennial canal irrigation system and large scale development of the new canal colonies. The abnormally high rate of growth i.e. 21.72 percent during the 1931-41 period was primarily due to inflated population sizes for political motives - both Hindu and Muslim communities reported exaggerated figures to gain more seats in the legislature on communal basis. The fairly large increase of 22.4 percent between 1941 and 1951 was due to excess of immigration over emigration as a result of the exchange of Muslim and Hindu population after the creation of Pakistan in 1947. The country recorded an increase of 29.96 percent in the 1951-61 decade. This was mainly due to increase in fertility and a sharp decline in mortality because of better environmental conditions, improved health facilities, and relative stability of economic life. The available data show that immigration during this period was about 0.4 million. The 1961-72 period showed an increase of 52.3 percent in the population of the country. This was due to a high rate of natural increase and a rapidly developing economy during the early part of the decade. However, neither extremely high birth rates and/or exceptionally low death rates

required for achieving such a phenomenal growth rate were experienced in Pakistan, nor any massive immigration took place. The unmatched population increase during this period, therefore, was probably due to errors in enumeration. Such doubts have also been expressed by some other authors (Afzal 1974, Bean 1975, Krotki 1976). Finally, the period 1972-81 recorded an increase of 28.3 percent in the country's population. This increase of about 3 percent per annum was largely due to slowly falling birth rate and rapidly declining mortality. While the former displayed a marginal change from 50 to 42.6 per thousand, the latter, primarily because of extended health facilities, plumetted from 30 per thousand in 1947 to 15.2 per thousand in 1981. The mortality decline is noteworthy, even though there is room for further improvement, especially in infant and child mortality. Fertility, on the other hand, has displayed imperviousness to policy measures. Thus, in the absence of any significant immigration, natural increase has been the single major factor in almost doubling the country's population from 33.8 million to 65.3 million in just two decades from 1951 to 1972. The relatively slow increase over the last intercensal period (1972-81) has partly been due to large scale emigration to the Middle Eastern countries in these years. Some analysts have also attributed it to over counting of population in the 1972 census (Ahmad 1985).

Population Distribution By Major Administrative Regions:

The population of Pakistan is unevenly distributed among its six administrative regions comprising four provinces - the Punjab, Sind N.W.F.P. (North West Frontier Province) and Baluchistan; and the Federally Administered Tribal Areas (F.A.T.A.)

as well as the Federally Administered Capital Territory (F.A.C.T.) of Islamabad (table - 2).

The Punjab province, accounting for about a quarter of the country's area contains more than half the national population (figure - 6). As compared to this, Baluchistan, the largest province by area is the least populated with a mere 5.1 percent share of Pakistan's entire population. Sind's relatively high share of 23 percent in the total population of the country is primarily due to Karachi - the primate city of Pakistan. Extensive canal irrigation has also contributed towards increasing the carrying capacity of the area. The N.W. F.P. has 13.1 percent of the total national share. Bulk of this population is concentrated in the vale of Peshawar. F.A.T.A.'s low population share emanates from the dry, rugged topography of the region. The Federally Administered Capital Territory of Islamabad, though in its developmental stages, has a large national population share of 0.4 percent compared to its small area because of its administrative significance.

Population Redistribution Among Major Administrative Regions:

The redistribution of population among major administrative regions from 1901 to 1981 is given in table - 3 which shows changes in the population share and growth patterns between successive censuses.

The population of N.W.F.P. recorded absolute increase throughout the 1901-81 period with minor fluctuations. The setback during 1911-21 was caused by a number of special circumstances. The years 1916 and 1917 brought a marked decline in public health. The

TABLE-2

PAKISTAN : POPULATION SIZE AND SHARE BY MAJOR ADMINISTRATIVE REGIONS 1981

| Province/ Administrative Area. | Population size. Thousands. | Population share. Percent. | Total area $Km^2$ | Area share Percent | Population density Persons per $Km^2$ |
|---|---|---|---|---|---|
| Punjab. | 47292 | 56.1 | 205344 | 25.8 | 230.3 |
| Sind | 19029 | 22.6 | 140914 | 17.7 | 135.00 |
| N.W.F.P. | 11061 | 13.1 | 74521 | 9.4 | 148.4 |
| Baluchistan | 4332 | 5.1 | 347190 | 43.6 | 12.5 |
| FATA | 2198 | 2.6 | 27220 | 3.4 | 80.0 |
| Islamabad. | 340 | 0.4 | 906 | 0.1 | 375.6 |

SOURCE : Population Census of Pakistan 1981

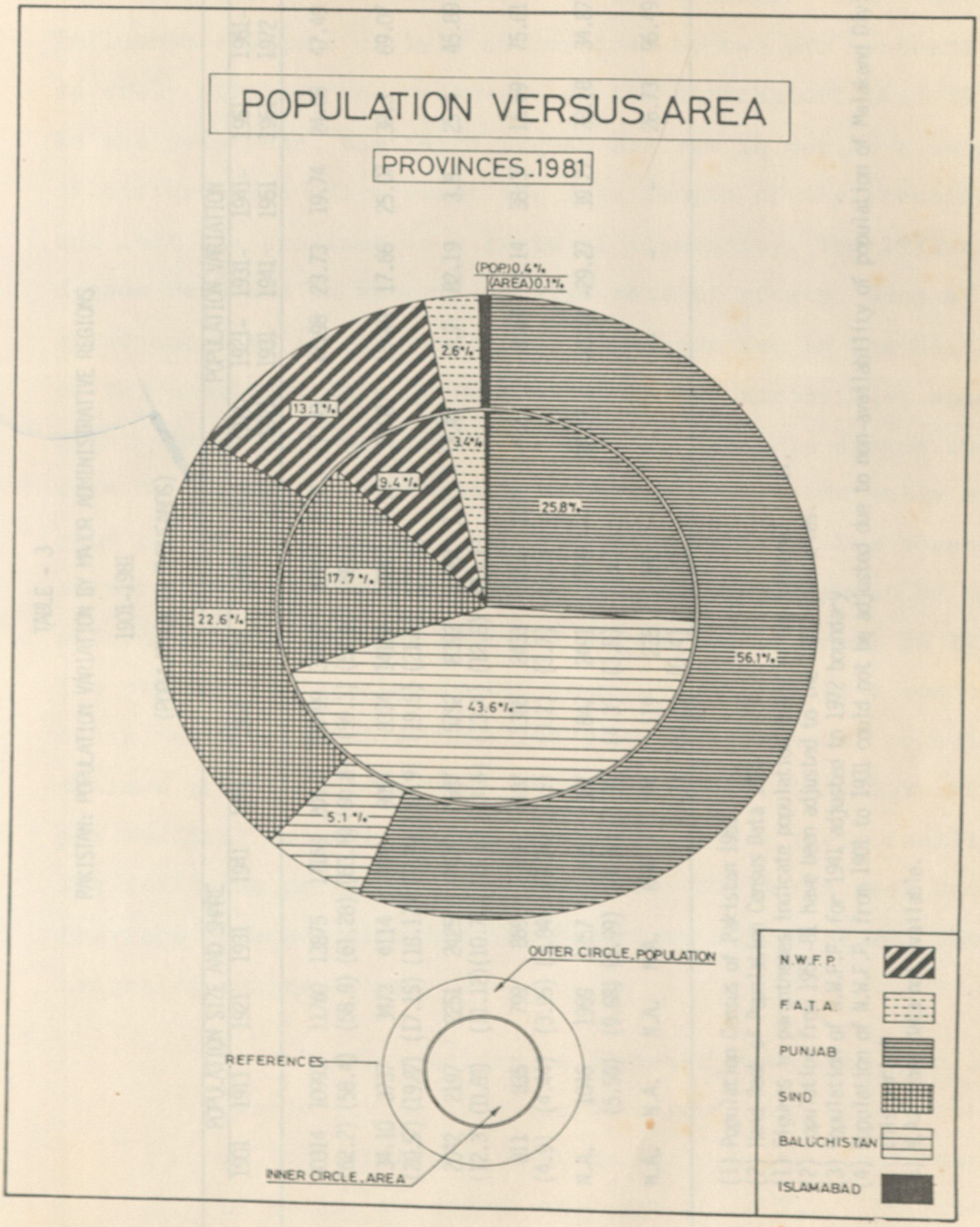



Figure 6: Provincial share of area and population in Pakistan, 1981

Source : Population Census of Pakistan, 1981

TABLE - 3

PAKISTAN: POPULATION VARIATION BY MAJOR ADMINISTRATIVE REGIONS

1901-1981

(POPULATION IN THOUSANDS)

| Administrative Region | POPULATION SIZE AND SHARE | | | | | | | | | POPULATION VARIATION | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 | 1961 | 1972 | 1981 | 1901-1911 | 1911-1921 | 1921-1931 | 1931-1941 | 1941-1951 | 1951-1961 | 1961-1972 | 1972-1981 |
| PUNJAB | 10314 (62.2) | 10991 (58.4) | 11760 (58.9) | 13875 (61.28) | 17168 (60.78) | 20557 (60.8) | 25499 (59.3) | 37612 (57.6) | 47292 (56.1) | 6.56 | 7.00 | 17,98 | 23.73 | 19.74 | 24.05 | 47.49 | 25.74 |
| SIND | 34.10 (20.57) | 3737 (19.87) | 3473 (17.15) | 4114 (18.17) | 4841 (17.14) | 6054 (17.9) | 8374 (19.5) | 14158 (21.7) | 19029 (22.6) | 9.58 | 7.08 | 18.48 | 17.66 | 25.07 | 38.3 | 69.07 | 34.39 |
| NWFP | 2042 (12.3) | 2197 (11.68) | 2251 (11.12) | 2425 (10.71) | 4418 (15.6) | 4587 (13.6) | 5752 (13.4) | 8392 (12.8) | 11061 (13.1) | 7.6 | 2.47 | 7.7/ | 82.19 | 3.8 | 25.4 | 45.89 | 31.80 |
| BALUCHISTAN | 811 (4.9) | 835 (4.44) | 799 (3.95) | 869 (3.84) | 858 (3.04) | 1187 (3.5) | 1385 (3.2) | 2433 (3.7) | 4332 (5.1) | 2.95 | -4.2 | 8.63 | -1.14 | 38.37 | 16.69 | 75.61 | 78.1 |
| FATA | N.A. | 1046 (5.56) | 1959 (9.68) | 1357 (5.99) | 959 (3.39) | 1337 (3.9) | 1847 (4.3) | 2491 (3.8) | 2199 (2.6) | - | 87.37 | -30.74 | -29.27 | 39.27 | 38.18 | 34.87 | -11.75 |
| FACT | N.A. | N.A. | N.A. | N.A. | N.A. | 94 (0.3) | 119 (0.3) | 235 (0.4) | 340 (0.4) | - | - | - | - | - | 26.73 | 96.49 | 44.85 |

SOURCES:

(1) Population Census of Pakistan 1961
(2) Hand Book of Population Census Data 1985

NOTES:

(1) Figures in parantheses indicate population share in the national total.
(2) Population from 1951-81 have been adjusted to the 1981 boundaries.
(3) Population of N.W.F.P. for 1941 adjusted to 1972 boundary
(4) Population of N.W.F.P. from 1901 to 1931 could not be adjusted due to non-availability of population of Malakand Division for this period
(5) N.A. means data not available.

exceptional virulence of Malaria and succession of poor harvests combined with the influence of the 1915 War deteriorated the economic conditions of the province. The deadly Influenza epidemic of 1918 accompained by two bad harvests severely strained the resources of the agriculturists in 1919. In the same year, the Third Afghan War set in motion a wave of disturbances which swept the full length of the Frontier, and left the province in a state of insecurity. The 1931-41 decade recorded an abnormally high rate of growth. Such a great increase in population was unprecedented in the history of the province. This growth, although not impossible, appeared highly improbable especially because during this decade there were no special circumstances conducive to an abnormally high rate of reproduction or a low rate of mortality. The answer appears to lie in the political changes brought about by the reforms of 1932 and the grant of provincial autonomy in 1937. The provincial legislature had been constituted on a communal basis, and for gaining numerical strength, in order to achieve maximum political advantage, members of each community (Hindus and Muslims) reported exaggerated figures for their families. The following paragraph reproduced from the North West Frontier Province Census Administration Report of 1941 confirms the height of exaggeration:

> "A householder in Peshawar cantoment gave 10 people living in his upstair room, but on a warning by the enumerator that he would bring a sub-inspector of police to search the room at 10 P.M., he promptly admitted that in fact only his wife and himself occupied the room" (Census of India 1941).

The apparently small increase in the population of N.W.F.P. during the following decade was due to the fact that the 1941 figures relates to both the Muslims and non-Muslims (Hindus, Sikhs, and British civilians as well as troops), where as those for 1951 account for Muslims alone. It may be pointed out that most of the non-Muslims left the province after the independence of Pakistan in 1947 (table - 4).

TABLE - 4

N.W.F.P.: RELIGIOUS COMPOSITION OF POPULATION 1911-51

(PROPORTION PER 10,000 OF POPULATION)

| Religion | 1911 | 1921 | 1931 | 1941 | 1951 |
|---|---|---|---|---|---|
| Muslims | 9286 | 9162 | 9185 | 9179 | 9983 |
| Hindus | 546 | 666 | 590 | 593 | 6 |
| Sikhs | 138 | 125 | 175 | 190 | - |
| Christians | 30 | 47 | 50 | 35 | 11 |

SOURCE : Population Census of Pakistan 1951.

The number of expatriates who replaced these communities was comparatively small (112 per 10,000 population in 1951). An increase of 3.8 percent over the unduly high figures of 1941 therefore appears to be reasonable. Taking into account the factor of over-counting in 1951, the increase during the decade was probably between 14 and 15 percent. (Census Organization 1951a). The economic and political stability following the independence led to a steady rise in the population of the province in subsequent years. This increase in population was accelerated by enhanced administrative functions and the relative rise in economic opportunities of the area due to the:

i) Shift of air headquarters from Karachi to Peshawar.

ii) Establishment of industries such as cotton textile, Sugar, tobacco, cigarette etc.

iii) Initiation or completion of water and power development schemes e.g. Kurram Garhi project, Baran Dam, Warsak and Tarbela Multipurpose projects.

iv) Regaining of status of a separate province after Federal Government's decision in 1969 to break up the single administrative unit (West Pakistan) and revive the four provinces of Punjab, Sind, N.W.F.P. and Baluchistan.

The population of Punjab has doubled twice in the last eight years. The first time after five decades, and the next time in just thirty years. The increase in the first two decades i.e. 1901-11 and 1911-21 was gradual. Rapid growth commenced during the 1921-31 period largely because of the extension in irrigation. Construction of the Sutlej Valley Project brought large areas of barren land under the plough. This, along with industrial and commercial momentum, attracted a large number of migrants to the new canal colonies. Since then the population has multiplied due to natural increase by the excess of births

over deaths. Like in N.W.F.P., the 1941 census counts do not present a true picture of the population of the Punjab. Muslims and Hindus in the province competed with each other in increasing their recorded numbers by multiple enumeration and bogus entries (Census Organization 1951b). The population of the province increased by about 20 percent in the following decade. The refugees from India pouring into Punjab numbered 5.4 million Muslims against 4 million outgoing Hindus and Sikhs (Census Organization 1951b) accounting for a net gain of 1.4 million people. Hence the fall in the percentage increase of population over the previous decade can only be attributed to the exaggerated base figures for 1941. The province experienced a rapid increase in population during the following decades. This steady rise has been mainly due to the polarization of economic and industrial development in central Punjab creating a temptation for even the least migratory people to move there. Extension of canal irrigation in the province was an added pull-factor for perspective migrants from adjacent areas.

The province of Sind has been steadily growing in population since the beginning of the century. The only exception was in the 1911-21 decade when, instead of gaining, the province actually lost 7 percent population, reducing its share in the national total from 19.9 percent to 17.2 percent in ten years. The reason for such a great loss of population was the heavy mortality on account of the Influenza epidemic of 1918-19 which severely hit the province. The accelerated growth of 18.5 percent during the 1921-31 decade resulted from the construction of Sukkur Barrage which brought a very large number of labourers into the province from adjoining areas. A relatively higher increase of 25.1 percent over the 1941-51 intercensal period

can be attributed to the incoming of Muslim expatriates from India who preferred to settle in the capital city of Karachi. During the following decades, the province of Sind gained substantial number of in-migrants from the other provinces of Pakistan. Bulk of these migrants were the displaced persons who had arrived from India between 1947 and 1951 and had started redistributing themselves over the national territory in subsequent years. Estimates of net migration clearly suggest that the redistribution of displaced persons figured quite significantly within the overall net internal migratory movement (table - 5). The Punjab and N.W.F.P. lost net out-migrants during the 1951-61 period, while Sind and Baluchistan gained net-migrants indicating large scale migration to the provinces of Sind and Baluchistan. Sind Province has been peristently gaining migrants from other provinces, and its population share in the national total increased from 17.9 percent in 1951 to 22.6 percent in 1981. The main reason is the enormous attractive force of metropolitan Karachi.

The case of Baluchistan was unique among provinces for the first decade of the present century in the sense that the 1901 census did not cover the entire region, and only rough estimates of population were made for a large section of this province. The 1911 census enumerated the whole area for the first time. The population decline for the 1911-21 period was largely due to the Influenza epidemic that hit the area in 1918. This was followed by a severe outbreak of Cholera and famine in 1920-21, resulting in temporary out-migration and emigration from the province. Inspite of the unfavourable circumstances continuing

TABLE - 5

INTERCENSAL NET-MIGRATION ESTIMATES TO THE PROVINCES OF PAKISTAN FROM WITHIN PAKISTAN AND INDIA FROM AGE DATA 1941-51 THROUGH 1961-72

| Region | Intercensal Net Migration Estimates | | |
|---|---|---|---|
| | 1941-51 | 1951-61 | 1961-72 |
| Pakistan | 1,707,794 | 133,453 | 179,628 |
| Punjab | 1,427,430 | -307,699 | -778,552 |
| Sind | 501,924 | 717,065 | 850,832 |
| N.W.F.P. | -294,931 | -203,120 | -263,321 |
| Baluchistan | 73,371 | 72,893 | 370,669 |

SOURCE : UNCRD (1976) Regional Development in Sind: A comprehensive Planning report Vol.1, Book 1. Table-8.14.

from the previous decade, the increase in population recorded during the 1921-31 period was substantial. It could be due to a more thorough coverage by the introduction of the standard schedule in the Kharan state where, like all other tribal and rural areas of Baluchistan, a simplified form of questionnaire had been used previously. The loss of population during 1931-41 was due to three reasons. Firstly, about 20 to 25 thousand persons perished in the city of Quetta in the 1935 earthquake. An equal number had been evacuated from the earthquake stricken area, thus disturbing the economic life of the whole province. Secondly, the tribesmen in certain remote parts did not report their true numbers for fear of conscription which was in vogue during the Second World War. Thirdly, some of the scattered and nomadic population in the interior of Kalat state (especially in the Jhalawan division) escaped enumeration altogether (Census Organization 1951c). A high growth rate between 1941-51 was partly attributable to better coverage in remote areas and improved means of communication at the time of the 1951 census. The rapid increase in population during 1951-61 and 1961-72 periods was due to the gain of net in-migrants from other provinces (table - 5). The gain in the 1970's has been due to developments particularly in the road network, large scale mineral exploitation, and extension of irrigation in the Pat-feeder area of the province.

The Federally Administered Tribal Areas recorded maximum fluctuations in their population growth. The main reason being instabilities in political conditions in pre-independence period. Enumerations in these areas have also been questioned from the point of view of coverage (Census Organization 1951a).

In 1920, the military operations against the Masuds and Wazirs in Waziristan were marked by the severest fighting in the history of the Frontier warfare. An increase of about 0.1 million people to the base population of about 1 million shows an extremely high percentage increase of 87.4 percent over the 1911-21 period. This increase was partly due to the transfer of troops to military camps in these areas. Subsequent decline during the two following decades, apart from insufficient coverage, was to some extent because of withdrawal of troops from FATA to the cantonments of settled districts. The decrease in the population of FATA in 1981 was partly due to improvements in enumeration. It may be recalled that individual enumeration system was introduced for the first time in FATA only during the last census. All censuses prior to 1981 reported estimated population figures for these areas.

The Federal Capital Territory of Islamabad experienced an increase of 96.5 percent during the 1961-72 decade for obvious reasons. The national capital was shifted from Karachi to Islamabad in 1961. This administrative decision enabled the new capital to attract migrants from all over the country, almost doubling its population in a period of just ten years.

Population By Districts 1981:

Pakistan was administratively subdivided into 63* districts during the 1981 census. Population size and share in the national total of these districts is given in table - 6. Metropolitan Karachi comprising three districts (Karachi East, West and South)

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*65 districts if Karachi is counted as three.

TABLE - 6

PAKISTAN : POPULATION SIZE AND SHARE BY DISTRICT 1981

| District | Population | |
|---|---|---|
| | Number | Share |
| | Thousands | Percent |
| **N. W. F. P.** | | |
| Chitral | 209 | 0.24 |
| Dir | 767 | 0.91 |
| Swat | 1,233 | 1.46 |
| Malakand | 258 | 0.31 |
| Kohistan | 465 | 0.55 |
| Mansehra | 1,067 | 1.27 |
| Abbottabad | 1,169 | 1.39 |
| Mardan | 1,507 | 1.79 |
| Peshawar | 2,282 | 2.71 |
| Kohat | 759 | 0.90 |
| Bannu | 711 | 0.84 |
| D.I. Khan | 635 | 0.75 |
| **P U N J A B** | | |
| Attock | 1,144 | 1.36 |
| Rawalpindi | 2,121 | 2.52 |
| Jhelum | 1,167 | 1.39 |
| Gujrat | 2,255 | 2.68 |
| Mianwali | 1,377 | 1.63 |
| Sargodha | 2,553 | 3.03 |
| Faisalabad | 4,689 | 5.57 |
| Jhang | 1,978 | 2.35 |
| Sialkot | 2,711 | 3.22 |
| Gujranwala | 2,676 | 3.18 |
| Sheikhpura | 2,110 | 2.50 |
| Lahore | 3,545 | 4.21 |
| Kasure | 1,528 | 1.81 |
| D.G. Khan | 1,583 | 1.88 |
| Muzaffargarh | 2,164 | 2.57 |
| Multan | 4,080 | 4.84 |
| Vehari | 1,329 | 1.58 |
| Sahiwal | 3,612 | 4.29 |
| Bahawalpur | 1,453 | 1.72 |
| Bahawalnagar | 1,374 | 1.63 |
| R.Y. Khan | 1,841 | 2.19 |
| **S I N D** | | |
| Jaccobabad | 1,012 | 1.20 |
| Sukkur | 1,098 | 1.30 |
| Shikarpur | 620 | 0.74 |
| Larkana | 1,139 | 1.35 |

Table 6 (Continued)

| | | |
|---|---|---|
| Nawabshah | 1,647 | 1.95 |
| Khairpur | 981 | 1.16 |
| Dadu | 1,077 | 1.28 |
| Hyderabad | 2,054 | 2.44 |
| Badin | 777 | 0.92 |
| Sanghar | 923 | 1.10 |
| Tharparkar | 1,502 | 1.78 |
| Thatta | 761 | 0.90 |
| Karachi (Div.) | 5,438 | 6.45 |
| B A L U C H I S T A N | | |
| Quetta | 382 | 0.45 |
| Pishin | 379 | 0.45 |
| Loralai | 388 | 0.46 |
| Zhob | 362 | 0.43 |
| Chagai | 120 | 0.14 |
| Sibi | 131 | 0.16 |
| Nasirabad | 394 | 0.47 |
| Kachhi | 305 | 0.36 |
| Kohlu | 175 | 0.21 |
| Kalat | 341 | 0.41 |
| Khuzdar | 387 | 0.46 |
| Kharan | 128 | 0.15 |
| Lasbela | 188 | 0.22 |
| Turbat | 179 | 0.45 |
| Gawadar | 112 | 0.13 |
| Panjgur | 161 | 0.19 |
| I S L A M A B A D | | |
| Islamabad | 340 | 0.40 |

SOURCE : Hand book of Population Census Data, Government of Pakistan, 1985.

with a population of 5.4 million accounted for the highest concentration with about 1/15th of the country's total population. Faisalabad and Multan districts ranked second and third respectively according to their population sizes. Gwadar, with a population of 0.1 million only, had the lowest share among the districts of the country. All the districts of the Punjab province had above 1 million population in 1981, while almost half of these contained more than 2 million people. In contrast to this, every district in Baluchistan was less than 0.4 million in size. The population in Sind and N.W.F.P. was unevenly distributed among their districts. Karachi alone had more than a quarter of Sind's share, while 1/5 th of N.W.F.P.'s population was concentrated in Peshawar district.

Redistribution of Population Among Districts 1901-81:

Absolute change in the population of individual districts since the turn of the century was not possible to trace due to frequent changes in the administrative boundaries within the country. However, data on population variation, adjusted to the 1981 district boundaries, were available for the 1951-81 period (table-7). The ranks of these districts (based on population size) have been shown in table-8. According to the variation of population during the last three decades, these districts can be classified into the following types:

i. Rapidly growing districts which have:-

   a. Seen polarization of economic and industrial development e.g. Karachi, Lahore and Gujranwala.

TABLE - 7

PAKISTAN : POPULATION GROWTH BY DISTRICT 1951-81

| District | Population in thousands | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1951 | 1961 | 1972 | 1981 | 1951-61 | 1971-72 | 1972-81 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | N. W. F. P. | | | | |
| Chitral | 106 | 113 | 159 | 209 | 0.7 | 3.0 | 3.3 |
| Dir | 149 | 385 | 529 | 767 | 10.1 | 2.7 | 4.5 |
| Swat | 501 | 590 | 888 | 1,233 | 1.7 | 3.6 | 3.9 |
| Malakand | 90 | 134 | 186 | 258 | 4.1 | 2.9 | 3.9 |
| Kohistan | [735 | [771 | 205 | 465 | ... | ... | 10.2 |
| Mansehra | | | 889 | 1,067 | ... | ... | 2.2 |
| Abbottabad | 574 | 650 | 979 | 1,169 | 1.3 | 3.6 | 2.1 |
| Mardan | 632 | 816 | 1,204 | 1,507 | 2.6 | 3.4 | 2.7 |
| Peshawar | 903 | 1,174 | 1,731 | 2,282 | 2.7 | 3.4 | 3.3 |
| Kohat | 301 | 382 | 581 | 759 | 2.4 | 3.7 | 3.2 |
| Bannu | 307 | 377 | 567 | 711 | 2.1 | 3.6 | 2.7 |
| D.I. Khan | 291 | 362 | 474 | 635 | 2.2 | 2.3 | 3.5 |
| | | | P U N J A B | | | | |
| Attock | 630 | 702 | 982 | 1,144 | 1.1 | 2.9 | 1.8 |
| Rawalpindi | 874 | 1,087 | 1,748 | 2,121 | 2.2 | 4.2 | 2.3 |
| Jhelum | 682 | 750 | 1,052 | 1,167 | 1.0 | 2.9 | 1.2 |
| Gujrat | 1,159 | 1,329 | 1,899 | 2,255 | 1.4 | 3.1 | 2.1 |
| Mianwali | 550 | 750 | 1,096 | 1,377 | 3.2 | 3.3 | 2.7 |
| Sargodha | 1,163 | 1,472 | 2,101 | 2,553 | 2.4 | 3.1 | 2.7 |
| Faisalabad | 2,153 | 2,685 | 4,242 | 4,689 | 2.3 | 4.0 | 1.2 |
| Jhang | 877 | 1,080 | 1,561 | 1,978 | 2.1 | 3.2 | 2.8 |
| Sialkot | 1,474 | 1,598 | 2,344 | 2,711 | 0.8 | 3.3 | 1.7 |
| Gujranwala | 1,047 | 1,293 | 2,060 | 2,676 | 2.2 | 4.1 | 3.1 |

Table 7 (Continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Sheikhupura | 923 | 1,081 | 1,657 | 2,110 | 1.6 | 3.7 | 2.9 |
| Lahore | 1,135 | 1,627 | 2,588 | 3,545 | 3.7 | 4.1 | 3.8 |
| Kasur | 760 | 854 | 1,186 | 1,528 | 1.2 | 2.9 | 3.0 |
| D.G.Khan | 631 | 786 | 1,142 | 1,583 | 2.2 | 3.3 | 3.9 |
| Muzaffargarh | 751 | 991 | 1,565 | 2,164 | 2.8 | 4.0 | 3.9 |
| Multan | 1,650 | 2,123 | 3,133 | 4,080 | 2.6 | 3.4 | 3.2 |
| Vehari | 559 | 704 | 1,027 | 1,329 | 2.4 | 3.3 | 3.1 |
| Sahiwal | 1,715 | 2,012 | 2,684 | 3,612 | 1.6 | 2.5 | 3.6 |
| Bahawalpur | 528 | 736 | 1,071 | 1,453 | 3.4 | 3.3 | 3.7 |
| Bahawalnagar | 631 | 824 | 1,074 | 1,374 | 2.7 | 2.3 | 3.0 |
| R. Y. Khan | 665 | 1,016 | 1,399 | 1,841 | 4.4 | 2.7 | 3.3 |
| | | | S I N D | | | | |
| Jacobabad | 345 | 427 | 709 | 1,012 | 2.2 | 4.9 | 4.3 |
| Sukkur | 392 | 486 | 847 | 1,098 | 2.2 | 4.9 | 3.1 |
| Shikarpur | 313 | 323 | 538 | 620 | 0.3 | 4.5 | 1.7 |
| Larkana | 502 | 605 | 921 | 1,139 | 1.9 | 3.7 | 2.5 |
| Nawabshah | 491 | 692 | 1,354 | 1,647 | 3.5 | 5.9 | 2.3 |
| Khairpur | 347 | 500 | 725 | 981 | 3.8 | 3.2 | 3.6 |
| Dadu | 417 | 485 | 806 | 1,077 | 1.5 | 4.5 | 3.4 |
| Hyderabad | 641 | 954 | 1,656 | 2,054 | 4.1 | 4.9 | 2.6 |
| Badin | 256 | 334 | 607 | 777 | 2.7 | 5.3 | 2.9 |
| Sanghar | 322 | 430 | 693 | 923 | 2.9 | 4.2 | 3.4 |
| Tharparkar | 605 | 729 | 1,016 | 1,502 | 1.9 | 2.9 | 4.7 |
| Thatta | 286 | 360 | 676 | 761 | 2.3 | 5.6 | 1.4 |
| Karachi (Div.) | 1,138 | 2,049 | 3,609 | 5,438 | 6.1 | 5.0 | 5.0 |
| | | | B A L U C H I S T A N | | | | |
| Quetta | 109 | 145 | 254 | 382 | 2.9 | 4.9 | 5.0 |
| Pishin | 104 | 128 | 251 | 379 | 2.1 | 5.9 | 5.1 |
| Loralai | 97 | 126 | 188 | 388 | 2.7 | 3.5 | 8.9 |
| Zhob | 65 | 91 | 172 | 362 | 3.5 | 5.6 | 9.2 |

Table 7 (Continued)

D-81503

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Chagai | 37 | 42 | 65 | 120 | 1.3 | 3.8 | 5.5 |
| Sibi | 58 | 65 | 107 | 131 | 1.2 | 4.4 | 2.4 |
| Nasirabad | 92 | 123 | 224 | 394 | 3.0 | 5.3 | 6.9 |
| Kachhi | 131 | 164 | 221 | 305 | 2.3 | 2.6 | 3.9 |
| Kohlu | 63 | 62 | 108 | 175 | (-) 0.2 | 4.9 | 5.8 |
| Kalat | 55 | 65 | 147 | 341 | 1.7 | 7.3 | 10.5 |
| Khuzdar | 105 | 104 | 198 | 387 | (-) 0.1 | 5.7 | 8.2 |
| Kharan | 49 | 39 | 77 | 128 | (-) 2.3 | 6.0 | 6.2 |
| Lasbela | 68 | 83 | 125 | 188 | 2.0 | 3.6 | 4.9 |
| Turbat | 80 | 71 | 148 | 379 | (-) 1.2 | 6.5 | 11.8 |
| Gawadar | 44 | 50 | 91 | 112 | 1.3 | 5.3 | 2.6 |
| Panjgur | 30 | 28 | 57 | 161 | (-) 0.7 | 6.3 | 13.1 |
| | | | I S L A M A B A D | | | | |
| Islamabad | 94 | 120 | 235 | 340 | 2.5 | 5.9 | 4.5 |

SOURCE : Hand Book of Population Census Data, Government of Pakistan, 1985.

NOTE : Population includes foreign nationals except diplomats and their families.

TABLE - 8

PAKISTAN : RANKING OF DISTRICTS BY POPULATION SIZE 1951-81

| | 1951 | 1961 | 1972 | 1981 |
|---|---|---|---|---|
| 1. | Faisalabad | Faisalabad | Faisalabad | Karachi |
| 2. | Sahiwal | Multan | Karachi | Faisalabad |
| 3. | Multan | Karachi | Multan | Multan |
| 4. | Sialkot | Sahiwal | Sahiwal | Sahiwal |
| 5. | Sargodha | Lahore | Lahore | Lahore |
| 6. | Gujrat | Sialkot | Sialkot | Sialkot |
| 7. | Karachi | Sargodha | Sargodha | Gujranwala |
| 8. | Lahore | Gujrat | Gujranwala | Sargodha |
| 9. | Gujranwala | Gujranwala | Gujrat | Peshawar. |
| 10. | Seikhupura | Peshawar | Rawalpindi | Gujrat |
| 11. | Peshawar | Rawalpindi | Peshawar | Muzaffargarh |
| 12. | Jhang | Sheikhupura | Sheikhupura | Pindi |
| 13. | Rawalpindi | Jhang | Hyderabad | Sheikhupura |
| 14. | Kasur | R.Y.Khan | Muzaffargarh | Hyderabad |
| 15. | Muzaffargarh | Muzaffargarh | Jhang | Jhang |
| 16. | Jhelum | Hyderabad | R.Y.Khan | R.Y.Khan |
| 17. | R.Y.Khan | Kasur | Nawabshah | Nawabshah |
| 18. | Hyderabad | Bahawalnagar | Mardan | D.G.Khan |
| 19. | Mardan | Mardan | Kasur | Kasur |
| 20. | Bahawalnagar | D.G.Khan | D.G.Khan | Mardan |
| 21. | D.G.Khan | Jhelum | Bahawalnagar | Tharparkar |
| 22. | Attock | Mianwalli | Bahawalpur | Bahawalpur |
| 23. | Tharparkar | Bahawalpur | Mianwalli | Mianwalli |
| 24. | Abbotabad | Tharparkar | Jhelum | Bahawalnagar |
| 25. | Vehari | Vehari | Vehari | Vehari |
| 26. | Mianwalli | Attock | Tharparkar | Swat |
| 27. | Bahawalpur | Nawabshah | Attock | Abbotabad |
| 28. | Larkana | Abbotabad | Abbotabad | Jhelum |
| 29. | Swat | Larkana | Larkana | Attock |
| 30. | Nawabshah | Swat | Mansehra | Larkana |
| 31. | Dadu | Khairpur | Swat | Sukkur |
| 32. | Sukkur | Sukkur | Sukkur | Dadu |
| 33. | Khairpur | Dadu | Dadu | Mansehra |
| 34. | Jacobabad | Sanghar | Khairpur | Jacobabad |
| 35. | Sanghar | Jocobabad | Jacobabad | Khairpur |
| 36. | Shikarpur | Dir | Sanghar | Sanghar |
| 37. | Bannu | Kohat | Thatta | Badin |
| 38. | Kohat | Bannu | Badin | Dir |
| 39. | D.I.Khan | D.I.Khan | Kohat | Thatta |
| 40. | Thatta | Thatta | Bannu | Kohat |
| 41. | Badin | Badin | Shikarpur | Bannu |
| 42. | Dir | Shikarpur | Dir | D.I.Khan |
| 43. | Kachhi | Kachhi | D.I.Khan | Shikarpur |
| 44. | Quetta | Quetta | Quetta | Kohistan |
| 45. | Chitral | Malakand | Pishin | Nasirabad |
| 46. | Khuzdar | Pishin | Islamabad | Loralai |
| 47. | Pishin | Loralai | Nasirabad | Khuzdar |
| 48. | Loralai | Nasirabad | Kachhi | Quetta |
| 49. | Islamabad | Islamabad | Kohistan | Turbat |
| 50. | Nasirabad | Chitral | Khuzdar | Pishin |
| 51. | Malakand | Khuzdar | Loralai | Zhob |
| 52. | Turbat | Zhob | Malakand | Kalat |
| 53. | Lasbela | Lasbela | Zhob | Islamabad |
| 54. | Zhob | Turbat | Chitral | Kachhi |
| 55. | Kohlu | Kalat | Turbat | Malakand |
| 56. | Sibi | Sibi | Kalat | Chitral |
| 57. | Kalat | Kohlu | Lasbela | Lasbela |
| 58. | Kharan | Gwadar | Kohlu | Kohlu |
| 59. | Gwadar | Chagai | Sibi | Panjgur |
| 60. | Chagai | Kharan | Gwadar | Sibi |
| 61. | Panjgur | Panjgur | Kharan | Kharan |
| 62. | - | - | Chagai | Chagai |
| 63. | - | - | Panjgur | Gwadar |

SOURCE: Hand Book of population census Data, Government of Pakistan 1985

Note: ——— Shows upward trend, — — — Shows downward trend

b. Experienced extension in canal irrigation system such as Nawabshah and Tharparkar in Sind, and Bahawalpur in the Punjab province.

ii. Lagging districts such as Chitral and Kachhi which have failed to keep pace in their ranks due to unemployment or economic dissatisfaction resulting in out-migration in search of jobs or better life.

iii. Districts of fluctuating fortunes: These include Dir, Malakand, and some districts of Baluchistan. The population statistics of these districts published in the respective censuses cannot be relied upon because these were partly estimated and partly enumerated, and most probably misenumerated (Census Organization 1961).

In terms of absolute figures, the total number of districts in Pakistan increased from 40 in 1901 to 63 in 1981. Table-9 has divided these districts (retaining their orginal boundaries at the respective censuses) into four classes by population size - Very Large (above 1 million), Large (0.5 million - 1 million), Medium (0.2 million - 0.5 million), and Small (less than 0.2 million). It can be seen that the 'Very Large' districts have witnessed high growth rates, while all the other categories experienced decline. The provincial situation (Appendix-B) shows that in 1981 all the districts of Punjab were in the 'Very Large' category, and two of these Faisalabad and Multan had surpassed the 4 million mark. In contrast to this, Baluchistan had all the districts in the two lower categories. In fact, half of these were in the 'Small' size class. N.W.F.P. and Sind provinces

TABLE - 9

PAKISTAN : ABSOLUTE INCREASE IN NUMBER OF DISTRICTS BY SIZE CLASSES 1901 - 1981

| Year | Less than 0.2 million (Small) | 0.2 million to 0.5 million (Medium) | 0.5 million to 1 million (Large) | Above 1 million (Very large) | Total |
|---|---|---|---|---|---|
| 1901 | 8 | 18 | 13 | 1 | 40 |
| 1911 | 10 | 15 | 17 | 1 | 43 |
| 1921 | 9 | 17 | 15 | 2 | 43 |
| 1931 | 8 | 14 | 17 | 4 | 43 |
| 1941 | 9 | 9 | 19 | 6 | 43 |
| 1951 | 7 | 9 | 18 | 9 | 43 |
| 1961 | 7 | 9 | 13 | 16 | 45 |
| 1971 | 7 | 5 | 12 | 26 | 50 * |
| 1981 | 7 | 13 | 9 | 34 | 63 |

SOURCES: Population Censuses of Pakistan 1961, 1972 and 1981.

* Metropoliton Karachi has been counted as 1 district instead of 3

showed mixed patterns.

The uneven distribution of population among administrative districts at present is comparable to that of Britain in the late 1960's. A Royal Commission was appointed in that country in 1972 to prepare recommendations for ideal population size of districts. They wanted the new units to be neither too large nor too small to provide local government services at low cost. Various government departments put forward their own size estimates to the Commission. The Home Office considered 0.5 million the threshold population to support an efficient police force. The departments of Education and Science supported this size, but were prepared to lower it to 0.3 million in sparsely populated areas. An even more reduced threshold (0.2 million to 0.25 million) was recommended by the Local Health and Welfare authorities as well as Child Care services (Haggett 1972). If one goes by either of these standards, more than half the districts in Pakistan (having above 1 million population) appear to be too large for management purposes. It is very likely that with such high growth rates the situation will become even worse with the passage of time unless remedial steps are taken. This applies particularly to the districts of the Punjab. Contrary to the Punjab, many districts in Baluchistan are inefficient in terms of the above standards because of being too small i.e. less than 0.2 million in population size. Although Metropolitan Karachi (5.4 million people) has been divided into three districts for management purposes, the situation is still alarming in this division, which is evident from the law and order crises erupting at sporadic intervals.

Besides absolute figures, a useful indicator of population concentration is the density of population. This measure has been used in the present study for analyzing the spatial and temporal changes in the districts since the beginning of this century. The series of four maps (figures 7 to 10) represent variations in the population density at 20-30 years interval. The first map (figure-7) shows the situation in 1901 in the then 40 districts, while the last (figure-10) indicates the same for the 63 districts of 1981. The condition of 1921 and 1951 have been represented in the second and third maps (figures 8 and 9) respectively. The same density values have been used throughout to make comparison easier. However, addition of two extra grades in the fourth map became necessary due to excessive increase in the density figures of some districts in 1981.

In 1901 the submontane belt of northern Punjab extending from Lahore north-westward through the Potwar plateau to Peshawar was the most closely settled belt. This area was favourable for population concentration due to relatively high rainfall that was supplemented by well irrigation for agricultural development. Southward projection of high density districts of Faisalabad and Jhang mark areas of pioneer canal irrigation in the Punjab. The districts falling in Cholistan and Thal deserts were relatively sparsely populated areas. In Sind, a riverain belt from Sukkur through Nawabshah to Hyderabad formed the high density zone, where inundation canals and associated water lifting devices were the norm. In contrast to this, the districts located within the Thar desert of the same province had extremely low densities. West of River Indus, the

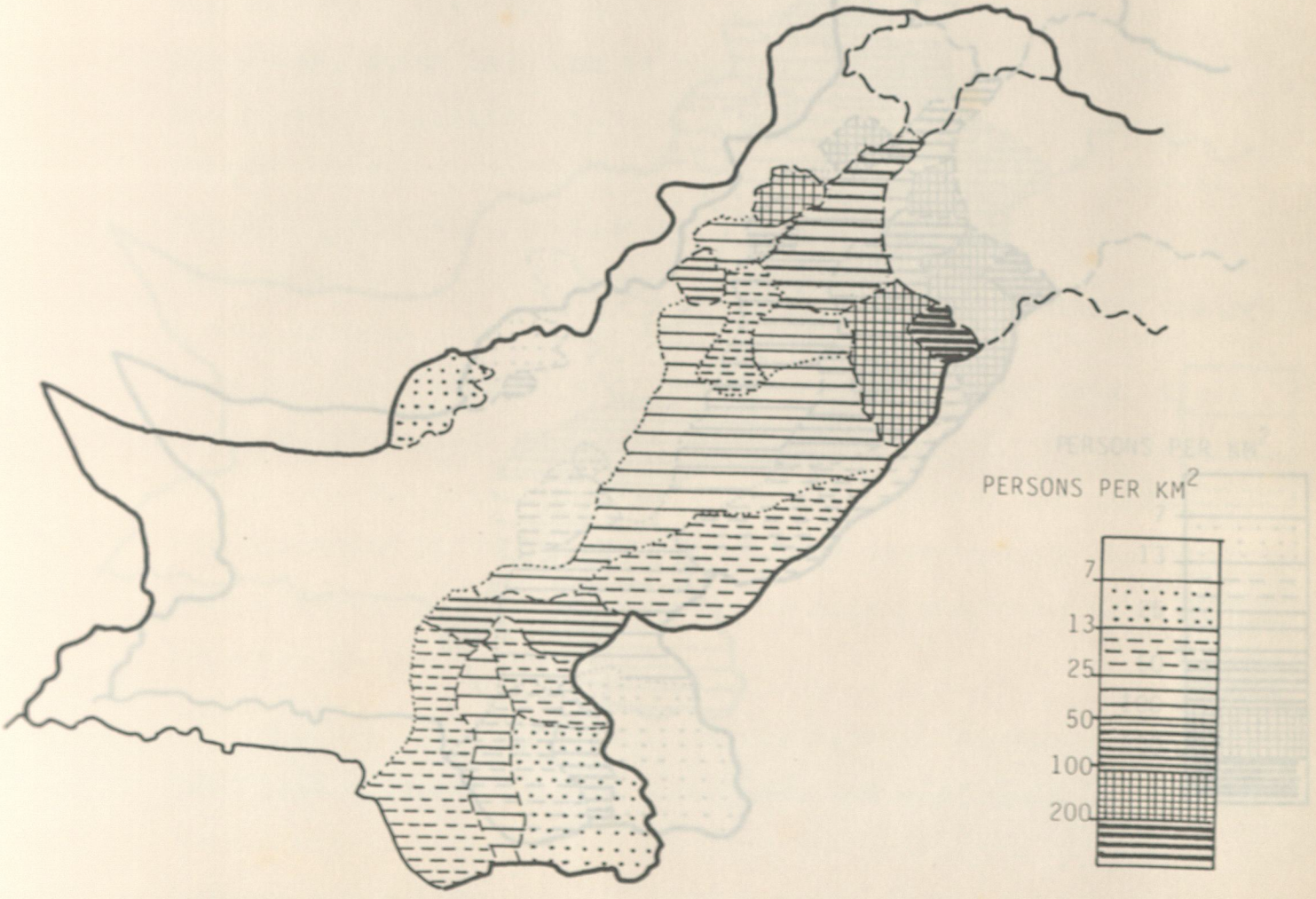


Figure-7: District-wise density of population in Pakistan, 1901.

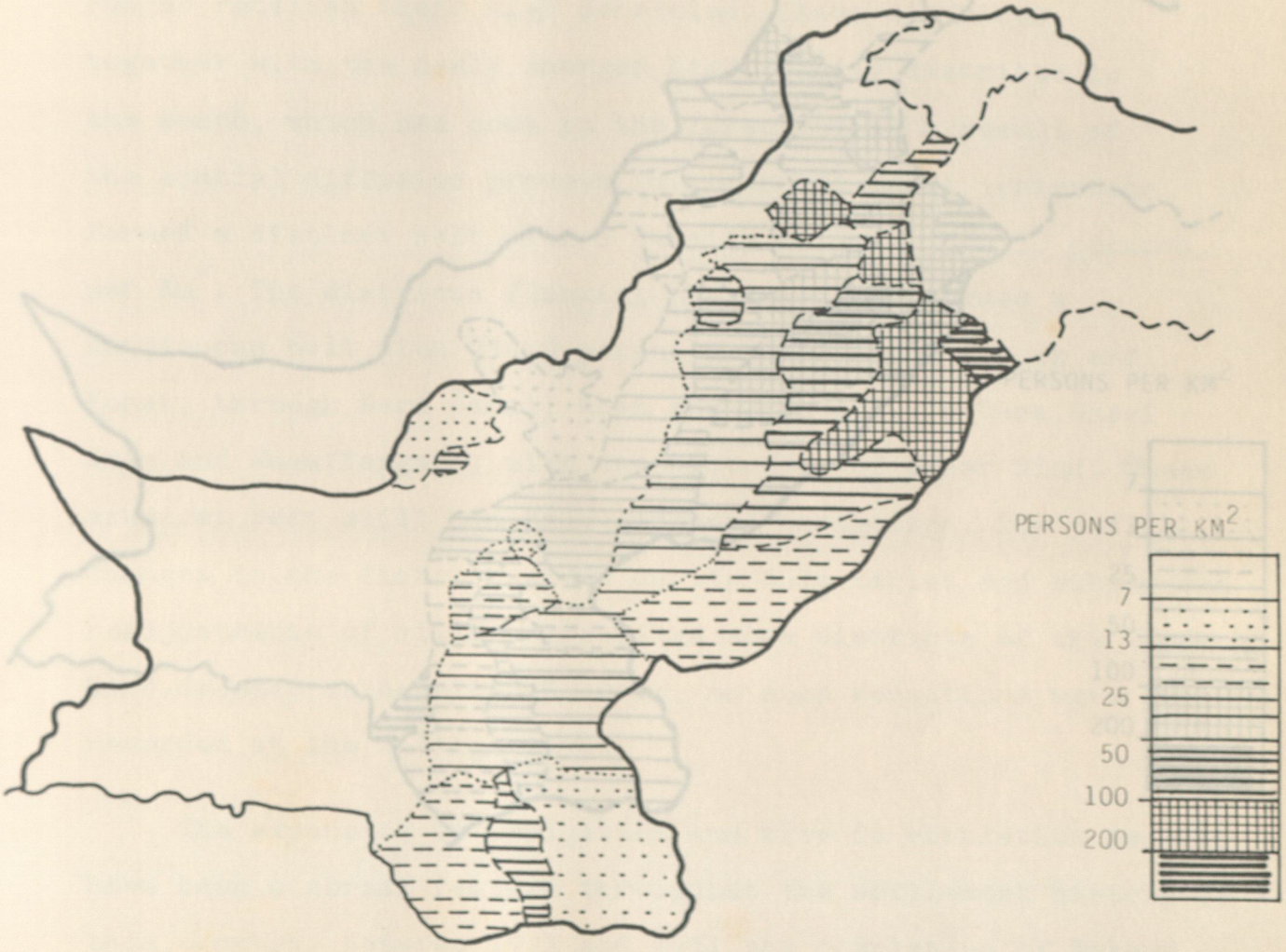


Figure-8: District-wise density of population in Pakistan,1921.

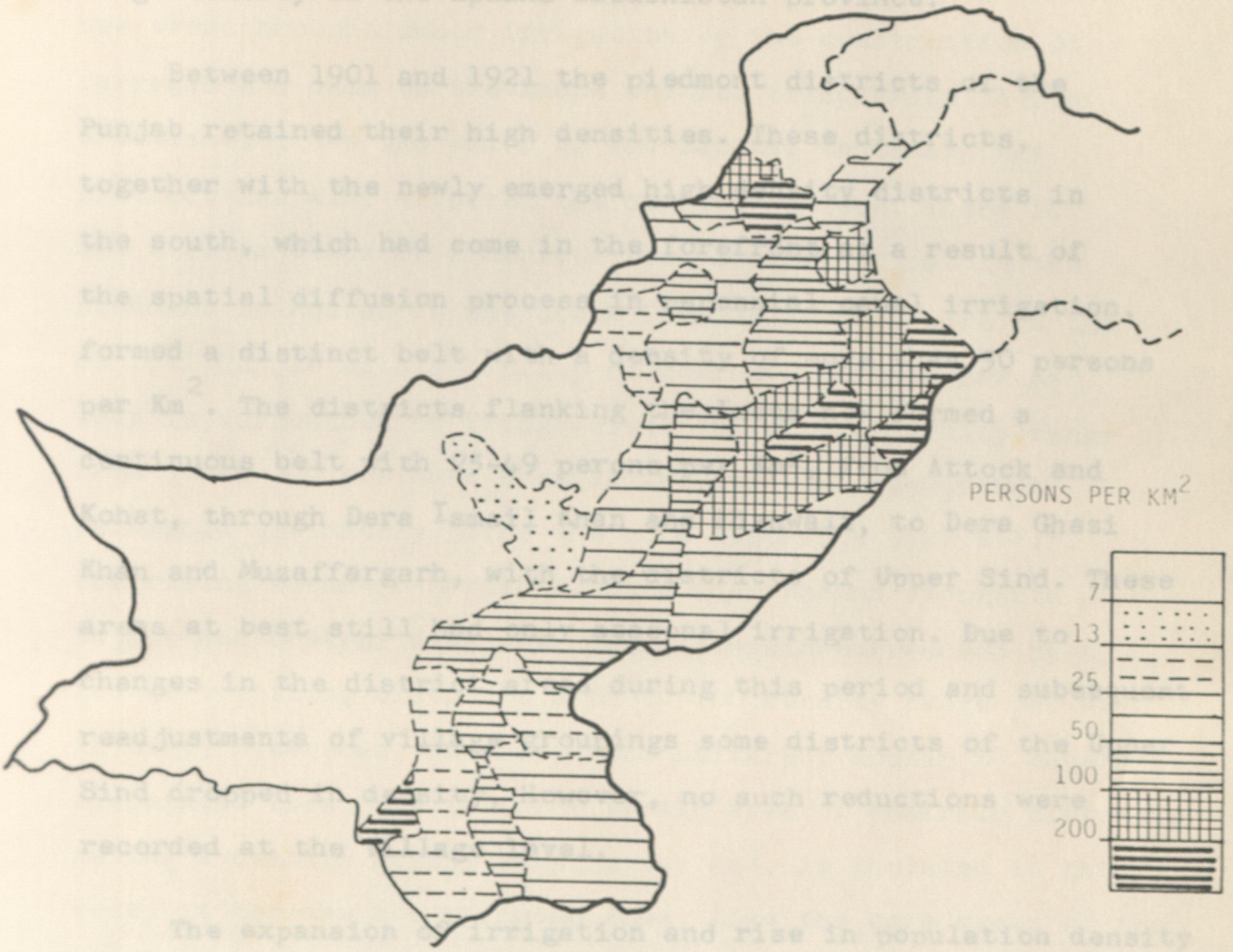


Figure-9: District-wise density of population in Pakistan, 1951.

strategically located districts of North West Frontier Province had relatively higher densities. The same was true of Quetta which was the only district with middle range density in the upland Baluchistan province.

Between 1901 and 1921 the piedmont districts of the Punjab retained their high densities. These districts, together with the newly emerged high density districts in the south, which had come in the forefront as a result of the spatial diffusion process in perennial canal irrigation, formed a distinct belt with a density of more than 50 persons per $Km^2$. The districts flanking the Indus now formed a continuous belt with 25-49 perons per $Km^2$, from Attock and Kohat, through Dera Ismail Khan and Mianwali, to Dera Ghazi Khan and Muzaffargarh, with the districts of Upper Sind. These areas at best still had only seasonal irrigation. Due to changes in the district areas during this period and subsequent readjustments of village groupings some districts of the Upper Sind dropped in density, However, no such reductions were recorded at the village level.

The expansion of irrigation and rise in population density have been a normal feature throughout the settlement history of this country. Between 1921 and 1951 the completion of Sukkur Barrage and elaboration of canal systems in the Punjab and Peshawar valleys were the major factors responsible for the enhancement of population density in their respective districts. Urbanization had also become an important factor in raising the levels of density by this time. Thus, apart from Karachi, an almost entirely urban district, Lahore, Faisalabad and Sialkot

also climbed to the top level with over 200 persons per $Km^2$.

The changes over the 1951-81 period are the history of natural increase, alongwith migratory concentrations in the new areas brought under irrigation by the construction of barrages and dams on the Indus and its tributaries. Rapid urbanisation and the shift of the capital to Rawalpindi district has also affected the density pattern. There is now a solid block of districts from Sialkot-Gujrat in the piedmont to Multan in the south forming an inner-core in the Central Punjab with a density of over 200 persons per $Km^2$. This is surrounded by fringe districts with a density range from 50 to 200 per $Km^2$. A subsidiary-core of Rawalpindi-Islamabad ultimately joins the core districts of N.W.F.P. comprising Peshawar-Mardan-Abbottabad-Malakand alongwith Bajaur and Orakzai agencies. This is again surrounded by a fringe combining districts with 50-200 density range per $Km^2$. In Sind, Hyderabad, Nawabshah and Shikarpur appear to make a disjointed core, but if the riverain area of Khairpur district, having a density of 235 persons per $Km^2$, is included in this belt, it becomes a continuous zone. Like the core areas of the Punjab and N.W.F.P., this is also surrounded by a fringe area with densities ranging from 50 to 200 persons per $Km^2$. In Baluchistan, with the exception of Quetta district, which has the capital city, all other districts have density levels below 70 persons per $Km^2$, with three of these having densities even less than 7 persons per $Km^2$ (figure - 10).

To sum up the present situation, table-10 gives the details of district sizes and their densities of population. The degree

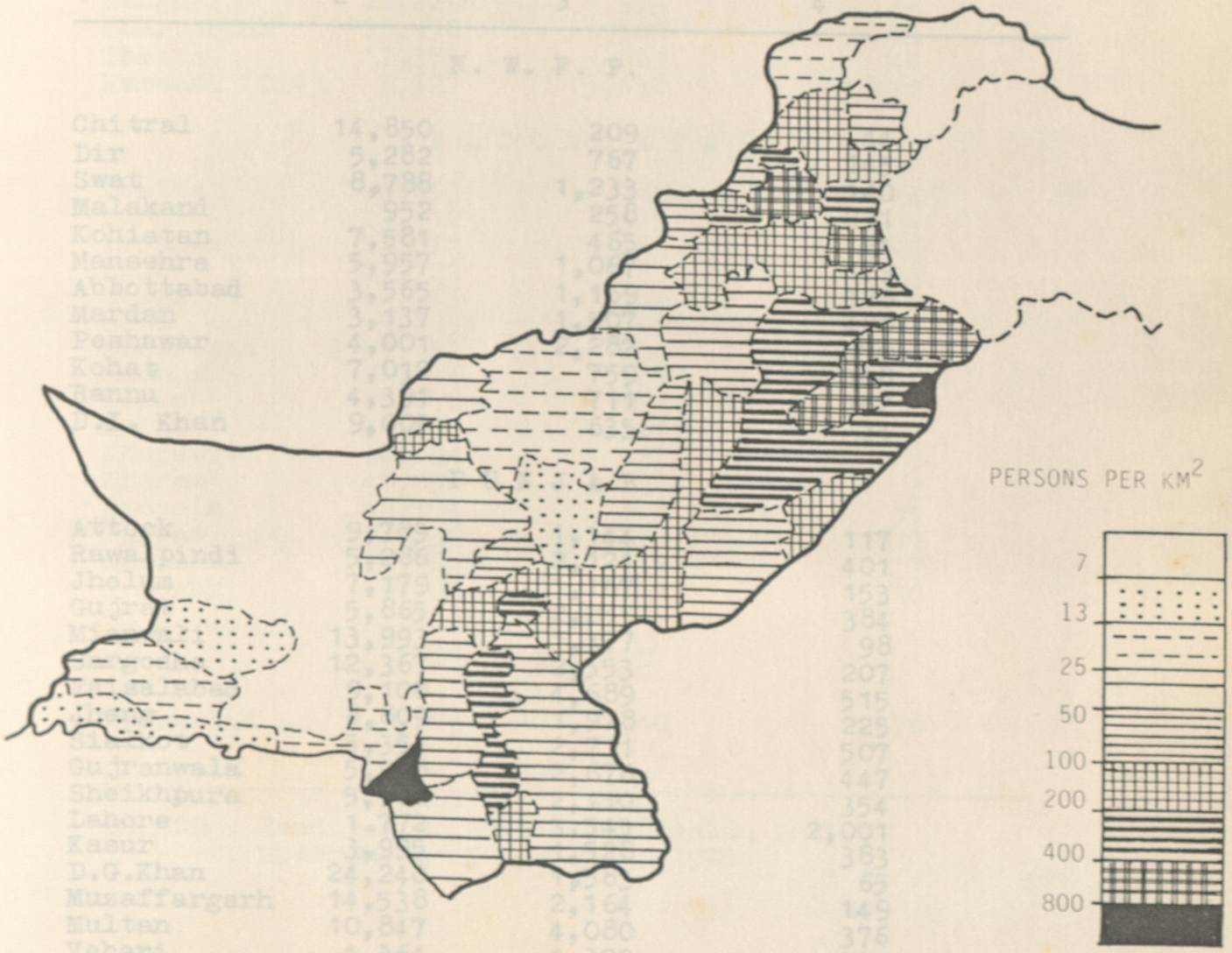


Figure-10: District-wise density of population in Pakistan, 1981.

TABLE - 10

PAKISTAN : POPULATION DENSITY BY DISTRICT 1981

| District | Area (sq.km.) | Population (thousands) | Population density (persons/ sq.km.) |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| | N. W. F. P. | | |
| Chitral | 14,850 | 209 | 14 |
| Dir | 5,282 | 767 | 145 |
| Swat | 8,788 | 1,233 | 140 |
| Malakand | 952 | 258 | 271 |
| Kohistan | 7,581 | 465 | 61 |
| Mansehra | 5,957 | 1,067 | 179 |
| Abbottabad | 3,565 | 1,169 | 328 |
| Mardan | 3,137 | 1,507 | 480 |
| Peshawar | 4,001 | 2,282 | 570 |
| Kohat | 7,012 | 759 | 108 |
| Bannu | 4,391 | 711 | 162 |
| D.I. Khan | 9,005 | 635 | 71 |
| | P U N J A B | | |
| Attock | 9,789 | 1,144 | 117 |
| Rawalpindi | 5,286 | 2,121 | 401 |
| Jhelum | 7,179 | 1,167 | 153 |
| Gujrat | 5,865 | 2,255 | 384 |
| Mianwali | 13,993 | 1,377 | 98 |
| Sargodha | 12,367 | 2,553 | 207 |
| Faisalabad | 9,108 | 4,689 | 515 |
| Jhang | 8,809 | 1,978 | 225 |
| Sialkot | 5,353 | 2,711 | 507 |
| Gujranwala | 5,988 | 2,676 | 447 |
| Sheikhpura | 5,960 | 2,110 | 354 |
| Lahore | 1,772 | 3,545 | 2,001 |
| Kasur | 3,995 | 1,528 | 383 |
| D.G.Khan | 24,240 | 1,583 | 65 |
| Muzaffargarh | 14,538 | 2,164 | 149 |
| Multan | 10,847 | 4,080 | 376 |
| Vehari | 4,364 | 1,329 | 305 |
| Sahiwal | 10,303 | 3,612 | 351 |
| Bahawalpur | 24,830 | 1,453 | 59 |
| Bahawalnagar | 8,878 | 1,374 | 155 |
| R.Y.Khan | 11,880 | 1,841 | 155 |
| | S I N D | | |
| Jaccobabad | 5,278 | 1,012 | 192 |
| Sukkur | 11,093 | 1,098 | 99 |
| Shikarpur | 2,841 | 620 | 218 |
| Larkana | 7,423 | 1,139 | 153 |
| Nawabshah | 7,501 | 1,647 | 220 |
| Khairpur | 15,736 | 981 | 62 |

Table 10 (Continued)

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| Dadu | 19,016 | 1,077 | 62 |
| Hyderabad | 5,683 | 2,054 | 362 |
| Badin | 6,562 | 777 | 118 |
| Sanghar | 10,729 | 923 | 86 |
| Tharparkar | 28,170 | 1,502 | 53 |
| Thatta | 17,355 | 761 | 44 |
| Karachi (Div). | 3,527 | 5,438 | 1,542 |
| B A L U C H I S T A N | | | |
| Quetta | 2,653 | 382 | 144 |
| Pishin | 11,112 | 379 | 34 |
| Loralai | 19,071 | 388 | 20 |
| Zhob | 27,129 | 362 | 13 |
| Chagai | 50,545 | 120 | 2 |
| Sibi | 9,285 | 131 | 14 |
| Nasirabad | 5,832 | 394 | 68 |
| Kachhi | 11,114 | 305 | 28 |
| Kohlu | 17,770 | 175 | 10 |
| Kalat | 12,517 | 341 | 27 |
| Khuzdar | 64,891 | 387 | 6 |
| Kharan | 48,051 | 128 | 3 |
| Lasbela | 12,574 | 188 | 15 |
| Turbat | 22,539 | 379 | 17 |
| Gawadar | 15,216 | 112 | 7 |
| Panjgur | 16,891 | 161 | 10 |
| I S L A M A B A D | | | |
| Islamabad | 906 | 340 | 376 |

SOURCE : Handbook of Population Census Data, Government of Pakistan, 1985.

of unevenness is obvious from the following:

i. Khuzdar, the largest district by area is 14 times smaller in population size than Karachi which has an area 18 times smaller than the former.

ii. The Federal Capital Territory of Islamabad is 71 times smaller than that of Khuzdar, but the difference in their population sizes is nominal. Hence the density of Khuzdar is only 6 persons per $Km^2$ as against 376 persons per $Km^2$ for Islamabad.

iii. The district with the lowest density (2 persons per $Km^2$) is Chagai. Its area is 14 times that of Karachi but the population 45 times less than the latter.

CHAPTER-3

## POPULATION REDISTRIBUTION AND INTERNAL MIGRATION

The population of undivided India was low in the scale of mobility as compared to other countries like that of Europe, U.S.A. and Australia (Davis 1951), the mobility in areas now constituting Pakistan, being less than that for British India as a whole. The main reasons for this low mobility were:

i. The national population was mainly agricultural at subsistence level and the constant attention required in farming discouraged movements. Moreover, such a population, being extremely conservative, would not leave its holdings except in the face of some catastrophe.

ii. Mobility was not encouraged due to strong social ties resulting from early marriages and joint-family systems.

iii. A large proportion of the population was illiterate, making them conservative, with little desire to move and also with little knowledge of opportunity elsewhere.

After independence, rising opportunities of employment, better transport facilities, increased literacy, and emergence of new administrative centres considerably enhanced population movements. By 1981, the percentage of total migrant population in Pakistan had increased to 11.8 (Census Organization 1981) from less than 5 percent in 1951.

Unfortunately, data on pre-independence migration pattern within the areas now constituting Pakistan are not complete. Due to readjustments of administrative boundaries, place of

birth and enumeration statistics for 1901 do not exist separately for N.W.F.P. and Punjab. The required data are available only for two censuses i.e. 1911 and 1921 which give the general picture of life-time migrants by provinces. The two subsequent censuses (1931 and 1941) did not provide information on place of birth, therefore it was not possible to calculate life-time migrants for this period.

The situation in 1911 and 1921 is given in tables - 11 and 12. However, the figures need to be treated with caution, because at that time the area now constituting Pakistan was a part of the British Empire. Interaction during that period, therefore, covered a much broader area incorporating many other states/provinces besides the existing four i.e. Punjab, Sind, N.W.F.P. and Baluchistan. This situation has been elaborated in table - 13 which indicates positive net-migration for N.W.F.P. in both censuses (1911 & 1921) of the order of about 15 thousand and 50 thousand persons respectively as opposed to negative net-migration estimates of about 25 thousand and 35 thousand persons indicated in table - 12 for the same periods.

To avoid these complications and also to overcome the lack of birth and enumeration data for 1931 and 1941, Khan (1972) used age data to estimate net-migration within the existing provinces in the pre-independence period. These statistics have been reproduced here as table - 14. Their analysis shows that the Punjab was the only province that gained substantial net-migrants throughout the pre-independence period. The large influx to the province was mainly due to extension of canal irrigation and subsequent colonization.

TABLE-11

PAKISTAN : INTER-PROVINCIAL MIGRATION BASED ON PLACE OF BIRTH STATISTICS

1911 AND 1921

(MIGRANTS IN THOUSANDS)

| Region of Enumeration | Place of Birth in Pakistan | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1911 | | | | 1921 | | | |
| | Punjab | Sind | N.W.F.P. | Baluch-istan | Punjab | Sind | N.W.F.P. | Baluchistan |
| Punjab | - | 1.6 | 30.7 | 3.1 | - | 3.0 | 31.4 | 2.7 |
| Sind | 6.8 | - | 3.2 | 67.7 | 4.4 | - | 7.6 | 52.7 |
| N.W.F.P. | 11.7 | 0.1 | - | 0.2 | 8.6 | 0.4 | - | 0.0 |
| Baluchistan | 4.3 | 0.9 | 3.6 | - | 3.8 | 0.1 | 5.0 | - |

SOURCES : Population Censuses of India 1911 and 1921.

TABLE-12

PAKISTAN : ESTIMATES OF NET-MIGRATION AMONG PROVINCES BASED ON PLACE OF BIRTH DATA 1911 AND 1921

(MIGRANTS IN THOUSANDS)

| Province | 1911 | | | 1921 | | |
|---|---|---|---|---|---|---|
| | In-migrant | Out-migrants | Net-migration | In-migrants | Out-migrants | Net-migration |
| Punjab | 35.4 | 22.8 | + 12.6 | 36.1 | 16.8 | + 19.3 |
| Sind | 77.7 | 2.6 | + 75.1 | 64.7 | 3.5 | + 61.2 |
| N.W.F.P. | 12.0 | 37.5 | - 25.5 | 9.0 | 44.0 | - 35.0 |
| Baluchistan | 8.8 | 71.0 | - 62.2 | 8.9 | 55.5 | - 46.6 |

SOURCES : Population Censuses of India 1911 and 1921.

TABLE-13

NET-MIGRATION BETWEEN N.W.F.P. AND OTHER PROVINCES OF INDIA 1911 & 1921.

(MIGRANTS IN THOUSANDS)

| Year | In-migrants | Out-migrants | Net-migration |
|---|---|---|---|
| 1911 | 82.1 | 66.7 | + 15.4 |
| 1921 | 118.4 | 68.0 | + 50.4 |

SOURCE : Khan M.A. (1985) Table 13.4

TABLE-14

INTERCENSAL NET-MIGRATION ESTIMATES TO PROVINCES OF PAKISTAN FROM WITHIN PAKISTAN AND INDIA FROM AGE DATA 1901-11 THROUGH 1931-41.

(MIGRANTS IN THOUSANDS)

| Region | Intercensal Net-migration Estimates. | | | |
|---|---|---|---|---|
| | 1901-11 | 1911-21 | 1921-31 | 1931-41 |
| Punjab | +148.8 | +244.2 | +555.7 | +716.2 |
| Sind | +155.9 | + 20.2 | +270.4 | -*203.5 |
| N.W.F.P. | + 18.9 | + 49.9 | - 38.6 | +196.7 |
| Baluchistan | + 80.0 | -115.3 | - 4.4 | - 43.4 |

SOURCE : Khan M. R. (1972) Reproduced from Afzal M.(1974) Table - 2.6

*Interpreted in the present study as misplaced negative notation.

The city of Lahore - the administrative capital of Punjab, providing employment opportunities and educational facilities, was also a source of attraction for perspective migrants. The N.W.F.P. gained through net-migration during all intercensal periods except the 1921-31 decade. Among the reasons for the general excess of in-migrants over out-migrants the Census of India (1933) listed the following:

i. The stationing of large bodies of troops in the province for the defence of India.

ii. The presence of headquarters of a provincial government.

iii. The large clerical establishment necessitated by both the above in an area in which the population was largely illiterate.

iv. The existence of grazing grounds superior to those in the adjoining areas.

v. The demands of labour created by the continued undertaking of extensive public works.

Of these, the first factor has been the most important. During 1901-11, when the number of troops stationed in the province was very large, the net-migration figures were also quite high. In 1921 again when the border was in a disturbed state, the number of troops stationed was increased. However, when conditions were relatively calm in 1931, the number of troops was reduced, promptly affecting net-migration during the 1921-31 period. Baluchistan, a resource frontier region, generally had net balance of out-migration to other areas of the Sub-continent during most of the period between 1911 and

1941. The bulk of these migrated to Sind province.

During the 1901-11 intercensal period, the province of Sind experienced highest net-migration. Bulk of these migrants were from Baluchistan (Table - 11). The province continued to gain population, although at a slower rate, during the following two decades, with Baluchistan contributing the major share. These migrants worked as labourers on the Sukkur Barrage which was then under construction. The extensive cultivation of land made possible by the new barrage canals encouraged large scale colonization in the area. It was the main reason for attracting a vast majority of migrants towards the province during the subsequent years. The estimates for the 1931-41 period (table - 14) show negative net-migration of the order of about 0.2 million persons in Sind. This appears to be a misplaced negative notation. Apparently there was no specific reason encouraging out-migration from the province or discouraging in-migration to the area.

The pattern of inter-provincial migration in the post-independence period had its own data limitations. The census publications for 1951, 1961 and 1973 made it possible to calculate life-time migrants for the respective periods. These were obtained from place of birth and enumeration statistics in the 1951 1961 censuses, and the post census Housing Economic and Demographic (HED) Survey of 1973 which have been represented as table-15.

Internal migration during the 1951-73 period (table - 15) had two aspects (i) redistribution of expatriates / refugees and their families entering Pakistan after the partition of

TABLE-15

PAKISTAN : INTER-PROVINCIAL EXCHANGE OF POPULATION CALCULATED FROM PLACE OF BIRTH STATISTICS 1951, 1961 & 1973.

(MIGRANTS IN THOUSANDS)

| Province | 1951 | | | 1961 | | | 1973 | | |
|---|---|---|---|---|---|---|---|---|---|
| | In-migrants | Out-migrants | Net Migration | In-migrants | Out-migrants | Net Migration | In-migration | Out migrants | Net-migration |
| Punjab | 84.8 | 190.2 | -105.4 | 154.7 | 387.3 | -232.6 | 674.9 | 580.8 | +94.1 |
| Sind | 232.2 | 13.3 | +218.9 | 489.7 | 41.8 | +447.9 | 818.9 | 168.4 | +650.5 |
| N.W.F.P. | 70.9 | 140.3 | - 69.4 | 72.8 | 265.9 | -193.1 | 150.9 | 443.1 | -292.2 |
| Baluchistan | 37.6 | 81.9 | - 44.3 | 55.5 | 77.6 | - 22.1 | 64.8 | 517.3 | -452.5 |

SOURCES : (i) Population Censuses of Pakistan 1951 and 1961.

(ii) Post Census Housing Economic and Demographic Survey, 1973.

the Subcontinent (ii) migration of persons who were born within the region now constituting Pakistan. The local born offsprings of displaced persons formed a large part of the total migrant population. Table-15 shows that the direction of major streams of migrants during both decades was towards Sind, which gained net-migrants throughout the period, while all the other provinces suffered heavy losses through out-migration. The relatively fast industrial and urban development in the Punjab after 1961 enabled the province to make up initial losses. As a result, the Punjab gained about 0.09 million people through net-migration during 1961-73. The provinces of N.W.F.P. and Baluchistan continuously lost population throughout the 1951-73 period because of the concentration of public and private investments in the growth poles of the country lying outside their jurisdication i.e. in Sind and the Punjab.

The 1973 post-census HED survey, besides recording places of birth, also included a direct question on migration by place of previous residence. The statistics thus published have been given as table - 16 and 17. Although these figures are somewhat different from those of life-time migrants (table-15), nevertheless, neither Sind's leading position with respect to net-migration changed, nor that of N.W.F.P. and Baluchistan as net losers. However, a discrepency exists in the case of the Punjab province. The difference in net-migrants by place of birth (life-time) and by previous residence is of the order of more than 0.1 million (tables - 15 and 16) which is quite big.

Data on origin of migrants for 1973 (table - 17) reveal that more than half the in-migrants to Sind were from the Punjab, while about a fourth belonged to N.W.F.P. The Punjab province

TABLE-16

PAKISTAN : INTER-PROVINCIAL EXCHANGE OF POPULATION BASED ON PLACE OF PREVIOUS RESIDENCE 1973.

(MIGRANTS IN THOUSANDS)

| Province | In-migrants | Out-migrants | Net-migration |
|---|---|---|---|
| Punjab | 235.5 | 252.9 | - 17.4 |
| Sind | 276.2 | 107.0 | +169.2 |
| N.W.F.P. | 92.1 | 204.3 | -112.2 |
| Baluchistan | 28.9 | 68.6 | - 39.7 |

SOURCE : Post Census Housing Economic and Demographic Survey 1973.

NOTE : Figures for Islamabad are included in the Punjab.

TABLE-17

PAKISTAN : INTER-PROVINCIAL MOBILITY AMONG PROVINCES BASED ON PLACE OF PREVIOUS RESIDENCE 1973.

(MIGRANTS IN THOUSANDS)

| Place of Present Residence | Place of Previous Residence | | | |
|---|---|---|---|---|
| | Punjab | Sind | N.W.F.P. | Baluchistan |
| Punjab | - | 80.8 | 114.5 | 40.2 |
| Sind | 168.2 | - | 83.1 | 24.9 |
| N.W.F.P. | 71.9 | 16.8 | - | 3.4 |
| Baluchistan | 12.8 | 9.4 | 6.7 | - |

SOURCE : Post-Census Housing Economic and Demographic Survey 1973.

NOTE : Figures for Islamabad are included in the Punjab.

received half of its migrants from Baluchistan, whereas more than a quarter of these previously resided in the N.W.F.P.

Unlike the 1951 and 1961 censuses and the post-census HED, the 1981 census did not collect data on place of birth. However, on the pattern of the 1973 HED, it did contain a direct question on migration by previous residence. As such, a certain degree of comparability does exist between the 1973 and 1981 migration data (table - 16 and 18). During the 1973-81 period, the total number of in-migrants to Sind from other provinces quadrupled resulting in a five-fold increase in net-migration. Conversely, out-migration from the Punjab enhanced considerably as compared to the increase in in-migration to the province, thereby pushing the negative net-migration figures twenty-nine times. Deficit net-migration also increased for N.W.F.P. where from large scale out-migration took place to Sind and the Punjab for reasons stated earlier. Extensive development works carried out by the Government in Baluchistan has helped in drastically reducing outflows from the area thus alleviating the net loss from the province to a large extent during this period.

Detailed analysis of the situation from the latest census (table -19) shows that the province of Sind is recording a sustained inflow because of owning the primate city and its high level of economic development. Islamabad is also gaining in the process of migration due to its administrative importance, while N.W.F.P., the Punjab and Baluchistan are experiencing net losses in inter-provincial migration. The intensity of negative tendency is highest for the Punjab with an outflow of more people (0.63 million) to Sind alone as compared to the aggregate

TABLE-18

PAKISTAN : INTER-PROVINCIAL EXCHANGE OF POPULATION BASED ON PLACE OF PREVIOUS RESIDENCE 1981.

(MIGRANTS IN THOUSANDS)

| Province/ Admin./ Area | In-Migrants | Out-Migrants | Net-Migration |
|---|---|---|---|
| Punjab | 348.2 | 849.0 | -500.8 |
| Sind | 1060.4 | 122.0 | +938.4 |
| N.W.F.P. | 117.9 | 614.7 | -496.8 |
| Baluchistan | 96.6 | 113.4 | - 16.8 |
| Islamabad | 84.1 | 8.1 | + 76.0 |

SOURCE : Population Census of Pakistan 1981.

TABLE-19

PAKISTAN : INTER-PROVINCIAL MOBILITY AMONG PROVINCES BASED ON PLACE OF PREVIOUS RESIDENCE 1981.

(MIGRANTS IN THOUSANDS)

| Place of Present Residence | Place of Previous Residence | | | | |
|---|---|---|---|---|---|
| | Punjab | Sind | N.W.F.P. | Baluchistan | Islamabad |
| Punjab | - | 92.1 | 196.9 | 54.3 | 4.9 |
| Sind | 631.6 | - | 369.7 | 56.9 | 2.2 |
| N.W.F.P. | 99.1 | 16.1 | - | 1.8 | 0.9 |
| Baluchistan | 56.4 | 10.6 | 29.5 | - | 0.1 |
| Islamabad | 61.9 | 3.2 | 18.6 | 0.4 | - |

SOURCE : Population Census of Pakistan 1981.

gain from all other areas (0.35 million). Migration streams from N.W.F.P. are moving mainly towards Sind, while outflows from Baluchistan are directed to the Sind and Punjab provinces in almost equal proportions (figure - 11).

Further details of inter-provincial migrants by rural/uraban residence for 1981 have been given in table-20. These data again put Sind in the forefront which is the largest receiver of urban as well as rural migrants from other provinces. The main contributors are the Punjab and N.W.F.P. which together accounted for about 1 million migrants to the province of Sind in 1981. Majority of in-migrants to the urban centres of Sind belong to the rural areas of other provinces indicating a definite trend of rural-urban migration. However, it is worth mentioning that apart from rural-urban and rural-rural migration to Sind, a relatively large proportion from the urban centres of the Punjab also migrated to rural Sind ~~in~~ during the 1973-1981 period.

In addition to the population exchange among provinces/ major administrative regions, there have always been short distance movements within these provinces. The total number of such intra-provincial migrants in Pakistan underwent threefold increase from 1.1 million to 3.3 million persons during the 1951-81 period (table - 21). The Punjab had the largest share of intra-provincial migrants throughout the three decades. The industrial-cum-agricultural districts of Faisalabad, Sahiwal, Lahore and Multan have been the major recipients, while Sialkot district has been the main area of exodus (tables-22 to 29). Khan (1980) classified these districts, with the exception of Lahore, as a part of a 'Very Rapidly Growing Region' being the agricultural core of Pakistan (figure - 12). He attributed this to the

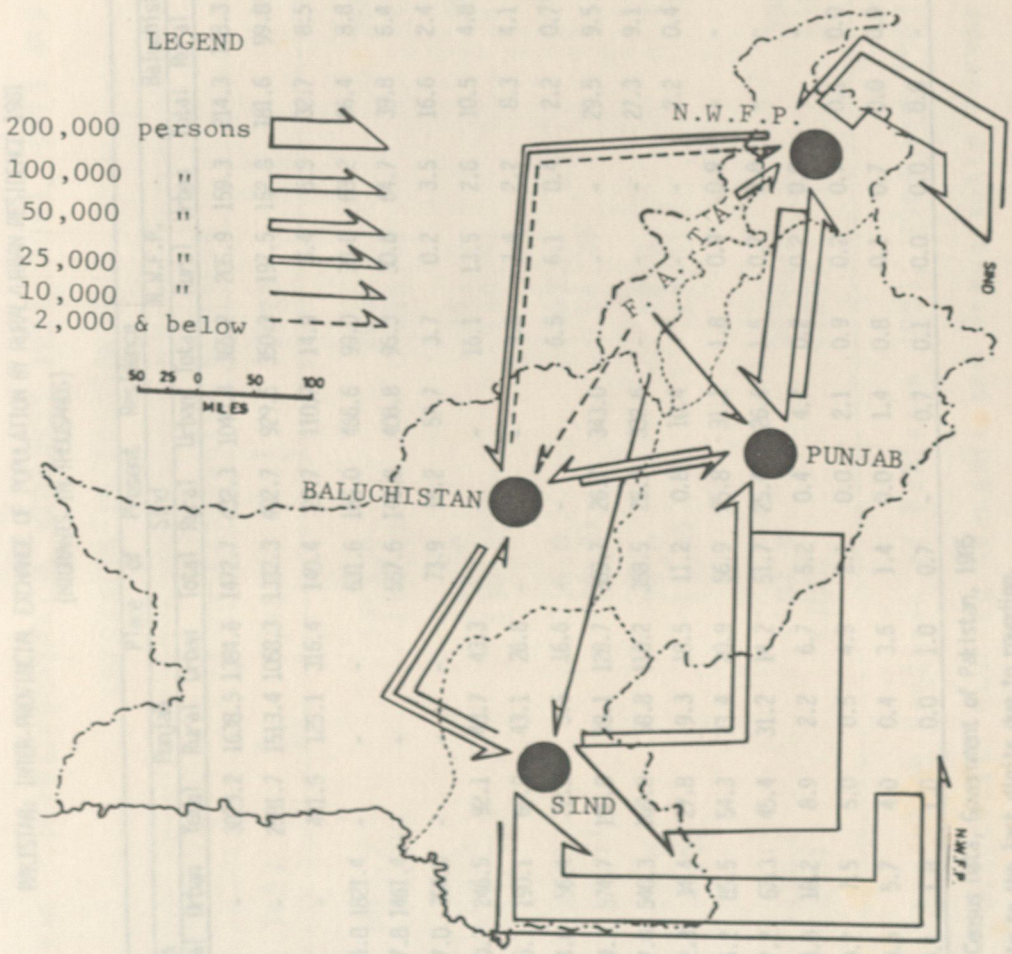


Figure-11: Inter-provincial migration in Pakistan, 1981.

TABLE - 20

PAKISTAN: INTER-PROVINCIAL EXCHANGE OF POPULATION BY RURAL/URBAN RESIDENCE 1981

(MIGRANTS IN THOUSANDS)

| Place of Previous Residence | Place of Present Residence | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pakistan | | | Punjab | | | Sind | | | N.W.F.P. | | | Baluchistan | | | Islamabad | | |
| | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| Pakistan | - | - | - | 3023.2 | 1638.5 | 1384.6 | 1472.7 | 432.3 | 1040.3 | 365.2 | 205.9 | 159.3 | 214.3 | 108.3 | 106.0 | 84.3 | 8.4 | 75.9 |
| Rural | - | - | - | 2581.7 | 1513.4 | 1068.3 | 1332.3 | 402.7 | 929.6 | 350.3 | 197.5 | 152.8 | 181.6 | 99.8 | 81.8 | 71.1 | 8.2 | 62.9 |
| Urban | - | - | - | 441.5 | 125.1 | 316.4 | 140.4 | 29.7 | 110.7 | 14.9 | 8.4 | 6.5 | 32.7 | 8.5 | 24.2 | 13.2 | 0.2 | 13.0 |
| Punjab | 3516.2 | 1694.8 | 1821.4 | - | - | - | 631.6 | 165.0 | 466.6 | 99.0 | 30.8 | 68.2 | 56.4 | 8.8 | 47.6 | 61.9 | 5.5 | 56.4 |
| Rural | 3029.2 | 1567.8 | 1461.4 | - | - | - | 557.6 | 148.8 | 408.8 | 95.3 | 30.6 | 64.7 | 39.8 | 6.4 | 33.3 | 50.9 | 5.4 | 45.5 |
| Urban | 487.0 | 127.0 | 360.0 | - | - | - | 73.9 | 16.2 | 57.7 | 3.7 | 0.2 | 3.5 | 16.6 | 2.4 | 14.3 | 11.0 | 0.1 | 10.9 |
| Sind | 527.2 | 280.7 | 246.5 | 92.1 | 48.7 | 43.3 | - | - | - | 16.1 | 13.5 | 2.6 | 10.5 | 4.8 | 5.7 | 3.1 | 0.0 | 3.1 |
| Rural | 446.2 | 256.1 | 190.1 | 69.9 | 43.1 | 26.8 | - | - | - | 9.6 | 7.4 | 2.2 | 8.3 | 4.1 | 4.2 | 2.3 | 0.0 | 2.3 |
| Urban | 81.0 | 24.6 | 56.4 | 22.2 | 5.6 | 16.6 | - | - | - | 6.5 | 6.1 | 0.4 | 2.2 | 0.7 | 1.5 | 0.8 | - | 0.8 |
| N.W.F.P. | 794.0 | 219.3 | 574.7 | 196.8 | 68.1 | 128.7 | 369.7 | 26.7 | 343.0 | - | - | - | 29.5 | 9.5 | 20.0 | 18.6 | 2.8 | 15.7 |
| Rural | 747.3 | 207.0 | 540.3 | 169.0 | 58.8 | 110.2 | 358.5 | 25.9 | 332.6 | - | - | - | 27.3 | 9.1 | 18.2 | 17.4 | 2.8 | 14.5 |
| Urban | 46.6 | 12.3 | 34.4 | 27.8 | 9.3 | 18.5 | 11.2 | 0.8 | 10.4 | - | - | - | 2.2 | 0.4 | 1.8 | 1.2 | 0.0 | 1.2 |
| Baluchistan | 230.7 | 145.2 | 85.5 | 54.3 | 33.4 | 20.9 | 56.9 | 25.8 | 31.1 | 1.8 | 0.9 | 0.9 | - | - | - | 0.4 | 0.0 | 0.4 |
| Rural | 204.5 | 137.2 | 67.3 | 45.4 | 31.2 | 14.2 | 51.7 | 25.4 | 26.4 | 1.5 | 0.7 | 0.8 | - | - | - | 0.3 | 0.0 | 0.4 |
| Urban | 26.2 | 8.0 | 18.2 | 8.9 | 2.2 | 6.7 | 5.2 | 0.4 | 4.7 | 0.2 | 0.2 | 0.0 | - | - | - | 0.0 | 0.0 | 0.0 |
| Islamabad | 8.2 | 0.7 | 7.5 | 5.0 | 0.5 | 4.5 | 2.1 | 0.0 | 2.1 | 0.9 | 0.2 | 0.7 | 0.1 | 0.0 | 0.0 | - | - | - |
| Rural | 6.3 | 0.6 | 5.7 | 4.0 | 0.4 | 3.5 | 1.4 | 0.0 | 1.4 | 0.8 | 0.1 | 0.7 | 0.0 | 0.0 | 0.0 | - | - | - |
| Urban | 1.9 | 0.1 | 1.8 | 1.0 | 0.0 | 1.0 | 0.7 | - | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | - | - |

SOURCE: Hand Book of Population Census Data, Government of Pakistan, 1985

NOTE: (i)Totals may not be accurate to the last digits due to rounding.
(ii)Less than 100 migrants have been treated as zero.

TABLE-21

PAKISTAN : INTRA-PROVINCIAL MIGRANTS 1951, 1961, 1973 AND 1981.

(MIGRANTS IN THOUSANDS)

| Province | Intra-Provincial Migrants | | | |
|---|---|---|---|---|
| | 1951 | 1961 | 1973 | 1981 |
| Punjab | 882.7 (76.7) | 1391.0 (72.2) | 2066.6 (80.1) | 2667.2 (79.2) |
| Sind | 88.2 (7.7) | 196.9 (10.2) | 271.6 (10.5) | 405.3 (12.0) |
| N.W.F.P. | 54.0 (4.7) | 315.0 (16.3) | 162.1 (6.3) | 179.4 (5.3) |
| Baluchistan | 125.9 (10.9) | 29.0 (1.5) | 78.5 (3.1) | 117.3 (3.5) |
| Total | 1150.8 (100) | 1931.9 (100) | 2578.8 (100) | 3369.2 (100) |

SOURCES : (i) Population Censuses of Pakistan 1951, 1961 and 1981.

(ii) Post-Census Housing Economic and Demographic Survey of Pakistan 1973.

TABLE -22

PUNJAB: INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1951

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Campbellpur | Rawalpindi | Jhelum | Gujrat | Sargodha | Mianwali | Lyallpur | Jhang | Lahore | Gujranwala | Sheikhupura | Sialkot | D.G. Khan | Muzaffargarh | Multan | Montgomery | Bahawalpur | Bahawalnagar | R.Y. Khan | Total |
| Campbellpur (Attock) | - | 3.7 | 1.9 | 1.7 | 0.6 | 0.5 | 0.1 | 0.0 | 0.2 | 0.1 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | * | 0.2 | * | 9.6 |
| Rawalpindi | 11.3 | - | 8.5 | 6.2 | 2.1 | 1.2 | 0.8 | 0.3 | 2.9 | 1.7 | 0.4 | 5.0 | 0.0 | 0.0 | 0.7 | 0.3 | * | 2.1 | * | 43.5 |
| Jhelum | 2.1 | 5.3 | - | 5.1 | 2.2 | 0.5 | 0.4 | 0.1 | 0.6 | 0.4 | 0.0 | 1.8 | 0.0 | 0.0 | 0.2 | 0.2 | * | 0.0 | * | 18.9 |
| Gujrat | 0.7 | 1.1 | 8.1 | - | 5.9 | 1.8 | 0.9 | 0.3 | 0.9 | 3.8 | 0.3 | 6.2 | 0.0 | 0.0 | 0.3 | 0.3 | * | 0.4 | * | 31.0 |
| Sargodha | 2.2 | 2.6 | 12.0 | 14.8 | - | 3.3 | 3.2 | 11.6 | 1.2 | 3.9 | 0.7 | 11.9 | 0.0 | 0.6 | 1.3 | 0.5 | * | 2.7 | * | 72.5 |
| Mianwali | 0.6 | 0.6 | 0.5 | 0.6 | 0.8 | - | 0.2 | 0.2 | 0.3 | 0.1 | 0.0 | 0.4 | 0.0 | 0.3 | 0.4 | 0.0 | * | 0.0 | * | 5.0 |
| Lyallpur (Faisalabad) | 0.8 | 3.7 | 1.9 | 7.1 | 5.6 | 3.5 | - | 21.3 | 7.7 | 8.4 | 9.4 | 16.0 | 1.4 | 1.7 | 6.5 | 6.5 | * | 1.3 | * | 102.8 |
| Jhang | 0.3 | 0.7 | 1.1 | 1.3 | 2.6 | 0.8 | 3.9 | - | 0.9 | 1.2 | 0.4 | 0.9 | 0.6 | 1.0 | 3.2 | 0.4 | * | 0.5 | * | 19.8 |
| Lahore | 1.4 | 9.0 | 9.6 | 11.4 | 4.3 | 2.8 | 9.1 | 0.7 | - | 10.3 | 12.9 | 16.4 | 0.3 | 0.3 | 3.9 | 4.8 | * | 0.6 | * | 97.8 |
| Gujranwala | 0.2 | 2.2 | 1.2 | 11.1 | 2.3 | 0.0 | 4.8 | 1.1 | 5.1 | - | 13.4 | 24.9 | 0.0 | 0.0 | 0.8 | 1.4 | * | 0.6 | * | 69.1 |
| Sheikhupura | 0.1 | 0.3 | 0.4 | 1.8 | 0.8 | 0.3 | 8.5 | 0.7 | 12.4 | 11.1 | - | 10.7 | 0.0 | 0.2 | 0.9 | 1.2 | * | 0.3 | * | 49.7 |
| Sialkot | 1.2 | 3.2 | 3.4 | 6.8 | 1.7 | 0.4 | 2.8 | 0.1 | 2.5 | 7.0 | 2.7 | - | 0.0 | 0.0 | 0.5 | 0.4 | * | 0.1 | * | 32.8 |
| D.G. Khan | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | - | 0.3 | 0.2 | 0.3 | * | 0.1 | * | 1.2 |
| Muzaffargarh | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.5 | 0.3 | 0.5 | 0.3 | 0.0 | 0.2 | 0.1 | 3.2 | - | 1.8 | 0.0 | * | 0.3 | * | 7.7 |
| Multan | 3.3 | 2.3 | 3.3 | 4.1 | 3.1 | 5.2 | 10.7 | 10.6 | 9.0 | 4.6 | 2.8 | 7.1 | 1.9 | 6.3 | - | 8.3 | * | 2.4 | * | 85.0 |
| Montgomery (Sahiwal) | 1.3 | 3.9 | 4.2 | 5.8 | 3.9 | 1.4 | 21.7 | 2.3 | 25.6 | 2.4 | 5.6 | 9.4 | 0.5 | 0.5 | 5.3 | - | * | 4.1 | * | 97.9 |
| Bahawalpur | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | - | * | * | - |
| Bahawalnagar | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | - | * | - |
| R.Y. Khan | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | - | - |
| Total | 25.5 | 38.7 | 56.4 | 77.9 | 36.0 | 22.3 | 67.4 | 49.8 | 69.6 | 55.0 | 48.8 | 111.5 | 7.9 | 11.2 | 26.0 | 24.6 | | 15.7 | | 744.3 |

SOURCE: Population Census of Pakistan 1961.

Notes: (i) Less than 100 migrants have been treated as zero

(ii) * means Data Not Available.

TABLE - 23

PUNJAB: INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1961

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Campbellpur | Rawalpindi | Jhelum | Gujrat | Sargodha | Mianwali | Lyallpur | Jhang | Lahore | Gujranwala | Sheikhupura | Sialkot | D.G. Khan | Muzaffargarh | Multan | Montgomery | Bahawalpur | Bahawalnagar | R.Y. Khan | Total |
| Campbellpur (Attock) | - | 2.7 | 2.0 | 0.9 | 0.7 | 0.9 | 0.3 | 0.0 | 0.6 | 0.3 | 0.0 | 0.7 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 9.5 |
| Rawalpindi | 18.1 | - | 11.2 | 8.1 | 2.8 | 1.2 | 2.1 | 0.4 | 6.9 | 3.8 | 0.6 | 11.0 | 0.0 | 0.0 | 1.7 | 1.3 | 0.3 | 0.0 | 0.0 | 69.5 |
| Jhelum | 2.2 | 6.4 | - | 6.8 | 2.3 | 0.4 | 0.8 | 0.2 | 1.2 | 0.7 | 0.2 | 2.4 | 0.0 | 0.0 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 24.3 |
| Gujrat | 1.9 | 3.9 | 10.5 | - | 7.4 | 0.8 | 1.5 | 0.3 | 1.7 | 5.3 | 0.5 | 7.4 | 0.0 | 0.0 | 0.6 | 0.5 | 0.1 | 0.0 | 0.0 | 42.4 |
| Sargodha | 4.9 | 2.1 | 15.2 | 21.6 | - | 4.4 | 6.9 | 13.7 | 3.5 | 4.3 | 1.8 | 12.7 | 0.1 | 0.5 | 1.6 | 1.3 | 0.4 | 0.0 | 0.1 | 95.1 |
| Mianwali | 2.9 | 0.8 | 1.6 | 2.9 | 4.2 | - | 4.6 | 1.5 | 2.1 | 1.2 | 1.1 | 1.5 | 0.2 | 1.4 | 1.5 | 1.7 | 0.5 | 0.1 | 0.0 | 29.8 |
| Lyallpur (Faisalabad) | 2.3 | 3.9 | 4.9 | 9.7 | 6.5 | 4.1 | - | 16.2 | 18.0 | 9.5 | 15.9 | 26.2 | 0.7 | 0.7 | 6.6 | 13.1 | 1.9 | 0.4 | 0.5 | 141.1 |
| Jhang | 0.5 | 0.3 | 0.8 | 1.5 | 5.1 | 1.2 | 8.8 | - | 1.7 | 1.5 | 1.2 | 1.6 | 0.2 | 1.8 | 7.3 | 0.8 | 0.3 | 0.0 | 0.1 | 34.7 |
| Lahore | 4.0 | 12.8 | 8.9 | 14.5 | 7.4 | 2.1 | 12.3 | 1.7 | - | 14.5 | 30.1 | 32.4 | 0.6 | 0.4 | 5.8 | 9.1 | 1.8 | 0.0 | 0.5 | 158.9 |
| Gujranwala | 0.9 | 1.7 | 1.3 | 12.9 | 3.1 | 0.3 | 7.1 | 1.4 | 7.3 | - | 15.4 | 35.1 | 0.1 | 0.0 | 1.6 | 1.3 | 0.3 | 0.0 | 0.0 | 89.8 |
| Sheikhupura | 0.2 | 0.5 | 0.4 | 1.8 | 1.1 | 0.2 | 11.0 | 0.6 | 14.5 | 13.7 | - | 13.0 | 0.0 | 0.0 | 0.8 | 2.2 | 0.4 | 0.0 | 0.0 | 60.4 |
| Sialkot | 0.6 | 2.3 | 1.5 | 6.4 | 2.4 | 0.3 | 4.9 | 0.1 | 3.7 | 10.6 | 4.7 | - | 0.0 | 0.0 | 0.8 | 1.1 | 0.5 | 0.0 | 0.0 | 39.9 |
| D.G. Khan | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 | 0.4 | 0.2 | 0.2 | 0.8 | - | 0.9 | 0.6 | 0.3 | 0.1 | 0.3 | 0.1 | 5.0 |
| Muzaffargarh | 0.5 | 0.3 | 0.7 | 3.0 | 2.2 | 2.7 | 8.7 | 1.9 | 2.9 | 2.5 | 5.7 | 2.5 | 6.2 | - | 6.0 | 3.7 | 1.3 | 0.4 | 0.4 | 51.6 |
| Multan | 5.2 | 2.6 | 5.3 | 7.5 | 5.3 | 4.5 | 15.3 | 11.6 | 14.8 | 6.7 | 5.4 | 11.1 | 4.9 | 10.4 | - | 13.8 | 5.1 | 1.2 | 0.5 | 131.2 |
| Montgomery (Sahiwal) | 1.2 | 4.2 | 3.7 | 4.3 | 3.3 | 0.6 | 22.4 | 1.8 | 35.3 | 2.9 | 5.8 | 8.6 | 0.4 | 0.4 | 8.2 | - | 3.5 | 3.5 | 0.2 | 111.3 |
| Bahawalpur | 0.6 | 0.8 | 0.8 | 2.6 | 2.9 | 0.5 | 17.7 | 1.6 | 3.8 | 3.2 | 5.4 | 8.8 | 1.6 | 2.0 | 15.1 | 5.3 | - | 3.3 | 2.2 | 78.2 |
| Bahawalnagar | 1.6 | 0.6 | 1.1 | 2.9 | 3.9 | 1.4 | 23.6 | 1.7 | 5.5 | 3.1 | 8.8 | 9.1 | 0.4 | 0.3 | 4.9 | 12.7 | 4.3 | - | 0.9 | 87.2 |
| R.Y. Khan | 1.3 | 0.5 | 1.3 | 3.8 | 2.5 | 1.6 | 39.1 | 1.7 | 9.1 | 2.9 | 9.4 | 9.3 | 8.9 | 5.9 | 9.3 | 10.1 | 8.4 | 5.1 | - | 130.2 |
| Total | 48.9 | 46.5 | 71.3 | 111.3 | 63.2 | 27.4 | 187.4 | 56.6 | 134.0 | 86.9 | 112.2 | 194.6 | 24.3 | 24.7 | 72.9 | 78.9 | 29.2 | 14.3 | 5.5 | 1391.0 |

SOURCE: Population Census of Pakistan 1961

Note: Less than 100 migrants have been treated as zero.

TABLE - 24

SIND: INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1951

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jacobabad | Sukkur | Larkana | Nawabshah | Khairpur | Hyderabad | Dadu | Tharparkar | Sanghar | Thatta | Karachi | Total |
| Jacobabad | - | 1.7 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | * | 0.0 | 0.0 | 2.2 |
| Sukkur | 4.5 | - | 1.7 | 0.4 | 1.3 | 0.6 | 0.4 | 0.2 | * | 0.0 | 0.5 | 9.6 |
| Larkana | 1.8 | 2.3 | - | 0.6 | 0.8 | 0.2 | 2.1 | 0.0 | * | 0.0 | 0.4 | 8.2 |
| Nawabshah | 1.9 | 1.9 | 1.2 | - | 0.9 | 4.1 | 4.6 | 2.5 | * | 0.2 | 1.1 | 18.4 |
| Khairpur | 0.4 | 2.2 | 0.6 | 1.3 | - | 0.0 | 0.0 | 1.4 | * | 0.0 | 0.1 | 6.0 |
| Hyderabad | 0.1 | 1.8 | 0.6 | 2.3 | 0.2 | - | 6.6 | 4.7 | * | 2.2 | 3.7 | 22.2 |
| Dadu | 0.1 | 0.5 | 1.8 | 1.5 | 0.0 | 0.9 | - | 0.3 | * | 0.0 | 0.5 | 5.6 |
| Tharparkar | 0.6 | 0.6 | 0.2 | 2.7 | 0.3 | 6.1 | 0.3 | - | * | 0.4 | 2.1 | 13.3 |
| Sanghar | * | * | * | * | * | * | * | * | - | * | * | - |
| Thatta | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.9 | 0.9 | 0.1 | * | - | 0.6 | 2.7 |
| Karachi | * | * | * | * | * | * | * | * | * | * | - | - |
| Total | 9.4 | 11.1 | 6.6 | 8.9 | 3.5 | 12.8 | 14.9 | 9.2 | - | 2.8 | 9.0 | 88.2 |

SOURCE : Population Census of Pakistan 1961

NOTES : i. Less than 100 migrants have been treated as zero.

ii. * means data not available.

TABLE - 25

SIND : INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1961

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jaccobabad | Sukkur | Larkana | Nawabshah | Khairpur | Hyderabad | Dadu | Tharpakar | Sanghar | Thatta | Karachi | Total |
| Jacobabad | - | 2.5 | 2.4 | 0.6 | 0.2 | 0.4 | 0.1 | 0.7 | 0.2 | 0.0 | 0.1 | 7.2 |
| Sukkur | 4.5 | - | 4.7 | 0.5 | 1.9 | 0.9 | 0.3 | 0.7 | 0.0 | 1.2 | 1.2 | 16.9 |
| Larkana | 1.9 | 2.9 | - | 1.3 | 0.8 | 0.3 | 1.9 | 0.2 | 0.0 | 0.0 | 0.7 | 10.0 |
| Nawabshah | 1.5 | 1.3 | 1.9 | - | 1.3 | 2.3 | 5.2 | 0.7 | 0.7 | 0.0 | 1.4 | 16.3 |
| Khairpur | 0.6 | 4.0 | 1.3 | 2.2 | - | 0.6 | 0.2 | 0.1 | 0.1 | 0.2 | 0.5 | 9.8 |
| Hyderabad | 0.7 | 3.1 | 1.8 | 4.8 | 1.0 | - | 7.8 | 19.5 | 2.4 | 4.9 | 6.8 | 52.8 |
| Dadu | 0.2 | 0.7 | 2.0 | 2.1 | 0.6 | 1.3 | - | 0.3 | 0.0 | 0.2 | 0.9 | 8.3 |
| Tharparkar | 0.2 | 0.9 | 0.7 | 1.7 | 0.5 | 6.9 | 0.9 | - | 1.6 | 0.5 | 3.0 | 16.9 |
| Sanghar | 1.5 | 2.9 | 0.8 | 4.2 | 1.2 | 5.7 | 2.1 | 10.0 | - | 0.8 | 1.3 | 30.5 |
| Thatta | 0.0 | 0.6 | 0.2 | 0.4 | 0.6 | 0.9 | 0.8 | 0.3 | 0 | - | 0.9 | 4.7 |
| Karachi | 0.1 | 2.8 | 0.9 | 0.6 | 0.7 | 15.8 | 1.2 | 0.2 | 0.4 | 0.8 | - | 23.5 |
| Total | 11.2 | 21.7 | 16.7 | 19.4 | 8.8 | 35.1 | 20.5 | 32.7 | 5.4 | 8.6 | 16.8 | 196.9 |

SOURCE : Population Census of Pakistan 1961

NOTES : i. Less than 100 migrants have been treated as zero.

TABLE - 26

N.W.F.P: INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1951

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | |
|---|---|---|---|---|---|---|---|
| | Hazara | Mardan | Peshawar | Kohat | D.I.Khan | Bannu | Total |
| Hazara | - | 1.3 | 2.9 | 2.0 | 0.7 | 0.5 | 7.4 |
| Mardan | 0.4 | - | 4.5 | 2.0 | 0.7 | 1.2 | 8.8 |
| Peshawar | 7.1 | 6.6 | - | 4.4 | 1.2 | 2.2 | 21.5 |
| Kohat | 1.3 | 0.6 | 2.2 | - | 0.2 | 0.5 | 4.8 |
| D.I.Khan | 0.7 | 0.5 | 1.5 | 1.3 | - | 2.9 | 6.9 |
| Bannu | 0.5 | 0.3 | 1.2 | 1.9 | 0.7 | - | 4.6 |
| Total | 10.0 | 9.3 | 12.3 | 11.6 | 3.5 | 7.3 | 54.0 |

SOURCE : Population Census of Pakistan 1961.

TABLE - 27

N.W.F.P: INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1961

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | |
|---|---|---|---|---|---|---|---|
| | Hazara | Mardan | Peshawar | Kohat | D.I.Khan | Bannu | Total |
| Hazara | - | 0.9 | 1.5 | 0.9 | 0.5 | 0.2 | 4.0 |
| Mardan | 2.5 | - | 6.1 | 0.7 | 0.1 | 0.1 | 9.5 |
| Peshawar | 7.2 | 16.2 | - | 6.2 | 2.2 | 254.5 | 286.3 |
| Kohat | 0.8 | 0.7 | 1.9 | - | 0.4 | 0.9 | 4.7 |
| D.I.Khan | 0.4 | 0.3 | 1.7 | 1.8 | - | 2.7 | 5.9 |
| Bannu | 0.3 | 0.2 | 0.8 | 2.1 | 1.2 | - | 4.6 |
| Total | 11.2 | 18.3 | 12.0 | 10.7 | 4.4 | 258.4 | 315.0 |

SOURCE : Population Census of Pakistan 1961.

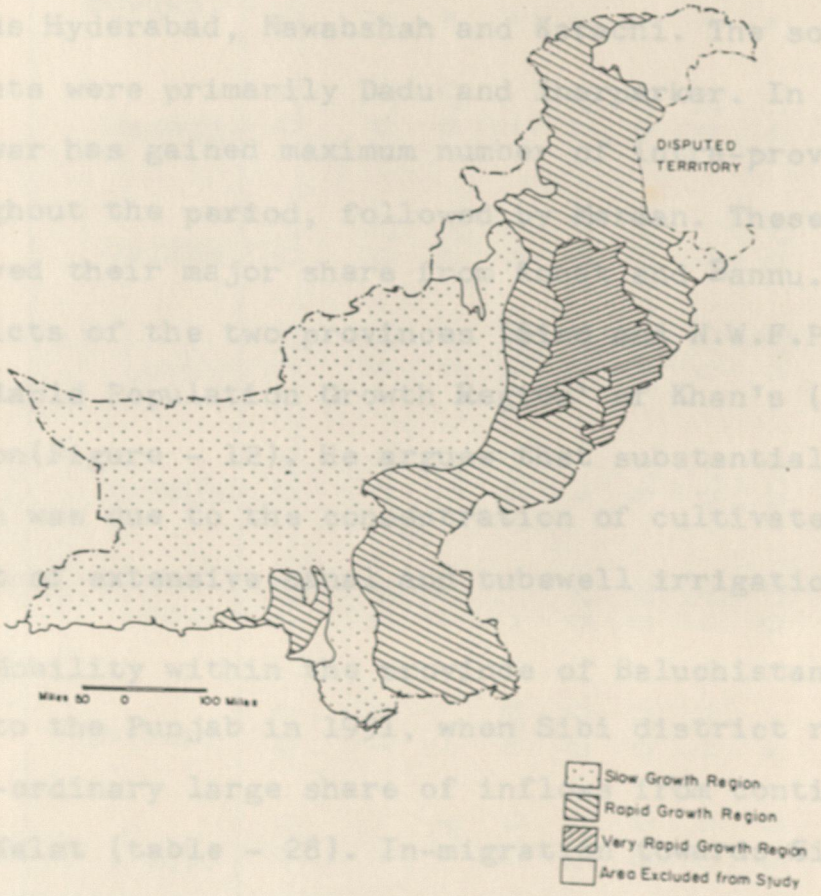


Figure 12: Rural population growth regions of Pakistan, 1972

Source : Khan F.K. (1980) Figure-2.

excellent irrigation facilities (88% of the cultivated area) and rich productive soils rendering the highest agricultural land-use intensity of 96.05 thus attracting large number of migrants to the region.

Intra-provincial migrants in Sind have mainly been directed towards Hyderabad, Nawabshah and Karachi. The sources of these migrants were primarily Dadu and Iharparkar. In the N.W.F.P., Peshawar has gained maximum number of intra-provincial migrants throughout the period, followed by Mardan. These Districts received their major share from Kohat and Bannu. The gaining districts of the two provinces (Sind and N.W.F.P.) fall within the 'Rapid Population Growth Region' of Khan's (1980) classification(Figure - 12). He argues that substantial gain in this region was due to the concentration of cultivated area as a result of extensive canal and tubewell irrigation.

Mobility within the province of Baluchistan was second only to the Punjab in 1951, when Sibi district recorded an extra-ordinary large share of inflows from contiguous districts e.g. Kalat (table - 28). In-migration towards Sibi declined in the following decade thereby reducing the overall mobility in the province in 1961 to only 1.5 percent of the country's total intra-provincial migrants (table - 29). These movements inside Baluchistan remained relatively low during subsequent years. Consequently, the whole province has been registered as the 'Region of Slow Growth' (figure - 12) by Khan (1980). He indentifies it as an area of hills, mountains and deserts with negative net-migration (figure - 13). Physical factors like ruggedness and aridity hamper frequent movements and discourage short distance migrations among the districts of

TABLE - 28

BALUCHISTAN : INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1951

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Quetta/ Pishin | Sibi | Loralai | Zhob | Chagai | Kalat | Mekran | Kharan | Lasbela | Total |
| Quetta/ Pishin | - | 0.5 | 0.2 | 0.5 | 0.6 | 2.2 | 0.0 | 0.1 | 0.0 | 4.1 |
| Sibi | 3.9 | - | 1.8 | 0.2 | 0.5 | 8.3 | 0.3 | 0.0 | * | 15.0 |
| Loralai | 0.8 | 1.4 | - | 1.9 | 0.0 | 0.3 | 0.0 | 0.0 | * | 4.4 |
| Zhob | 0.5 | 0.0 | 0.0 | - | 0.0 | 0.2 | 0.0 | - | * | 0.7 |
| Chagai | 0.3 | 0.0 | 0.0 | 0.0 | - | 0.2 | 0.0 | 0.2 | * | 0.7 |
| Kalat | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | - | 0.1 | 0.0 | * | 0.6 |
| Mekran | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | * | 0.0 |
| Kharan | 0.0 | 0.0 | * | 0.0 | 0.1 | 0.0 | 0.0 | - | * | 0.1 |
| Lasbela | 0.0 | * | * | * | * | 0.0 | 0.3 | 0.0 | - | 0.3 |
| Total | 5.9 | 1.9 | 2.0 | 2.6 | 1.3 | 11.2 | 0.7 | 0.3 | - | 25.9 |

SOURCE : Population Census of Pakistan 1961

NOTES: i. Less than 100 migrants have been treated as zero

ii. * means data not available.

TABLE - 29

BALUCHISTAN : INTRA-PROVINCIAL MIGRATION AMONG DISTRICTS 1961

(MIGRANTS IN THOUSANDS)

| Place of Enumeration | Place of Birth | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Quetta/ Pishin | Sibi | Loralai | Zhob | Chagai | Kalat | Mekran | Kharan | Lasbela | Total |
| Quetta/ Pishin | - | 1.0 | 0.3 | 0.5 | 0.7 | 2.1 | 0.1 | 0.1 | 0.0 | 4.8 |
| Sibi | 3.8 | - | 2.7 | 0.0 | 0.1 | 2.3 | 0.3 | 0.0 | * | 9.2 |
| Loralai | 1.5 | 2.6 | - | 2.1 | 0.0 | 0.5 | 0.0 | 0.0 | * | 6.7 |
| Zhob | 1.0 | 0.0 | 0.2 | - | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 1.3 |
| Chagai | 0.3 | 0.0 | 0.0 | 0.0 | - | 0.2 | 0.0 | 0.0 | * | 0.5 |
| Kalat | 2.4 | 0.4 | 0.3 | 0.2 | 6 | - | 0.9 | 0.2 | 0.0 | 5.0 |
| Mekran | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | - | 0.0 | 0.0 | 0.2 |
| Kharan | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | - | 0.0 | 0.3 |
| Lasbela | 0.0 | 0.0 | * | 0.0 | * | 0.4 | 0.2 | 0.4 | - | 1.0 |
| Total | 9.0 | 4.0 | 3.5 | 2.8 | 1.7 | 5.8 | 1.5 | 0.7 | 0.0 | 29.0 |

SOURCE : Population Census of Pakistan 1961

NOTE: i. Less than 100 migrants have been treated as zero

ii. * means data not available.

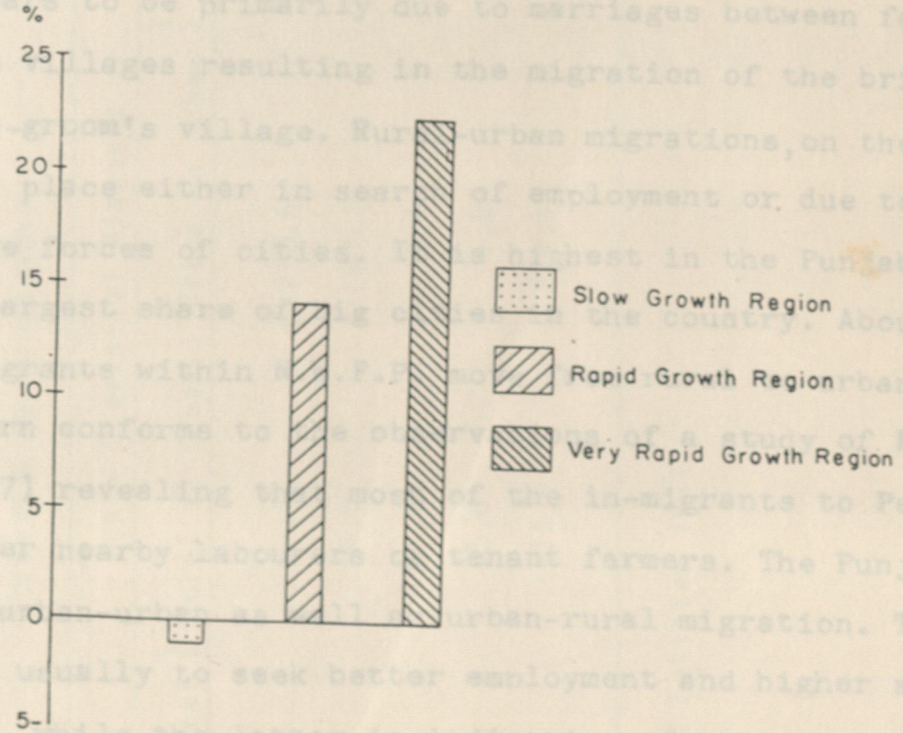


Figure 13: Net-migration rate in rural population growth regions of Pakistan, 1961.

Source : Khan F.K. (1980) Figure-3.

the province. However, out-migration streams across provincial boundaries have been quite large because of the poor economic characteristics of the area.

An analysis of intra-provincial migrants by rural/urban residence for 1981 (table - 30) indicates that the movements are predominantly rural - rural in all the four provinces. This appears to be primarily due to marriages between folks of different villages resulting in the migration of the bride to the bride-groom's village. Rural-urban migrations, on the other hand, take place either in search of employment or due to the attractive forces of cities. It is highest in the Punjab which has the largest share of big cities in the country. About half of the migrants within N.W.F.P. move from rural to urban areas. The pattern conforms to the observations of a study of Peshawar (Khan 1977) revealing that most of the in-migrants to Peshawar were either nearby labourers or tenant farmers. The Punjab also leads in urban-urban as well as urban-rural migration. The former is usually to seek better employment and higher standard of living, while the latter is indicative of reverse migration i.e. returnees to their parent villages.

The magnitude of inter-provincial plus intra-provincial migrants, constituting the total internal migrant population of Pakistan, has been given in table - 31 for the 1951-81 period. Improved means of transportation, farm mechanization and regional economic disparities considerably enhanced migratory flows in the 1960's. The trend continued in the following decades, though slowing down in the 1970's because of large scale emigration to the Middle East.

TABLE-30

PAKISTAN : INTRA-PROVINCIAL MOBILITY BY RURAL/URBAN RESIDENCE 1981.

(MIGRANTS IN THOUSANDS)

| Province | Intra Provincial Migrants | | | | |
|---|---|---|---|---|---|
| | Rural to Rural | Rural to Urban | Urban to Urban | Urban to Rural | Total |
| Punjab | 1376.6 | 909.0 | 273.6 | 107.9 | 2667.1 |
| Sind | 201.4 | 154.6 | 37.1 | 12.1 | 405.2 |
| N.W.F.P. | 110.4 | 64.6 | 2.6 | 1.7 | 179.3 |
| Baluchistan | 79.9 | 25.6 | 6.6 | 5.1 | 117.2 |
| Total | 1768.3 | 1153.8 | 319.9 | 126.8 | 3368.8 |

SOURCE : Population Census of Pakistan 1981.

TABLE-31

PAKISTAN : TOTAL INTERNAL MIGRANT POPULATION 1951-81

(POPULATION IN THOUSANDS)

| Year | Total Population | Internal Migrant Population | Internal Migrant Population as Percentage of Total Population |
|---|---|---|---|
| 1951 | 33816.6 | 1517.0 | 4.4 |
| 1961 | 42978.3 | 2574.1 | 5.9 |
| 1973 | 65320.9 | 4436.3 | 6.8 |
| 1981 | 84253.6 | 5159.7 | 6.1 |

SOURCES : (i) Population Censuses of Pakistan 1951, 1961 and 1981.

(ii) Post Census Housing Economic and Demographic Survey 1973.

A study of migrants by duration of continuous residence in time reveals that the magnitude of internal migrant population in Pakistan decreased by 0.17 million from 1973 to 1981 (table - 32). However, the proportion of migrants of 'less than five years' continuous residence at any one place went up from 15.5 percent to 23.1 percent. This increase in the proportion of short duration migrants during the 1973-81 period is a positive indicator of step-migration in the country.

Amongst provinces, this trend appears to be most prominent in the N.W.F.P. where the percentage of migrants in the less than 5 years category increased from 34.7 in 1973 to 56.4 in 1981. The magnitude and proportion of short-duration migrants (<5 years) also increased in the Punjab despite a reduction in the total migrant population of the province, indicating increased step-migration in the province. The cases of Sind and Baluchistan are however somewhat dubious. It is not possible to ascertain positively whether the increasing proportions of short-time migrants in the two provinces are due to step-migrations or because of generation of new migration streams, as is evident from the increased size of migrant population in these provinces.

Data on origin and destination of internal migrants by rural/urban residence is given in table - 33. It shows that 87.6 percent of the total migrants in 1981 originated in rural areas compared to only 12.4 percent in the urban areas of Pakistan. This indicates extremely high out-migration from villages both to their counterpart villages as well as to urban areas of the country in almost equal proportions. Migration streams from towns however are primarily directed towards other urban centres, mainly larger cities. The trend of reverse migration which is

TABLE -32

PAKISTAN : TOTAL MIGRANT POPULATION BY DURATION OF CONTINUOUS RESIDENCE 1973 & 1981.

(MIGRANTS IN THOUSANDS)

| Place of previous Residence | Migrant Population By Duration of Continuous Residence | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1973 | | | | 1981 | | | |
| | Total | Less than 5 years | 5-10 years | 10 years and more | Total | Less than 5 years | 5-10 years | 10 years and more |
| Pakistan | 10129.9 (100) | 1571.1 (15.5) | 1193.5 (11.8) | 7365.6 (72.7) | 9959.3 (100) | 2303.4 (23.1) | 1211.4 (12.2) | 6444.4 (64.7) |
| Punjab | 6875.2 (100) | 1000.1 (14.6) | 763.3 (11.1) | 5111.8 (74.3) | 6315.8 (100) | 1268.3 (20.1) | 658.2 (10.4) | 4389.3 (69.5) |
| Sind | 2651.7 (100) | 375.2 (14.2) | 340.2 (12.8) | 1936.2 (73.0) | 2774.5 (100) | 581.1 (20.9) | 404.6 (14.6) | 1788.8 (64.5) |
| N.W.F.P. | 429.4 (100) | 149.1 (34.7) | 63.3 (14.8) | 216.9 (50.5) | 491.4 (100) | 277.3 (56.5) | 72.1 (14.7) | 142.0 (28.9) |
| Baluchistan | 173.8 (100) | 46.6 (26.8) | 26.4 (15.2) | 100.7 (58.0) | 264.5 (100) | 126.9 (48.0) | 43.3 (16.4) | 94.3 (35.6 |
| Islamabad | - | - | - | - | 113.1 (100) | 49.7 (43.9) | 33.4 (29.5) | 30.1 (26.6) |

SOURCE:: Hand book of population census data, Government of Pakistan 1985.

NOTES (i) Figures for Islamabad for 1973 are included in the Punjab Province.

(ii) Figures in Parantheses indicate percentages.

TABLE-33

PAKISTAN : INTERNAL MIGRANTS BY RURAL/URBAN AREAS 1981

(MIGRANTS IN THOUSANDS)

| Place of Previous Residence | Place of Present Residence | | |
|---|---|---|---|
| | Total | Rural | Urban |
| All Areas | 5159.7<br>(100) | 2393.5<br>(46.4) | 2766.2<br>(53.6) |
| Rural | 4517.0<br>(87.6) | 2221.6<br>(43.1) | 2295.4<br>(44.5) |
| Urban | 642.7<br>(12.4) | 171.9<br>(3.3) | 470.8<br>(9.1) |

SOURCE : Population Census of Pakistan 1981.

gaining popularity in India, is still weak in Pakistan where only a fourth of the urban migrants (3 percent of the total migrant population) are moving from cities to rural areas. Bulk of these are returnees to villages after retirement or to join their families and social set-up back home.

Because of the arrangement of provinces as places of birth against districts as places of enumeration in the population census of Pakistan, it is not possible to compute net-migration for districts. However, place of birth tables did allow the calculation of the magnitude of in-migration to districts for 1951, 1961 and 1973. Statistics on place of previous residence published in the 1981 census indicate the total number of migrants received by each district. Absolute figures for in-migration to districts have been given in tables I and II of Appendix - C. The pattern of districtwise in-migration for the 1951-81 period shows that people have been most migratory in the districts of the Punjab, mainly moving within the same province. Similarly, in Sind, in-migration to most districts has been dominant from the parent province except in Karachi district which has remained attractive for people all over the country. The people of FATA did not move much beyond N.W.F.P. initially, but with improvements in the inter-regional transportation system, they started distributing to longer distances. The proportion of FATA born people became more conspicuous in 1973 and 1981 not only in many districts of the Punjab (mainly Faisalabad and Sargodha) but also as far south as Karachi. Movement from Baluchistan to the districts of the Punjab also increased considerably during the 1961-73 period. Rawalpindi district emerged as an important receiver of migrants because of better economic opportunities owing to

the shifting of the nation's capital to its twin city - Islamabad, from Karachi.

Total migration to districts in Pakistan was 1.5 milion persons in 1951 giving an average of 35.3 thousand persons per district. This figure increased to 91 thousand in 1981 (table - 34). A scatter of individual districts giving the percentage deviation from these averages has been plotted in figure-14 to indicate the changing trends of in-migration to districts from 1951-81. Karachi district has consistently retained its position at the upper end of the scale, while Lahore and Faisalabad districts have been dove-tailing it.

Broadly speaking, two types of districts can be discerned; those experiencing in-migration (i) above national average, and (ii) below national average. In 1951, only 29.3 percent of the total districts in Pakistan had above-average in-migration. This figure rose to 42.9 percent in 1981, when 57.1 percent of the districts experienced less than average in-migration (table - 35 and figure - 15). The detailed situation in above-average receivers can be visualised from table - 36 which classifies districts by positive percent deviations for the three decades. Among provinces, the districts of the Punjab in general have been gaining migrants higher than the national average throughout the 1951-81 period (table - 35). In contrast, only 2 or 3 out of 11 districts in Sind, namely Karachi and Hyderabad and/or Nawabshah had above-average in-migration till 1973. The situation however changed by 1981 when half the districts of the province received more migrants than the national average. Peshawar is the only district of N.W.F.P.

TABLE-34

PAKISTAN : AVERAGE IN-MIGRATION TO DISTRICTS 1951-81

(MIGRANTS IN THOUSANDS)

| Year | Total in-migration to districts | Total number of districts | Average in-migration to districts |
|---|---|---|---|
| 1951 | 1517.0 | 43 | 35.3 |
| 1961 | 2574.1 | 45 | 57.2 |
| 1973 | 4436.3 | 50 | 88.7 |
| 1981 | 5734.2 | 63* | 91.0 |

SOURCES : (i) Population censuses of Pakistan 1951, 1961 and 1981.

(ii) Post Census Housing Economic and Demographic Survey 1973, Census of Pakistan.

*Metropolitan Karachi has been counted as one district instead of three.

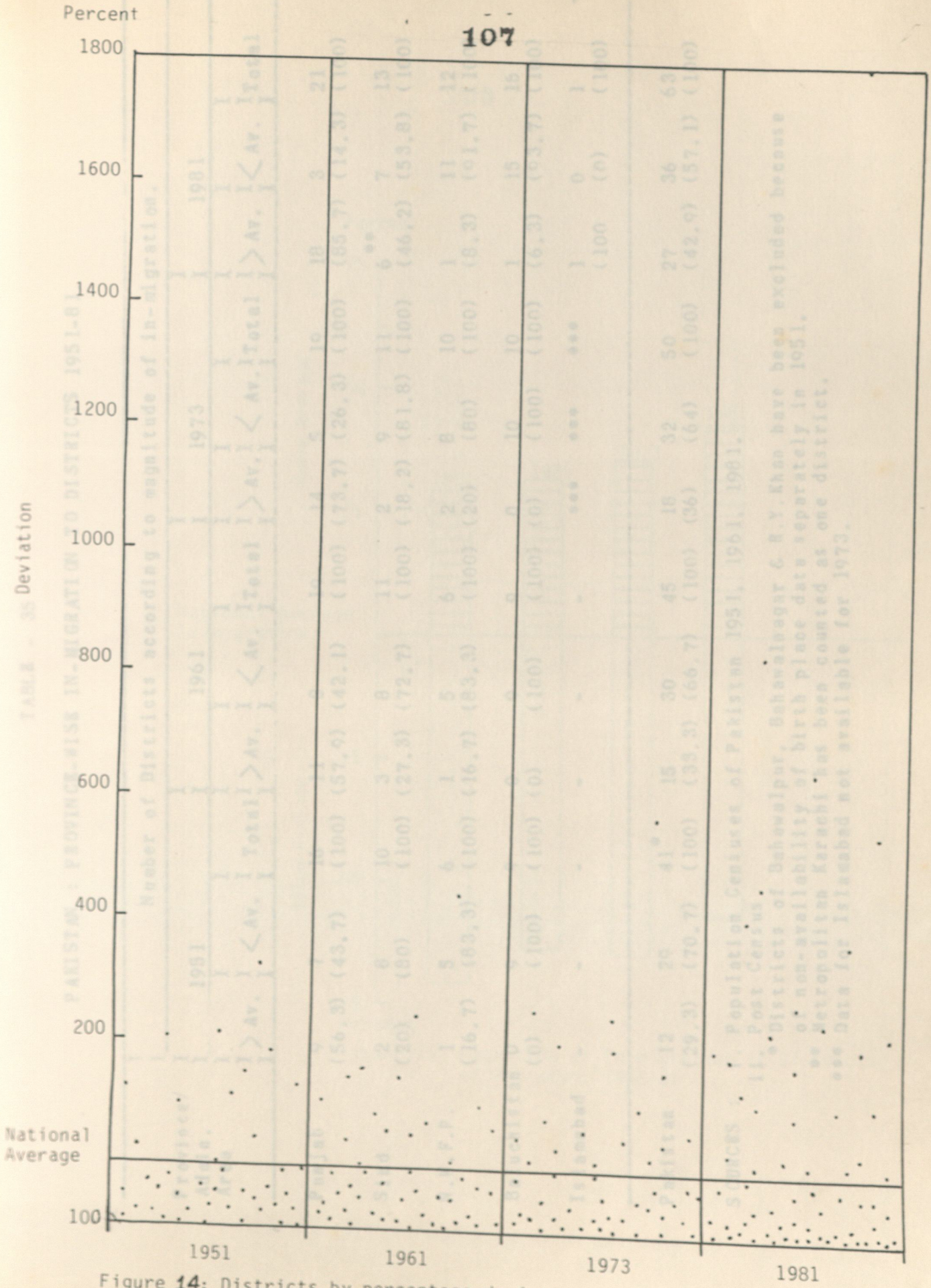


Figure 14: Districts by percentage deviation from national average in-migration, 1951-81.

TABLE - 35

PAKISTAN : PROVINCE-WISE IN-MIGRATION TO DISTRICTS 1951-81.

| Province/ Admin. Area | Number of Districts according to magnitude of in-migration. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1951 | | | 1961 | | | 1973 | | | 1981 | | |
| | > Av. | < Av. | Total | > Av. | < Av. | Total | > Av. | < Av. | Total | > Av. | < Av. | Total |
| Punjab | 9 (56.3) | 7 (43.7) | 16 (100) | 11 (57.9) | 8 (42.1) | 19 (100) | 14 (73.7) | 5 (26.3) | 19 (100) | 18 (85.7) | 3 (14.3) | 21 (100) |
| Sind | 2 (20) | 8 (80) | 10 (100) | 3 (27.3) | 8 (72.7) | 11 (100) | 2 (18.2) | 9 (81.8) | 11 (100) | 6** (46.2) | 7 (53.8) | 13 (100) |
| N.W.F.P. | 1 (16.7) | 5 (83.3) | 6 (100) | 1 (16.7) | 5 (83.3) | 6 (100) | 2 (20) | 8 (80) | 10 (100) | 1 (8.3) | 11 (91.7) | 12 (100) |
| Baluchistan | 0 (0) | 9 (100) | 9 (100) | 0 (0) | 9 (100) | 9 (100) | 0 (0) | 10 (100) | 10 (100) | 1 (6.3) | 15 (93.7) | 16 (100) |
| Islamabad | - | - | - | - | - | - | *** | *** | *** | 1 (100 | 0 (0) | 1 (100) |
| Pakistan | 12 (29.3) | 29 (70.7) | 41* (100) | 15 (33.3) | 30 (66.7) | 45 (100) | 18 (36) | 32 (64) | 50 (100) | 27 (42.9) | 36 (57.1) | 63 (100) |

SOURCES : i. Population Censuses of Pakistan 1951, 1961, 1981.
ii. Post Census

* Districts of Bahawalpur, Bahawalnagar & R.Y.Khan have been excluded because of non-availability of birth place data separately in 1951.

** Metropolitan Karachi has been counted as one district.

*** Data for Islamabad not available for 1973.

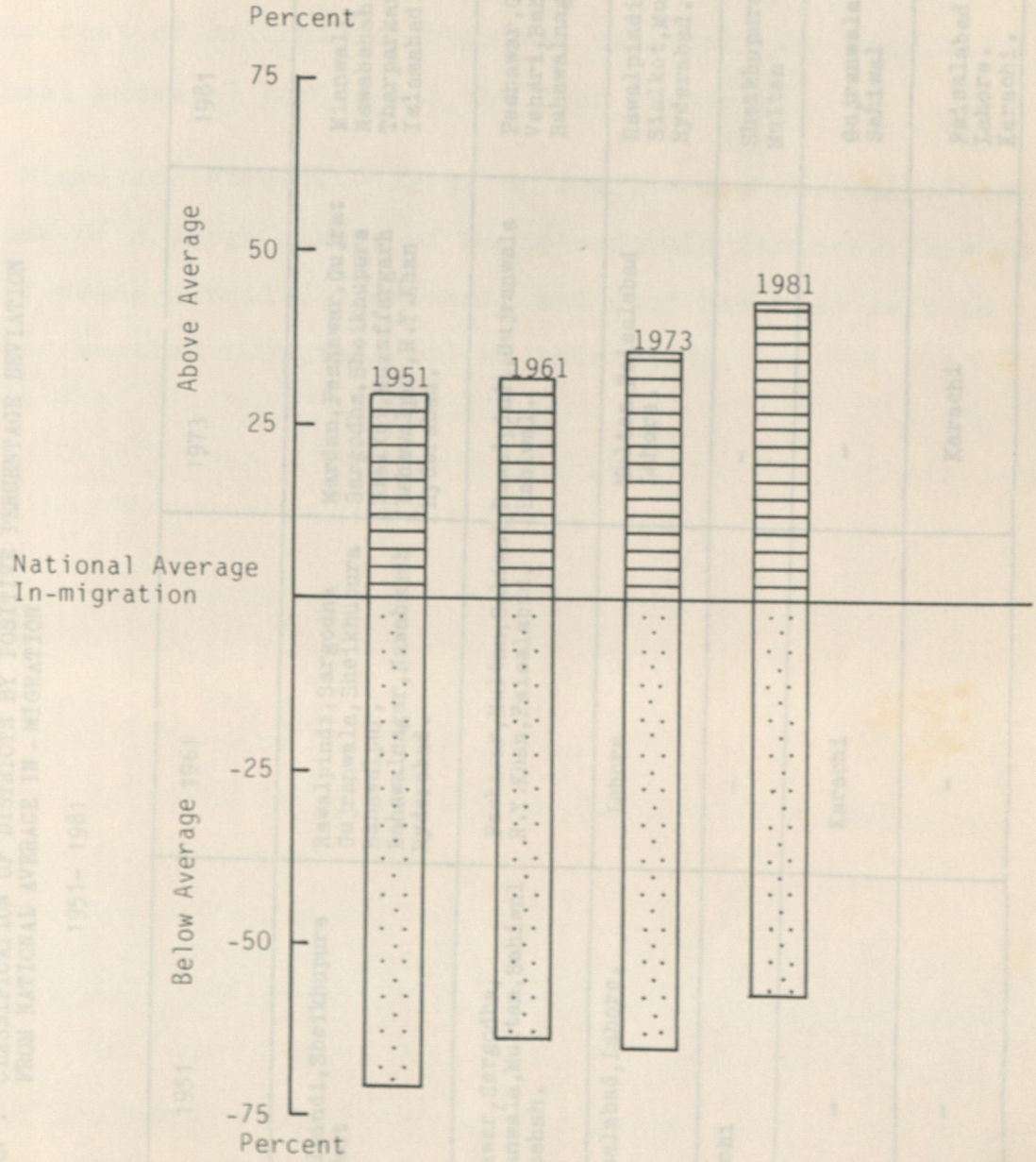


Figure 15: Magnitude of In-migration to Districts of Pakistan, 1951-81

TABLE-36

PAKISTAN : CLASSIFICATION OF DISTRICTS BY POSITIVE PERCENTAGE DEVIATION FROM NATIONAL AVERAGE IN - MIGRATION

1951- 1981

| Percentage Deviation from National average | 1951 | 1961 | 1973 | 1981 |
|---|---|---|---|---|
| Less than 100% | Rawalpindi, Sheikhupura Sialkot | Rawalpindi, Sargodha Gujranwala, Sheikhupura Bahawalpur, Bahawalnagar, Nawabshah Hyderabad. | Mardan, Peshawar, Gujrat Sargodha, Sheikhupura Sialkot, Muzaffargarh Bahawalpur, R.Y.Khan Hyderabad. | Mianwali, Jhang, Sukkur Nawabshah, Sanghar, Tharparkar, Quetta, Islamabad. |
| 100% - 200% | Peshawar, Sargodha, Gujranwala, Multan, Sahiwal Nawabshah. | Peshawar, Multan, Sahiwal R.Y.Khan, Faisalabad. | Rawalpindi, Gujranwala Sahiwal. | Peshawar, Gujrat, Kasur Vehari, Bahawalpur, Bahawalnagar, R.Y.Khan. |
| 200% - 300 % | Faisalabad, Lahore. | Lahore | Multan, Faisalabad Lahore. | Rawalpindi, Sargodha Sialkot, Muzaffargarh Hyderabad. |
| 300% - 400% | Karachi | - | - | Sheikhupura Multan |
| 400% - 500% | - | Karachi | - | Gujranwala Sahiwal |
| More than 500% | - | - | Karachi | Faisalabad Lahore. Karachi. |

that has been gaining higher than national average migrants throughout the post independence period; while in Baluchistan, the district of Quetta crossed the national average only during the last census. Migration streams to majority of the districts in the rest of Baluchistan remained extremely low (far below the national average) during all the four censuses.

Migration streams - large or small - are obviously the outcome of a large number of socio-economic factors. This in itself needs detailed treatment, and such has been left to another section (Chapter - 6) of this study.

# CHAPTER-4

## POPULATION REDISTRIBUTION AND URBANIZATION

One concomitant of population redistribution in Pakistan has been an increasing absorption of the population into urban areas. The population in the urban settlements of Pakistan has been doubling almost every twenty years from 1921 to 1961 (table - 37). The total urban population was 2 million in 1921 which increased to 4 million in 1941; and rose to 9.6 million in 1961. Then came the big jump with two and a half times increase to 23.8 million by 1981 - a growth of 14.2 million in 20 years. In terms of ratio, only 10 percent of Pakistan's population lived in urban areas in 1901. By 1981, however, this proportion had gone up to 28.3 percent.

There are three main components of urban population growth:

i. Natural increase in urban areas.
ii. Transformation of areas previously considered rural until they become urban by definition.
iii. Net rural-urban migration.

In a study of differential fertility in rural and urban areas of Pakistan in 1975, Sathar (1979) suggested that the total fertility rate for ever-married women was 6.8 per thousand in urban areas, and 6.6 per thousand in rural areas. Likewise, more recent surveys and estimates show that there is no difference in the rates of natural increase between the urban and rural areas of Pakistan (Alam and Shah 1982). Although birth rates in urban areas are lower, they are off-set by lower death

TABLE - 37

PAKISTAN : POPULATION SIZE, RURAL - URBAN RATIO AND GROWTH RATES 1901-1981
(IN THOUSANDS)

| Year | Population | | Proportion (%) | | Annual Growth Rates | | |
|---|---|---|---|---|---|---|---|
| | Total* | Urban | Rural | Urban | Total | Rural | Urban |
| 1901 | 16577 | 1619 | 90.2 | 9.8 | - | - | - |
| 1911 | 18805 | 1689 | 91.0 | 9.0 | 1.3 | 1.4 | 0.4 |
| 1921 | 20243 | 2058 | 89.8 | 10.2 | 0.7 | 0.6 | 2.0 |
| 1931 | 22640 | 2769 | 87.8 | 12.2 | 1.1 | 0.9 | 3.0 |
| 1941 | 28244 | 4015 | 86.8 | 14.2 | 2.2 | 2.0 | 3.8 |
| 1951 | 33740 | 6019 | 82.2 | 17.8 | 1.8 | 1.4 | 4.1 |
| 1961 | 42880 | 9640 | 77.5 | 22.5 | 2.4 | 1.8 | 4.8 |
| 1972 | 65309 | 16594 | 74.6 | 25.4 | 3.7 | 3.3 | 4.8 |
| 1981 | 84253 | 23841 | 71.7 | 28.3 | 3.1 | 2.6 | 4.4 |

SOURCES : Population Censuses of Pakistan 1961, 1972 and 1981

* Including Tribal Areas

rates compared to the rural areas of the country. By the same token, external migration, consisting primarily of short-term male worker movements to Gulf countries, is hardly expected to affect the fertility of rural areas significantly.

The transformation of towns and cities follows two distinct patterns:

i. Engulfment of rural areas by expanding cities.

ii. Growth of small rural centres through increases in population density and enhancement of functions with predominant urban characteristics entitling them to be reclassified as urban at some point in time.

The extent to which such transformations are appropriately reflected in population censuses depends on the definition employed for urban areas. If a functional definition is used rather than an administrative one, this transformation is likely to be reflected in an adequate and timely manner. Employing an administrative definition might lead to underestimates of the urban population since this transformation is captured only when it is reflected in the extension of administrative boundaries of urban areas and when the new urban areas are declared. Population censuses have generally relied on administrative definitions except the 1972 census in which a combination of administrative and functional criteria was used (ADB 1985).

During the 1972-81 intercensal period, 24 new Town Committees were created, adding an estimated 180,000 people

(1981) to the intercensal period in 9 major centres* and several small towns. These boundary changes added about 285,000 persons to the urban population. All changes involved relatively small numbers of persons compared to the overall population size of the towns concerned, with the exception of Peshawar (where 121,000 people were added to a 1972 Municipal Corporation population of 220,000), Islamabad (which almost doubled in size from 77,000 to 131,000 as a result of the boundary change) and Quetta (where 28,000 people were added to 1972 population of 138,000). In terms of the 1981 urban population, the combined impact of newly created urban areas and boundary extensions was an additional 600,000 persons or about 2.4 per cent of the total urban population. Out of the 1972-81 intercensal urban population growth rate of 4.4 percent per annum, the contribution of rural transformation to annual urban population growth was about 8 percent of the total urban population growth. This shows that the growth of urban population is mainly due to rural-urban migration.

A comparison of the degree of urbanization and annual urban growth of Pakistan with some other parts of the developing world (table - 38) shows that the country has the highest share of urban population (28.1 percent) in Middle South Asia. Apart from the two Latin American countries, only Phillipines (36.9 percent) exceeds Pakistan's degree of urbanization. On the average, the annual rate of urban growth for Pakistan (4.2 percent)

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*Peshawar, Quetta, Islamabad, Gujrat, Gujranwala, Sargodha, Sheikhupura, Multan and Sialkot.

TABLE - 38

PAKISTAN : COMPARATIVE URBANIZATION TRENDS WITH OTHER DEVELOPING COUNTRIES 1975-80

| Region/Country | Percent urban | Average Annual urban growth rate 1975-80 |
|---|---|---|
| Less Developed Regions | 30.6 | 3.7 |
| Africa | 28.5 | 5.3 |
| Nigeria | 19.5 | 5.8 |
| Latin America | 65.5 | 3.6 |
| Mexico | 67.0 | 4.0 |
| Brazil | 67.5 | 4.1 |
| East Asia | 32.5 | 2.1 |
| China | 25.5 | 2.2 |
| South Asia | 24.7 | 4.1 |
| Indonesia | 19.8 | 4.9 |
| Philippines | 36.9 | 3.5 |
| Middle South Asia | 22.4 | 3.4 |
| Bangladesh | 11.2 | 5.5 |
| India | 22.1 | 3.9 |
| Nepal | 4.8 | 5.0 |
| Sri Lanka | 26.6 | 1.3 |
| Pakistan | 28.1 | 4.2 |

SOURCE : United Nations Population Division of the Department of International Economic and Social Affairs : as assessed in 1982 (1985)

is higher than the annual urban growth rate for the less-developed regions (3.7 percent) as a whole, even surpassing the figures for Mexico and Brazil. According to the estimates and projections assessed by the United Nations in 1982, the ratio of population living in the urban areas of Pakistan in the year 2000 is expected to rise to 37.8 percent.

Within Pakistan, great regional variations exist in the distribution of rural/urban population. Table-39 gives the urban population of the country by major administrative regions. The degree of urbanization is highest for the Federal Capital Territory (60.0 percent), but its share in the total urban population of the country is less than even one percent. The province of Sind has a very high percentage of urban population (43.3 percent) followed by the Punjab. The largest province by area i.e. Baluchistan, has only 15.6 percent urban population, while the N.W.F.P. is the least urbanized province of Pakistan. It is interesting to note that more than half of the national urban population (55.12 percent) is concentrated in the Punjab, whereas the Punjab and Sind together contain 90.09 percent of Pakistan's urban population, leaving less than 10 percent in the other two provinces (Baluchistan and N.W.F.P.). The intensity of inter-provincial urban disparity is also evident from the fact that Sind and Punjab house 25 cities of 100,000 or more, N.W.F.P. has two, while Baluchistan and the Federal Capital Territory of Islamabad have only one each (figure - 16). It may be pointed out that out of the three metropolitan cities (Over 1 million) in Pakistan, Karachi, which is also the primate city, is situated in Sind, whereas the other two namely Lahore

TABLE-39

PAKISTAN : URBAN POPULATION BY PROVINCES 1981

(POPULATION IN THOUSANDS)

| Province/ Administration Area | 1981 | | 1972 | | Degree of Urbanization 1981 percent | Percent of Total urban Population | Total Population Intercensal Growth 1972-81 | | Urban Population Intercensal Growth 1972-81 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total* Population | Urban* Population | Total* Population | Urban* Population | | | Number | Per cent | Number | Per cent |
| Punjab | 47292 | 13000 | 37610 | 9182 | 27.5 | 55.12 | 9682 | 25.7 (2.7) | 3741 | 40.4 |
| Sind | 19029 | 8248 | 14156 | 5726 | 43.3 | 34.97 | 4873 | 34.4 (3.6) | 2522 | 44.0 |
| N.W.F.P. | 11061 | 1659 | 8388 | 1196 | 15.0 | 7.03 | 2673 | 31.9 (3.3) | 463 | 38.7 |
| Baluchistan | 4332 | 676 | 2429 | 364 | 15.6 | 2.87 | 1903 | 78.3 (7.1) | 312 | 85.7 |
| Fed. Capital Territory | 340 | 204 | 235 | 77 | 60.0 | 0.87 | 105 | 44.7 (4.5) | 127 | 164.9 |

SOURCE : Population Censuses of Pakistan 1972 and 1981

NOTE : Figures in parentheses indicate average annual rate of change 1972-81

* Excluding Tribal Areas.

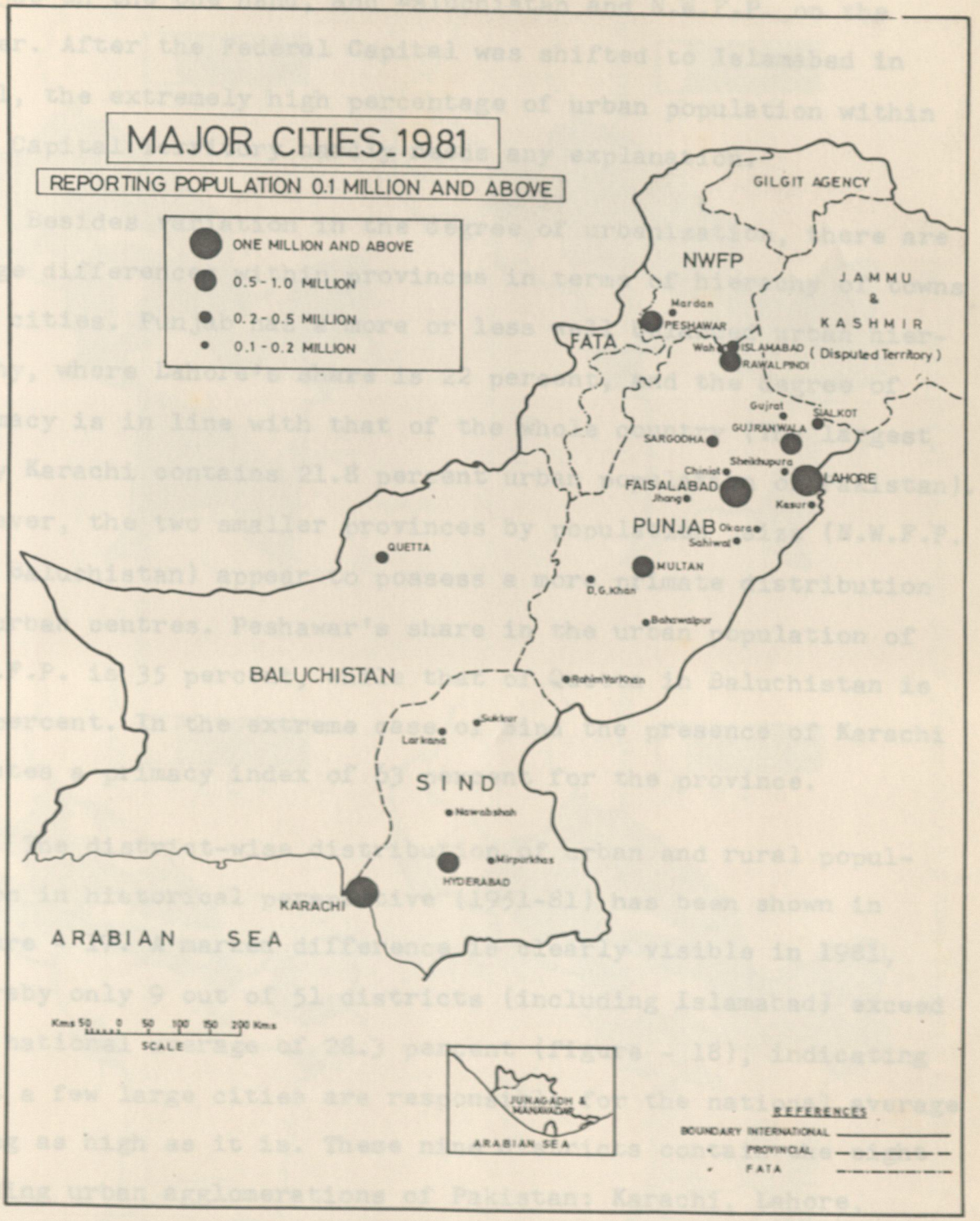


Figure 16: Cities of 100,000 and above in Pakistan, 1981

Source : Population Census of Pakistan, 1981

and Faisalabad, are located in the Punjab, thus enhancing the widening disparity between the two sets of provinces, Sind and Punjab on the one hand, and Baluchistan and N.W.F.P. on the other. After the Federal Capital was shifted to Islamabad in 1961, the extremely high percentage of urban population within the Capital Territory hardly needs any explanation.

Besides variation in the degree of urbanization, there are large differences within provinces in terms of hierachy of towns and cities. Punjab has a more or less well belanced urban hierarchy, where Lahore's share is 22 percent, and the degree of primacy is in line with that of the whole country (The largest city Karachi contains 21.8 percent urban population of Pakistan). However, the two smaller provinces by population size (N.W.F.P. and Baluchistan) appear to possess a more primate distribution of urban centres. Peshawar's share in the urban population of N.W.F.P. is 35 percent, while that of Quetta in Baluchistan is 42 percent. In the extreme case of Sind the presence of Karachi creates a primacy index of 63 percent for the province.

The district-wise distribution of urban and rural population in historical perspective (1951-81) has been shown in figure - 17. A marked difference is clearly visible in 1981, whereby only 9 out of 51 districts (including Islamabad) exceed the national average of 28.3 percent (figure - 18), indicating that a few large cities are responsible for the national average being as high as it is. These nine districts contain the eight leading urban agglomerations of Pakistan: Karachi, Lahore, Faisalabad, Rawalpindi, Gujranwala, Peshawar, Quetta and Hyderabad (Ahmad 1985). The historical comparison is pointing

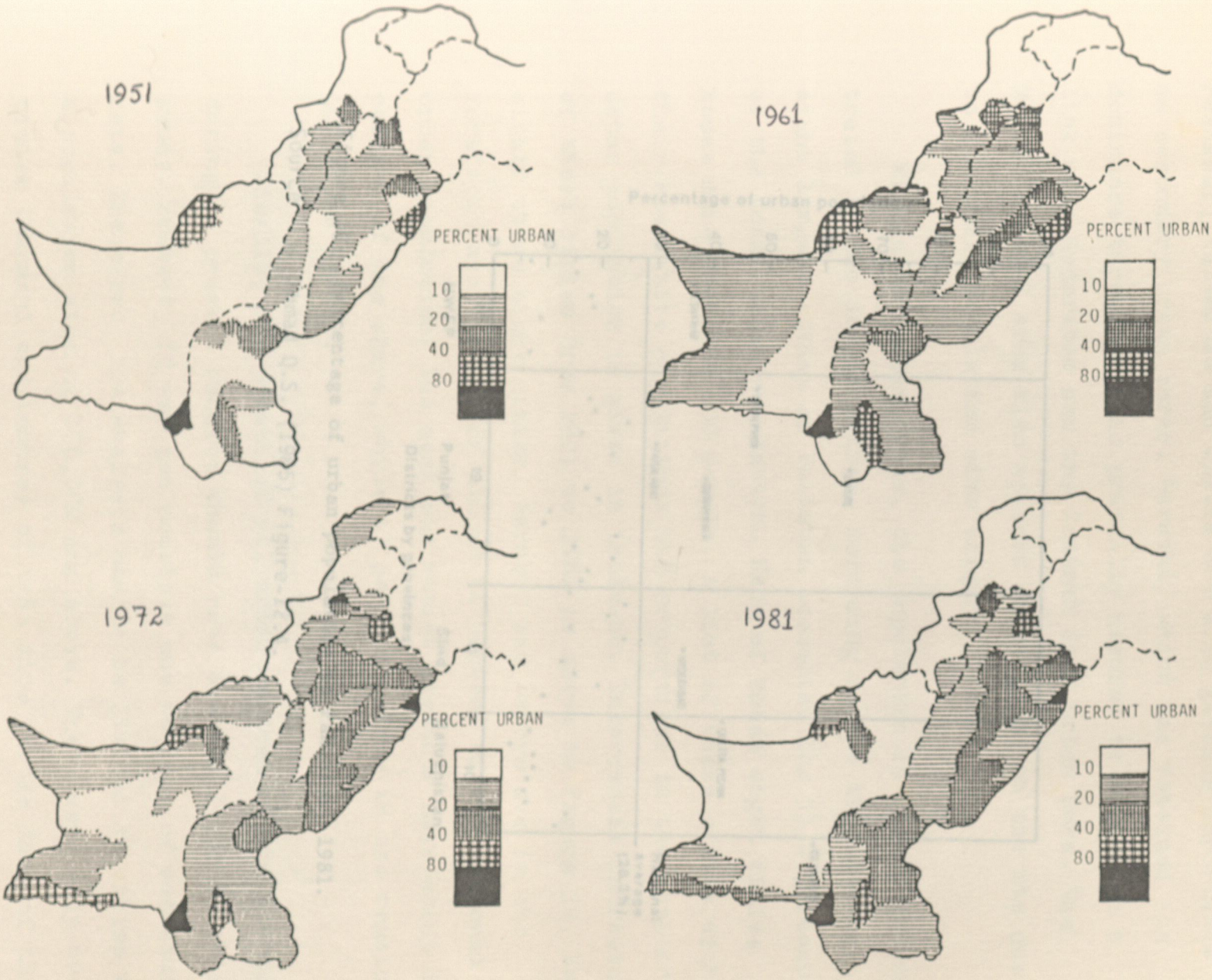


Figure-17: District-wise distribution of urban population in Pakistan, 1951-81.

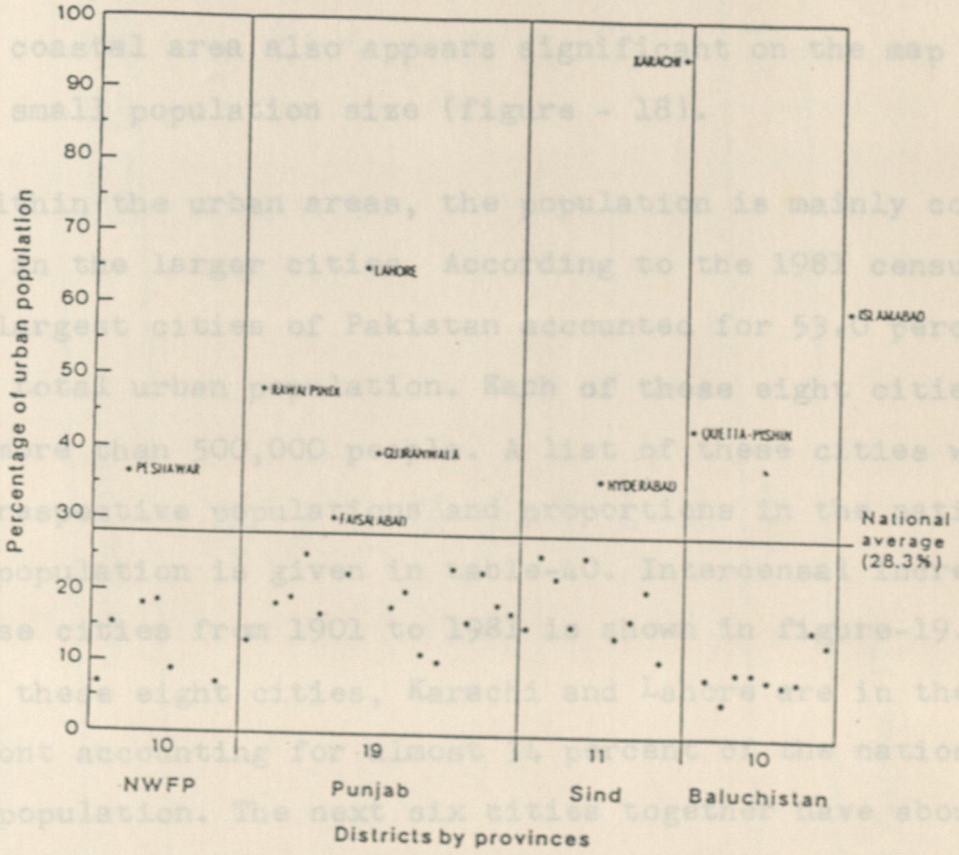


Figure 18: Percentage of urban population in Pakistan, 1981.

Source : Ahmad Q.S. (1985) Figure-12.4.

towards the strengthening of the Central Punjab urban core. Peshawar, Islamabad and Quetta are also gaining importance as secondary urban cores. Karachi, which has retained its dominance throughout, is gradually heading to establish a link with Hyderabad and the Central Sind urban core. The Mekran coastal area also appears significant on the map due to its small population size (figure - 18).

Within the urban areas, the population is mainly concentrated in the larger cities. According to the 1981 census, eight largest cities of Pakistan accounted for 53.0 percent of the total urban population. Each of these eight cities house more than 500,000 people. A list of these cities with their respective populations and proportions in the nation's urban population is given in table-40. Intercensal increase of these cities from 1901 to 1981 is shown in figure-19. Even within these eight cities, Karachi and Lahore are in the forefront accounting for almost 34 percent of the national urban population. The next six cities together have about 19 percent of the share, while 47 per cent lives in the remaining 407 urban places.

Ideally, the growth of all urban centres of the country during the present century should have been analysed in this study. However, it was not possible due to lack of necessary data. Therefore, the analysis had to be limited to cities with a population size of 100,000 and above. There were only two cities (Karachi and Lahore) of this size at the dawn of the century. Their number increased to twenty-nine in 1981. Intercensal growth of these cities (above 100,000 at various censuses)

TABLE - 40

PAKISTAN : POPULATION DISTRIBUTION IN EIGHT LARGEST CITIES (ABOVE 500,000) IN 1981

| City | Population 1981 | Percentage of Total Urban Population 1981 |
|---|---|---|
| Karachi | 5103 | 21.4 |
| Lahore | 2922 | 12.2 |
| Faisalabad | 1092 | 4.6 |
| Rawalpindi | 806 | 3.4 |
| Hyderabad | 795 | 3.3 |
| Multan | 730 | 3.1 |
| Gujranwala | 654 | 2.7 |
| Peshawar | 555 | 2.3 |
| Total | 12657 | 53.0 |

SOURCE : Population Census of Pakistan, 1981

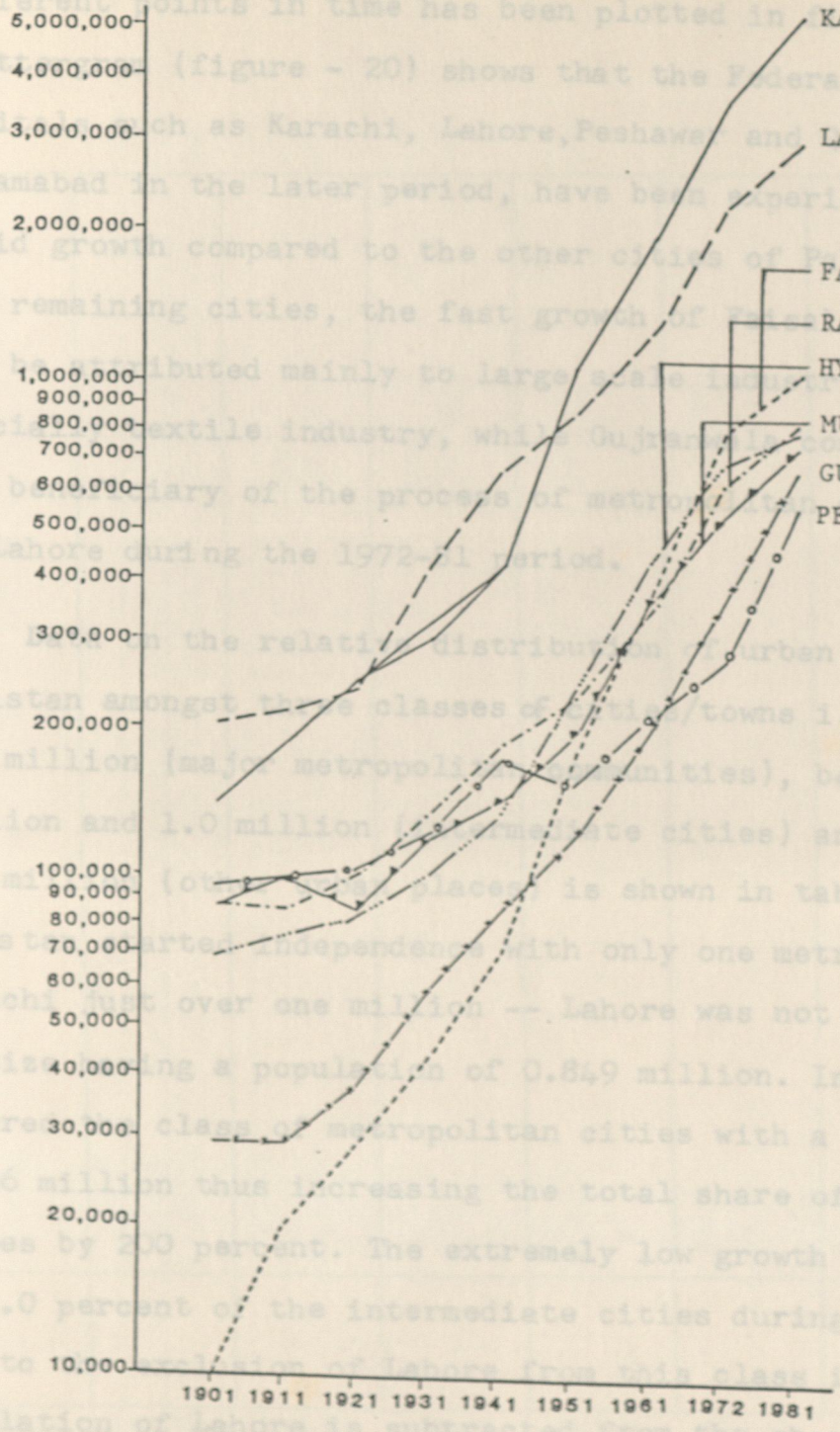


Figure-19: Decennial growth of eight largest cities of Pakistan, 1901 - 1981.

compared to the respective national average urban growth at different points in time has been plotted in figure-20. The scattergram (figure - 20) shows that the Federal and provincial capitals such as Karachi, Lahore, Peshawar and Quetta; and Islamabad in the later period, have been experiencing more rapid growth compared to the other cities of Pakistan. Among the remaining cities, the fast growth of Faisalabad from 1941-72 can be attributed mainly to large scale industrialization specially textile industry, while Gujranwala could have been the beneficiary of the process of metropolitan decentralization of Lahore during the 1972-81 period.

Data on the relative distribution of urban population in Pakistan amongst three classes of cities/towns i.e. more than 1.0 million (major metropolitan communities), between 0.1 million and 1.0 million (intermediate cities) and less than 0.1 million (other urban places) is shown in table-41. Although Pakistan started independence with only one metropolitan city - Karachi just over one million -- Lahore was not much dissimilar in size having a population of 0.849 million. In 1961, Lahore entered the class of metropolitan cities with a population of 1.296 million thus increasing the total share of 1 million cities by 200 percent. The extremely low growth rate figures of 9.0 percent of the intermediate cities during 1951-61 is due to the exclusion of Lahore from this class in 1961. If the population of Lahore is subtracted from the share of intermediate cities in 1951, a more realistic growth trend (58.99 percent) could be visualized for cities between 100,000 and 1,000,000 for the intercensal period 1951 to 1961.

In 1972, again Karachi and Lahore were the only cities

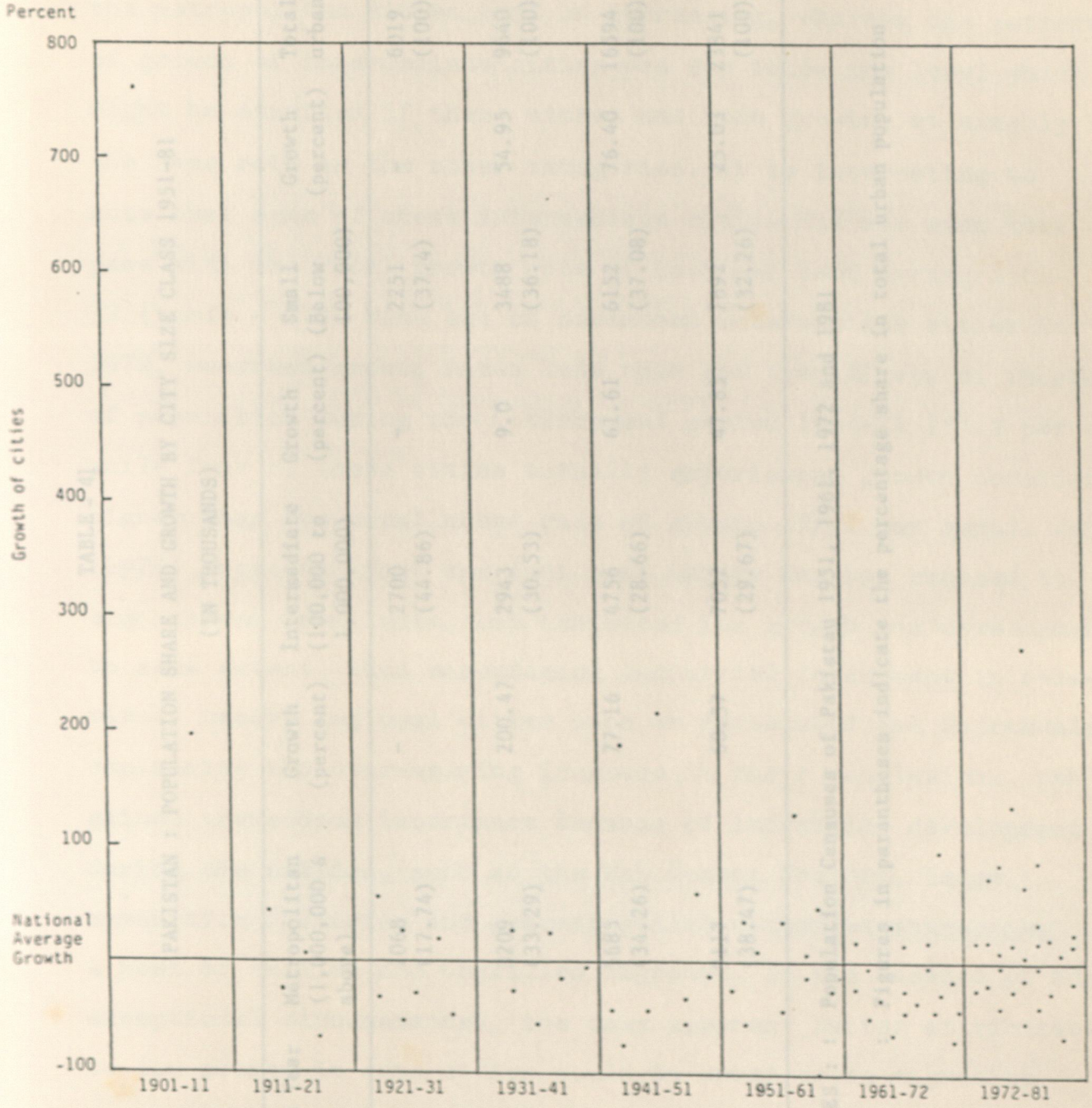


Figure-20: Intercensal growth of cities of 100,000 and above in Pakistan 1901-1981.

TABLE - 41

PAKISTAN : POPULATION SHARE AND GROWTH BY CITY SIZE CLASS 1951-81

(IN THOUSANDS)

| Census Year | Metropolitan (1,000,000 & above) | Growth (percent) | Intermediate (100,000 to 1,000,000) | Growth (percent) | Small (Below 100,000) | Growth (percent) | Total urban | Growth (percent) |
|---|---|---|---|---|---|---|---|---|
| 1951 | 1068 (17.74) | - | 2700 (44.86) | - | 2251 (37.4) | - | 6019 (100) | - |
| 1961 | 3209 (33.29) | 200.47 | 2943 (30.53) | 9.0 | 3488 (36.18) | 54.95 | 9640 (100) | 60.16 |
| 1972 | 5685 (34.26) | 77.16 | 4756 (28.66) | 61.61 | 6152 (37.08) | 76.40 | 16594 (100) | 72.14 |
| 1981 | 9117 (38.47) | 60.37 | 7032 (29.67) | 47.85 | 7692 (32.26) | 25.03 | 23841 (100) | 43.67 |

SOURCES : : Population Censuses of Pakistan 1951, 1961, 1972 and 1981

NOTE : Figures in parantheses indicate the percentage share in total urban population

having populations above one million. There were seventeen intermediate size cities and about 350 other urban places. It can be seen that the proportion of urban population in the metropolitan cities kept on increasing, whereas the pattern of growth of intermediate cities was far below the level which might be expected if these cities had been growing at exactly the same rate as the other categories. It is interesting to note that some of these intermediate cities did not even keep pace with the rural growth rate of 46.6 per cent during 1961-72 (table - 41). Nine out of seventeen intermediate cities in 1972, recorded growth rates less than the overall rate of increase of population during the intercensal period 1961-72 (51.3 per cent), while four of these cities actually experienced growth considerably higher than the total urban rate of growth (72.1 per cent). Johnson (1979) suggested that the fact that Lahore was too exposed to any threat from India, has inhibited its growth and development to some extent, thus encouraging industrial investment in relatively nearby regional cities such as Faisalabad and Gujranwala, explaining the overwhelming increase in their populations. Wah gained tremendous importance because of industrial development during the sixties, such as the Wah Cement Factory, large ammunition factories and pharmaceutical companies attracting a host of skilled and unskilled migrants. In the absence of any exceptional circumstances, the only apparent factor attributable to low growth in some cities could be urban-urban migration. Burki (1973) assumed that six of these slow growing cities (Peshawar, Mardan, Jhang, Kasur, Sialkot and Hyderabad) lost population to the metropolitan cities of Karachi and Lahore as

well as to the twin cities of Rawalpindi and Islamabad. He estimated the rate of out-migration to be of the order of 1.06 per cent per annum, and revealed that these cities on average lost nearly 14,000 persons per year to the larger urban areas. The total out-migration from them during the period 1961-72 was 156,000 persons.

The adoption of new agricultural technology and diffusion of 'Green Revolution' in the 1960's played a significant role in the dynamism of small cities/towns (less than 100,000). Because of very little out-migration, the growth rate of these towns during 1961-72 increased by more than 20 per cent over the previous decade.

During the 1972-81 period, the pattern of population distribution in city size classes underwent some important changes. The 'cumulative urban per cent', a measure used for analyzing the concentration of urban population (Casis and Davis, 1946) for 1981 (19.4) showed a slight increase over that for 1972 (16.7) for the three categories of city sizes, indicating an increase in the largest size class. Faisalabad was added to the metropolitan class increasing its share to 38.47 percent by 1981. The over all urban growth rate however decreased with declining rates of growth in all three categories (figure - 21).

Nine more cities were included in the intermediate class. Rawalpindi superseded Multan and Hyderabad, achieving the first position with a population 0.8 million. Twenty three out of twenty six cities experienced growth higher than the intercensal national increase of 29.01 per cent. The highest rates were

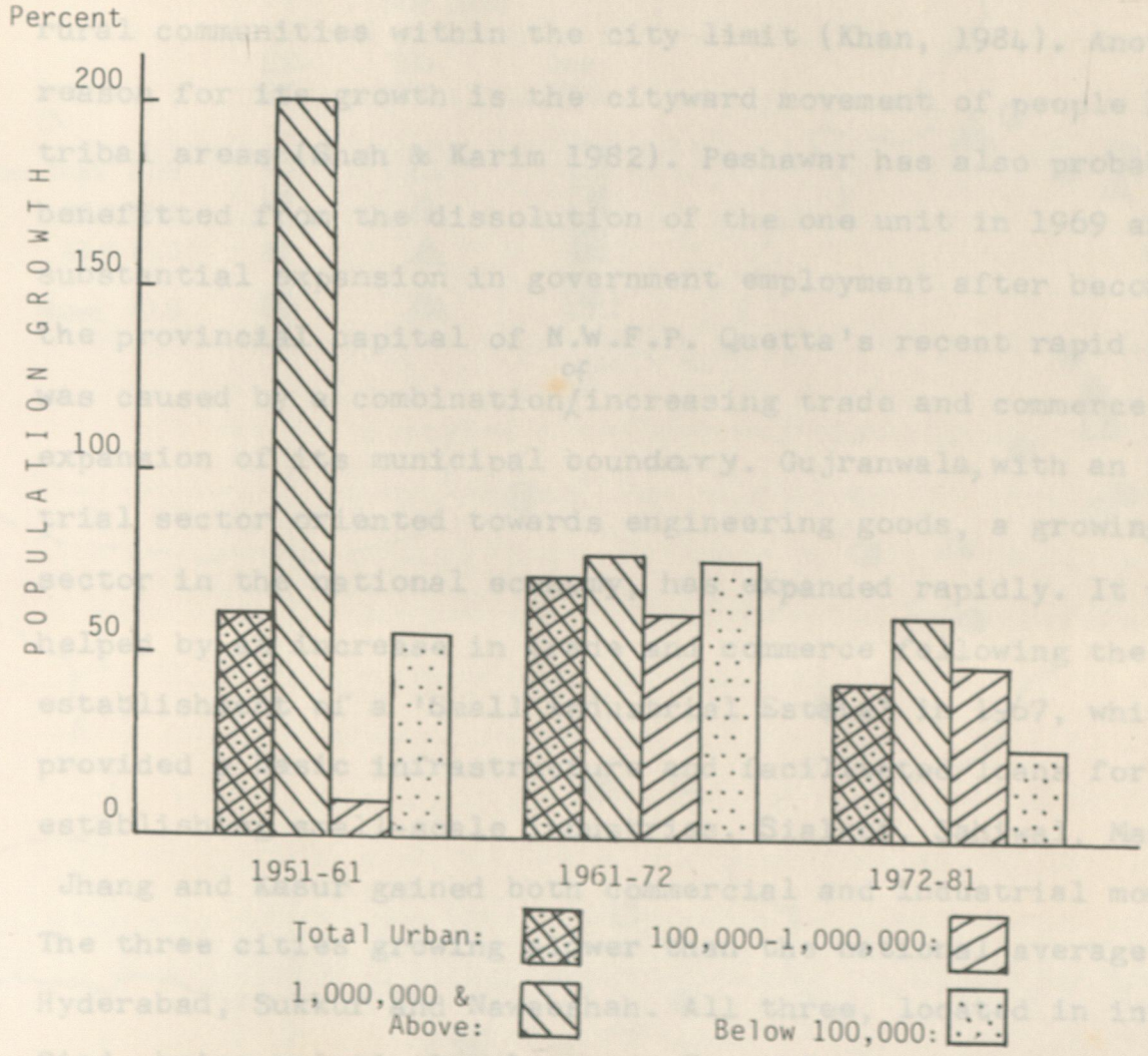


Figure-21: Growth of population in city size classes in Pakistan, 1951-1981.

recorded for Islamabad (164.9) followed by Peshawar (103.3), Gujranwala (81.7) and Quetta (80.4 per cent). Those cities which had failed to keep pace during 1961-72, regained their speed of growth (figure - 22). Peshawar's growth resulted from the extension of municipal boundaries incorporating about fifty rural communities within the city limit (Khan, 1984). Another reason for its growth is the cityward movement of people from tribal areas (Shah & Karim 1982). Peshawar has also probably benefitted from the dissolution of the one unit in 1969 and substantial expansion in government employment after becoming the provincial capital of N.W.F.P. Quetta's recent rapid growth was caused by a combination of increasing trade and commerce and expansion of its municipal boundary. Gujranwala, with an industrial sector oriented towards engineering goods, a growing subsector in the national economy, has expanded rapidly. It was helped by an increase in trade and commerce following the establishment of a 'Small Industrial Estate' in 1967, which provided a basic infrastructure and facilitated loans for establishing small-scale industries. Sialkot, Sahiwal, Mardan, Jhang and Kasur gained both commercial and industrial momentum. The three cities growing slower than the national average were Hyderabad, Sukkur and Nawabshah. All three, located in interior Sind, being relatively closer to Karachi, are probably the victims of 'pull forces' exerted by the primate city.

The unbalanced population growth observed in the foregoing account indicates rural-urban migration as well as urban-urban migration from small and medium sized cities to large metropolitan centes.

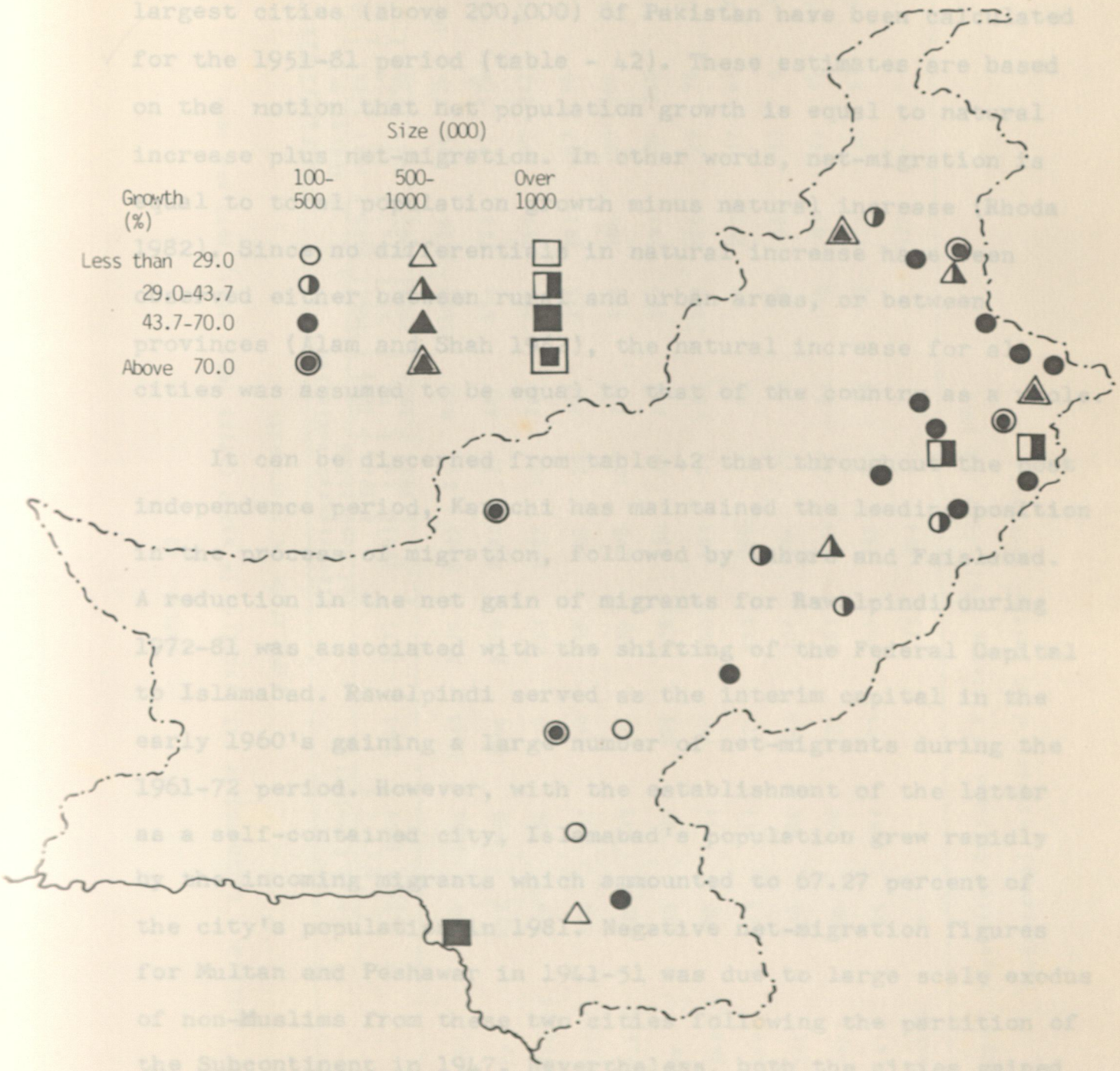


Figure-22: Growth of cities of 100,000 and above in Pakistan, 1972-81.

Due to non-availability of data on the volume of inter-city migration streams, estimates of net-migration to twelve largest cities (above 200,000) of Pakistan have been calculated for the 1951-81 period (table - 42). These estimates are based on the notion that net population growth is equal to natural increase plus net-migration. In other words, net-migration is equal to total population growth minus natural increase (Rhoda 1982). Since no differentials in natural increase have been observed either between rural and urban areas, or between provinces (Alam and Shah 1982), the natural increase for all cities was assumed to be equal to that of the country as a whole.

It can be discerned from table-42 that throughout the post independence period, Karachi has maintained the leading position in the process of migration, followed by Lahore and Faislabad. A reduction in the net gain of migrants for Rawalpindi during 1972-81 was associated with the shifting of the Federal Capital to Islamabad. Rawalpindi served as the interim capital in the early 1960's gaining a large number of net-migrants during the 1961-72 period. However, with the establishment of the latter as a self-contained city, Islamabad's population grew rapidly by the incoming migrants which ammounted to 67.27 percent of the city's population in 1981. Negative net-migration figures for Multan and Peshawar in 1941-51 was due to large scale exodus of non-Muslims from these two cities following the partition of the Subcontinent in 1947. Nevertheless, both the cities gained substantial migrants during the following years.

Data on city-ward migration streams do not exist for 1981. However, figure-23 gives a fair idea of inflows from different

TABLE - 42

PAKISTAN : ESTIMATES OF NET-MIGRATION IN MAJOR CITIES 1951, 1961, 1972 AND 1981.

(POPULATION IN THOUSANDS)

| City | Total Population | | | | | Intercensal variation of population | | | | Estimated Net-Migration* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1941 | 1951 | 1961 | 1972 | 1981 | 1941 to 1951 | 1951 to 1961 | 1961 to 1972 | 1972 to 1981 | 1941 to 1951 | 1951 to 1961 | 1961 to 1972 | 1972 to 1981 |
| Karachi | 436 | 1065 | 1913 | 3515 | 5103 | 629 | 848 | 1602 | 1588 | 616 | 726 | 1554 | 1492 |
| Lahore | 672 | 849 | 1296 | 2170 | 2922 | 117 | 447 | 874 | 752 | 97 | 422 | 842 | 693 |
| Faisalabad | 70 | 179 | 425 | 823 | 1092 | 109 | 246 | 398 | 269 | 107 | 241 | 387 | 247 |
| Rawalpindi | 185 | 237 | 340 | 615 | 806 | 52 | 103 | 275 | 191 | 67 | 96 | 182 | 174 |
| Hyderabad | 135 | 242 | 435 | 629 | 795 | 107 | 193 | 194 | 166 | 103 | 186 | 183 | 149 |
| Multan | 143 | 100 | 358 | 539 | 730 | -43 | 258 | 181 | 191 | -39 | 255 | 172 | 176 |
| Gujranwala | 85 | 114 | 196 | 360 | 654 | 29 | 82 | 164 | 294 | 27 | 79 | 159 | 285 |
| Peshawar | 173 | 151 | 219 | 273 | 255 | -22 | 68 | 54 | 282 | -17 | 64 | 49 | 275 |
| Sialkot | 139 | 156 | 164 | 204 | 296 | 17 | 8 | 40 | 92 | 13 | 4 | 36 | 86 |
| Sargodha | 36 | 78 | 120 | 201 | 294 | 42 | 51 | 72 | 93 | 41 | 49 | 69 | 89 |
| Quetta | 64 | 84 | 107 | 158 | 285 | 20 | 23 | 51 | 127 | 18 | 21 | 48 | 123 |
| Islamabad | - | - | - | 77 | 204 | - | - | - | 127 | - | - | - | 125 |

SOURCES : Population Censuses of Pakistan 1961, 1972 and 1981

*Intercensal increase minus natural increase.

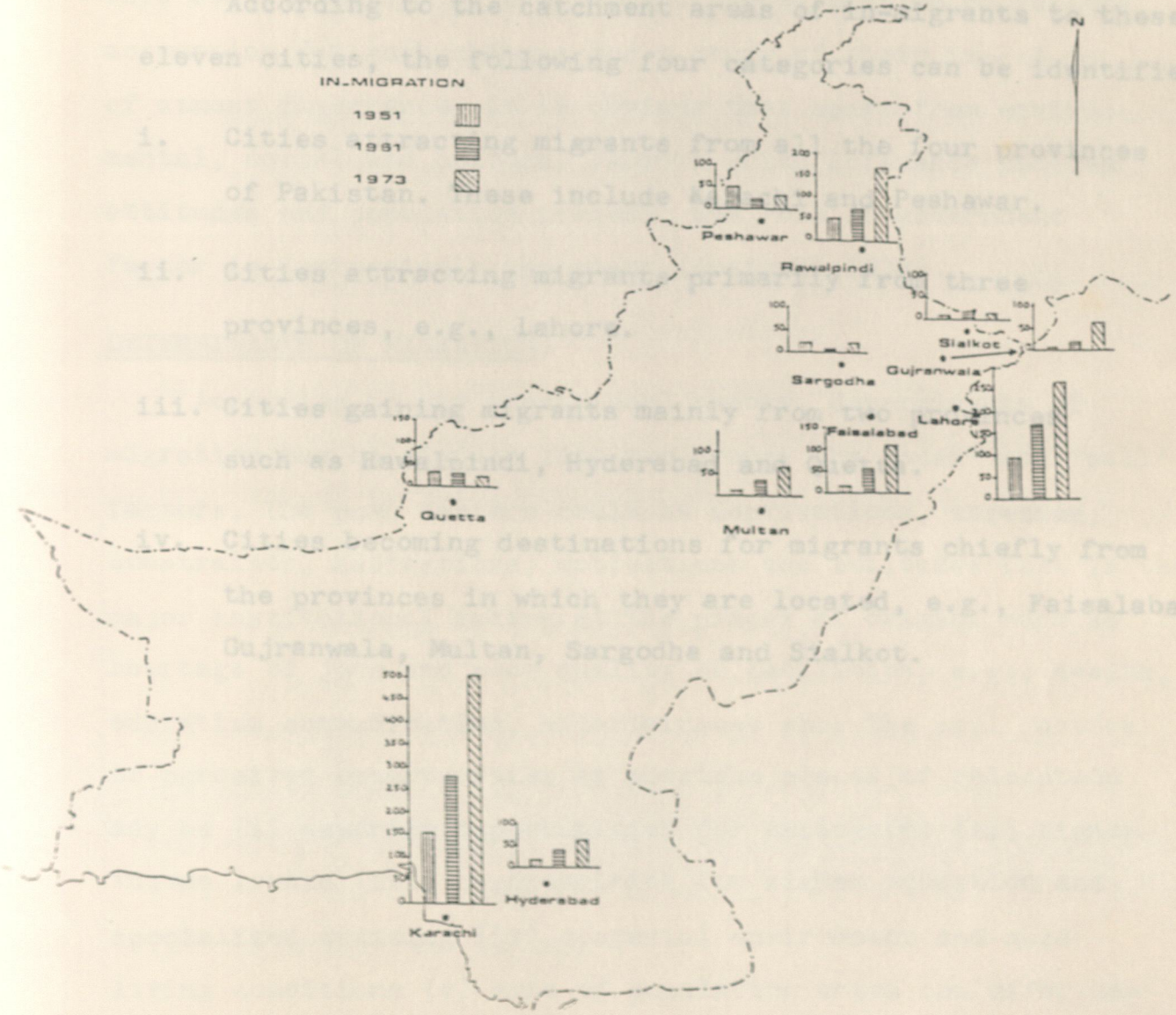


Figure-23: In-migrants to selected cities of Pakistan, 1951-73.

provinces to eleven out of the twelve largest cities (above 200,000) from 1951 to 1973 (see tables I,II,& III of Appendix D). Islamabad has been excluded due to non-availability of data on the magnitude of in-migration to the Federal Capital Territory for the same period.

According to the catchment areas of in-migrants to these eleven cities, the following four categories can be identified:

i. Cities attracting migrants from all the four provinces of Pakistan. These include Karachi and Peshawar.

ii. Cities attracting migrants primarily from three provinces, e.g., Lahore.

iii. Cities gaining migrants mainly from two provinces such as Rawalpindi, Hyderabad and Quetta.

iv. Cities becoming destinations for migrants chiefly from the provinces in which they are located, e.g., Faisalabad, Gujranwala, Multan, Sargodha and Sialkot.

## CHAPTER-5

## DETERMINANTS AND CONSEQUENCES OF INTERNAL MIGRATION

The descriptive study of changes and their components is a necessary but certainly not sufficient step in an inquiry into redistribution of population. Identification of factors accounting for such changes and a study of their impact is of utmost importance. It is obvious that apart from environmental, social and cultural factors which influence peoples attitudes and population process, the role of government factor is increasingly important (Kosinski 1978).

### DETERMINANTS OF MIGRATION:

According to the traditional theory, determinants of migration may be divided into two groups the 'push' and 'pull' factors. The push factors could be deprivations, stresses, constraints, aspirations, motivations and attitudes felt in the major institutional spheres at the places of origin, such as shortage of jobs and poor quality of facilities, e.g., health, education, communication, entertainment etc. The pull factors or perceived opportunities at possible places of relocation may be (i) superior opportunities for employment (ii) higher income levels (iii) opportunities for higher education and specialized training (iv) congenial environment and good living conditions (v) size of population which can offer new and different activities such as recreation, and intellectual and cultural activities, and (vi) the presence of relatives and/or friends at another place. Thus, government policies, by influencing implicitly or explicitly, the availability of jobs, services and infrastructure by regions would have their impact on migration patterns.

Continuous out-migration from the rural areas of Pakistan may be the outcome of push factors such as:

(i) Decline in per capita cropped area for rural population from 0.46 hectares to 0.31 hectares between 1951 and 1981.

(ii) Low crop yields which are about 1/3 of the potential yields of particular seed varieties being used.

(iii) Inefficient land and water management practices.

(iv) Failure to adopt appropriate technology and to introduce such mechanization in agriculture, which, while increasing demand for skilled workers, resulted in decline in the absorption of unskilled workers.

(v) Inability of non-agricultural occupations in rural areas to open up employment opportunities.

(vi) Environmental degradation through deforestation, soil population (water logging and salinity) and erosion.

(vii) Lack of services and amenities in education, health, water supply, drainage etc.

The increase in the carrying capacity of rural areas for labour absorption in future would require many changes, which include reclamation and expansion of agricultural land, improved irrigation efficiency, increased crop yields, adoption of appropriate technology, as well as institutional changes in the rural society to reduce the inequality in the distribution of land ownership and income.

The various types of movements resulting from either 'push' or 'pull' factors or a combination of both, have been summarized below in the context of Pakistan:

1. Economic Development Movements:

The 'dual economy' model of development views Third World nations as consisting of a dynamic, growing, entrepreneurial, innovative 'modern sector' and a stagnant, declining, conservative 'traditional sector'. The modern sector is generally associated with urban agglomerations, and the traditional sector with rural areas and small towns. This implicit spatial dimension of the dual economy model is expressed by the 'core-periphery' or 'heartland-hinterland' model which pertains to an inter-regional setting, and by the 'growth-centre' model which pertains to the more local setting of an urban centre and its rural/small town hinterland (Brown and Gilliard 1979). These growth centres become the foci of economic activity and creation of job opportunities, better living standards, social services and cultural amenities. The pull forces of these cities vary with different combinations and varying intensities of economic variables. Karachi, now a city of some 5.1 million people, and Lahore, a city with 2.9 million, exhibit entirely different growth patterns. These patterns are also shared by what have been described as the satellite cities of these urban centres. Thus, Karachi with no agricultural hinterland of its own, has attracted long-distance migrants coming from all the provinces. The pattern of Lahore's development has been considerably different with short-distance migrants accounting for the bulk of the non-native population. This is also true for Faisalabad and Gujranwala, two rapidly growing cities within 100 miles radius from Lahore.

These patterns of development have had profound impact on the economic and social lives of these urban centres. Karachi,

having drawn its population from some very different sources, now has a cosmopolitan society with an economic dynamism not matched by any other urban centre in the country. Inspite of all the efforts made in the 1960's and 1970's to disperse industrial development in the country, the city continues to dominate the industrial and financial sectors of the economy. The pattern of Lahore's development has kept it very much a part of the land to which it belongs. In its economic and political behaviour, the city reflects the attitude of the forces that happen to dominate its hinterland. Thus, up to the early sixties Lahore was dominated by the landed aristocracy, the socio-economic class that also controlled the countryside. The industrial boom of the sixties, however, has added another dimension to the city's development. Large colonies of industrial labour have sprung up around the city's periphery, and in-migrants are attracted from greater distances.

2. Governmental incentives to private investment movements:

Prospective migrants tend to move towards areas receiving maximum investments. Greater benefits have been gained by certain areas due to lack of sufficient control and regulation as well as liberal financial policies such as taxation, pricing etc. Development of infrastructure in selected areas also contributed in the increasing concentration of investment in these pockets. Their location in 'National Space' has been analyzed by PEPAC (1983) on the basis of value added in various activities, using 'Mahalnobis D-Square' grouping analysis. The different classes emerging from this grouping technique have been given in table-43. Regional imbalances in the spatial structure of the national economy is apparent from the table. Analyses of flow of migrants to these

TABLE - 43

PAKISTAN : LOCATION OF ACTIVITIES IN NATIONAL SPACE (1979-83)

LARGE-SCALE MANUFACTURING GROUPS BY MAJOR CONGLOMERATIONS

| | DISTRICTS (URBAN) | VALUE ADDED/ANNUM |
|---|---|---|
| I | Karachi-Kotri (Dadu) | Rs. 5500 m |
| II | Lahore-Sheikhupura | Rs. 1500 m |
| III | Rawalpindi-Wah; Faisalabad | Rs. 1000 m each |
| IV | Peshawar; Jhelum-Khewra;Hyderabad | Rs. 650 m each |
| V | Mardan, RYK; Multan | Rs. 400 m each |

SMALL SCALE INDUSTRY MAJOR GROUPS

| | DISTRICTS(URBAN) | VALUE ADDED/ANNUM |
|---|---|---|
| I | Sialkot | Rs. 254 m |
| II | Lahore; Gujranwala; Gujrat | Rs. 178 m each |
| III | Karachi; Faisalabad; Sahiwal; Hyderabad. | Rs. 149 m each |
| IV | Sargodha; Multan; | Rs. 94 m each |
| V | Peshawar; Jhang; Sargodha | Rs. 60 m each |
| VI | Sukkur; Rawalpindi; Larkana; Attock; Nawabshah; Jhelum; Tharparkar. | Rs. 33 m each |

LOCATION OF BANKING ACTIVITY MAJOR GROUPS

| | DISTRICTS (URBAN) | VALUE ADDED/ANNUM |
|---|---|---|
| I | Karachi | Rs. 1294 m |
| II | Lahore | Rs. 561 m |
| III | Faisalabad; Rawalpindi; Multan Peshawar | Rs. 97 m each |

LOCATION OF CONSTRUCTION ACTIVITY MAJOR GROUPS

| | DISTRICTS (URBAN) | VALUE ADDED/ANNUM |
|---|---|---|
| I | Karachi | Rs. 2198 m |
| II | Lahore | Rs. 666 m |
| III | Faisalabad; Rawalpindi; Hyderabad Peshawar; Gujranwala; Multan; Islamabad. | Rs. 239 m each (Range 200-302 m) |

SOURCE: PEPAC, "National Human Settlement Policy for Pakistan : Interim Report," 1983.

centres certainly reveal that the volume of in-migration was directly related to the absolute volume of investment in national space.

3. Industrialization Movements:

The degree of industrialization also contributed to the trend of migration and enhanced urban growth. The major cities provided the required infrastructure, economies of scale and external economies to industrial establishments, with the result that industry and labour have concentrated in these centres (table - 44). Whereas Karachi, Multan, Peshawar and Sargodha employed a greater number of people in large-scale manufacturing; Lahore, Faisalabad, Gujranwala and Sialkot had the highest share of employment in small-scale manufacturing. Since the latter group of cities are located in rich agricultural areas, and are highly labour and raw material intensive, small agro-based industries are expected to give immediate and higher rates of return with comparatively smaller initial investment. There exists, however, more or less, a direct relationship between the ranks of cities (based on population size) and the magnitude of employment in activities providing economies of scale to major industrial centres (table - 44).

4. Political and Administrative Movements:

The role of political and administrative decisions was no less important in promoting growth and in-migration to selected cities. Initial establishment of the country's capital at Karachi bid fair to place the city incontestibly at the head of a rank-size hierarchy attracting in-migrants from virtually all districts including the majority of migrants from what was formerly East

TABLE - 44

PAKISTAN : EMPLOYMENT IN BANKS, MANUFACTURING, TRANSPORTATION AND CONSTRUCTION FOR TWELVE LARGEST CITIES, 1981

(IN THOUSANDS)

| City (Ranked according to Population Size) | Banks | Manufacturing | | Transportation | Construction | Total | Percentage of total population of the city |
|---|---|---|---|---|---|---|---|
| | | Large Scale | Small Scale | | | | |
| Karachi | 17.31 | 150.91 | 32.29 | 86.55 | 68.62 | 355.68 | 6.97 |
| Lahore | 7.14 | 37.72 | 60.03 | 91.86 | 58.29 | 255.04 | 8.73 |
| Faisalabad | 1.79 | 47.88 | 45.85 | 10.39 | 19.84 | 125.75 | 11.52 |
| Rawalpindi | 2.16 | N.A. | 3.74 | 24.94 | N.A. | - | - |
| Hyderabad | 1.28 | 23.15 | 29.09 | 8.33 | 17.05 | 78.9 | 9.92 |
| Multan | 1.09 | 27.32 | 11.38 | 20.61 | 15.76 | 76.16 | 10.43 |
| Gujranwala | 1.04 | 9.91 | 18.85 | 5.87 | 15.83 | 51.5 | 7.87 |
| Peshawar | 1.47 | 14.77 | 5.52 | 6.61 | 15.45 | 43.82 | 7.89 |
| Sialkot | 0.86 | 6.96 | 12.73 | 2.77 | 8.51 | 31.83 | 10.75 |
| Sargodha | 0.76 | 9.88 | 3.25 | 2.75 | 9.22 | 25.86 | 8.79 |
| Quetta | 0.79 | 1.80 | 0.99 | 8.39 | 6.67 | 18.64 | 6.54 |
| Islamabad | 0.78 | 1.00 | N.A. | 4.63 | 6.60 | - | - |

SOURCE : PEPAC, "National Human Settlement Policy for Pakistan : Interim Report," 1983.

Pakistan and is now Bangladesh. Its faster growth rate would guarantee it becoming twice the size of Lahore's population in the near future. The subsequent shifting of the capital to Islamabad resulted in increasing the urban population of the twin cities of Rawalpindi/Islamabad from 0.34 million in 1961 to 0.69 million in 1972, and to just over a million in 1981. This rapidly growing urban centre, with its own satellite cities of Wah and Taxila, and located in a relatively poor agricultural area, is likely to develop into a cosmopolitan society somewhat on the lines of Karachi. With a highly populated hinterland of its own, Rawalpindi-Islamabad, not unlike Karachi, has been attracting long distance migrants. The results of the 1973 Household survey indicate that over 60 per cent of the newcomers to this city belonged to the areas falling outside a radius of 100 miles.

The decision to merge the four provinces of the western wing into a single province of West Pakistan in 1956, with its capital at Lahore, considerably retarded the growth of the former provincial capitals of N.W.F.P. and Baluchistan, which could not even keep pace with the national growth rate. The subsequent dismantling of West Pakistan into four provinces gave impetus to the two lagging capital cities of Peshawar and Quetta to regain their growth rates with the influx of migrants.

5. Educational Movements:

Education has become an important goal and an ardent desire of the majority of people both in urban and rural areas. This was not the case before independence. It is estimated that there is a strong positive correlation between the years of schooling and the propensity to migrate, and a strong relationship between the level of education and the length of stay in urban areas (Burki

1973). This study also found a relationship between the number of years in school and the size of the urban area to which the migrants moved. This means that, as better educational institutions are provided in the countryside, the rate of migration to large urban areas would correspondingly increase. This, in turn, has created a growing need for enhancing the absorptive capacity of large cities.

6. Urbanization Movements:

The process of urbanization is by itself a movement. Like wealth, growth multiplies by growth, big settlements turn into bigger ones, whereas small settlements stagnate and remain small unless effective policies and strategies are adopted to create more viable settlement patterns. In Pakistan, although 72 per cent of the population lives in rural areas, planning is in the hands of urban elites who have both consciously and unconsciously planned in a way that has resulted in the aggregation of developmental activities in large metropolitan cities at the cost of rural settlements. Government development expenditure between 1979 and 1983 (table - 45) clearly shows that 42.13 per cent of the investment was made in urban areas as opposed to 38.40 per cent in rural areas although almost 72 per cent of the national population lives in rural areas.

7. Chain Movements:

In general, the coverage and reach of media and institutional sources of information are limited in developing countries. Moreover, the information provided lacks reliability or credibility. As a result, interpersonal communications such as from family,

TABLE-45

PAKISTAN : RURAL/URBAN BREAK-UP OF GOVERNMENT DEVELOPMENT EXPENDITURE
(AVERAGE OF 4 YEARS) RUPEES IN MILLION

| Sector | Rural | Urban | Unallocated |
|---|---|---|---|
| Agriculture | 8926.966 | - | - |
| Subsidy on Fertilizer | 887.5 | - | - |
| Water | 5193.662 | - | - |
| Power | 1187.75 | 4207.25 | - |
| Fuel | 152.50 | 2244.00 | 340.75 |
| Industry & Minerals | - | 5700.41 | - |
| Transport & Communication | 324.25 | 2366.75 | 5351.18 |
| Physical Planning & Housing | 1134.824 | 7273.33 | - |
| Rural Development | 2178.856 | - | - |
| Education | 780.297 | 1437.39 | 761.64 |
| Health | 1470.711 | 1029.08 | - |
| All others | - | 42.13% | 19.47% |
| Total | 22237.316 | 24396.21 | 11275.02 |
| Percentage | 38.40% | 42.13% | 19.47% |

SOURCE : PEPAC, "National Human Settlement Policy For Pakistan : Interim Report," 1983.

extended family or acquaintances take on a critical role in the migration decision, leading to 'chain migration' (Findley 1977). An IDRC study of migration to five urban centres in three continents found that 80 percent of the migrants obtained information from relatives or friends and less than 1 percent from newspapers or radio. These communications provide information on employment opportunities, and often, a direct opening to a job. Thus, in Kampura, in Gujrat, a single migrant left in 1917 to the textile mills in Ahmedabad, and set up a pattern for 50 years of migration (Connell, Das Gupta, Laishley and Lipton 1976).

However, the actual patterns of wage or job opportunity differentials are likely to diverge considerably from their representation in the awareness space or 'mental map' of the migrant, which generally will be limited to cities with friends or relatives as earlier migrants. Temporary visits of urban in-migrants with better standards of living, to their places of origin, exalts the levels of aspiration of their friends and relatives, triggering further out-migration from rural areas and small urban centres. The presence of friends/relatives in a potential destination also eases the assimilation of the migrant into that setting and in general reduces the social, psychic and economic costs of migration. Congregation of people from same source areas forming distinct ethnic neighbourhoods such as Hazara Colony, Pathan Colony and Punjab Colony in Karachi also exhibit the outcome of such movements.

8. Squatter Movements and Illegal Occupations:

Squatter movements have manifested themselves in several different ways. Large tracts of land within urban settlements have been encroached upon by squatters (Katchi Abadis). There has been an increase in 'Katchi Abadis' in most large urban centres

of Pakistan. The province of Sind is reported to have 757 Katchi Abadis, out of which 362 are in Karachi and 294 in Sukkur. The squatters in Karachi are spread over an area of more than 4480 hectares with densities ranging up to 370 per dwelling. The Punjab had 184 in the cities of Lahore and Faisalabad, and another 356 in the remaining part of the province until March 1981 (Khan 1985b). The Lahore Development Authority (1982) estimated that about 600,000 people in Lahore (21 per cent of the city's population) were living in Katchi-Abadis and slums. In a study of slums in Lahore, Gulzar (1981) revealed that the size of slums varied with the area available for free development. She identified small clusters of 65 households in 'Najaf Colony' as well as a settlement of 7000 people in 'Daras Barey Mian'. Such quantitative data are not available for the provinces of N.W.F.P. and Baluchistan, but the uncontrolled urban sprawl has added a substantial number of slums, if not Katchi Abadis, to the cities of Peshawar and Quetta, capitals of the two provinces respectively. Recently the Government has decided to grant proprietry rights at a nominal charge to residents of squatter settlements who had been living on the lands upto March 1986. The leniency of the Government in order to gain political support has encouraged the multiplication of these squatters.

9. Auto and Traffic Movements:

Considerations involved in the selection of a place of destination are termed as 'intervening factors'. It refers to such factors as cost of transportation, distance of the destination from the place of origin, perceived risks in making the move, etc. The strength of the linkage between the rural and

urban systems depends in part upon the geographical distance between them. However, the impact of distance is altered by transportation network. Thus, smaller towns located fairly close together may be less accessible to one another than to a larger urban centre some distance away. The constantly multiplying facilities of inter-city and inter-regional transportation has considerably reduced transportation costs and travelling time, thereby decreasing the risks involved in expenditures in money and time in getting to the destination. The province-wise road kilometerage in Pakistan has been compared with the magnitude of internal migrant population in table-46. An increase of about 18,000 km. road length between 1974 and 1981 enhanced the volume of migration streams in Pakistan of the order of 0.72 million persons during the same period (1973-81). The convergence of highways and public transportation networks upon the primate city has also considerably increased the relative accessibility of Karachi to distant locales.

CONSEQUENCES OF MIGRATION:

The physical manifestation of unplanned migration has presented the country with numerous problems. In the absence of a comprehensive developmental approach leading to effective policies of population distribution and other appropriate measures, human misery and environmental degradation have increased. The situation has become critical particularly in large cities like Karachi, Lahore and Faisalabad which are receiving large number of migrants from rural as well as urban areas. The urgency of some problems that have emerged in large and intermediate cities have been discussed below:

TABLE-46

PAKISTAN : PROVINCE-WISE ROAD KILOMETERAGE AND INTERNAL MIGRANT POPULATION 1973/1974 and 1981

| Area/Province. | Road length Thousand Km. | | Internal migrant population Thousand persons. | |
|---|---|---|---|---|
| | 1973 | 1981 | 1973 | 1981 |
| Pakistan | 77.71 | 95.82 | 4436.3 * | 5159.7 * |
| Punjab | 33.30 | 36.11 | 2786.9 | 3107.5 |
| Sind | 20.59 | 26.85 | 1112.4 | 1472.7 |
| N.W.F.P. | 9.57 | 11.62 | 386.9 | 365.3 |
| Baluchistan | 14.25 | 21.23 | 150.0 | 214.3 |

SOURCES : (i) Transport statistics 1984 Vol.I,National Transport Research Centre,Islamabad.
(ii) Hand Book of Population Census Data, Government of Pakistan,1985.

(*) Includes imgrant population for Islamabad.

1. Transport:

Transportation facilities have enabled an increasing number of people to seek the economic, social and cultural opportunities provided by urban living, but paradoxically, the larger urban centres have grown to the point where they threaten to strangle the transportation system that made their growth possible. It is becoming increasingly difficult to live and work in large cities where serious problems are arising in commuting. The problem has become very acute in cities like Karachi and Peshawar, and in the inner city areas of major centres like Hyderabad, Multan, Lahore and Gujranwala. Obsolete transport facilities and continuously growing pressure have created great difficulities mostly to the disadvantage of the common man. Current methods to cope with these inadequacies offer little relief.

Bus is the major mode of transport for the poor in cities, but the number of buses is inadequate. Karachi, for example, had a bus-population ratio of 1:2500 in 1983; while the generally accepted standard is 1:1500 (Mahmud 1984). In Lahore, the ratio was 1:18000 (P.U.T.C. 1980), and the city had only 272 buses against an estimated requirement of 1280 in 1981 (Pakistan Times 1981). The main defects of the urban transport system are inadequacy of the fleet, its operational insufficiency, and non-availability of spare parts resulting in poor maintenance. The result is gross under-utilization of capacity. In Karachi, only 71 per cent of private buses and 76 percent of public buses are roadworthy (Govt. of Pakistan 1983c). In Lahore, only 63 per cent of the total number of buses were actually operating in 1981

(Pakistan Times 1981). Growth in transport facilities for the poor is quite slow. While the number of cars increased by 26 per cent and motorcycles by 25 per cent in Karachi between 1976 and 1981, the number of buses rose by 6 per cent in the private sector and 18 per cent in the public sector during the same period (World Bank 1983). While the city has a circular railway system which plays an important role in daily commuting traffic, it is currently overloaded and improvement options are limited because the system partially uses the same tracks as the major trunk line to the north.

With the number of private cars doubling every three years in Karachi, the street capacity is rapidly being used up. This is largely the result of high-rise development in the city's Central Business District without adequate provisions for circulation and parking. Severe congestion is common in large parts of the central area due to heavy traffic flows as well as widespread parking along curbs, since off-street car parking in the city centre is virtually non-existent. Pressure on available road space becomes disproportionately high on certain roads within the 'Guru Mandir-Saddar-Tower' axis, where traffic from all directions converges at peak hours. Some points like 'Guru Mandir' and 'Saddar' remain congested at all times of the day because there are certain routes on which buses or mini-buses do not ply. As a result, commuters have first to get to Saddar which not only creates congestion problems, but is also a waste of time, energy and money. Work commuting time for low-income groups not only becomes long, but costly, absorbing 10 per cent of monthly incomes for thousands of workers in nothern and eastern Karachi. The rapid increase in motor vehicles during the 1972-81 period resulted in doubling the number of fatal

traffic accidents during this period (ADB 1985).

2. Housing:

Since the economic development programmes were not matched by social and physical development plans, these deficiencies emerged with increasing migration and urbanization in the form of inadequate substandard housing. The housing problem of the country is complex with many social, economic and technological aspects, all inter-related an impinging upon each other. Two major factors have been prime contributors to the present housing situation: (i) Lag between housing construction and population growth (ii) Excessive and rapidly increasing price of land and land development, placing land ownership out of the reach of lower-middle and low income families. The serious problem of housing shortage is likely to remain so during the foreseeable future in spite of a number of government programmes for the poor. The housing backlog in 1978 was 1.2 million. It was proposed to reduce the backlog by developing 425,000 units, 75 per cent of them for the low income group during the 'Fifth Plan' period. But achievement was only 285,000, and the backlog increased to 1.4 million in 1983 (Govt. of Pakistan 1983b). The urban housing situation has thus deteriorated. Between 1972 and 1980, the number of persons per housing unit has increased from 6 to 7, and the number of persons per room 3 to 3.5 (Govt. of Pakistan 1983a). It is estimated that at present 25 per cent of the urban population, i.e., about 6 million people live in slums. The situation is particularly grave in Karachi were 2 million slum dwellers (35 per cent of the city's population) have an average of 4.7 persons per room (Faruqi 1982). Their number is said to grow by

about 200,000 every year (World Bank 1983). There are 0.82 million dwelling units in Karachi, out of which 30 per cent are adobe (semi-pucca or Katcha houses) or huts. In Peshawar, the number of persons per housing unit in 1961 were estimated at 5.7. This had increased to 6.1 in 1972 and 7.4 in 1982. According to the 1980 housing census, the occupancy level of residential units in Peshawar was as follows:

Persons per housing unit.....7.4
Persons per room.....3.0
Rooms per housing unit.....2.4

The average occupancy level is distorted by the inclusion of the spacious houses in which the well-to-do live. The actual situation, which is far more grim, is shown in table-47. It can be seen that 40 per cent of the housing units in Peshawar had only one room in 1980 and on the average it was occupied by six persons.

As a result of over-crowding in many large cities, there has been a gradual decay of inner city housing. Much of the old housing stock in the inner city areas of major cities such as Karachi, Lahore, and more recently Peshawar, has been subject to increased densification due to rapid urban population growth. Most inner-city properties are also subject to rent control legislation, which seeks to prevent the exploitation of tenants by establishing "fair" rents. While the objective is laudable, in view of the inflation and severe housing shortages that face the country, the impact of the legislation has been negative (as in other cities in which rent control has been introduced):

TABLE - 47

PESHAWAR M.C. : OCCUPANCY LEVEL OF RESIDENTIAL UNITS BY NUMBER OF ROOMS AND HOUSEHOLD SIZE, 1980

| Number of Rooms per unit | Persons per housing unit | Persons per room | Residential units (percent) |
|---|---|---|---|
| 1 | 6 | 6 | 40.0 |
| 2 | 7.2 | 3.6 | 29.0 |
| 3 | 8.1 | 2.7 | 14.9 |
| 4 | 8.8 | 2.2 | 7.9 |
| 5 | 9.2 | 1.8 | 3.4 |
| 6 | 9.6 | 1.6 | 2.1 |
| 7 & above | - | - | 2.7 |

SOURCE: Population Census Organization (1981) "District Census Report of Peshawar", Islamabad

fixed rents based on historical costs and the virtual impossibility of eviction has removed the incentive for property owners to adequately maintain their properties, which have consequently decayed even more rapidly. As a result, many such inner city areas have become slums in which the quality of housing and urban services are deteriorating rapidly. Lahore's walled city is the most congested area in Pakistan. About 260,000 people live in an area of 2.5 sq. km where 13 percent of the walled city's houses are vacant because they are too dangerous for habitation. An additional 17 percent are in advanced stages of dilapidation (UNICEF 1987). It is estimated that about 20-30 per cent of the city's population lives under conditions of severely overcrowded, decaying houses and inadequate urban services. The limited data available also suggest that inner city slums are occupied by hard core poverty groups (Khan 1983).

The situation of urban basic services has also been adversely affected by the increasing waves of migration. According to a report (KDA 1974), only 16 percent of the dwelling units in Karachi had water supply, sewerage and electricity in the house. In Peshawar, 34 percent of the houses were without kitchens, 26 percent had no baths, and 16 percent were without latrines. Piped water inside the house was available to only 38 percent of the residents, and only 6 percent of the houses were served with a water carried sanitary system (Census Organization 1981).

3. Water Supply and Sanitation:

The high rate of migration and subsequent urban growth have resulted in immensely reduced supply of good water in sufficient quantity to the urban populace, and created the problem of safe removal of waste water. Access to clean water is available

only to 77 per cent of the urban population. Only 30 per cent have house-to-house connections and the rest are being served by stand-posts or public taps (Govt. of Pakistan 1983a). Per capita water consumption in urban areas is 30 gallons per day (Nizami 1983). Water supply is particularly bad in big cities. It is intermittent with average availability ranging from 4 to 8 hours per day at varying pressure. Periodic low water pressure leads to contamination, particularly where sewerage is inadequate - a situation prevalent in all major cities and towns. In Karachi, for example, total demand for water is estimated at 327 million gallons per day (MGD). Actual supply in 1983 was only 217 MGD. Only 38 per cent of the people in Karachi have house-to-house connections, 46 per cent get their supply from community stand-posts and 16 per cent from tanker trucks. Per capital daily consumption of water ranges from 50 gallons in Lahore to 37 in Karachi and 25 in Hyderabad (World Bank 1983). Distribution of water between the more affluent and less affluent sections of cities is extremely unequal. Though the water is treated adequately in bulk, it is badly polluted when it reaches the consumer after much of it being wasted through leakages. Network losses vary from city to city but are generally estimated to be in the region of 30 percent (Karachi) to 50 percent (Lahore and Faisalabad) of the bulk supply (ADB 1985). Water mains are also under-utilized because of lack of connections in residential areas.

Most of Pakistan's large urban centers with a comprehensive water supply system in operation are either publicly sewered to some extent, or have access to individual septic tanks or soakpits. Generally, the installation of sewage treatment plants has lagged

behind network development, resulting in substantial amounts of raw or partially-treated sewage being discharged in drainage channels and rivers. The 1980 housing census estimated that 22 per cent of the urban population had inside flush latrines, and 3 per cent shared a flush latrine with other households, for total of 25 per cent who used flush latrines. About 48 per cent used in-house or shared (pit) latrines without flush, while 27 per cent did not use latrines. While the percentage of Pakistan's urban population with access to safe drinkable water is about equal to the average of other DMCs (though there are wide supply variations in terms of per capita consumption the number of hours per day supply is available), Pakistan scores very low with regard to adequate excreta disposal (though inter-country comparison is difficult due to differences in what is considered adeq uate).

Existing drainage systems in all major urban areas are unable to prevent periodic flooding during the monsoon season. Rising groundwater levels due to increases in the total irrigated acreage have made this an increasingly serious problem. As a result, flooding and waterlogging in substantial sections of urban centers near the Indus have increased significantly during the past decade (ADB 1985).

Garbage collection and disposal (solid waste management) is inadequate in all major cities. This element of the urban services package has generally been given much less attention than water supply, sewerage and drainage. As a result, collection services are rudimentary in most smaller towns, and sewers and drains tend to become clogged with uncollected refuse. In Karachi only 30 per cent of solid waste generated per day is properly collected and

removed to the official dumping ground by the municipal service. In Lahore the percentage is 40 and in other major urban centers the percentages are comparable.

The deficienies in urban services described above, combined with rapid population growth and inadequate health and personal hygiene education have led to substantial environmental health problems, particularly in Katchi Abadies and other slum areas. While a direct causal link is difficult to establish, it is clear that this has had a major impact on the prevailing pattern of morbidity and mortality: nearly 30 per cent of all reported urban diseases are water-borne and 40 per cent of all urban deaths are due to such diseases. While the urban water supply situation has improved over the past decade, urban sanitation has deteriorated both in terms of extent of coverage and effectiveness. While this is partly the result of extraneous factors such as urban population growth and increased waterlogging, major shortfalls in urban services delivery in the areas of flood protection, human waste disposal and solid waste disposal have also played a substantial role. Shortfalls in these essential municipal services stem largely from inadequacy of municipal resources and inappropriate service standards. The poor physical environment compounded by factors of poverty and malnutrition contribute to even a worse form of social milieu. Psycho-social dynamics in these urban dwellings are often inconsistent, aggresive and competitive, with a high potential for breeding crime and villainy.

4. Education:

As mentioned earlier, an increase in literacy in the rural areas of Pakistan has correspondingly aggravated migration to large

urban centres. Thus, large cities which were already short in providing education facilities to the native population, are being over-burdened by the responsibility of absorbing incoming migrants who move to large cities for higher education or for technical or vocational training. The urban literacy rate in 1982-83 was 43.6 per cent. Enrollment in educational institutions was available to 77 per cent of children in ages 5-9, 52 per cent in 10-12 and 39 per cent in 13-14 years age group (Govt. of Pakistan 1983a). A study made for a slum improvement project in lahore revealed that although there were 65 schools in the walled city, the area needed 92 more. Outside the walled city, a survey of slum areas found that 5 primary schools served about 12,000 children (UNICEF 1987).

5. Pollution:

Massive inflow of population to cities is linked with the location of industries. The industrial complexes, particularly the larger ones are located in a few urban centres (population more than 0.5 million). More than 60 per cent of the nation's industrial workers are residing in these cities. This excessive concentration of both industries and industrial workers has resulted in the growing quantities of solid wastes, congestion, pollution, health hazards and threat to the quality of life. Improper drainage has resulted in water logging and subsequent contamination of drinking water in cities like Lahore, Faisalabad, Rawalpindi and Multan. In Karachi, 260 MGD waste water is going underground, causing serious unhygienic conditions. At present all the waste is being discharged untreated to the sea. The industrial wastes when examined for various metals revealed that eleven out of fifteen industries

surveyed were discharging effluents with toxic matter concentration above the maximum permissible limit (Govt. of Pakistan 1983d).

The pollution problem being generated by ever increasing mass transport, public and private vehicles is also assuming alarming proportion. The exhaust containing large quantities of sulphur, carbon mono-oxide, lead and nitrogen oxide in the urban atmosphere is not only a perpetual source of nuisance but a prime factor for increasing incidence of asthma, chronic bronchitis and other diseases of the heart, lungs and skin. The cities of Pakistan are faced with peculiar traffic pollution problems due to (a) faulty vehicles on the road (b) deliberate use of inappropriate fuel mixture & (c) tremendous increase in the number of vehicles (Khan 1986). The results of surveys in the cities of Karachi and Lahore show that the air is being depleted of oxygen in large cities and is simultaneously getting contaminated by toxic and unwanted gases from automobile exhausts (table - 48).

Increasing noise level in the atmosphere is another form of pollution. Apart from being nuisance, it has now been established from research that noise has harmful effects on human systems. Repeated exposure to mild levels of noise, may result in lack of efficiency or impairment of hearing. It can also contribute to stress-related diseases such as ulcers. The main sources of noise and vibrations listed by Khan (1986) are loudspeakers, vehicles, industries, aero-planes, and overcrowding. Pakistani towns are noisier than their western counter-parts. Karachi, with the noise level above 90 decibels is one of the noisiest cities in the world (Khan 1986). Lahore, Peshawar and other cities are no different.

Besides the statistics given above for transport, housing, water supply, sanitation, education and pollution, there are

TABLE - 48

KARACHI: AVERAGE SMOKE AND LEAD CONCENTRATION IN THE AIR AROUND QUAID's MAZAR 1982

| Time | Site | No. and Type of vehicle. Light Vehicle | Heavy Vehicle | Air Velocity | Air Direction | Temp | Humudity | Smoke | Lead |
|---|---|---|---|---|---|---|---|---|---|
| Afternoon (1.30 P.M.) | A | 3075 | 617 | 230 m/min | W→E | 35°C | 56% | 680 $\mu g/m^3$ | 0.013 $\mu g/m^3$ |
| Morning (10.15 A.M.) | B | 4533 | 480 | 255 m/min | W→E | 31°C | 62% | 1245 $\mu g/m^3$ | 0.024 $\mu g/m^3$ |

SOURCE: Khan M.A. (1986) Table V-6.

A = M.A. Jinnah Road near old Numaish

B = M.A. Jinnah Road near Guru-Mandir.

numerous other drastic consequences of increasing urbanization on the large cities of Pakistan. Although degree of urbanization is considered to be a measure of development, it holds true only if a higher level of urbanization is accompanied by a real change in the economic structure producing work in cities to which unemployed rural labour can go. Unfortunately, an appreciable part of the rural-urban migration stream in Pakistan merely changes the locale of its unemployment or underemployment. In Karachi, unemployment or underemployment is estimated to range from 20 to 30 per cent and about 40 per cent households have incomes of less than Rs.600 per month.

# CHAPTER-6

## REGIONAL INEQUALITIES AND INTERNAL MIGRATION

It is increasingly being recognised that migration, urbanization and socio-economic development are closely related phenomena. It is therefore important not only to measure migration and urbanization, but also to carry out quantitative analysis of their interrelationships with the factors of development. Selection of variables for such studies is dependent on the availability of data on the indicators of development. Pakistan, like many other developing countries, does not maintain income or employment data for its smaller administrative units. The only sectors of economy for which data were available at the district level, and that too for only 1961 and 1972, were agriculture and large scale manufacturing. These two sectors, however, accounted for over 70 percent of the national employment (table - 49) and were by far the largest contributors to the GNP.

Data on value added by these two sectors at district level was obtained from the report of the National Finance Commission and from the Census of Manufacturing. Another major contributor to Pakistan's economy, besides the two stated above, is the service sector (table - 49). In Pakistan, the performance of this sector is also dependent to some extent on the former two sectors. However, banking, which is a major indicator of the service sector, was used as a measure of the importance of this sector. These three variables (value added by agriculture and livestock per capita, value added by manufacturing per capita, and banks per capita) should reflect the relative positions of the districts, if not their absolute levels. However, positions

TABLE - 49

PAKISTAN : SECTORAL DISTRIBUTION OF LABOR FORCE

| Sector of the economy | 1959-60 | | 1969-70 | | 1984-85* | |
|---|---|---|---|---|---|---|
| | Number | Percent Share | Number | Percent Share | Number | Percent Share |
| Agriculture | 7.9 | 59.8 | 9.4 | 54.9 | 14.0 | 51.8 |
| Services | 2.4 | 18.4 | 3.3 | 19.3 | 5.9 | 22.0 |
| Manufacturing | 1.8 | 13.6 | 2.6 | 15.2 | 4.1 | 15.0 |
| Others | 1.1 | 8.2 | 1.8 | 10.6 | 2.9 | 11.2 |
| Total | 13.2 | 100.0 | 17.1 | 100.0 | 26.9 | 100.0 |

SOURCES : Pakistan Economic Survey 1960-61, 1970-71 and 1984-85

* Estimated figures.

of some districts may have been lowered, because parts of certain important sectors for these have not been taken into account. The Sialkot, Gujrat, and Gujranwala districts for example, suffer because of the exclusion of small scale industries, while Rawalpindi, Lahore, Peshawar, and Quetta are affected by the exclusion of public administration. Interpretation of results is therefore subject to these limitations.

The three variables mentioned above were reinforced by a number of other economic, social and demographic indicators. Among these were per capita consumption of electricity, students per thousand persons, literacy ratio, population density, population growth, degree of urbanization and in-migration (tables I & II of Appendix - E). These twelve indicators have been used to measure the pattern of regional inequalities in Pakistan, using statistical and cartographic techniques. A rank-order technique was used to indicate the relative position of each of the 45 districts for the twelve indicators for both 1961 and 1972* (tables - 50 & 51). In the next step, an effort was made to combine all the indicators into a composite measure of economic development using ranking coefficients, factor analysis (Thompson et al. 1962), and cluster analysis (Khan 1977) techniques.

The ranking coefficient technique weighed all the indicators equally by adding the ranks of individual variables and re-ranking the totals. The results obtained are given in table-52 and figures-24 & 25. Interpreting on quintile basis, the results look reasonably accurate, but certain anomalies are apparent for individual

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*Only 45 out of 50 districts were included throughout the analyses for 1972 to make them comparable with 1961 results.

TABLE_50

PAKISTAN : RANK ORDERS OF DISTRICTS BY TWELVE SELECTED INDICATORS 1961

| Districts | Pop. Density | Pop. Growth | Degree of Urbaniza-tion | In-Migration | Student/ 1000 persons | Hosp.Beds/ 1000 persons | Literacy Ratio | Value Added by Manufac-turing (per Capita) | Value Added by Agr. (per capita) | Banks (per Capita) | Road Density | Electricity Consumption (per capita) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Peshawar | 5 | 12 | 6 | 6 | 11 | 3 | 11 | 6 | 17 | 6 | 2 | 6 |
| Hazara | 20 | 29 | 43 | 29 | 21 | 7 | 22 | 24 | 35 | 36 | 27 | 20 |
| Mardan | 6 | 14 | 26 | 17 | 27 | 9 | 30 | 11 | 12 | 13 | 1 | 8 |
| Kohat | 24 | 4 | 14 | 28 | 13 | 8 | 15 | 33 | 30 | 23 | 15 | 11 |
| Bannu | 22 | 13 | 38 | 32 | 33 | 5 | 26 | 25 | 4 | 22 | 4 | 15 |
| D.I. Khan | 31 | 22 | 11 | 29 | 34 | 2 | 27 | 38 | 3 | 20 | 19 | 2 |
| Attock | 23 | 27 | 39 | 29 | 7 | 7 | 13 | 23 | 2 | 31 | 10 | 21 |
| Rawalpindi | 8 | 17 | 5 | 8 | 1 | 3 | 8 | 5 | 1 | 2 | 3 | 26 |
| Jhelum | 15 | 28 | 23 | 25 | 2 | 18 | 4 | 5 | 28 | 12 | 9 | 4 |
| Gujrat | 7 | 26 | 30 | 21 | 5 | 18 | 6 | 21 | 28 | 26 | 6 | 27 |
| Sargodha | 14 | 16 | 18 | 9 | 9 | 9 | 10 | 20 | 24 | 21 | 14 | 22 |
| Faisalabad | 4 | 17 | 9 | 3 | 11 | 10 | 6 | 4 | 39 | 16 | 16 | 18 |
| Jhang | 13 | 19 | 20 | 21 | 12 | 9 | 10 | 31 | 36 | 33 | 11 | 9 |
| Mianwali | 28 | 9 | 13 | 20 | 10 | 8 | 14 | 9 | 43 | 15 | 23 | 20 |
| Sialkot | 3 | 29 | 21 | 10 | 6 | 9 | 8 | 20 | 31 | 28 | 8 | 29 |
| Gujranwala | 9 | 19 | 7 | 10 | 8 | 10 | 7 | 10 | 27 | 8 | 7 | 19 |
| Sheikhupura | 12 | 23 | 31 | 14 | 19 | 10 | 19 | 10 | 28 | 18 | 5 | 31 |
| Lahore | 2 | 12 | 2 | 2 | 3 | 6 | 3 | 2 | 42 | 3 | 10 | 11 |
| Sahiwal | 10 | 22 | 33 | 7 | 29 | 9 | 21 | 15 | 25 | 34 | 13 | 24 |
| Multan | 11 | 15 | 10 | 4 | 23 | 8 | 16 | 13 | 5 | 17 | 22 | 16 |
| Muzaffargarh | 26 | 11 | 42 | 16 | 30 | 9 | 29 | 22 | 15 | 39 | 24 | 34 |
| D.G. Khan | 38 | 18 | 32 | 33 | 38 | 7 | 33 | 33 | 11 | 41 | 32 | 43 |
| Bahawalpur | 33 | 7 | 15 | 13 | 16 | 4 | 23 | 28 | 23 | 33 | 35 | 10 |
| Bahawalnagar | 17 | 12 | 29 | 12 | 18 | 9 | 26 | 29 | 39 | 25 | 20 | 40 |
| Rahim Yar Khan | 19 | 2 | 36 | 5 | 26 | 3 | 20 | 8 | 8 | 19 | 39 | 35 |
| Khairpur | 32 | 3 | 40 | 23 | 28 | 10 | 21 | 7 | 19 | 27 | 33 | 7 |

TABLE -50 (Continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jacobabad | 25 | 18 | 37 | 25 | 37 | 8 | 32 | 38 | 41 | 9 | 28 | 33 |
| Sukkur | 27 | 26 | 8 | 24 | 15 | 77 | 7 | 16 | 36 | 7 | 26 | 14 |
| Nawabshah | 18 | 6 | 27 | 15 | 20 | 10 | 15 | 17 | 38 | 30 | 17 | 39 |
| Larkana | 21 | 21 | 19 | 26 | 25 | 9 | 17 | 27 | 27 | 14 | 12 | 32 |
| Sangarh | 29 | 10 | 18 | 16 | 31 | 10 | 20 | 13 | 16 | 11 | 21 | 42 |
| Tharparkar | 35 | 20 | 28 | 22 | 36 | 8 | 31 | 14 | 21 | 10 | 38 | 37 |
| Dadu | 34 | 24 | 34 | 27 | 24 | 8 | 12 | 27 | 14 | 24 | 36 | 23 |
| Hyderabad | 16 | 5 | 4 | 11 | 22 | 3 | 9 | 9 | 18 | 6 | 25 | 5 |
| Thatta | 36 | 17 | 44 | 32 | 35 | 8 | 25 | 26 | 10 | 38 | 31 | 38 |
| Karachi | 1 | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 33 | 5 | 42 | 3 |
| Lasbela | 39 | 21 | 45 | 32 | 44 | 10 | 41 | 34 | 22 | 32 | 42 | 44 |
| Quetta | 37 | 15 | 3 | 19 | 17 | 1 | 5 | 12 | 40 | 1 | 29 | 1 |
| Zhob | 42 | 8 | 33 | 34 | 38 | 3 | 35 | 34 | 9 | 42 | 40 | 13 |
| Chagai | 44 | 22 | 24 | 35 | 37 | 1 | 34 | 34 | 37 | 42 | 39 | 25 |
| Loralai | 38 | 15 | 16 | 31 | 40 | 4 | 37 | 34 | 7 | 37 | 34 | 36 |
| Sibi | 40 | 30 | 25 | 30 | 39 | 9 | 36 | 19 | 34 | 40 | 37 | 41 |
| Kalat | 41 | 22 | 41 | 32 | 42 | 10 | 39 | 31 | 6 | 20 | 41 | 10 |
| Kharan | 44 | 32 | 22 | 36 | 43 | 9 | 30 | 31 | 32 | 42 | 42 | 12 |
| Mekran | 43 | 31 | 17 | 35 | 41 | 10 | 40 | 34 | 13 | 42 | 42 | 44 |

TABLE - 51

PAKISTAN : RANK ORDERS OF DISTRICTS BY TWELVE SELECTED INDICATORS 1972

| DISTRICTS | POP. DENSITY | POP. GROWTH | DEGREE OF URBANIZATION | IN-MIGRATION | STUDENT/ 1000 PERSONS | HOSP.BEDS/ 1000 PERSONS | LITERACY RATIO | VALUE ADDED BY MANUFAC-TURING (PER CAPITA) | VALUE ADDED BY AGR. P.CAPITA) | BANKS (PER CAPITA) | ROAD DENSI-TY | ELECTRI-CITY CON-SUMPTION (PER CAPITA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Peshawar | 5 | 19 | 7 | 8 | 9 | 4 | 20 | 29 | 12 | 3 | 2 | 7 |
| Hazara | 17 | 21 | 42 | 19 | 10 | 7 | 21 | 16 | 38 | 16 | 28 | 29 |
| Mardan | 6 | 19 | 22 | 16 | 20 | 9 | 32 | 7 | 19 | 6 | 1 | 23 |
| Kohat | 27 | 15 | 24 | 35 | 19 | 7 | 15 | 22 | 4 | 10 | 20 | 10 |
| Bannu | 20 | 18 | 38 | 38 | 24 | 4 | 29 | 11 | 3 | 34 | 6 | 22 |
| Dera Ismail Khan | 30 | 26 | 16 | 34 | 30 | 4 | 28 | 31 | 1 | 33 | 24 | 4 |
| Attock | 25 | 24 | 36 | 30 | 8 | 8 | 18 | 12 | 2 | 38 | 17 | 3 |
| Rawalpindi | 8 | 14 | 3 | 5 | 1 | 6 | 2 | 1 | 11 | 1 | 3 | 11 |
| Jhelum | 18 | 24 | 25 | 25 | 3 | 9 | 3 | 33 | 16 | 5 | 12 | 8 |
| Gujrat | 9 | 23 | 29 | 16 | 6 | 9 | 10 | 20 | 21 | 19 | 7 | 18 |
| Sargodha | 15 | 23 | 11 | 11 | 17 | 8 | 11 | 17 | 9 | 43 | 14 | 20 |
| Faisalabad | 3 | 14 | 8 | 4 | 15 | 9 | 13 | 38 | 15 | 44 | 16 | 24 |
| Jhang | 14 | 22 | 17 | 20 | 22 | 9 | 27 | 37 | 10 | 24 | 11 | 16 |
| Mianwali | 28 | 20 | 14 | 24 | 23 | 8 | 25 | 3 | 14 | 13 | 26 | 6 |
| Sialkot | 4 | 20 | 20 | 15 | 5 | 8 | 15 | 28 | 37 | 29 | 5 | 33 |
| Gujranwala | 7 | 13 | 6 | 6 | 7 | 10 | 11 | 19 | 42 | 11 | 8 | 12 |
| Sheikhupura | 10 | 16 | 28 | 10 | 13 | 10 | 22 | 13 | 7 | 23 | 10 | 2 |
| Lahore | 2 | 17 | 2 | 3 | 4 | 2 | 4 | 2 | 36 | 35 | 4 | 15 |
| Sahiwal | 12 | 27 | 32 | 7 | 18 | 9 | 26 | 21 | 34 | 22 | 13 | 28 |

TABLE - 51 (Continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multan | 11 | 19 | 12 | 2 | 22 | 8 | 24 | 6 | 8 | 45 | 25 | 26 |
| Muzaffargarh | 24 | 14 | 41 | 9 | 26 | 9 | 33 | 26 | 24 | 30 | 27 | 14 |
| Dera Ghazi Khan | 31 | 20 | 33 | 28 | 31 | 8 | 35 | 36 | 5 | 42 | 34 | 35 |
| Bahawalpur | 33 | 21 | 13 | 14 | 28 | 6 | 30 | 35 | 40 | 39 | 35 | 21 |
| Bahawalnagar | 22 | 28 | 26 | 17 | 32 | 9 | 31 | 25 | 6 | 40 | 21 | 34 |
| Rahim Yar Khan | 23 | 25 | 30 | 13 | 16 | 9 | 29 | 4 | 30 | 14 | 23 | 17 |
| Khairpur | 32 | 22 | 23 | 26 | 25 | 30 | 14 | 30 | 32 | 37 | 32 | 9 |
| Jacobabad | 19 | 11 | 27 | 34 | 36 | 8 | 23 | 32 | 20 | 9 | 15 | 30 |
| Sukkur | 26 | 9 | 9 | 21 | 14 | 8 | 6 | 5 | 25 | 12 | 30 | 19 |
| Nawabshah | 16 | 3 | 31 | 18 | 33 | 10 | 9 | 23 | 39 | 21 | 18 | 27 |
| Larkana | 21 | 17 | 18 | 29 | 12 | 9 | 12 | 34 | 26 | 15 | 19 | 31 |
| Sangarh | 29 | 12 | 15 | 23 | 21 | 10 | 19 | 24 | 25 | 7 | 22 | 39 |
| Tharparkar | 37 | 24 | 21 | 27 | 34 | 8 | 26 | 10 | 18 | 8 | 40 | 39 |
| Dadu | 34 | 11 | 34 | 32 | 29 | 8 | 7 | 9 | 13 | 41 | 33 | 36 |
| Hyderabad | 13 | 8 | 5 | 12 | 27 | 5 | 5 | 8 | 43 | 4 | 29 | 13 |
| Thatta | 35 | 4 | 35 | 33 | 37 | 8 | 16 | 18 | 29 | 26 | 36 | 37 |
| Karachi | 1 | 6 | 1 | 1 | 2 | 3 | 1 | 14 | 41 | 18 | 9 | 5 |
| Lasbela | 41 | 19 | 45 | 37 | 43 | 2 | 42 | 39 | 31 | 20 | 38 | 39 |
| Quetta | 36 | 5 | 4 | 22 | 11 | 1 | 8 | 15 | 23 | 2 | 31 | 1 |

TABLE - 51 (Continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Zhob | 42 | 3 | 37 | 39 | 38 | 4 | 36 | 39 | 35 | 17 | 41 | 39 |
| Chagai | 45 | 14 | 19 | 39 | 35 | 9 | 34 | 39 | 17 | 27 | 42 | 39 |
| Loralai | 40 | 10 | 44 | 39 | 40 | 7 | 38 | 39 | 27 | 25 | 37 | 32 |
| Sibi | 38 | 7 | 39 | 31 | 44 | 9 | 39 | 27 | 28 | 28 | 43 | 38 |
| Kalat | 39 | 23 | 43 | 30 | 41 | 9 | 37 | 39 | 22 | 36 | 39 | 25 |
| Kharan | 44 | 2 | 40 | 40 | 42 | 8 | 41 | 39 | 5 | 32 | 41 | 39 |
| Mekran | 43 | 1 | 10 | 36 | 39 | 10 | 40 | 39 | 33 | 31 | 44 | 39 |

TABLE-52

PAKISTAN : GENERAL ECONOMIC HEALTH OF DISTRICTS
BASED ON EQUAL WEIGHTING OF INDICATORS
1961 and 1972

| 1961 | 1972 |
|---|---|
| 1. Rawalpindi | Rawalpindi |
| 2. Peshawar | Karachi |
| 3. Karachi | Peshawar |
| 4. Lahore | Lahore |
| 5. Hyderabad | Gujranwala |
| 6. Gujranwala | Quetta |
| 7. Faisalabad | Sheikhupura |
| 8. Multan | Hyderabad |
| 9. Jhelum | Mardan |
| 10. Mardan | Jhelum |
| 11. Sargodha | Sukkur |
| 12. Quetta | Gujrat |
| 13. Gujrat | Faisalabad |
| 14. Sialkot | Mianwali |
| 15. Mianwali | Sargodha |
| 16. Sukkur | Multan |
| 17. Sheikhupura | Kohat |
| 18. Kohat | Sialkot |
| 19. Rahim Yar Khan | Attock |
| 20. Attock | Jhang |
| 21. Dera Ismail Khan | Rahim Yar Khan |
| 22. Jhang | Larkana |
| 23. Sangarh | Sanghar |
| 24. Bannu | Bannu |
| 25. Sahiwal | Nawabshah |
| 26. Khairpur | Sahiwal |
| 27. Larkana | Dera Ismail Khan |
| 28. Nawab Shah | Hazara |
| 29. Bahawalpur | Jacobabad |
| 30. Bahawalnagar | Muzaffargarh |
| 31. Dadu | Dadu |
| 32. Muzaffargarh | Bahawalnagar |
| 33. Tharparkar | Khairpur |
| 34. Hazara | Tharparkar |
| 35. Jacobabad | Thatta |
| 36. Loralai | Bahawalpur |
| 37. Zhob | Dera Ghazi Khan |
| 38. Thatta | Chagai |
| 39. Dera Ghazi Khan | Mekran |
| 40. Kalat | Zhob |
| 41. Sibi | Sibi |
| 42. Chagai | Kharan |
| 43. Kharan | Loralai |
| 44. Mekran | Kalat |
| 45. Lasbela | Lasbela |

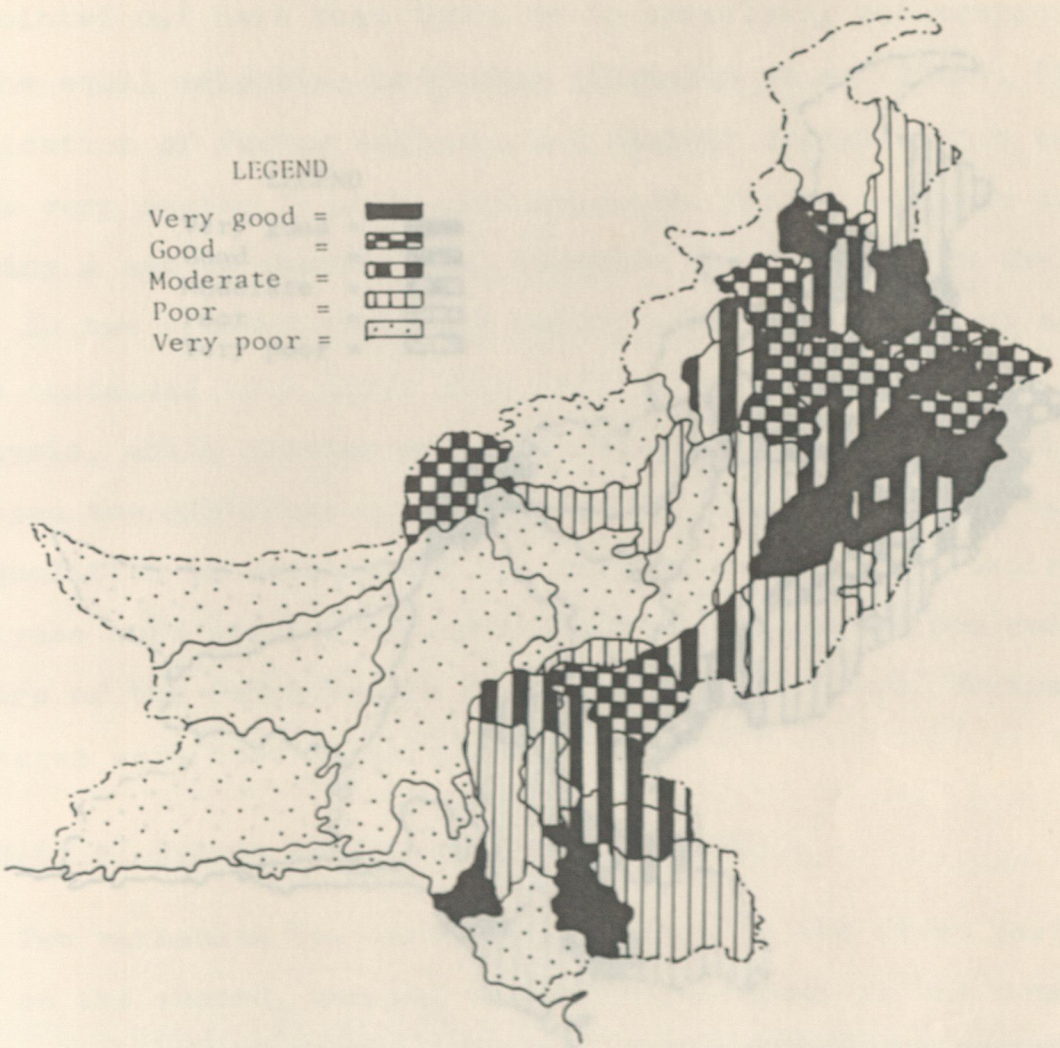


Figure-24: Economic health of districts in Pakistan based on ranking coefficients, 1961.

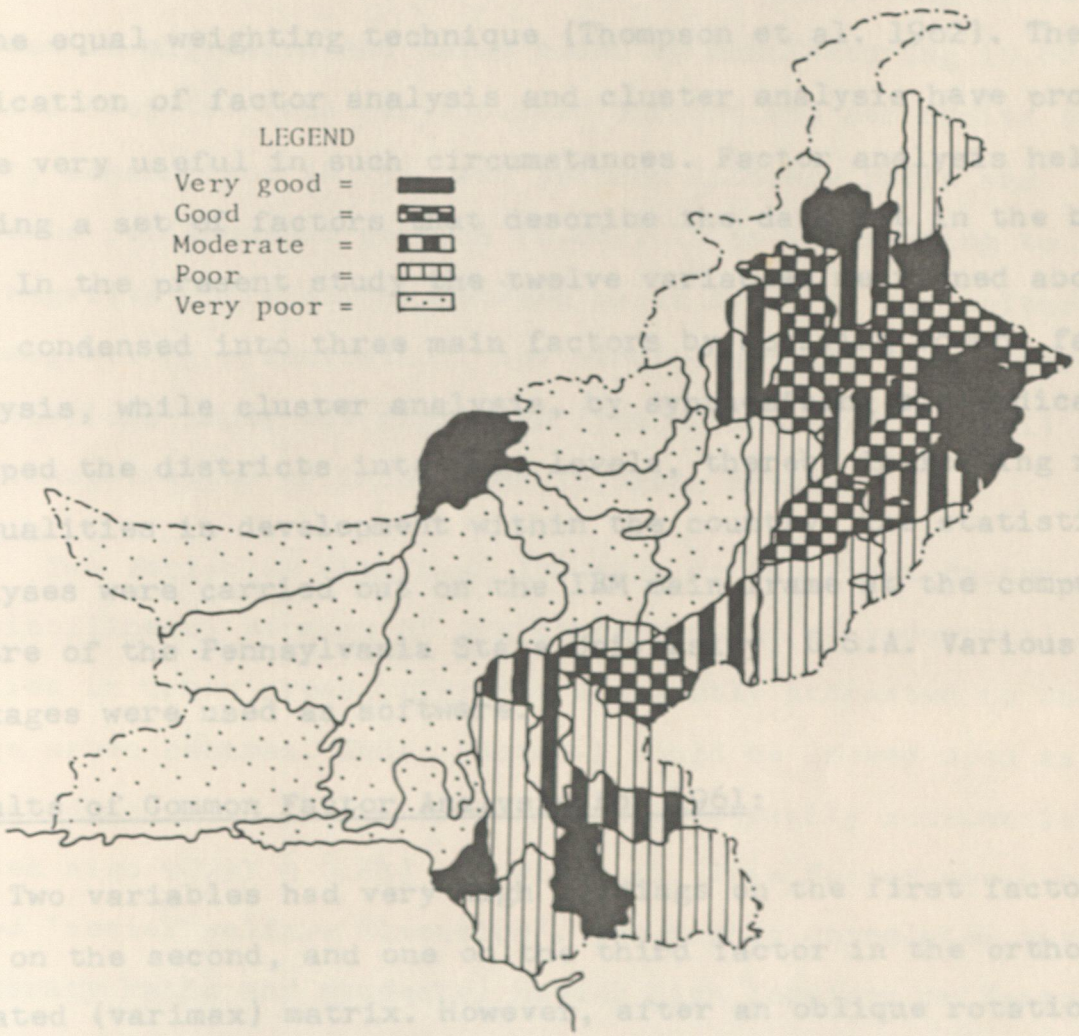


Figure-25: Economic health of districts in Pakistan based on ranking coefficients, 1972.

cases. Karachi, for example, on the basis of subjective judgement, appears to be the most developed district economically, but ranked third in 1961 and second in 1972. Conversely, Peshawar district appears to have obtained higher ranks than its position. It must be pointed out here that there is no underlying mathematical logic in the equal weighting technique (Thompson et al. 1962). The application of factor analysis and cluster analysis have proved to be very useful in such circumstances. Factor analysis helps in finding a set of factors that describe the data set in the best way. In the present study the twelve variables mentioned above were condensed into three main factors by applying common factor analysis, while cluster analysis, by synthesizing the indicators, grouped the districts into five levels, thereby indicating regional inequalities in development within the country. The statistical analyses were carried out on the IBM main frame at the computation centre of the Pennsylvania State University, U.S.A. Various SAS packages were used as software.

Results of Common Factor Analysis for 1961:

Two variables had very high loadings on the first factor, two on the second, and one on the third factor in the orthogonally rotated (varimax) matrix. However, after an oblique rotation, the pattern became more clear, and the factor structure (promax) matrix revealed the following loadings:

Factor-I:

Per capita value added by manufacturing....(0.93)
In-migration.....(0.92)
Degree of urbanization.....(0.89)

Factor-II

Hospital beds per thousand persons.....(0.93)
Per capita electric consumption.....(0.83)

Factor-III

Literacy ratio.....(0.88)

Students per thousand persons.....(0.86)

An analysis of the correlation matrix (table - 53) of variables shows that there exists a high positive correlation between urbanization and value added by manufacturing (0.84), between in-migration and value added by manufacturing (0.80), between hospital beds per thousand persons and per capita electricity consumption (0.79), and between literacy ratio and students per thousand persons (0.88). It is interesting to note the negative correlations between value added by agriculture and 'in-migration, urbanization, and manufacturing'. These negative correlations imply out-migration from agricultural (rural) areas, and concentration of industries in urban areas.

The variables with high loadings on the first factor are multicollinear. Because of the concentration of industrial activities in urban areas, migrants are mostly attracted to the large urban centres. Thus, factor-I could be looked upon as an 'urban dimension'. Hospital beds and electricity consumption loaded high (0.93 & 0.83) on factor-II. This factor could be named 'social welfare dimension'. Two highly correlated variables (literacy ratio and students) having high loadings on factor-III give it a 'literacy level dimension'. The inter-factor correlation matrix (table - 54) indicates that factor-II has no significant correlation with factors-I & III, whereas factors-I & III have a correlation coefficient of 0.66 with each other.

The relatively high correlation between the 'urban dimension' (factor-I) and the 'literacy level' (factor-III) indicates that in 1961, high schools, colleges, and universities were concentrated in the urban areas attracting students not only from urban

TABLE - 53

CORRELATION MATRIX 1961

| | Density | Variation (POP.) | Urbaniza-tion | Inmigration | Students/ 1000 | Hosp.beds/ 1000 | Literacy Ratio | PCVM | PCVAL | Banks/ Capita | Road Length | Electri-city Consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Density | 1.00000 | 0.36275 | 0.69689 | 0.83449 | 0.65112 | 0.01096 | 0.71670 | 0.72596 | 0.15808 | 0.47251 | 0.42662 | 0.07176 |
| Variation (POP.) | 0.362275 | 1.00000 | 0.48555 | 0.59043 | 0.22031 | 0.21466 | 0.40747 | 0.60343 | 0.01911 | 0.36707 | 0.01680 | 0.15851 |
| Urbanization | 0.69689 | 0.48555 | 1.00000 | 0.76354 | 0.48936 | 0.51480 | 0.76179 | 0.84659 | -0.15508 | 0.72537 | 0.03561 | 0.45964 |
| Inmigration | 0.83449 | 0.59043 | 0.76354 | 1.00000 | 0.52200 | 0.11308 | 0.67583 | 0.80132 | -0.14212 | 0.53014 | 0.13346 | 0.10814 |
| Students/1000 | 0.65112 | 0.22031 | 0.48936 | 0.52200 | 1.00000 | 0.06355 | 0.88340 | 0.46646 | -0.06097 | 0.53118 | 0.31164 | 0.14419 |
| Hospital beds/ 1000 | 0.01096 | 0.21466 | 0.51480 | 0.11308 | 0.06355 | 1.00000 | 0.32064 | 0.22689 | 0.11169 | 0.62278 | -0.03168 | 0.78869 |
| Literacy Ratio | 0.71670 | 0.40747 | 0.76179 | 0.67583 | 0.88340 | 0.32064 | 1.00000 | 0.71672 | -0.07532 | 0.73685 | 0.19549 | 0.36165 |
| PCVM * | 0.72596 | 0.60343 | 0.84659 | 0.80132 | 0.46646 | 0.22689 | 0.71672 | 1.00000 | -0.12482 | 0.50582 | 0.03528 | 0.27070 |
| PCVAL ** | 0.15808 | 0.01911 | 0.15508 | -0.14212 | -0.06097 | 0.11169 | -0.07532 | -0.12482 | 1.00000 | 0.01690 | 0.20387 | -0.03316 |
| Banks/capita | 0.47251 | 0.36707 | 0.72537 | 0.53014 | 0.53118 | 0.62278 | 0.73685 | 0.50582 | -0.01690 | 1.00000 | 0.24361 | 0.61432 |
| Road Length | 0.42662 | 0.01680 | 0.03561 | 0.13346 | 0.31164 | 0.03168 | 0.19549 | 0.03528 | 0.20387 | 0.24361 | 1.00000 | 0.06615 |
| Electricity Consumption | 0.07176 | 0.15851 | 0.45964 | 0.10814 | 0.14419 | 0.78869 | 0.36165 | 0.27070 | -0.03316 | 0.61432 | 0.06615 | 1.00000 |

* PCVM : Per Capita Value added by Manufacturing
** PCVAL : Per Capita Value added by Agriculture

TABLE-54

PAKISTAN: INTER-FACTOR CORRELATION MATRIX 1961.

| | FACTOR I | FACTOR II | FACTOR III |
|---|---|---|---|
| FACTOR I | 1.0 | 0.39 | 0.66 |
| FACTOR II | | 1.0 | 0.30 |
| FACTOR III | | | 1.0 |

areas but also from rural areas. The total variance explained by factors-I & III is 73.6 percent, while factor-II explains 26.4 percent of the total variance. Karachi had the highest factor score (5.1), followed by Lahore and Rawalpindi (1.9 & 1.0), respectively, on factor-I. The strongest negative scores were for Lasbela and Kalat (-0.87 & -0.83). Scores for factor-II present a different picture. Quetta (4.9) ranked first, followed by Karachi (1.9) and Rawalpindi (1.4), while Mekran (-0.86) had the lowest scores. Scores for factor-III were somewhat similar to factor-I scores. Rawalpindi (2.5) had the highest score, followed by Karachi (2.3) and Lahore (2.2). The highest negative scores were for Kharan (-1.6) and Mekran (-1.5). According to the conventional indicators selected, Karachi, Rawalpindi, and Lahore were the most developed urban areas in the country in 1961, while Lasbela, Mekran, Kalat, and Kharan were poorly developed regions.

Results of Common Factor Analysis for 1972:

The factor structure (promax)matrix revealed the following loadings:

Factor-I:

Population density.....(0.94)
In-migration.....(0.93)
Urbanization.....(0.84)

Factor-II:

Population growth.....(-0.71)
Value added by agriculture.....(0.54)

Factor-III:

Banks per capita.....(0.81)
Students per thousand persons.....(0.67)

Factor-I presents the 'urban dimension' with high loadings on demographic variables associated with urbanization (see correlation matrix: table - 55). Loadings were not very high for factor-II, but, it could be named 'rural dimension' because the only variable having somewhat higher loading was per capita value added by agriculture; population growth had a strong negative loading, indicating loss of population from agricultural (rural) areas. Banks per capita had a high loading on factor-III, which could be termed 'services dimension'. The inter-factor correlations are given in table-56. It shows that none of the factors are highly correlated. Factor-I explains 51.2 percent of the total variance (71.7 percent) explained by all three factors. It shows that urbanization was the key factor in causing spatial imbalances, mainly by the process of migration from rural to urban areas in 1972. Based on factor-I, Karachi ranked first, followed by Lahore, while Kalat and Lasbela had the lowest scores. Factor-II had high scores for Attock, Dera Ismail Khan, and Jhelum, respectively, showing their rural dimensionality, whereas Mekran and Hyderabad had the strongest negative scores. According to factor-III, the highest scores were obtained by Rawalpindi and Quetta, while Kalat had the lowest score. Figures-26 through-31 give a fair idea of the general economic health of districts based on factor scores for 1961 and 1972.

Analysis of Cluster Results 1961:

According to the selected variables, the 45 districts of Pakistan were grouped into five clusters. Karachi and Lahore formed individual groups all by themselves. The remaining 43 districts were more or less evenly distributed in three groups (figure - 32). The average distance between the first group

TABLE - 55

CORRELATION MATRIX 1972

| | Density | Variation (POP) | Urbaniza-tion | Immigra-tion | Students/ 1000 | Hosp.beds/ 1000 | Literacy Ratio | PCVM | PCVAL | Banks/ Capita | Road Length | Electricity Consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Density | 1.00000 | -0.11197 | 0.53244 | 0.59928 | 0.51409 | 0.26680 | 0.47358 | 0.25516 | 0.01142 | 0.38602 | 0.47219 | 0.51971 |
| Variation (POP) | -0.11197 | 1.00000 | 0.15343 | -0.06858 | -0.33330 | 0.15046 | 0.00527 | -0.10401 | -0.34544 | -0.05779 | -0.41622 | -0.08390 |
| Urbanization | 0.53244 | 0.15343 | 1.00000 | 0.80795 | 0.58542 | 0.45816 | 0.77279 | 0.38861 | -0.21590 | 0.55412 | 0.29754 | 0.71255 |
| Immigration | 0.59928 | -0.06858 | 0.80795 | 1.00000 | 0.61804 | 0.18372 | 0.66655 | 0.38729 | -0.25162 | 0.57699 | 0.45583 | 0.76474 |
| Students/1000 | 0.51409 | -0.33330 | 0.58542 | 0.61804 | 1.00000 | 0.13399 | 0.83354 | 0.51816 | 0.01243 | 0.68433 | 0.70548 | 0.63917 |
| Hospital beds/1000 | 0.26680 | 0.15046 | 0.45816 | 0.18372 | 0.13399 | 1.00000 | 0.22810 | 0.13396 | 0.03045 | 0.14995 | 0.04497 | 0.22707 |
| Literacy Ratio | 0.47358 | 0.00527 | 0.77279 | 0.66655 | 0.83354 | 0.22810 | 1.00000 | 0.51631 | -0.13963 | 0.67944 | 0.43577 | 0.63957 |
| PCVM* | 0.25516 | -0.10401 | 0.38861 | 0.38729 | 0.51816 | 0.13396 | 0.51631 | 1.00000 | 0.00233 | 0.55385 | 0.48632 | 0.29389 |
| PCVAL** | 0.01142 | -0.34544 | -0.21590 | -0.25162 | 0.01243 | 0.03045 | -0.13963 | 0.00233 | 1.00000 | -0.27719 | 0.10990 | 0.02851 |
| Banks/capita | 0.38602 | -0.05779 | 0.55412 | 0.57699 | 0.68433 | 0.14995 | 0.67944 | 0.55385 | -0.27719 | 1.00000 | 0.63202 | 0.51113 |
| Road Length | 0.47219 | -0.41622 | 0.29754 | 0.45583 | 0.70548 | 0.04497 | 0.43577 | 0.48632 | 0.10990 | 0.63202 | 1.00000 | 0.40785 |
| Electricity Consumption | 0.51971 | -0.08390 | 0.71255 | 0.76474 | 0.63917 | 0.22707 | 0.63957 | 0.29389 | 0.02851 | 0.51113 | 0.40785 | 1.00000 |

* PCVM : Per Capita Value added by Manufacturing
** PCVAL : Per Capita Value added by Agriculture

TABLE- 56

PAKISTAN: INTER-FACTOR CORRELATION MATRIX 1972.

| | FACTOR I | FACTOR II | FACTOR III |
|---|---|---|---|
| FACTOR I | 1.0 | 0.15 | 0.43 |
| FACTOR II | | 1.0 | 0.15 |
| FACTOR III | | | 1.0 |

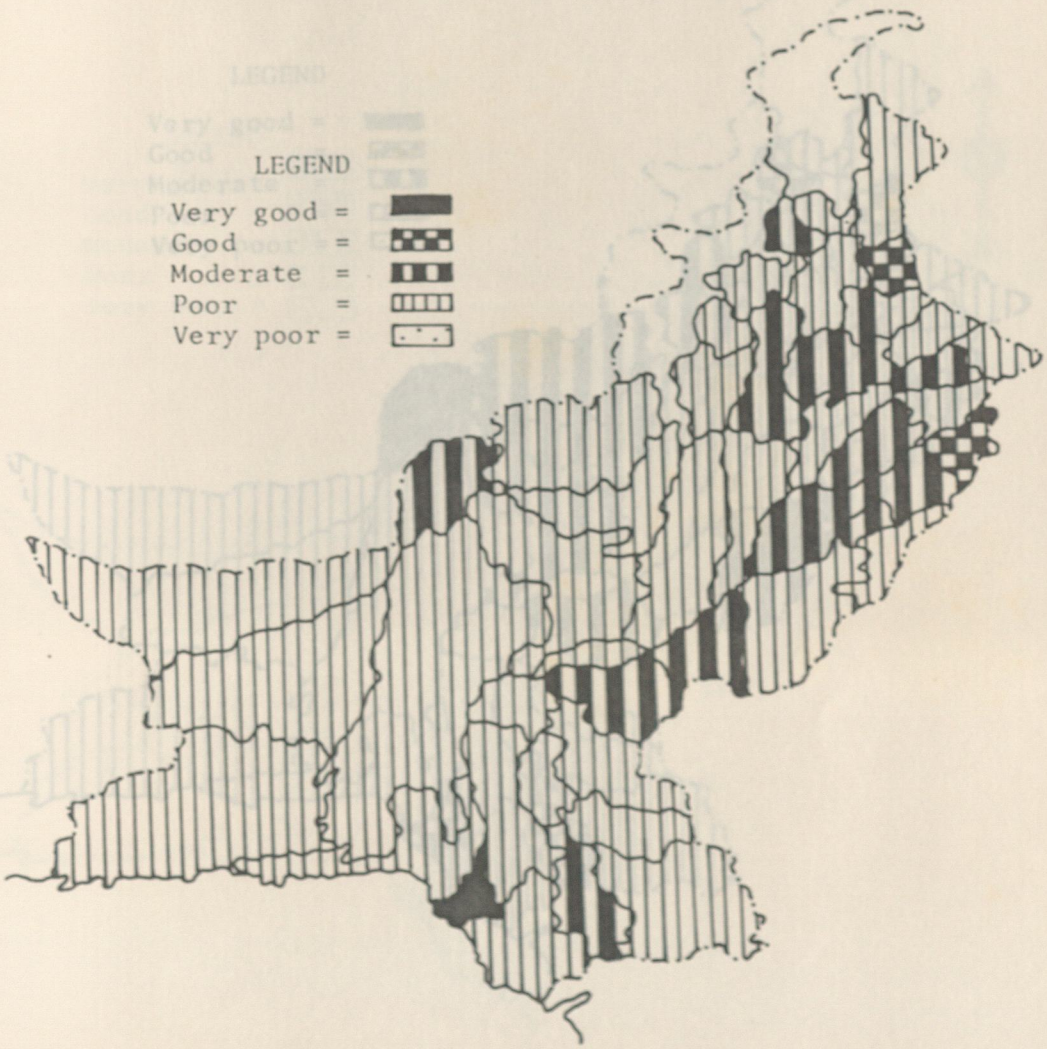


Figure-26: Economic health of districts in Pakistan based on factor-I (urban dimension), 1961.

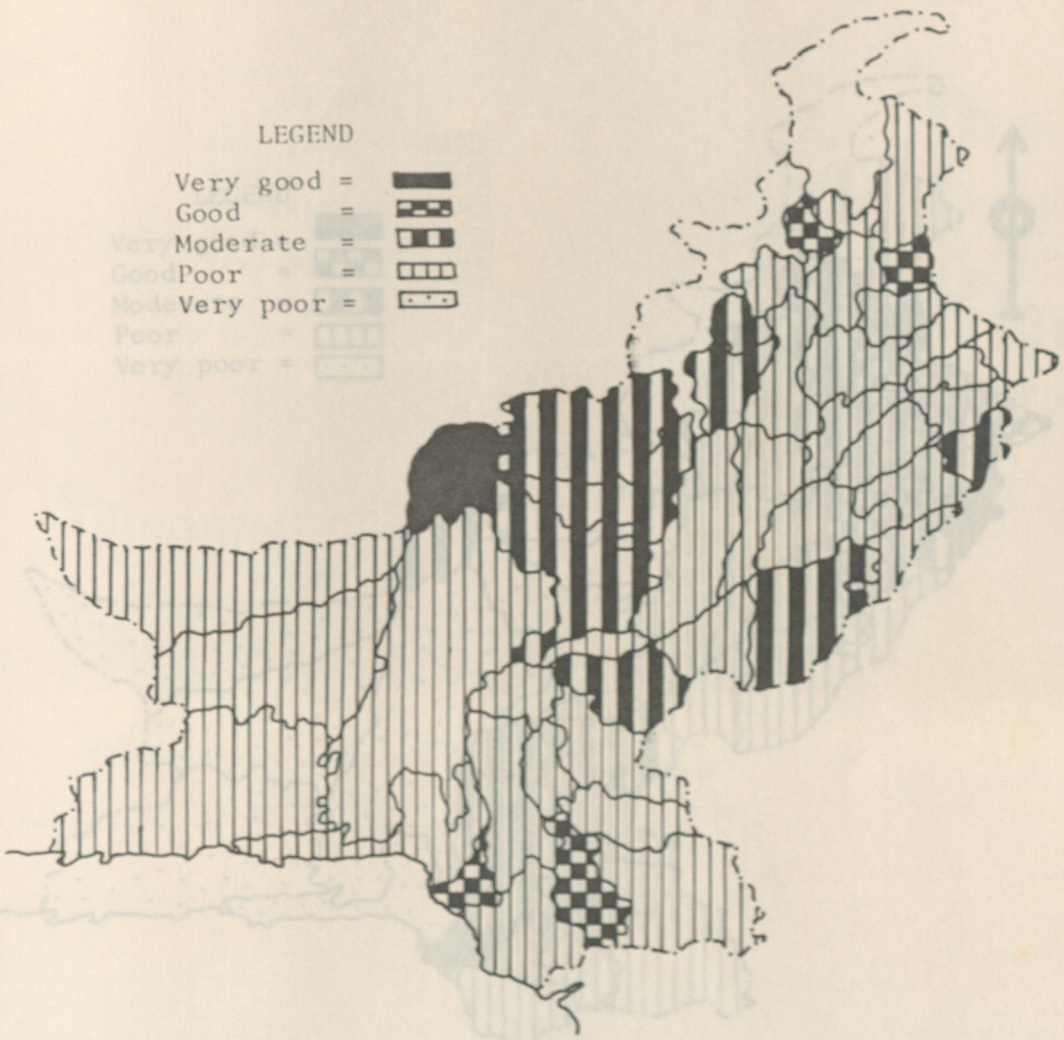


Figure-27: Economic health of districts in Pakistan based on factor-II (social welfare), 1961.

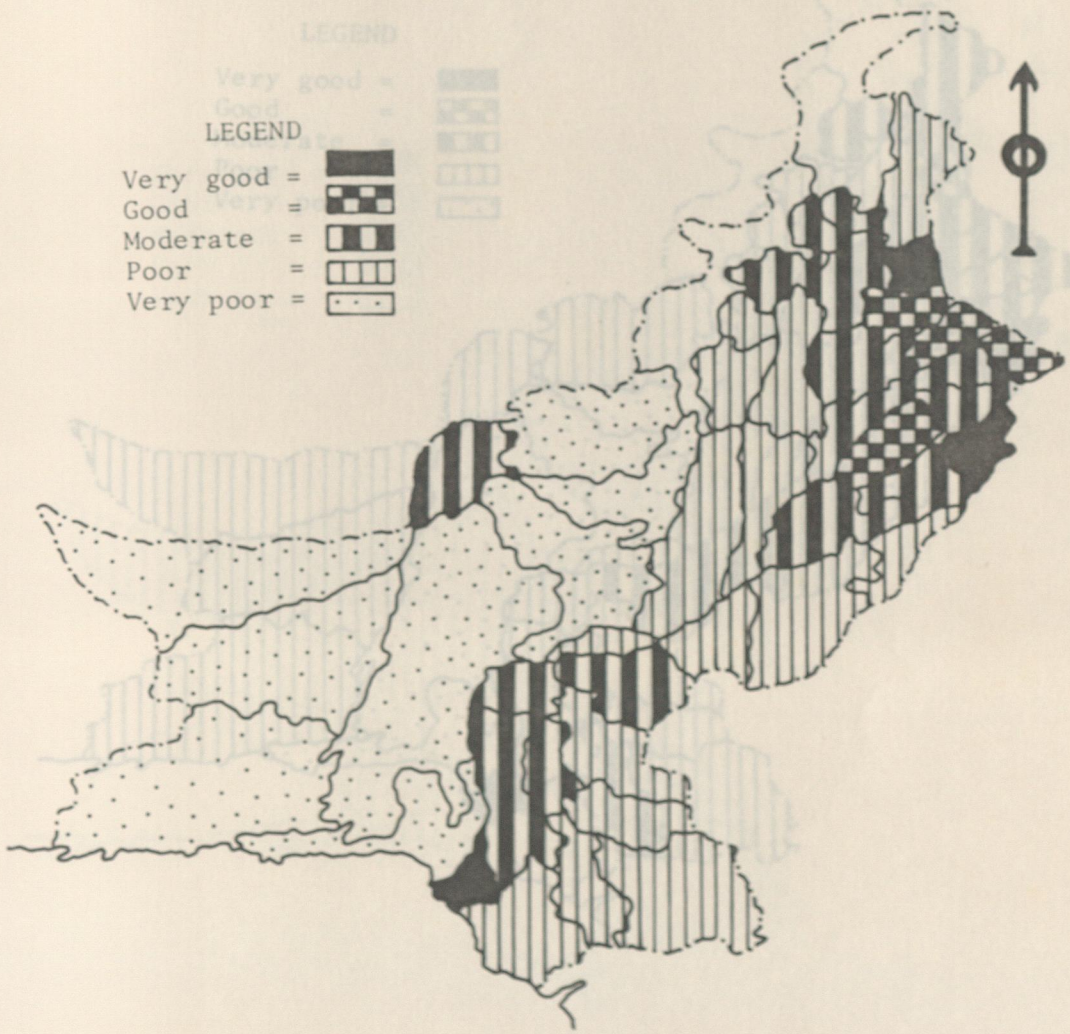


Figure-28: Economic health of districts in Pakistan based on factor III (literacy level), 1961.

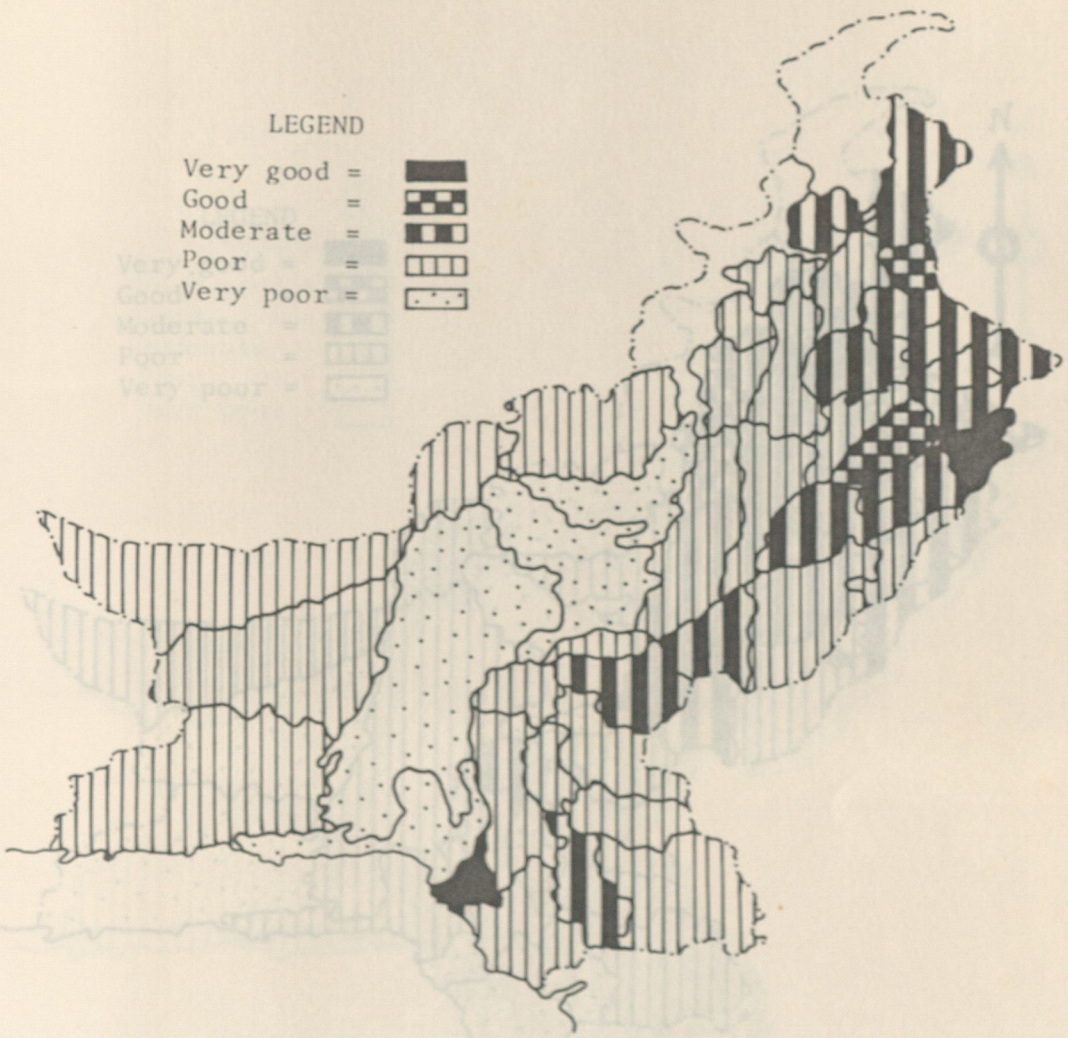


Figure-29: Economic health of districts in Pakistan based on factor-I (urban dimension), 1972.

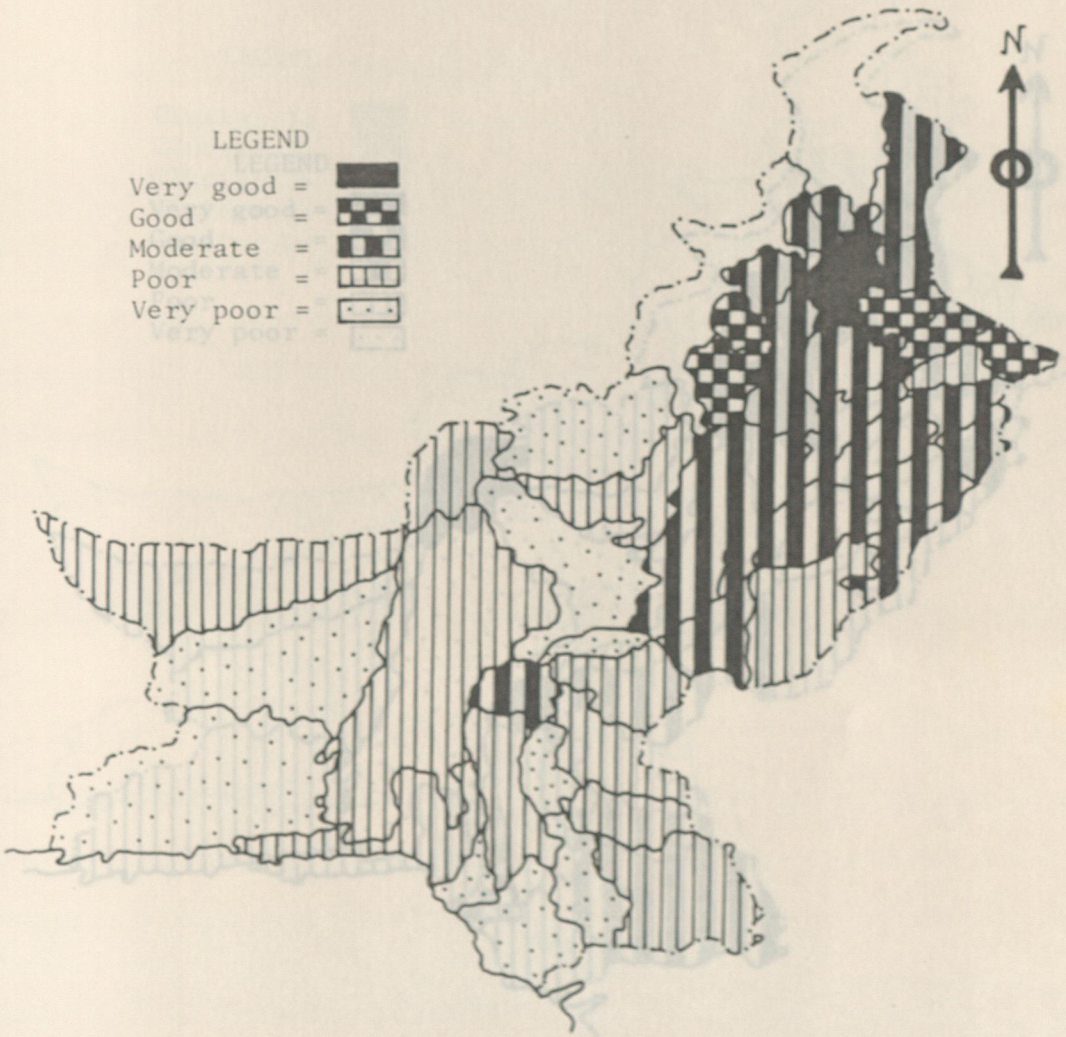


Figure-30: Economic health of districts in Pakistan based on factor II (rural dimension), 1972.

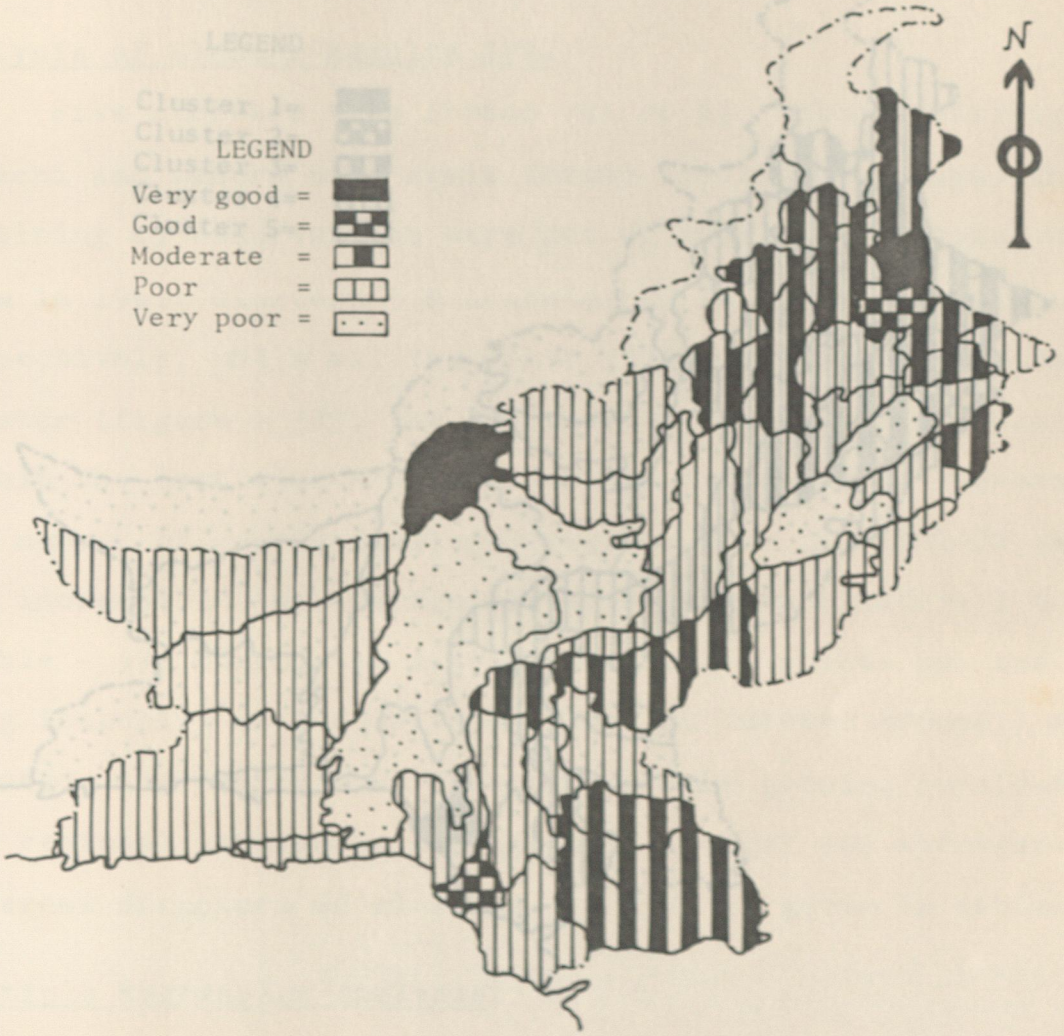


Figure-31: Economic health of districts in Pakistan based on factor III (services), 1972.

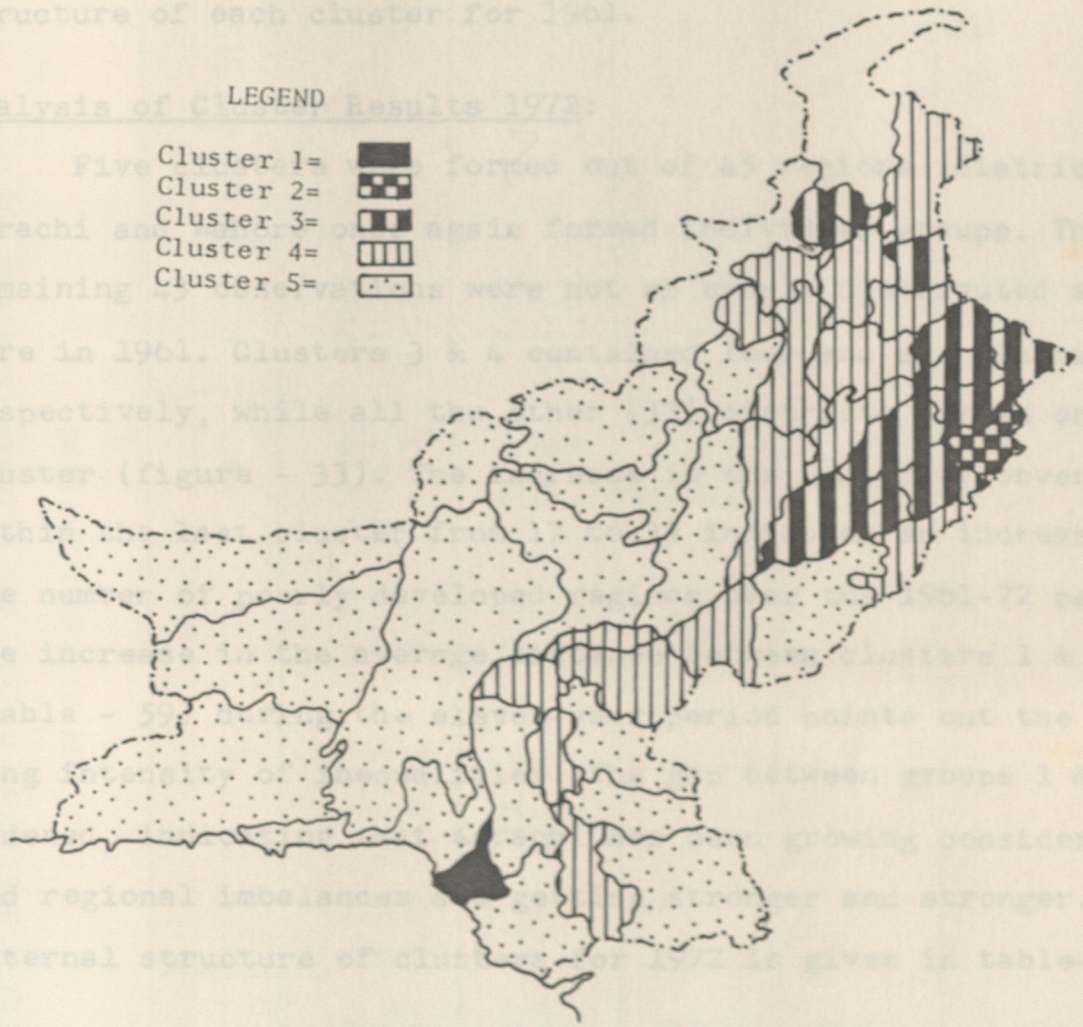


Figure-32: Pattern of spatial inequality in Pakistan based on cluster analysis, 1961.

(Karachi) and the last cluster was 21.2, while the first two groups were at a distance of 1.8 from one another (table - 57). This indicates that vast inequalities exist between Karachi/ Lahore and the rest of the districts. Table-58 shows the internal structure of each cluster for 1961.

Analysis of Cluster Results 1972:

Five clusters were formed out of 45 regions (districts). Karachi and Lahore once again formed individual groups. The remaining 43 observations were not as evenly distributed as they were in 1961. Clusters 3 & 4 contained four and six districts respectively, while all the other (33) districts formed one cluster (figure - 33). The increase in the number of obvervations within the last cluster from 17 to 33 indicates an increase in the number of poorly developed regions over the 1961-72 period. The increase in the average distance between clusters 1 & 5 (table - 59) during the eleven-year period points out the increasing intensity of inequalities. The gap between groups 1 & 2 also widened, indicating that Karachi has been growing considerably, and regional imbalances are getting stronger and stronger. The internal structure of clusters for 1972 is given in table-60.

Multiple Regression Analysis:

The inter-relationship of different factors can be examined through multiple regression analysis. This approach helps in not only identifying the relative importance of different factors, but also their statistical significance (Afzal 1980). Multiple regression analysis was therefore conducted in this study to find out the dependence of internal migration on various socio-economic and demographic variables. This analysis was also carried out at

TABLE - 57

PAKISTAN : DISTANCES WITHIN AND BETWEEN CLUSTERS 1961

(MAXIMUM/AVERAGE/MINIMUM)

| Clusters | | 1 | 2 | 3 | 4 | 5 | No. of Districts |
|---|---|---|---|---|---|---|---|
| 1 | M | 0.00 | 1.82 | 11.13 | 18.40 | 22.49 | 1 |
| | A | 0.00 | 1.82 | 8.53 | 16.53 | 21.22 | |
| | N | 0.00 | 1.82 | 5.73 | 14.23 | 19.32 | |
| 2 | M | | 0.00 | 4.17 | 9.14 | 12.02 | 1 |
| | A | | 0.00 | 2.72 | 7.81 | 11.15 | |
| | N | | 0.00 | 1.22 | 6.22 | 9.81 | |
| 3 | M | | | 0.95 | 3.73 | 5.62 | 10 |
| | A | | | 0.36 | 1.66 | 3.24 | |
| | N | | | 0.00 | 0.22 | 1.23 | |
| 4 | M | | | | 0.37 | 1.01 | 16 |
| | A | | | | 0.14 | 0.41 | |
| | N | | | | 0.00 | 0.05 | |
| 5 | M | | | | | 0.27 | 17 |
| | A | | | | | 0.07 | |
| | N | | | | | 0.00 | |

Note :

M = Maximum Distance
A = Average Distance
N = Minimum Distance

TABLE- 58

PAKISTAN: INTERNAL STRUCTURE OF CLUSTERS 1961
(MAXIMUM/AVERAGE/MINIMUM)

| Variables \ Clusters | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| Population Density | M | 1506.00 | 1119.00 | 772.00 | 317.00 | 104.00 |
| | A | 1506.00 | 1119.00 | 610.30 | 219.20 | 42.00 |
| | N | 1506.00 | 1119.00 | 480.00 | 138.00 | 2.00 |
| Population Variation (1951-61 | M | 80.00 | 31.00 | 31.00 | 53.00 | 48.00 |
| | A | 80.00 | 31.00 | 21.90 | 28.00 | 20.70 |
| | N | 80.00 | 31.00 | 8.00 | 8.00 | - 22.00 |
| Degree of urbanization | M | 93.60 | 59.10 | 35.80 | 40.00 | 45.60 |
| | A | 93.60 | 59.10 | 20.32 | 15.76 | 14.83 |
| | N | 93.60 | 59.10 | 11.20 | 7.00 | 3.50 |
| In-Migration | M | 311.00 | 198.00 | 149.00 | 139.00 | 81.00 |
| | A | 311.00 | 198.00 | 92.10 | 49.10 | 20.40 |
| | N | 311.00 | 198.00 | 37.00 | 9.00 | 0.00 |
| Students per 1000 | M | 86.10 | 89.90 | 112.50 | 108.50 | 49.80 |
| | A | 86.10 | 89.90 | 61.59 | 51.10 | 26.27 |
| | N | 86.10 | 89.90 | 37.70 | 23.90 | 3.90 |
| Hospital beds per 1000 | M | 1.00 | 0.60 | 0.90 | 0.90 | 2.50 |
| | A | 1.00 | 0.60 | 0.39 | 0.41 | 0.60 |
| | N | 1.00 | 0.60 | 0.20 | 0.20 | 0.20 |
| Literacy Ratio | M | 38.10 | 25.00 | 32.40 | 24.80 | 22.90 |
| | A | 38.10 | 25.00 | 16.61 | 14.01 | 9.00 |
| | N | 38.10 | 25.00 | 9.80 | 9.20 | 3.40 |
| Value added by Manufacturing per Capita | M | 230.80 | 56.20 | 48.00 | 50.20 | 35.40 |
| | A | 230.80 | 56.20 | 21.35 | 12.82 | 5.63 |
| | N | 230.80 | 56.20 | 5.70 | 0.00 | 0.00 |
| Value added by Agriculture per capita | M | 13.20 | 2.50 | 191.70 | 159.80 | 158.80 |
| | A | 13.20 | 2.50 | 60.10 | 43.55 | 61.88 |
| | N | 13.20 | 2.50 | 15.80 | 0.40 | 6.30 |
| Banks per capita | M | 0.04 | 0.04 | 0.04 | 0.03 | 0.05 |
| | A | 0.04 | 0.04 | 0.02 | 0.02 | 0.01 |
| | N | 0.04 | 0.04 | 0.01 | 0.01 | 0.00 |
| Road Density | M | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| | A | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| | N | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Electricity consumption per capita | M | 0.08 | 0.03 | 0.06 | 0.07 | 0.28 |
| | A | 0.08 | 0.03 | 0.02 | 0.02 | 0.04 |
| | N | 0.08 | 0.03 | 0.01 | 0.00 | 0.00 |

Note:
M = Maximum Value
A = Average Value
N = Minimum Value

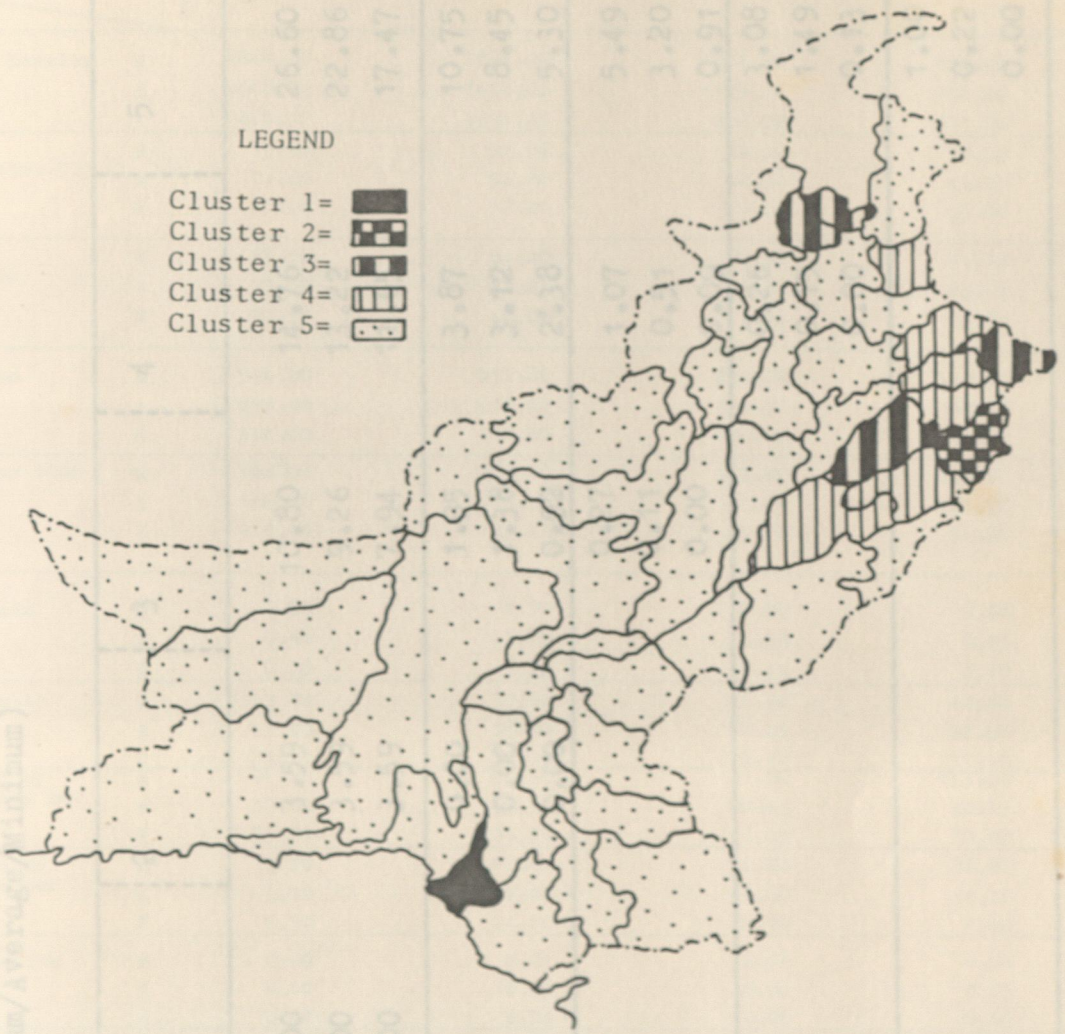


Figure-33: Pattern of spatial inequality in Pakistan based on cluster analysis, 1972.

TABLE -59

PAKISTAN : DISTANCES WITHIN AND BETWEEN CLUSTERS 1972
(Maximum/Average/Minimum)

| Clusters / Clusters | | 1 | 2 | 3 | 4 | 5 | No.of Districts |
|---|---|---|---|---|---|---|---|
| 1 | M | 0.00 | 3.59 | 10.80 | 14.76 | 26.60 | |
| | A | 0.00 | 3.59 | 9.26 | 13.22 | 22.86 | 1 |
| | N | 0.00 | 3.59 | 7.94 | 11.65 | 17.47 | |
| 2 | M | | 0.00 | 1.95 | 3.87 | 10.75 | |
| | A | | 0.00 | 1.38 | 3.12 | 8.45 | 1 |
| | N | | 0.00 | 0.92 | 2.38 | 5.30 | |
| 3 | M | | | 0.27 | 1.07 | 5.49 | |
| | A | | | 0.11 | 0.51 | 3.20 | 4 |
| | N | | | 0.00 | 0.09 | 0.91 | |
| 4 | M | | | | 0.26 | 3.08 | |
| | A | | | | 0.15 | 1.49 | 6 |
| | N | | | | 0.00 | 0.13 | |
| 5 | M | | | | | 1.00 | |
| | A | | | | | 0.22 | 33 |
| | N | | | | | 0.00 | |

Note:

M = Maximum Distance
A = Average Distance
N = Minimum Distance

TABLE-60

PAKISTAN : INTERNAL STRUCTURE OF CLUSTERS 1972
(Maximum/Average/Minimum)

| Variables \ Clusters | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| Population Density | M | 2648.00 | 1694.00 | 1206.00 | 890.00 | 498.0 |
| | A | 2648.00 | 1694.00 | 1113.30 | 781.20 | 199.9 |
| | N | 2648.00 | 1694.00 | 994.00 | 671.00 | 3.0 |
| Population variation(1961-72) | M | 77.00 | 52.00 | 58.00 | 59.00 | 102.0 |
| | A | 77.00 | 52.00 | 50.30 | 49.00 | 59.5 |
| | N | 77.00 | 52.00 | 47.00 | 33.00 | 31.0 |
| Degree of urbanization | M | 97.50 | 64.20 | 27.80 | 44.10 | 36.6 |
| | A | 97.50 | 64.20 | 21.30 | 23.02 | 15.9 |
| | N | 97.50 | 64.20 | 16.20 | 13.70 | 6.2 |
| In-Migration | M | 594.00 | 312.00 | 269.00 | 319.00 | 148.0 |
| | A | 594.00 | 312.00 | 160.80 | 208.00 | 49.6 |
| | N | 594.00 | 312.00 | 104.00 | 104.00 | 4.0 |
| Students per 1000 | M | 146.00 | 123.40 | 113.40 | 160.20 | 143.4 |
| | A | 146.00 | 123.40 | 97.75 | 106.08 | 68.5 |
| | N | 146.00 | 123.40 | 82.70 | 81.80 | 22.8 |
| Hospital beds per 1000 | M | 0.90 | 1.20 | 0.80 | 0.60 | 1.7 |
| | A | 0.90 | 1.20 | 0.38 | 0.25 | 0.3 |
| | N | 0.90 | 1.20 | 0.20 | 0.10 | 0.1 |
| Literacy Ratio | M | 51.20 | 32.50 | 21.40 | 42.80 | 32.8 |
| | A | 51.20 | 32.50 | 18.05 | 22.58 | 15.8 |
| | N | 51.20 | 32.50 | 12.10 | 15.40 | 5.6 |
| Value added by Manufacturing per capita | M | 37.80 | 99.50 | 61.00 | 173.50 | 97.6 |
| | A | 37.80 | 99.50 | 22.43 | 62.53 | 25.6 |
| | N | 37.80 | 99.50 | 1.00 | 30.60 | 0.0 |
| Value added by agriculture per capita | M | 5.70 | 24.60 | 74.80 | 88.80 | 264.4 |
| | A | 5.70 | 24.60 | 56.60 | 58.32 | 65.5 |
| | N | 5.70 | 24.60 | 22.80 | 2.00 | 0.6 |
| Banks per capita | M | 0.02 | 0.01 | 0.04 | 0.06 | 0.0 |
| | A | 0.02 | 0.01 | 0.03 | 0.03 | 0.0 |
| | N | 0.02 | 0.01 | 0.00 | 0.00 | 0.0 |
| Road Density | M | 0.00 | 0.01 | 0.01 | 0.01 | 0.0 |
| | A | 0.00 | 0.01 | 0.01 | 0.00 | 0.0 |
| | N | 0.00 | 0.01 | 0.00 | 0.00 | 0.0 |
| Electricity consumption per capita | M | 0.10 | 0.04 | 0.07 | 0.17 | 0.1 |
| | A | 0.10 | 0.04 | 0.04 | 0.06 | 0.0 |
| | N | 0.10 | 0.04 | 0.01 | 0.02 | 0.0 |

Note: M = Maximum Value
A = Average Value
N = Minimum Value

computation centre of the Pennsylvania State University (U.S.A.) for the districts of Pakistan in time series (1961 and 1972). The General Linear Model of the SAS package used to compute the multiple regression of the dependent variable in-migration (Y) on eleven independent variables ($X_1$, $X_2$, $X_3$.....$X_{11}$) is of the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \text{------} + \beta_{11} X_{11} + c$$

where:

$X_1$= Population Density

$X_2$= Population Variation

$X_3$= Degree of Urbanization

$X_4$= Students per thousand

$X_5$= Hospital Beds per thousand

$X_6$= Literacy Ratio

$X_7$= Value Added by Manufacturing per capita

$X_8$= Value Added by Agriculture per capita

$X_9$= Banks per capita

$X_{10}$= Road Density

$X_{11}$= Electricity Consumption per capita

$\beta_0$= Intercept

$\beta_1, \beta_2, \text{---------} \beta_{11}$ are the regression coefficients for the corresponding independent variables (regressors)

Results of Multiple Regression 1961:

The computed results of multiple regression on the 1961 data have been given in table-61. Substituting the Least Squares Estimates of $\beta$'s (table - 61) in equation (i) gives the fitted model of the form:

$$\hat{Y} = \hat{\beta}_0 + \hat{\beta}_1 X_1 + \hat{\beta}_2 X_2 + \text{------} + \hat{\beta}_{11} X_{11} \qquad \text{----(ii)}$$

TABLE - 61

COMPUTED RESULTS OF MULTIPLE REGRESSION ANALYSIS 1961

| Variables 1961 | $\hat{\beta}$ = Least Square Estimates of $\beta$ | |
|---|---|---|
| Intercept | $\hat{\beta}_0$ | 24.61 |
| $X_1$ | $\hat{\beta}_1$ | 0.11 |
| $X_2$ | $\hat{\beta}_2$ | -0.22 |
| $X_3$ | $\hat{\beta}_3$ | 1.39 |
| $X_4$ | $\hat{\beta}_4$ | 0.27 |
| $X_5$ | $\hat{\beta}_5$ | -33.82 |
| $X_6$ | $\hat{\beta}_6$ | -1.02 |
| $X_7$ | $\hat{\beta}_7$ | 1.19 |
| $X_8$ | $\hat{\beta}_8$ | -0.27 |
| $X_9$ | $\hat{\beta}_9$ | 912.24 |
| $X_{10}$ | $\hat{\beta}_{10}$ | 2013.04 |
| $X_{11}$ | $\hat{\beta}_{11}$ | 139.35 |

$R^2$ = Coefficient of Determination = 76.08%

$\leq(Y-\bar{Y})^2$ = Total Variance = 165027.91

$\leq(Yest-\bar{Y})^2$ = Explained due to Regression = 125547.09

$\leq(Y-Yest)^2$ = Unexplained variance = 3948.82

S.D. = Standard Deviation = 30.66

C.V. = Coefficient of variation = 53.83

$\bar{Y}$ = Mean In-migration = 56.96

The model explains 76.1 percent of the total variance. The sum of the squared residuals shows an unexplained variance of only 23.9 percent indicating a good fit of the model to the actual data. The scatter of the observed values and the residuals from regression for the 45 districts in 1961 (figure - 34) shows a positive correlation of 0.50. It can be discerned from this that a unit change in the value of one or more of the eleven regressors (independent variables) would produce a corresponding change in the volume of in-migration. The magnitude of the change in the dependent variable can be predicted from the fitted regression model------equation (ii).

Results of Multiple Regression 1972:

The results obtained from the multiple regression on the 1972 data are given in table-62. The coefficient of determination was about 80 percent which reflects that the eleven independent variables account for 80 percent variation in the dependent variable (in-migration). The remaining 20 percent could be attributed to 'noise' or sampling variability. The scatter of the observed values and residuals of regression (figure - 35) indicates a positive correlation of the order of 0.46.

A comparison of multiple regression analyses in time reveals a higher degree fit of the model for 1972 than for 1961. An increase in the explained variance is a positive indication of the strengthening of the model over time. It shows that increasing internal migration in Pakistan is to a large extent dependent upon widening development gaps in the country.

The regression coefficients however are not comparable and cannot be rank ordered because different variables are in

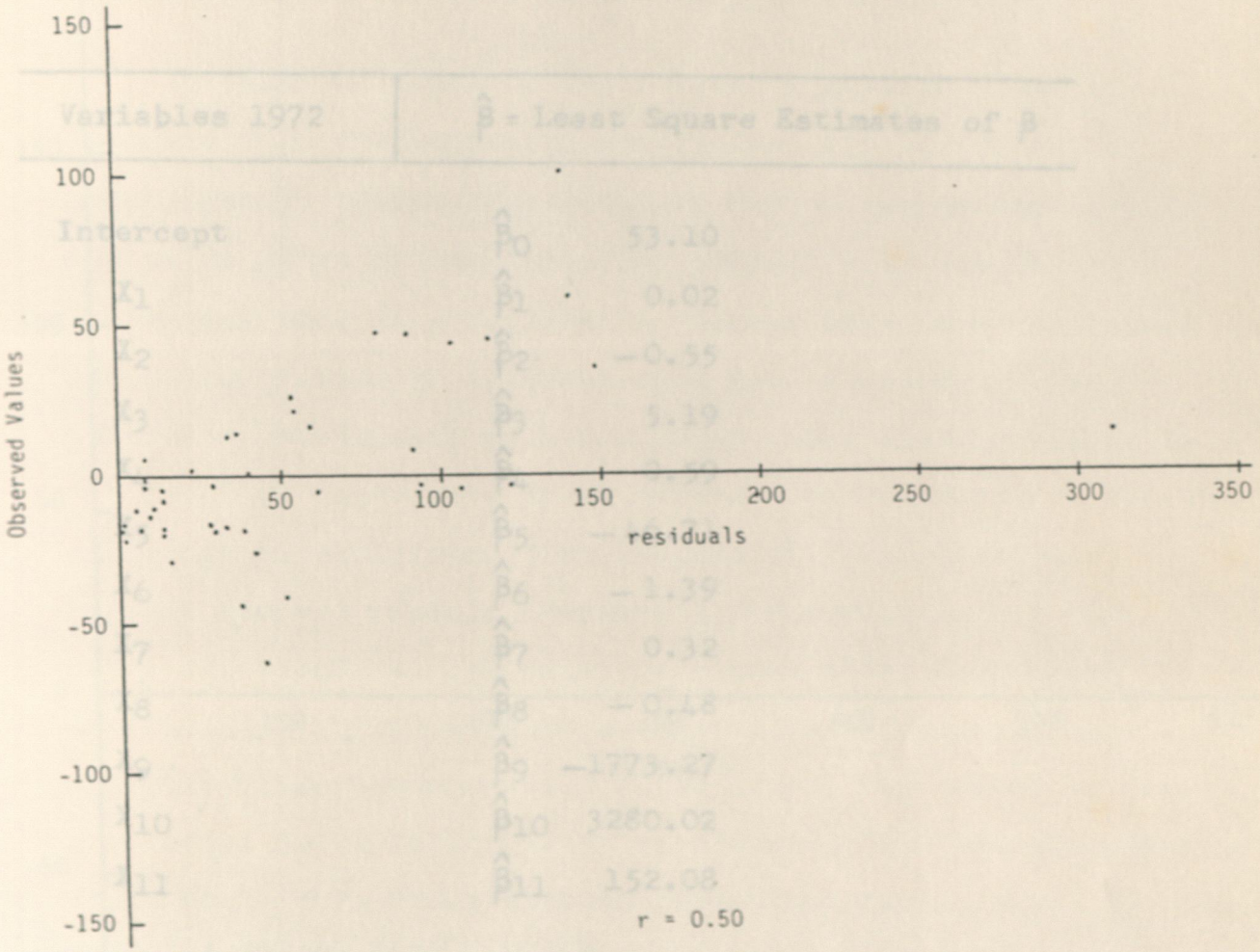


Figure-34: Scatter of observed values and residuals from regression 1961.

TABLE - 62

COMPUTED RESULTS OF MULTIPLE REGRESSION ANALYSIS 1972

| Variables 1972 | $\hat{\beta}$ = Least Square Estimates of $\beta$ | |
|---|---|---|
| Intercept | $\hat{\beta}_0$ | 53.10 |
| $X_1$ | $\hat{\beta}_1$ | 0.02 |
| $X_2$ | $\hat{\beta}_2$ | −0.55 |
| $X_3$ | $\hat{\beta}_3$ | 5.19 |
| $X_4$ | $\hat{\beta}_4$ | 0.59 |
| $X_5$ | $\hat{\beta}_5$ | −46.71 |
| $X_6$ | $\hat{\beta}_6$ | −1.39 |
| $X_7$ | $\hat{\beta}_7$ | 0.32 |
| $X_8$ | $\hat{\beta}_8$ | −0.48 |
| $X_9$ | $\hat{\beta}_9$ | −1773.27 |
| $X_{10}$ | $\hat{\beta}_{10}$ | 3280.02 |
| $X_{11}$ | $\hat{\beta}_{11}$ | 152.08 |

$R^2$ = Coefficient of Determination = 79.91%

$\sum(Y-\bar{Y})^2$ = Total Variance = 565513.11

$\sum(Yest-\bar{Y})^2$ = Explained Due to Regression = 451915.33

$\sum(Y-Yest.)^2$ = Unexplained Variance = 113597.78

S.D. = Standard Deviation = 58.67

C.V. = Coefficient of Variation = 59.53

$\bar{Y}$ = Mean In-migration = 98.56

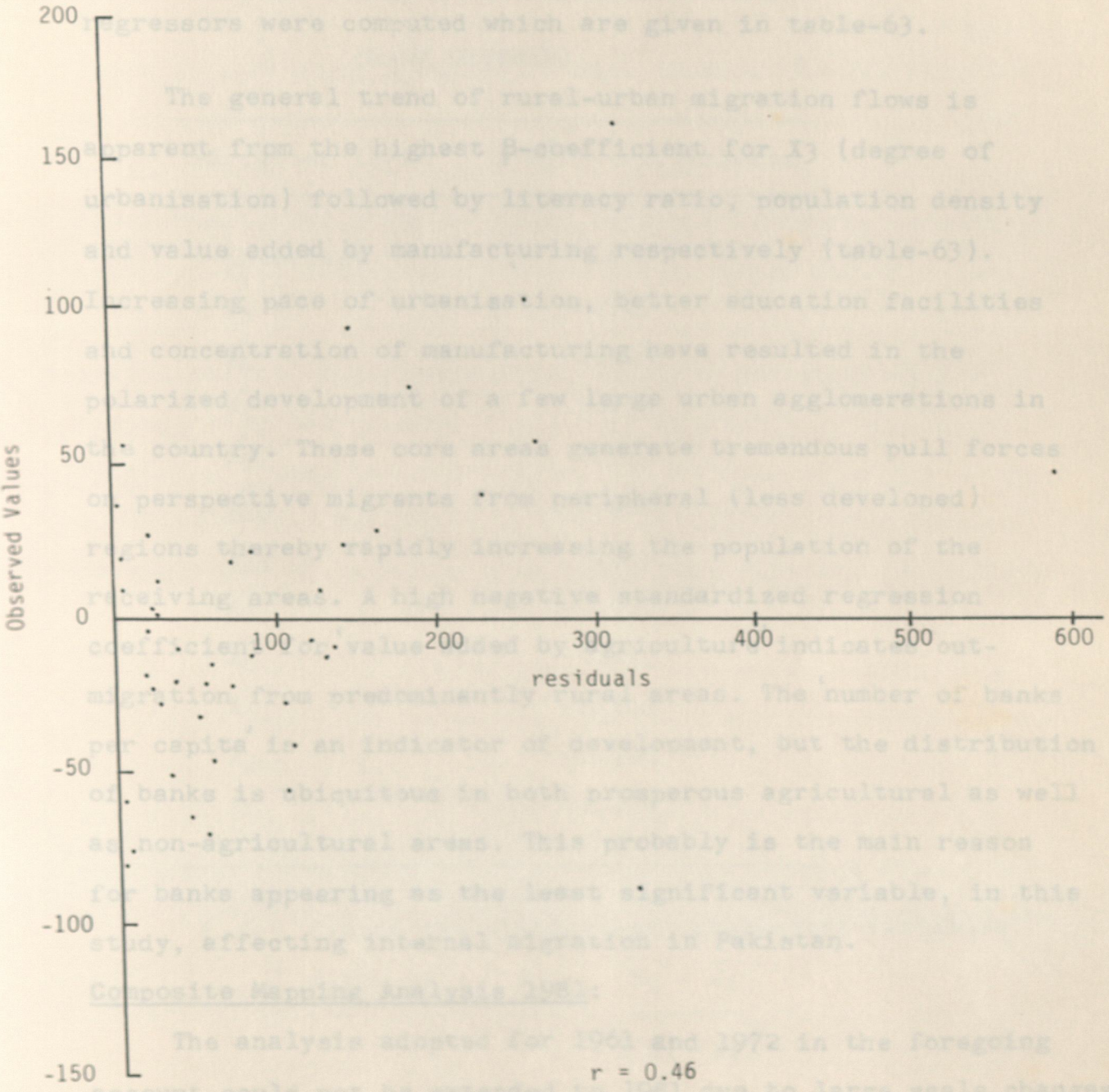


Figure 35: Scatter of observed values and residuals from regression, 1972

different measurement units. Therefore, to find out the significance of each variable in the model, the independent variables had to be standarized first. Hence, the Least Squares Estimates for the coefficients of standardized regressors were computed which are given in table-63.

The general trend of rural-urban migration flows is apparent from the highest β-coefficient for $X_3$ (degree of urbanisation) followed by literacy ratio, population density and value added by manufacturing respectively (table-63). Increasing pace of urbanisation, better education facilities and concentration of manufacturing have resulted in the polarized development of a few large urban agglomerations in the country. These core areas generate tremendous pull forces on perspective migrants from peripheral (less developed) regions thereby rapidly increasing the population of the receiving areas. A high negative standardized regression coefficient for 'value added by agriculture' indicates out-migration from predominantly rural areas. The 'number of banks per capita' is an indicator of development, but the distribution of banks is ubiquitous in both prosperous agricultural as well as non-agricultural areas. This probably is the main reason for banks appearing as the least significant variable, in this study, affecting internal migration in Pakistan.

Composite Mapping Analysis 1981:

The analysis adopted for 1961 and 1972 in the foregoing account could not be extended to 1981 due to large scale changes in district boundaries and data constraints. A different approach had to be used for carrying out an analytical study of the interrelationships of migration, urbanization and development in line with the available data. The subsequent analysis based

TABLE -63

STANDARDIZED BETA VALUES OF INDEPENDENT VARIABLES 1972

(RANK ORDERED)

| Variables 1972 | $\beta_i^*$ - coefficients |
|---|---|
| Intercept | 0.000 |
| $X_3'$ | 0.729 |
| $X_4'$ | 0.165 |
| $X_1'$ | 0.135 |
| $X_7'$ | 0.098 |
| $X_{10}'$ | 0.087 |
| $X_{11}'$ | 0.059 |
| $X_2'$ | -0.090 |
| $X_6'$ | -0.113 |
| $X_5'$ | -0.142 |
| $X_8'$ | -0.208 |
| $X_9'$ | -0.216 |

$X''s$ denote the standarized independent variables given by $X_i' = \frac{X_i - \bar{X}_i}{S.D.\ (X_i)}$

$\beta^{*}$'s denote beta-coefficients of $X''s$.

on map-sieving techniques however did provide a generalised base for comparison in historical perspective.

The mapsieving technique is a standard cartographic method for obtaining a composite picture of spatial inequalities by combining a series of maps showing the distribution of different variables. Three groups of variables were used as indicators of the magnitude of urbanization, migration and development. The first of these (urbanization) was determined by the degree and pace of urbanization, which were further weighted by the presence or absence of 0.1 million cities in each district. The results thus obtained are shown in the accompanying map (figure - 36). The intensity of migration (figure - 37) was based on percentage deviations from average in-migration to districts in 1981. The pattern of sptial inequalities in economic development was adopted from a PEPAC study (PEPAC 1983). The study applied a 'core-periphery' model in terms of distance from the core market areas of a nations economy. Owing to the concentration of markets in the 'Greater Karachi Metropolitan Area' and the 'Central Punjab', which may be called the 'National Cores' of Pakistan, the aggregate transport costs of the national average bundle of goods and services is minimized in these locations. Aggregate transport costs increase proportionally with the distance from these two regions. Areas outside these regions may, therefore, in the first stage of generalization be categorized as the 'National Periphery'. Within the National Periphery, three 'Local Cores' comprising the 'Greater Federal Capital Area', 'Multan', and 'Peshawar Vale' may be discerned. The rest of the periphery may be further divided into the 'Inner Periphery',

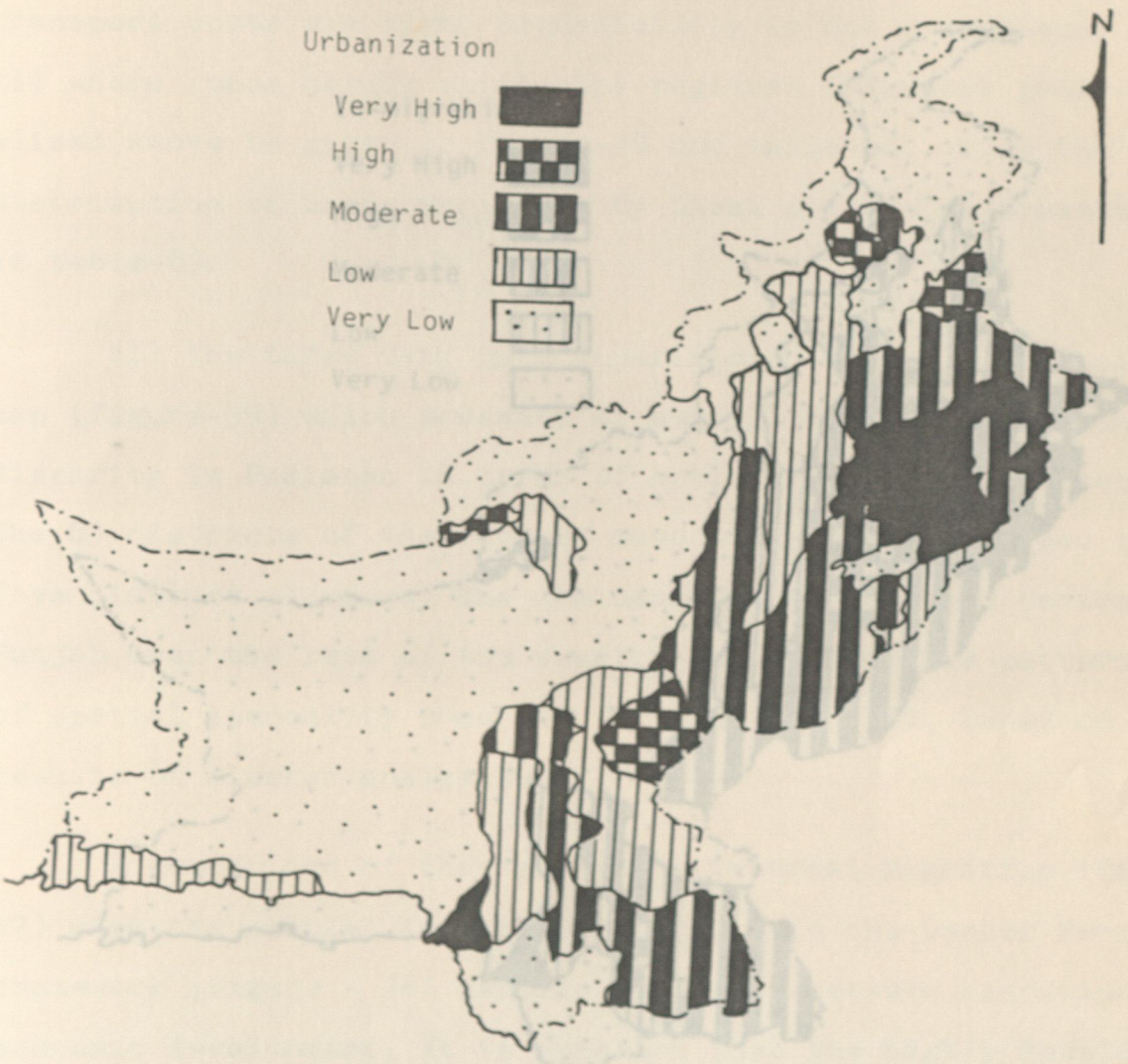


Figure 36: Pattern of spatial inequality in Pakistan based on urbanization, 1981.

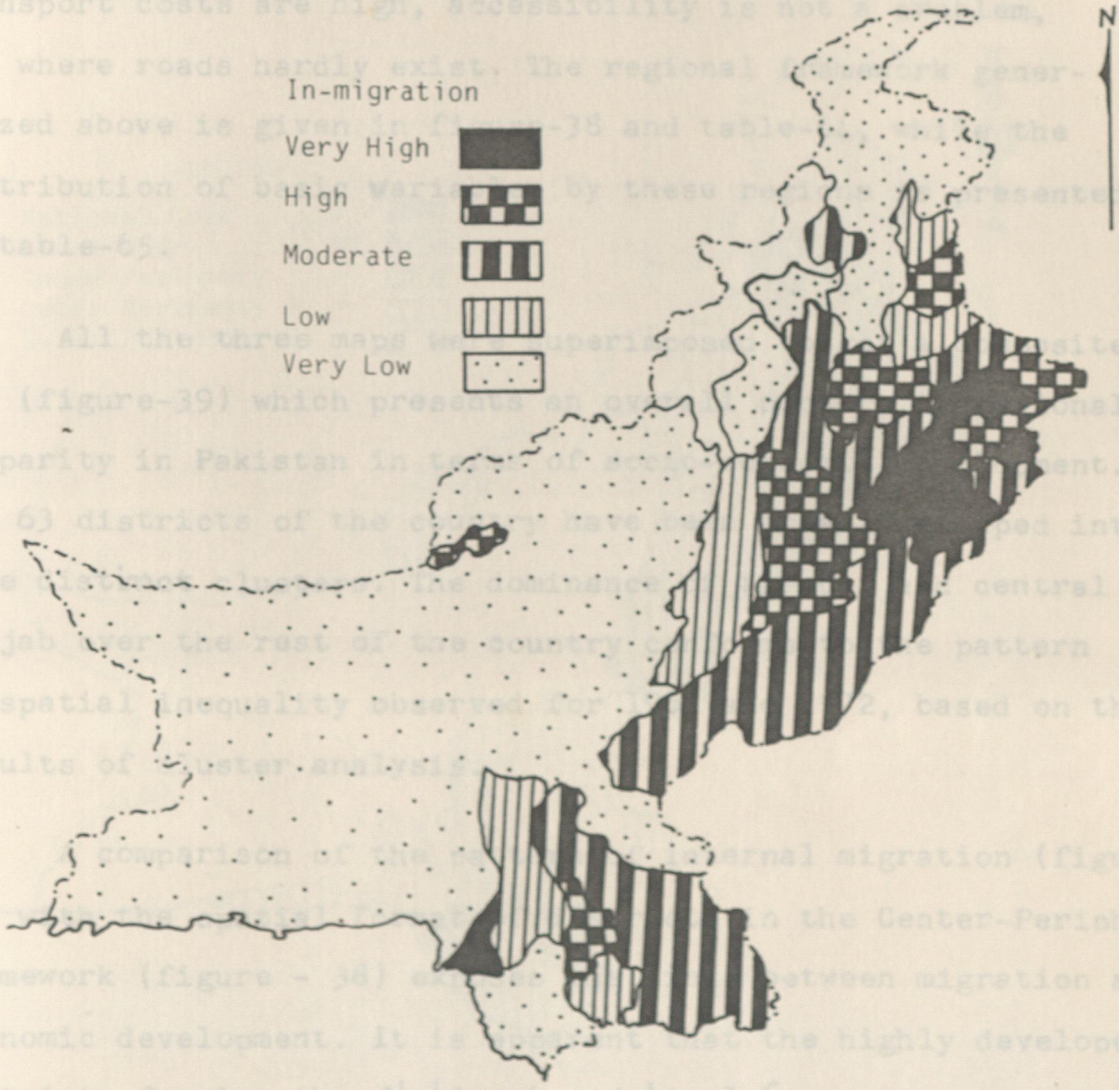


Figure 37: Pattern of spatial inequalities in Pakistan based on migration, 1981

which is relatively close in distance to the National or Local Cores, and the 'Outer Periphery', where aggregate transport costs are maximum. The Outer Periphery may be further sub-divided into two categories--i) where, though transport costs are high, accessibility is not a problem, ii) where roads hardly exist. The regional framework generalized above is given in figure-38 and table-64, while the distribution of basic variables by these regions is presented in table-65.

All the three maps were superimposed to get a composite map (figure-39) which presents an overall picture of regional disparity in Pakistan in terms of socio-economic development. The 63 districts of the country have been broadly grouped into five distinct clusters. The dominance of Karachi and central Punjab over the rest of the country conforms to the pattern of spatial inequality observed for 1961 and 1972, based on the results of cluster analysis.

A comparison of the pattern of internal migration (figure-37) with the spatial format of districts in the Center-Periphery framework (figure - 38) exposes the links between migration and economic development. It is apparent that the highly developed districts forming the National and Local Cores are, in general, experiencing maximum in-migration, where as inflows to the Outer-Periphery are far below the national average. The above analysis thus indicates that regional imbalances in the country generate forces which influence the decisions of individuals to move from less developed towards more developed areas.

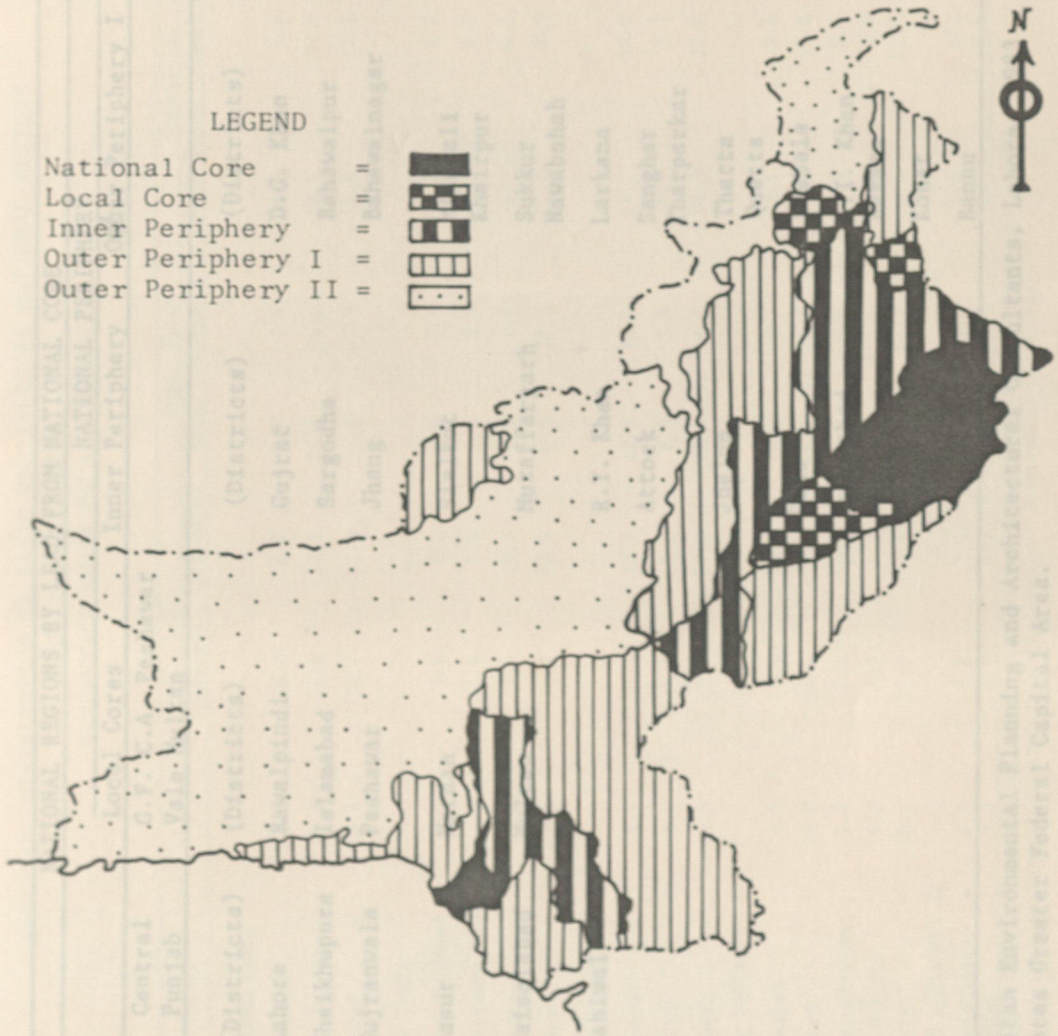


Figure-38: Spatial format of Pakistan's regions in Center-Periphery framework, 1983.

TABLE-64

PAKISTAN: SPATIAL FORMAT OF NATIONAL REGIONS IN CENTER-PERIPHERY FRAME WORK 1983

| NATIONAL REGIONS BY LEAD FROM NATIONAL CORE | | | | | |
|---|---|---|---|---|---|
| NATIONAL CORES | | NATIONAL PERIPHERY | | | |
| | | Local Cores | Inner Periphery | Outer Periphery I | Outer Periphery II |
| Greater Karachi Metropolitan Area | Central Punjab | G.F. C.A. Peshawar Vale Multan | | | |
| | (Districts) | (Districts) | (Districts) | (Districts) | (Districts) |
| Karachi District | Lahore | Rawalpindi | Gujrat | D.G. Khan | Zhob |
| | Sheikhupura | Islamabad | Sargodha | Bahawalpur | Sibi |
| Hub Chowki | Gujranwala | Peshawar | Jhang | Bahawalnagar | Chagai |
| Gadani | Kasur | Mardan | Sialkot | Mianwali<br>Khairpur | Loralai |
| | Faisalabad | Multan | Muzaffargarh | Sukkur<br>Nawabshah | Kalat |
| | Sahiwal | | R.Y. Khan | Larkana | Kachhi |
| | | | Attock | Sanghar<br>Tharparkar | Kharan |
| | | | Jhelum | Thatta<br>Quetta | Mekran |
| | | | Dadu | Lasbela | Swat |
| | | | Hyderabad | D.I. Khan<br>Hazara | Dir |
| | | | | Kohat | Chitral |
| | | | | Bannu | |

SOURCE : PEPAC - Pakistan Environmental Planning and Architectural Consultants, Lahore, 1983
NOTE: G.F.C.A. denotes Greater Federal Capital Area.

TABLE - 65

PAKISTAN: DISTRIBUTION OF BASIC VARIABLES BY NATIONAL REGIONS
(CENTER - PERIPHERY) 1983
PERCENTAGE SHARE OF ALL PAKISTAN

| Core/Periphery | Population | Area | | Prod. Value | | Industrial | |
|---|---|---|---|---|---|---|---|
| | | Cropped | Irrigated | Agri. | Livestock | Large Scale | Small Scale |
| NATIONAL CORE: | | | | | | | |
| Karachi | 6.8 | 0.2 | 0.2 | 0.0 | 2.4 | 34.7 | 7.3 |
| C. Punjab | 22.8 | 21.5 | 27.1 | 21.9 | 24.6 | 18.2 | 30.2 |
| Total | 29.6 | 21.7 | 27.3 | 21.9 | 27.0 | 52.9 | 37.5 |
| LOCAL CORE: | | | | | | | |
| G.F.C. Area* | 3.1 | 1.6 | 0.1 | 0.8 | 1.7 | 6.7 | 1.8 |
| Peshawar Vale | 4.6 | 2.6 | 2.8 | 3.8 | 3.6 | 8.1 | 4.0 |
| Multan | 6.8 | 7.9 | 10.0 | 12.0 | 7.2 | 2.9 | 4.1 |
| Total | 14.5 | 12.1 | 12.9 | 16.6 | 12.5 | 17.7 | 9.9 |
| INNER PERIPHERY: | | | | | | | |
| Punjab | 19.9 | 25.5 | 22.1 | 22.3 | 22.4 | 14.1 | 29.9 |
| Sind | 5.0 | 4.7 | 5.4 | 6.3 | 5.9 | 6.7 | 7.1 |
| Total | 24.9 | 30.1 | 27.5 | 28.6 | 28.3 | 20.3 | 37.0 |
| OUTER PERIPHERY I | | | | | | | |
| Punjab | 7.3 | 12.3 | 10.7 | 9.5 | 7.7 | 2.2 | 2.8 |
| Sind | 12.2 | 16.1 | 17.2 | 19.4 | 17.3 | 3.3 | 10.6 |
| Baluchistan | 1.2 | 0.6 | 0.4 | 0.2 | 0.6 | 0.3 | 0.4 |
| N.W.F.P. | 6.0 | 4.2 | 1.8 | 2.4 | 3.8 | 2.7 | 1.4 |
| Total | 26.7 | 33.3 | 30.1 | 31.5 | 29.4 | 8.4 | 15.2 |
| OUTER PERIPHERY II | | | | | | | |
| Baluchistan | 4.3 | 2.8 | 2.2 | 1.6 | 2.8 | 0.0 | 0.4 |
| Total | 4.3 | 2.8 | 2.2 | 1.6 | 2.8 | 0.0 | 0.4 |

SOURCE: PEPAC - Pakistan Environmental Planning and Architectural Consultants Lahore
* Greater Federal Capital Area (Islamabad + Rawalpindi Districts).

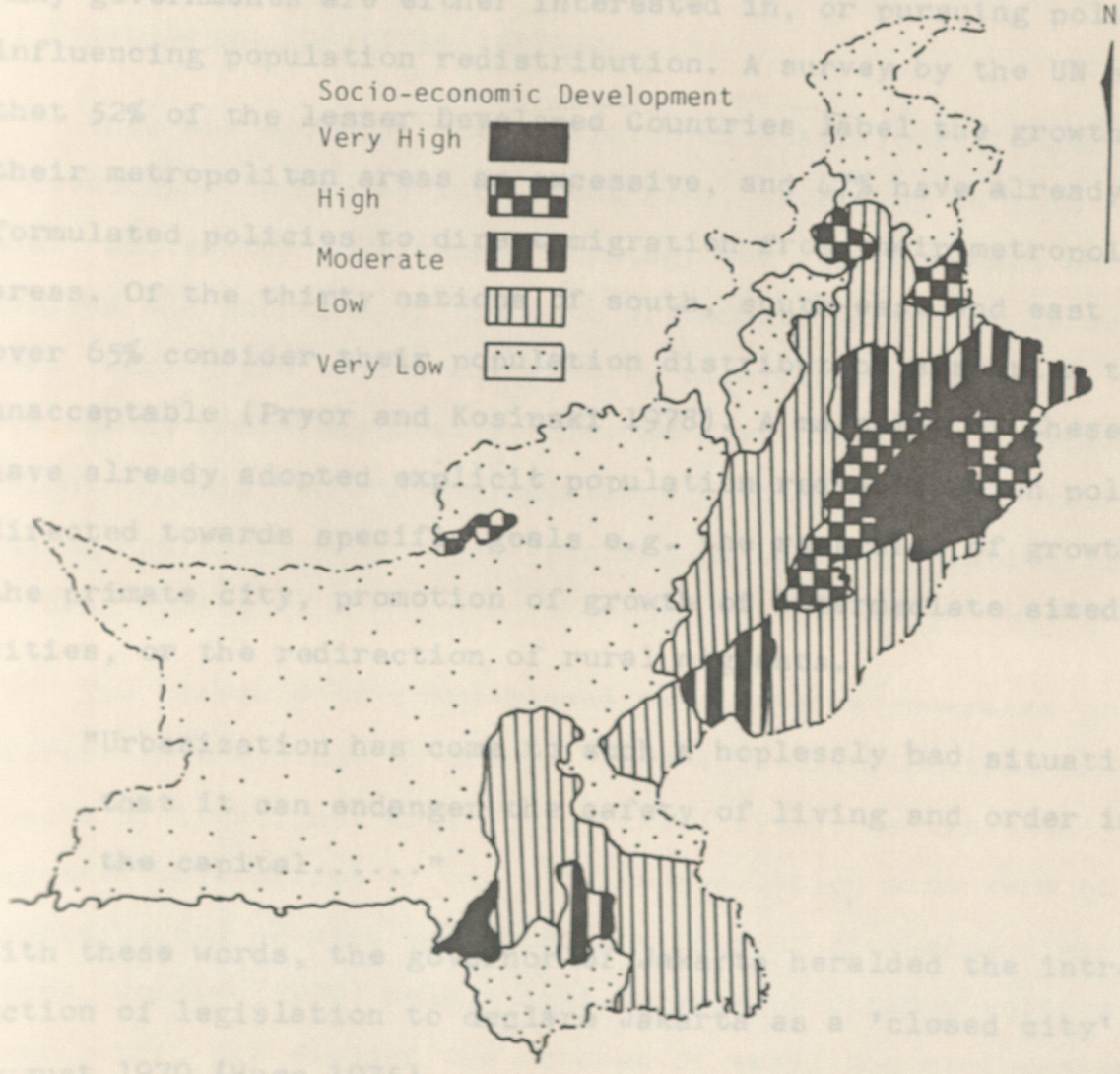


Figure 39: Composite map of spatial inequalities in Pakistan, 1981.

# POPULATION REDISTRIBUTION AND GOVERNMENT POLICIES

The concern about internal migration and regional inbalances is of direct policy relevance to development planning. Many governments are either interested in, or pursuing policies influencing population redistribution. A survey by the UN shows that 52% of the lesser Developed Countries label the growth of their metropolitan areas as excessive, and 47% have already formulated policies to direct migration from their metropolitan areas. Of the thirty nations of south, south-east and east Asia over 65% consider their population distribution situation to be unacceptable (Pryor and Kosinski 1978). A majority of these have already adopted explicit population redistribution policies directed towards specific goals e.g. the restraint of growth of the primate city, promotion of growth of intermediate sized-cities, or the redirection of rural migrants.

> "Urbanization has come to such a hoplessly bad situation that it can endanger the safety of living and order in the capital....."

With these words, the governor of Jakarta heralded the introduction of legislation to declare Jakarta as a 'closed city' in August 1970 (Hugo 1975).

A number of policies and strategies have been followed for population redistribution in different countries of the world, ranging from designation of growth regions to proposing nationwide settlement patterns. The main focus here would not be on specific policy measures, but on conceptual models of

organizing national space with reference to the Third World. Some of the spatial models generally followed are: (i) Urban-based industrialization, (ii) Growth-centres and growth-poles, (iii) Rural development and agropolitan planning, and (iv) 'Balanced' development policies (Saigol 1983).

(i) Urban-based Industrialization:

This was the most common vision of spatial development in developing countries for a long time. According to this model, successful development strategy was fairly simple which involved the adoption of the path of industrialization in urban areas. During the 1950's and 1960's, this western-oriented development model was most popular amongst the newly independent nations of Asia for seeking solutions to their poverty problems, although paradoxically, 70-80 percent of their population lived in rural areas.

The tendency of urban-biased developments generated great interest in the study of optimal city-size distributions and aspects of locational efficiency (Isard 1956). Neutze (1965) suggested that cities of one million population size were quite efficient, and he also supported the idea of city-size distributions. Johnson (1970) held a similar view of optimum settlement distribution and pleaded the concept of small and medium-sized city development. Berry (1971) argued that primacy was unfavourable to overall national development and that settlement systems approximating the log-normality rule were 'mature' systems. However, it was Richardson (1973) who observed that the optimum city-size or optimal distribution models had not been verified.

(ii) Growth-poles and Growth-centres:

The concept of 'Growth-pole' and 'Growth-centre' emerged as regional policy instruments for inducing faster industrial development in lagging regions. A 'Growth-pole' is an aspatial concept consisting of propulsive industries concerned with development dynamics (Perroux 1955), where as a 'Growth-centre' is a spatial concept related with the above and can be specifically defined as an urban area of economic activity which can attain a self-sustained growth providing central functions to the surrounding area, charcterized by a set of propulsive industries located in it, inducing growth in the hinterland.

Francois Perroux (1955) introduced the concept of growth-pole to explain the phenomenon of structural change in the economy. Jacques Boudeville (1966) expanded the economic concept of growth-pole into geographic space. Gunnar Myrdal (1957) explained the phenomenon of 'backwash and spread effects' in terms of the 'cumulative causation' model, while Hirschman (1958) presented his thesis of polarized development in terms of 'polarization' and 'trickle down' effects. Hirschman believed that 'trickle down' effects from the 'North' would ultimately lead to the development of the 'South'. Friedmann's version (1966) appeared in terms of 'core' and 'periphery' regions. According to Berry's (1972-73b) 'hierarchical diffusion', economic growth spreads on an interurban basis as a result of the filtering of innovations downward through the urban hierarchy. Thus, even with scanty empirical evidence and a rather unwieldy theoretical basis, growth-centre policies were well accepted among policy-planners (Friedmann and Weaver 1979).

The pursuit of these policies involving heavy investment, both of domestic as well as of foreign resources, helped some countries to achieve overall respectable growth (U.N. 1971-74) in income and output. But, over the years, only a small proportion of the population living in urban areas prospered, while the majority of rural population remained poor. Friedmann and Douglass analyzed the overall impacts of urban based industrialization policies in six Asian countries. They observed that the adoption of 'efficiency-oriented' policies have caused grave problems in rural as well as urban areas of these countries:

"... strategy (growth-oriented policy) had brought into being dualistic dependency structures that, while they had helped in achieving respectable growth rates, they had also created a set of related and potentially explosive problems, including hyperurbanization, increasing rural densities, a spatial structure of dominant core and dependent periphery, wide spread urban unemployment and under-employment, rising income inequalities, persistent and growing food shortages, and deteriorating material conditions in the countryside." (UNCRD 1976).

"In the context of the new and reviewed materials on inter-urban growth transmission, the growth-centre and spatial growth-pole policies in advanced economies have consistently fallen short of expectations. Because of the shifts in occupational structure occuring in advanced economies, and the increasing relative importance of information processing office and service activities, these schemes cannot continue to focus on the manufacturing sector and on the input-output linkages it supposedly generates in nearby areas. In short, such growth-pole

and regional development planning needs to be reexamined in terms of information linkages rather than physical input-output linkages" (Pred 1976).

Nonetheless, the chances are that the concept will be modified but not discarded, because influential ideas with a sensible pragmatic core just do not die or get discredited that easily (Rodwin 1980). The fact that there are not enough resources, capital or men to invest everywhere and hard choices must be made, is likely to reinforce the notion that some centres are more appropriate for these investments than others. There is a need to distinguish urban centres (a) with different functions and economic activities, (b) with different potentials for propulsive and other kinds of growth within and outside the region, and (c) with different characteristics when serving different strategies (e.g. industrial development, decentralization, rural development, military considerations, etc.) But these perspectives are a far cry from the original notions about growth-centres that need to be acknowledged explicitly (Rodwin 1980).

(iii) Rural and Agropolitan Development:

Rural development alternatives, partly in reaction to the disappointing experience with growth-centres, now enjoy a fairly high standing in most development circles. This again is a policy model with explicit spatial implications. The spatial notion inherent in rural development is essentially that of providing basic facilities and services wherever people happen to be. Whether these facilities are provided through self-help or by public agencies is a dimension of rural development process

that is independent of its spatial objectives. Similarly, the question of what facilities and services are considered basic is an issue on which policies of individual countries differ, and even the policies of the same country vary over time. The essential point to be noted is that rural development aims to improve living conditions and economic opportunities in rural areas to increase their livability and viability.

There is a widespread acceptance of the view that the poorest (in the Third World), the most neglected and possibly the most exploited groups are in the rural areas (Rodwin 1980). Reinforcing these feelings is the conviction that national development is hobbled by a rural sector, dependent to a large extent on subsistence agriculture and characterized by marginal incomes, negligible infrastructure and services, poor health, and drastically limited opportunities for improvements. At the same time, there is limited consensus on what to do about these conditions. Many economists and agriculture specialists opt for efforts to remove urban bias, to increase demand and productivity by relative price changes (for food and industrial products), and for incremental improvements such as better services to improve production processes, technology, and marketing as well as credit, tax, and tariff reforms. Some people would suggest the concentration of these efforts particularly in areas with great growth potentials (Mosher 1969 and 1976, Mellon 1976, Lappe and Collins 1977), while others would specially emphasize the poorest regions. For those emphasizing Integrated Area Development Programs (development of roads, irrigation, rural marketing and servicing facilities, and the development of networks of rural centres), there is again an issue of whether to apply it in areas where the

poor are concentrated, or where attractive growth potentials exist. There are structuralists who favour macro-changes: rural-urban linkages, selective closure-- to avoid leakages of income, and territorial reorganization to facilitate local control and to avoid elite domination (Friedmann 1979). Both structuralists and non-structuralists favour land reforms. One would be hard put to find a Third World country which does not have a rural development program and a national ministry charged with such a responsibility. Though a rural development program may not fall directly under the jurisdiction of ministries such as Urban Development, Housing and Environment, Town and Country Planning, Physical Planning or by whatever national agencies responsible for human settlements bear, it is considered as an essential element of development strategy (PEPAC 1983).

(iv) Balanced Development:

The policies of rural-based development and territorially-based investments, the new foci of attention, indeed represent a new paradigm in regional development planning (Friedmann and Weaver 1979). The Asian experts and academicians, however, seem more inclined to the concept of 'Balanced Development.' They argue, "To attribute deteriorating conditions and aggravating poverty problems in rural areas solely to urban-based industrialization, and growth-centre policies doesn't seem very convincing. It only partially explains the problems as it fails to consider other factors responsible for rural poverty such as social systems and religious values, rural political structure and institutional framework, population growth, the role of politicians and other historical factors. It therefore seems doubtful that all those resources, if allocated to the rural sector in the past, could have solved the development problems of the Asian countries. The

solutions are far more complex than any single dimensional focus. Complete reliance on rural development programs or agropolitan planning strategy are equally difficult to be considered as a panacea for the region. Agropolitan-planning policy is similar to the Chinese approach to rural development. Its realization, particularly the 'basic conditions, would require a whole set of social, political and ideological transformations in those societies. Are they ready for such a change? A different, but none-the-less pertininent question." (Saigol 1983).

The idea of 'balanced development' is alluring but still an illusion. It does not make clear whether it means equitable allocation of resources between urban and rural sectors, a better organization of a human settlement system, or a combination of both. Moreover, 'equitable allocation' and 'better organization' would need further elaboration. Limited relevant knowledge necessary to understand the rural-urban relations constrains tangible answers to these questions. Cities are the centres of 'technical progress' and 'modernization' (Peuker 1968), while rural areas furnish 'resources' in the development process. Ideally, their roles should be complementary to each other. The progress of one, if traded at the expense of the other, may reduce the overall level of development. Wide income differentials between urban and rural areas in the region suggest that historically, their roles in the development process have not been mutually complementary. Policy analysts in international agencies now recognize the potentially positive role that a more balanced pattern of urbanization might play in promoting equitable development. Lubell (1979) argues, "urban and rural development

have to go hand in hand, particularly if it is kept in mind that the definition of urban includes the whole hierarchy of cities from the metropolis through secondary cities to the 'rural-urban interface' of small towns or rural growth centres." Advocates of more balanced urbanization recognize the need for national governments to commit their substantial resources to strengthening intermediate and small scale cities through 'top-down' as well as the need for strategic investment in social and physical infrastructure in rural market towns and villages to facilitate 'bottom-up' development (Rondinelli and Ruddle 1980). Friedmann states that, although 'balanced development' remains an elusive phrase, it implies a lessening or prevention of locational disparities in income and wealth. "No rigid, mathematical balance is intended," Friedmann asserts. "What is meant instead is a sense of systematic inter-relation between countryside and city in which their notorious differences in levels of living and opportunity will become progressively less pronounced." (Friedmann 1981).

Alleviation of rural-urban disparities and promotion of better integration between the two necessitates a better understanding of the phenomenon of rural-urban interaction. It would help in formulating effective development policies for the future, for which the term "National Human Settlement Policy" has been coined. The National Human Settlement Policy (NHSP) as a term came into vogue in the 1970's, but the final stamp of approval was put on it at HABITAT (United Nations Conference on Human Settlement) in 1976, when this assembly of governmental representatives from all over the world adopted as one of its

recommendations that "all countries should establish as a matter of urgency, a national policy on human settlements, embodying the distribution of population and related economic and social activities over the national territory" (Recommendation-A1). Since then, calls for formulating NHSP have reverberated in the ministries of many Third World countries, often under the advice of the United Nation's and World Bank's human settlement experts. What the NHSP is supposed to accomplish and even whether such a policy for a whole nation can be anything more effective than a motherhood statement are questions that remain to be settled. Be it as it may, the main objectives attributed to the NHSP is the promotion of efficient and equitable distribution of population and economic activities over a nation's territory. It is assumed that by explicitly formulating and enacting a set of policies (and programs) to channel public and private investments and various developmental initiatives into specified cities, towns or villages; thus problems of urbanization, rural stagnancy and environmental degradation~~, rural stagnancy, and environmental degradation~~ can be avoided.

As in most of the Third world countries, the rapid growth of a few large cities is the most pressing current problem, so in concrete terms the immediate task for a NHSP is to reorient the convergence of economic and migratory flows from these cities to smaller towns and the countryside. The latter task cannot be attained without improving living conditions and economic bases of rural areas which, in turn, require linking of rural development with urban decentralization. Beyond these immediate tasks are questions of balancing the development of regions in a country, improving the quality of life in cities

and villages, preserving environmental resources, and providing an integrated system of settlements. These issues constitute the medium-range agenda of NHSP. All in all, the core of NHSP is the concern with the geography of development in the sense that objectives may be deliberately formulated to promote a balanced, cost-efficient, and satisfying (to people) spread of developmental activities in a national space. Furthermore, projects and regulations to realize these objectives are also considered an essential part of a NHSP.

Considering the models of spatial development discussed above, Pakistan forms an interesting case study, for it has experimented with most of these models in the process of development. However, the country has not set out instruments for implementing an overall explicit policy of population redistribution aimed at slowing down rural exodus, chanelling urban migrants to selected destinations, encouraging or restricting migration to major cities or coping with such migration by incentive or coercive measures.

Until recently, development planning in Pakistan has been by and large, the exclusive domain of the economists. As such, the emphasis was on economic growth, while the spatial aspects of development were not given much importance. This narrow approach has inevitably led to unbalanced development and inequitable distribution of the benefits of growth, triggering migration. Although the short term (five-year) plans outlining national policies are not specifically formulated to influence existing population distribution in the country, nevertheless have some population redistributive effects. The unintended

sptial impacts of implicit policies i.e. those economic or spatial policies designed for purposes other than population redistribution, but which affect redistribution, may in fact be greater than the intended effects of explicit policies may be found in such areas as foreign trade and exchange policies, tax policies, interest rate policies, agricultural price supports or ceilings, social welfare programs, government regulation of economic activities, wage regulation, the degree of governmental concentration in the primate city and, more generally, the governmental institutional structure (Fuchs 1980). In the following section, therefore, selected implicit programs/policies having both direct and indirect effects on population redistribution in Pakistan (at the national and regional levels) will be examined.

Mapping and analysis of production and infrastructure intensity indicators in the previous chapter confirm the common knowledge that development in Pakistan is concentrated in Karachi and, to a lesser degree, in the districts of Central Punjab. The essentially bi-polar spatial structure of Pakistan's economy has been shaped by three major long term investments made incrementally over the last hundred years, reflecting the particular interest of the 'British Raj':

(i) Irrigation network construction and settlement of canal colonies to generate exportable wheat and cotton surpluses in the Punjab.

(ii) As the terminus for extracting raw material from the Punjab hinterland and importing manufactured goods for it, the development of the port of Karachi after the completion of the Suez canal (1869) made it the shortest sea route

between India and Europe.

(iii) Development of a railway network connecting Karachi with the upcountry hinterland.

It may be seen that these investment decisions were essentially and critically inter-related. The cumulative causation set in motion by these investments was subsequently reinforced by two political and social factors:

(i) Partition-- which cut off the overland trade of Punjab and N.W.F.P. with India.

(ii) The refugee settlement pattern with concentration of immigrants in Karachi, as the nascent metropolis, maximized their chances of economic gain and upward social mobility.

Successful policies appear post-facto to have an air of inevitability. However, astute economic historians warn against the 'too ready' acceptance of the thesis of inevitability. Certain hypothetical scenarios and a few interesting facts may be presented to highlight the alternative spatial patterns which could perhaps have come to fruition under different circumstances:

(i) From the first regular census till 1947, Peshawar was the second largest city of the area which is now Pakistan (PEPAC 1983). It is interesting to speculate what the prospects of this city and its hinterland would have been if Russia had not experienced the Bolshevik Revolution and/or its new masters, in the 1930's, had not firmly annexed Peshawar's natural trading area in Central Asia.

(ii) Canal colonization was a massive undertaking in terms of spatial and human resources. It can be argued that, were

the country ruled by an indigenous ruling class in the earliest stages of its urban industrial development, it may have been more interested in mineral exploitation than in producing agricultural surpluses. After all, coal and iron were the basis of Europe's Industrial Revolution. In this case, the balance of comparative advantage would have been with the mineral-rich regions of Potohar, N.W. F.P., and Baluchistan.

Be that as it may, the historical events are now entrenched, and assessment of the spatial impact of recent/current macro-economic and sectoral policies must be made within the historical context. Government policies in the early years of Pakistan (1947-60) were primarily urban oriented. The planners conceived economic development as a linear process. It was believed that low productivity and underdevelopment were an early stage of development much like the situation which prevailed in the developed countries before the beginning of the Industrial Revolution. According to this concept, successful development strategy was fairly simple and only involved adopting the path of industrialization. With this, it was believed, the benefits of production-oriented economy would trickle down to all parts of the country and to various sections of the society.

However, this strategy of industrialization did not succeed in Pakistan. The types of industries established were largely based on the demands of the privileged minority, which were basically western in attitudes, perceptions and consumption patterns. Consequently, a comparatively modern sector of economy (industries) developed in large urban centres without bringing

any change in the basic economic structure of small cities and villages. This dual economy intensified in subsequent years as a result of which Karachi and Central Punjab gained comparative advantage, which was essentially dynamic. Once these two areas had crossed the threshold levels in terms of the availability of economic infrastructure, namely transport and communication systems, availability of electricity and gas, and financial institutions, there was an automatic tendency for private investment to gravitate to them. Myrdal described this tendency of the market mechanism to result in the concentration of industrial investment and economic growth in already developed areas as the theory of 'cumulative causation.' As a result of this tendency, even the most seemingly space-neutral policies have a differential spatial impact.

The tendency for some regions to grow fast while others remain stagnant is explained by classical and neo-classical economists in terms of theories of location and comparative advantage in international and inter-regional trade. Moreover, it is argued by them that over time, the resulting factor price differentials would cause factor flows from the developed to the under-developed areas, which would reduce, if not eliminate, inter-regional inequalities. In reality, however, it has been seen that these inequalities persist over time, and the market mechanism fails to automatically correct the regional disequilibria.

The problem is basically a structural one-- the principle of cumulative causation operates and increasing returns to scale enable certain areas to gain competitiveness at the expense of

others. Since differential productivity movements are not compensated by differential wage movements, reverse factor flows hardly take place. The initial comparative advantage of certain regions being more a product of historical origin and the consequence of past and present economic policies than of natural advantages or disadvantages. This gives rise to the basic problem confronting the government, i.e., to correct the existing regional concentration of development. It is not sufficient to just have space-neutral policies, it is also necessary first to lean in the other direction, analyze all major economic policies for their spatial impact, and then modify them where necessary.

After World War II, as industrial countries addressed themselves to the problems of their lagging regions, industrial decentralization policies and other explicit regional development programs became popular. The ideas regarding regional development were in due time exported to the less-developed countries including Pakistan, who also attempted to implement similar spatial policies. PEPAC (1983) identifies one set of such policies as those providing incentives to the private sector to undertake investment in less-developed regions. In Pakistan, for example, in an effort to disperse industry from Lahore and Karachi to backward areas, tax holidays and exemptions/reductions of custom duty on imported machinery were granted for the first time in 1960. The period of the tax holiday was fixed at 6 to 8 years for under-developed areas as against 4 years for the country as a whole. In 1965, this was reduced to 4 to 6 years for under-developed areas versus 2 years for the rest of the country; and in 1969, developed areas like Karachi and Lahore lost the tax

concessions altogether, while for other areas, the period of tax holiday was reduced to 3 years only. However, these explicit spatial decentralization measures did not prove to be very effective, because, as some critics observed, they did not reduce the risk of loss. As a result, very few industries were actually decentralized during the 1960's and 1970's-- possibly the only exception was the establishment of a textile industry in the Kohat district-- apart from those industries which would have been located in backward regions in any case because of their closeness to raw material. In general, fiscal incentives merely induced, where ever possible, industrial investment to move just across the borders of developed districts. Industrial investment in 'Kala Shah Kaku' (periphery of Lahore) and 'Hub Chowki' (periphery of Karachi) may be cited as typical examples for the 1960's and 1970's, respectively. In effect, what took place was not decentralization, but merely metropolitan deconcentration. Policy of fiscal incentives for under-developed areas have been once again seriously pursued by the present Government and the concessions currently available are given in table - 66.

The second set of policies (PEPAC 1983) consisted of major public sector projects and regional planning programs undertaken by the Government in which the regional or spatial implications were, to a certain degree, part of the desired objectives. A few of the more important projects and programs are listed here as examples:

(i) Decision to set up a new Federal capital at Islamabad.

(ii) Efforts at rehabilitating existing canal-irrigated areas. These included Salinity Control and Reclamation Projects (SCARP).

TABLE - 66

PAKISTAN: CONCESSION TO INDUSTRIES LOCATED IN LESS DEVELOPED AREAS.

Complete exemption from custom duty on machinery and equipment and a tax holiday for 5 years is available for the following areas:

i) The entire Province of Baluchistan

ii) The entire State of Azad Kashmir

iii) Northern Areas and Tribal Areas

iv) In the following areas of N.W.F.P.

a) D.I. Khan and Malakand Divisions

b) Mansehra and Kohistan Districts

c) All approved Industrial Estates

v) Industrial Estates in Districts of Shikarpur, Jacobabad and Dadu in the Province of Sind.

vi) District D.G. Khan and Industrial Estates in District Mianwali and Tehsil Khushab in the Province of Punjab.

Exemption to the extent of 50% of the leviable custom duty is available on machinery and equipment for establishing units in rest of the country excluding the following areas:

1. Islamabad Capital Terriotry.
2. Tehsil of Lahore.
3. Tehsil of Ferozewala.
4. Tehsil of Gujranwala.
5. Tehsil of Sialkot.
6. Tehsil of Rawalpindi.
7. Tehsil of Faisalabad.
8. Tehsil of Multan
9. Tehsil of Rahimyar Khan.
10. Taluka of Hyderabad.
11. Taluka of Kotri
12. Taluka of Sukkur.
13. Karachi.
14. Such areas adjoining Karachi and Lahore as may be specified by the Central Board of Revenue.

SOURCE: PEPAC, "National Human Settlement Policy of Pakistan : Interim Report", 1983.

(iii) Various rural development programs undertaken from time to time, e.g., Village Aid, Rural Works Programs, Integrated Rural Development Program (IRDP), Peoples Works Program (PWP), Agroville Program, and programs carried out by Local Bodies.

(iv) Expansion in canal irrigation network, e.g., the planned extension of the Pat Feeder Canal, the on-going Chashma Right Bank Canal Project, and the proposed Greater Thal Canal Project.

(v) Major new road construction programs, e.g., Indus Super Highway Project (abandoned), Karakurram Highway, extensive road construction undertaken by the Frontier Works Organization in the Northern Areas and Baluchistan, and the Farm-to-Market Roads Program.

(vi) Provision of electricity/gas to certain areas for other than commercial considerations, e.g., Rural Electrification Program, provision of Sui-Gas to Quetta, and extension of the National Grid Project.

In addition to these a few townships were promoted in the public sector. These included suburban housing schemes by Karachi Development Authority and Lahore Development Authority in Karachi and Lahore respectively to develop new townships/sub-divisions. The Hayatabad Township of Peshawar is another example of public efforts. Land ownership in such townships is, however, out of reach of low income groups because of high prices of land development. A summary of an evaluation report for Hayatabad Township prepared by Peshawar Development Authority has been given in Appendix-F as a typical example of government schemes.

The spatial impact of each of these projects/programs is difficult to ascertain quantitatively and has to be individually evaluated before any concrete conclusions can be reached. But it is clear that some of these projects/programs have had, or could have, a major spatial impact, particularly over the long run. It may be pointed out here that the shifting of the national capital from Karachi had a pronounced effect on the growth of Rawalpindi-Islamabad, increasing the population of the twin city to over a million in 1981. Its satellite cities Wah and Taxila exhibited the highest urban growth rate during 1961-72 period. However, it had little impeding effect upon the rapidly growing primate city which has already crossed the 5 million mark. Karachi's growth can hardly be over-emphasized. It is expected to fall amongst the 20 largest agglomerations of the world by the year 2000, achieving a population of 12.2 million (table - 67). It is interesting to note that while Karachi does not appear among the world's largest cities in 1980 or 1990, it suddenly emerges and climbs to the 16th position (ranked according to population size) by the end of the century, even surpassing the capital cities of London, Beijing, Moscow and Paris which had previously remained among the top twenty.

The subject is essentially controversial and no mathematical clarity on the magnitude of differential spatial impacts is possible until a comprehensive input-output model of the economy with regional sub-sectors is constructed (which is unlikely in the near future because of its data demands) or at least an aggregative input-output model with shadow pricing (to reflect true social costs) of all key commodities and services. Nevertheless, the direction of the overall impact of government

TABLE- 67

TWENTY LARGEST AGGLOMERATIONS IN THE WORLD RANKED BY SIZE, 1950-2000

(POPULATION IN MILLIONS)

| Rank | 1950 | Popula-tion | 1970 | Popula-tion | 1980 | Popula-tion | 1990 | Popula-tion | 2000 | Popula-tion |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. | New York/northeastern New Jersey | 12.4 | New York/northeastern New Jersey | 16.3 | Tokyo/Yokohama | 17.0 | Mexico City | 21.3 | Mexico City | 26.3 |
| 2. | London | 10.4 | Tokyo/Yokohama | 14.9 | New York/north-eastern New Jersey | 15.6 | Sao Paulo | 18.8 | Sao Paulo | 24.0 |
| 3. | Shanghai | 10.3 | Shanghai | 11.4 | Mexico City | 15.0 | Tokyo/Yoko-hama | 17.2 | Tokyo/Yokohama | 17.1 |
| 4. | Rhein-Ruhr | 6.9 | London | 10.6 | Sao Paulo | 12.8 | New York/north eastern New Jersey | 15.3 | Calcutta | 16.6 |
| 5. | Tokyo/Yokohama | 6.7 | Rhein-Ruhr | 9.3 | Shanghai | 11.8 | Calcutta | 12.6 | Bombay | 16.0 |
| 6. | Beijing | 6.7 | Mexico City | 9.2 | Greater Buenos Aries | 10.1 | Shanghai | 12.0 | New York/north-eastern New Jersey | 15.5 |
| 7. | Paris | 5.5 | Greater Buenos Aries | 8.5 | London | 10.0 | Bombay | 11.9 | Seoul | 13.5 |
| 8. | Tianjin | 5.4 | Los Angeles/Long Beach | 8.4 | Calcutta | 9.5 | Greater Buenos Aires | 11.7 | Shanghai | 13.5 |
| 9. | Greater Buenos Aires | 5.3 | Paris | 8.3 | Los Angeles/ Long Beach | 9.5 | Seoul | 11.5 | Rio de Janeiro | 13.3 |
| 10. | Chicago/north western Indiana | 5.0 | Beijing | 8.3 | Rhein-Ruhr | 9.3 | Rio de Janeiro | 11.4 | Delhi | 13.3 |
| 11. | Moscow | 4.8 | Sao Paulo | 8.2 | Rio de Janeiro | 9.2 | Los Angeles/ Long Beach | 10.5 | Greater Buenos Aires | 13.2 |
| 12. | Calcutta | 4.4 | Osaka/Kobe | 7.6 | Beijing | 9.1 | Cairo Giza/ Imbaba | 10.0 | Cairo/Giza/ Imbaba | 13.2 |

....P/2

Table - 67 Continued

| Rank | 1950 | Population | 1970 | Population | 1980 | Population | 1990 | Population | 2000 | Population |
|---|---|---|---|---|---|---|---|---|---|---|
| 13. | Los Angeles/Long Beach | 4.1 | Rio de Janeiro | 7.2 | Paris | 8.8 | London | 9.5 | Jakarta | 12.8 |
| 14. | Osaka/Kobe | 3.8 | Moscow | 7.1 | Bombay | 8.5 | Beijing | 9.5 | Baghdad | 12.8 |
| 15. | Milan | 3.6 | Calcutta | 7.1 | Seoul | 8.5 | Jakarta | 9.3 | Teheran | 12.7 |
| 16. | Rio de Janeiro | 3.5 | Tianjin | 6.9 | Moscow | 8.2 | Moscow | 9.2 | Karachi | 12.2 |
| 17. | Mexico City | 3.1 | Chicago/north-western Indiana | 6.8 | Osaka/Kobe | 8.0 | Delhi | 9.2 | Istanbul | 11.9 |
| 18. | Philadelphia/New Jersey | 3.0 | Bombay | 5.9 | Tianjin | 7.7 | Rhein-Ruhr | 9.1 | Los Angeles/ Long Beach | 11.3 |
| 19. | Bombay | 2.9 | Milan | 5.6 | Cairo/Giza Imbaba | 7.3 | Teheran | 9.0 | Dhaka | 11.2 |
| 20. | Detroit | 2.8 | Seoul | 5.4 | Chicago/north-western Indiana | 6.8 | Paris | 9.0 | Manila | 11.1 |

SOURCE: Results of United Nations demographic estimates and projections as assessed in 1982.

policies and private decisions in each region is post-facto apparent from the study of migration (job relocation).

The third set of influences (PEPAC 1983) on the spatial distribution of population and economic activity in the country are general economic policies whose spatial impact is mostly implicit and not fully recognized by the government. However, for all practical purposes, these policies have had a much greater influence on the spatial distribution pattern in the country than expected. Selection of development strategies, i.e., the option to invest in agriculture or industry, choosing between large, medium, and small human settlements for locating industrial plants, choice of technology between capital and labour intensive methods, choosing between import substitution and export led growth, decisions regarding output mix between consumer, intermediate, and capital goods and so on fall within this set of policies. Likewise, agricultural sector policies (favouring large vs small farmers, mechanized vs labour intensive technology, irrigated vs rainfed areas), government development outlay (investment in the commodity producing sector, e.g., location of a public sector industry at a specific point, as well as infra-structure), administrative policies (distribution of powers between the center and provinces, and within provinces between the provincial governments and the local bodies, or delimitation of a new divisional or district boundary, or designation of a particular town as a district or divisional headquarter), pricing policies (procurement policies for agricultural commodities, tariffs, and price control benefitting one region at the expense of another) are other examples. Though such policies are usually formed without spatial considerations, they have profound impacts

on specific regions because:

(i) Factor endowment mix (and infrastructure availability) is not uniform among regions.

(ii) Location and lead from raw material to markets vary among regions.

Historically there has been considerable government investment in agricultural development (Indus Basin Works, seed research, agriculture extension, Salinity Control and Reclamation Projects) and the fertilizer subsidy continues until the present. However, there has been very little investment in rural infrastructure as compared to massive investment in urban infrastructure and in subsidies granted to industries. There have also been protection policies for urban-based infant industries whose mass products have damaged the rural craft industries.

Analysis of the federal public sector investment programs for four fiscal years (1979-83) clearly brings out the differential investment in rural versus urban sectors. About 20 per cent of the investment had not been allocable to specific areas (table-45 p.147). A percentage (15 to 25) of certain urban located investments such as in ports and shipping were allocated the rural sector on the grounds that this portion of investment catered to rural exports and imports. The investment in rural sector, and for movement of rural related goods has ranged from 30 to 34 per cent of the ADP (Annual Development Program). The per capita allocation within ADP to the urban sector has, therefore, typically been four times the per capita rural investment. Rural investment received 1 to 6 per cent of funds outside ADP, whereas outside ADP, funding for urban development, broadly

defined, had been 84 to 97 per cent with 1 to 15 per cent unallocable (Appendix - G). In Special Programmes therefore, urban investment per capita has been typically 65 times the rural investment. The net result of investment policies and pricing policies has been to favour the urban sector at the expense of the rural sector.

Within the urban sector, the net balance of government policies has been to favour large cities at the expense of the intermediate and smaller towns. The nationalized banking sector has been particularly powerful in channellizing funds from other urban centres to Karachi and Lahore, where loaning operations are concentrated. Despite a few government policies to the contrary, such as subsidized fuel prices in far flung areas, the net balance of policies has been to favour areas with short leads from the international port and financial centre of Karachi. The main factors being the regulatory policies (exchange, import and credit controls) of the government necessitating face-to-face contact.

Governmental social infrastructure allocations for health, education and water supply etc. have been deliberately framed on per capita basis between and within provinces. In addition, special grants have been given to backward provinces and other peripheral regions. Nevertheless, highest standards and per capita concentration of public utilities (water, electricity, gas etc) are found in Islamabad and to a lesser extent in the four provincial capitals. Consequently, the desire to distribute infrastructure on per capita basis has not been achieved.

Even within agriculture, the over-riding national objectives of attaining early self-sufficiency in wheat and exportable

surpluses of rice and cotton, resulted in definite bias in favour of irrigated areas as opposed to barani (rainfed) areas. Lieberman (1982) describes the current situation of Pakistan's development in these words"...achievement of technological and economic advances is more arduous, demographic processes are more ominous, and government financial and administrative resposibilities are more onerous..." than before. He states that government agencies have an indispensable role in providing high quality services and in controlling the physical setting of agriculture, especially in the form of a major investment in barani areas (which is still awaited) to slow down soil erosion and to provide water conservation and irrigation structures where possible. The same can be said concerning construction of feeder roads, marketing facilities and electricity distribution networks.

A close analysis of public policies in Pakistan reveals that most of these have been conflicting in nature. Thus, along with tax and other incentives provided for decentralization, the Government invested heavily in numerous public projects in Karachi. Considering the investment in industry (by the Ministry of Production), one is struck by fact that Karachi accounted for almost 70 percent of it (table - 68). This is twice Karachi's share in the existing industry. The reason is obvious-- the Karachi Steel Mill is such a massive project that it completely dwarfs the rest of the industrial investment. Additionally, several other major projects (e.g. automobiles, machine tools, fibres, chemicals,etc.) were also set up in Karachi by the Production Ministry. Thus, government investment in the last decade has led to increased concentration of industry in the primate city. There were a few large projects outside Karachi, primarily in the fertilizer and

TABLE- 68

PAKISTAN : SUMMARY DATA ON CREDIT AND GOVERNMENT INVESTMENT IN INDUSTRY AND INFRASTRUCTURE
(Percent Share of urban areas)

| | Pop. | Crop. Area | Commercial Banks Deposits | Commercial Banks Advances | Large Scale | Ministry of Prod. Invest. |
|---|---|---|---|---|---|---|
| Karachi | 6.4 | 0.2 | 32.3 | 52.6 | 34.7 | 69.6 |
| C. Punjab | 21.6 | 21.5 | 23.9 | 28.3 | 18.2 | 0.6 |
| NC | 28.0 | 21.7 | 56.2 | 80.9 | 52.9 | 70.2 |
| GFCA | 2.9 | 1.6 | 10.9 | 2.0 | 6.7 | 0.4 |
| PT | 4.4 | 2.6 | 4.1 | 3.1 | 8.1 | 0 |
| Multan | 6.4 | 7.9 | 3.4 | 2.4 | 2.9 | 7.6 |
| LC | 13.7 | 12.1 | 18.4 | 7.5 | 17.7 | 8.0 |
| Punjab | 18.8 | 25.5 | 10.9 | 3.7 | 14.1 | 1.8 |
| Sind | 4.7 | 4.7 | 2.8 | 1.8 | 6.7 | 0 |
| IP | 23.5 | 30.1 | 13.7 | 5.5 | 20.8 | 1.8 |
| Punjab | 6.9 | 12.3 | 2.2 | 1.0 | 2.2 | 0.8 |
| Sind | 11.6 | 16.1 | 3.9 | 3.3 | 3.3 | 9.7 |
| Baluchistan | 1.1 | 0.6 | 1.9 | 0.6 | 0.3 | 3.5 |
| NWFP | 5.7 | 4.2 | 2.8 | 1.0 | 2.7 | 4.8 |
| OP1 | 25.3 | 33.3 | 10.8 | 5.9 | 8.4 | 18.8 |
| Baluchistan | 4.0 | 2.8 | 0.7 | 0.1 | 0.1 | 0.2 |
| NWFP | 2.6 | - | 0.4 | 0.1 | - | 1.0 |
| AJK & NA | - | - | - | - | - | - |
| OP 2 | 9.5 | - | 1.1 | 0.2 | - | 1.2 |

NC = National Core
LC = Local Core
IP = Inner Periphery
OP = Outer Periphery

SOURCE : PEPAC - Pakistan Environmental Planning and Architectural Consultants,Lahore, 1983

cement industries, which were fairly well-distributed. It is noteworthy that 'Outer Periphery I' received 18.8 percent in the existing production and planned projects such as the D.G. Khan Cement Project. It seems that the Production Ministry has followed a conscious policy of locating industry in the less-developed regions, with the exception of Karachi. Unfortunately, investment in Karachi took up such a large portion of the total budget that the impact of the remaining investments on industrial deconcentration has been marginal.

Turning now to the development expenditure in the Annual Development Plan (ADP), most of the projects were allocated in the 'Transport and communication' sector. Karachi was again the principle recipient, this time because of 'Port Bin Qasim' and 'Pipri Marshalling Yards'. Thus, the effects of the Steel Mill were evident in this sector as well. Out of the remaining investment, the largest share (31.8 percent) was in the urban centres of Outer-Periphery 2, thus government infrastructural investment has tried to remedy the neglect of this region, and the investment in roads and communications is the first step in the opeining up their development. This investment, it is felt, has a potential of having far-reaching effects on the pattern of spatial distribution in the country, as these areas are sparsely populated but rich in natural resources.

Finally, if one looks at the spatial distribution of credit in the country (though it does not directly come under development expenditure, but since the policies of Industrial Development Bank and nationalized commercial banks are strictly controlled by the government) one can conclude that the distribution of credit is an instrument of government policy. Looking at commercial banks

lending, one finds that the allocation is extremely concentrated, with the National Core receiving 81 percent of the credit. Since the National Core generates only 50 percent of the deposits, it is evident that through the banking system there is a massive flow of financial resources from the rest of the country to the National Core. Without exception, all other regions/sub-regions are losers. Thus, it is here that the market mechanism operates with full force, with capital flows moving from less developed areas to the most developed areas. These flows are so massive that they completely negate all government efforts to redress regional imbalances through fiscal policies.

A widely accepted concept is that 'remedial policies' must be supplemented with 'redirectional policies' designed to achieve a "more efficient population distribution". Realizing this fact the government of Pakistan has launched a major effort to prepare a National Human Settlement Policy (NHSP) for Pakistan. An interim report of the same has been prepared. The main reason for initiating this policy has been given in the following words:

> "The concern with regional imbalances in growth, leading to accelerated concentration of population in a few metropolitan centres of the country, and increased doubts about the practicability of economically providing continuously more employmnent and infrastructure facilities in these urban complexes growing to globally unprecedented size (PEPAC 1983)."

The Human Settlement Policy of Pakistan deals specifically with urban settlements. Urban population forecasts have been arrived at by three independent variables: extrapolation, residual

of rural population carrying capacity, and increase in GNP. An absolute increase of 43.3 million persons has been forecasted in the urban areas between March 1981 and June 2003. Of the total increase in urban population, 23.2 million has been attributed to rural-urban migration. This population has been deemed amenable to government policy directions, and six types of urban allocation models have been constructed to distribute it amongst existing urban settlements creating six different scenerios (table -70) for these settlements in the year 2003. Curiously enough, the number of existing cities/towns used for this distribution has varied from 293 in the 'Least-cost' model to 366 in the 'Decentralization' model, whereas the actual number of urban settlements in the country, according to the latest census (1981), is 414. It means that the omission of towns ranged from 118 in the 'Least-cost' model to 45 in the 'Decentralization' scenerio (table - 69).

Two sets of urban allocation models have been used in the study for the distribution of 23.2 million estimated migrants from rural areas. These include mechanical and economic models. Although good modelling does help in grasping the essential features of a study, models have their own limitations. Models that fail to take into account human behaviour and those that are formulated or applied with arbitrary assumptions have serious drawbacks.

The Mechanical group includes the 'No-Change,' Centralization,' and 'Decentralization' models. The first of these is based on the assumption that the historical growth rate of human settlements is the determinant of their future growth. The trend of growth during

TABLE-69

CHARACTERISTICS OF ALTERNATIVE SCENERIOS GENERATED

BY URBAN ALLOCATION MODELS

| CITY SIZE | NO CHANGE | | CENTRALIZATION | | DECENTRALIZATION | | EFFICIENCY I | | EFFICIENCY II | | LEAST COST | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Cities/ Towns | Population (%) | No.of Cities/ Towns | Population (%) | No.of Cities/ Towns | Population (%) | No.of Cities/ Towns | Population (%) | No.of Cities/ Towns | Population (%) | No.of Cities/ Towns | Population (%) |
| 1,000,000 | 9 | 53.57 | 9 | 65.81 | 9 | 43.84 | 9 | 56.86 | 8 | 56.27 | 10 | 43.12 |
| 500,000-999,000 | 4 | 3.48 | 4 | 3.62 | 4 | 3.31 | 6 | 5.39 | 7 | 6.79 | 6 | 5.94 |
| 100,000-499,000 | 75 | 21.25 | 43 | 13.39 | 107 | 28.72 | 75 | 20.83 | 72 | 19.74 | 121 | 34.94 |
| 50,000-99,000 | 95 | 9.64 | 71 | 7.32 | 123 | 13.33 | 76 | 7.75 | 77 | 7.80 | 112 | 11.60 |
| 25,000-49,000 | 92 | 4.94 | 115 | 6.00 | 81 | 4.22 | 102 | 5.58 | 99 | 5.40 | 43 | 2.67 |
| 10,000-24,000 | 81 | 2.04 | 111 | 2.70 | 42 | 1.09 | 85 | 2.11 | 97 | 2.40 | 1 | 0.03 |
| Total | 356 | 94.92 | 353 | 98.84 | 365 | 94.51 | 353 | 98.52 | 260 | 98.40 | 293 | 98.30 |
| Primary Index | | 54.98 | | 57.39 | | 52.35 | | 64.01 | | 68.04 | | 50.48 |
| Estimated cost Benefit Ratio | | 0.978 | | 0.896 | | 1.021 | | 1.006 | | 0.995 | | 1.000 |
| Estimated Resource Shortfall (in billion Rupees*) | | 2889 | | 3282 | | 2645 | | 3119 | | 3191 | | 2664 |

SOURCE: PEPAC (1983) "Interim Report : National Human Settlement Policy for Pakistan", Lahore

* One Billion Rupees are equivalent to $ 62.5 million (approx.)

1961-81 has been used as the basis for projecting the population of individual settlements (with some exceptions). The aggregate population has then been equated with the independent national urban population forecast. The 'Centralization' model assumes that future growth of human settlements is a direct function of their size. However, the methodology followed in this model uses arbitrary sets of exponential values for projecting the population of urban settlements of various size classes. As opposed to 'Centralization', the 'Decentralization' model assumes that the urban growth in terms of percentage is an inverse function of the settlement size.

Of the three economic models used in the PEPAC study, the first two (Efficiency I and Efficiency II) relate the growth rate of urban settlement with the indices of urban production allocating maximum share of urban population to the most productive centres. The third (Least-cost) model banks an allocation of maximum population to assumed low-cost cities. On face value, the models appear very attractive, but, in practice, they are extremely difficult to apply-- particularly because the measurment of productivity and cost needs precision and accuracy of variables, and the data base for these is very weak in Pakistan. The formulation of scenerios on this data base, therefore, can be grossly misleading.

The evaluation of various models indicates a serious shortcoming that has resulted from ignoring the role of settlements as service and marketing centres. The 'Central Place' role is invariably performed by urban settlements of all sizes. This model advocates a hierarchy of service activities ranging from lower

order services, such as a primary school, a grocery shop, or a 'Basic Health Unit' found in almost every city or town, to higher order services, including specialized retailing, colleges, or specialized hospitals found only in major urban settlements.

A basic argument supporting the use of central places in a human settlement policy is that a hierarchical system of settlements and functions avoids duplication and waste. It is a relatively efficient way of administering and allocating resources within a region, facilitating the realization of social benefits occuring from the economies of scale. In addition, the network of interrelated centres within an area means that planning of any centre within it must take into account the implications for other centres (the lack of recognition of this principle has led to much wasteful duplication of facilities). Hilhorst (1971) in an interesting approach to a synthesis of regional theory, suggested that a region's economic shock resistance is much greater where the region's spatial structure is "closely knit"; an area with such a structure is one in which the distribution of settlements approximates the rank-size rule. It is an area which has reached a stage in its development in which certain sub-systems, focussing on subsidiary centres, are clearly discernible and there is no undue reliance on one primate city, like Karachi. The incorporation of the 'Central-place' model in this exercise of urban allocation would be extremely valuable. A major advantage of this model is that its results can be synthesized with one or more of the six scenerios generated in the Interim Report of the Human Settlement Policy.

It may also pay to synthesize two or more models to create

an amalgam of scenerios. Broadly speaking, the choice here is only between 'Centralization' and 'Decentralization' (mechanical) and the 'Least-cost' (economic). Centralization is generally taken to be synonymous with high industrial growth, emphasizing large scale manufacturing, higher rates of growth in big cities, center's dominance of the periphery, urban-rural dichotomy, inequalities, disparities and social discontent, etc. 'Decentralization,' on the other hand, is generally viewed to be egalitarian, distributive, and participatory. It favors growth of agriculture, spread of small distribution, integration of rural areas, and minimization of rural-urban migration. Examining our national objectives as laid down in the Sixth Plan against the back drop of the centralization/ decentralization syndrome, we find that the main national objective of 'growth with social conscience' (emphasizing growth of agriculture, development of rural areas, encouragement of small industry, removal of disparities between rural and urban areas, and strengthening of local governments), is in fact a presription for 'Decentralization'. Politically, the country is committed to a democratic system which is inherently spatially redistributive and, in its pure form, would distribute (decentralize) the innumerable benefits of urbanization rather that allow these to be consumed by a fortunate few. As such, we must look for a 'Decentralization' rather than a 'Centralization' pattern. The recent debate in planning theory also seems to put a premium on decentralism for the simple reason that the national growth-oriented strategies of the 1950's and growth-centre formula of the 1960's have failed miserably, and have yielded a place to agropolitan and basic-need approaches of the 1970's, which are likely to remain dominant throughout the remainder of the century. Our own experience

is a pointer in this direction.

It may be emphasized here that, irrespective of the model, a human settlement policy must include all levels of urban places. The omission of urban places of less than 10,000 is serious. Although they account for a relatively small proportion of the urban population, the functions they perform for their surrounding areas is vital. Their aggregate area coverage is substantial and cannot be ignored because of a low share of population. Further, these are the places which are not likely to remain static. Since a number of them are expected to rise in the hierarchy by the year 2003, their omission would be erroneous.

The size of urban population (63 million) projected for the year 2003 appears to be on the higher side on the basis of current urbanization rates. Similarly, other weaknesses make it necessary to introduce checks and balances in the modelling exercise, so that regular monitoring of growth in urban as well as other related factors may be carried out at desired intervals, and results may be amended in future applications.

Along with the projection of settlement sizes, it would be appropriate to generate economic landscapes in which the settlements are located. The data collected for districts by PEPAC, reinforced with a few more, can help in the grouping of rich and poor districts, giving an idea not only of the economic nature of the region, but perhaps, also in classifying them in terms of investment of resources as was done in France in its early stages of developmental planning. A combination of settlement scenerios and economic regions would thus provide a firm foundation for determining the potential of settlements in both the regional and

national contexts, providing a solid foundation for framing the National Human Settlement Policy.

Finally, it has to be recognized that poverty and income distribution (pertaining to both society and regions) cannot be addressed adequately solely by altering the nature of human settlement systems. More direct attention is also required with respect to such matters as taxation and princing policy, land reforms, credit terms, and credit availability, and also the distribution of administrative and political power. Although indirect references have been made to some of the factors, these important facts need elaboration in future context of development. For example, while analyzing the alternative settlement scenerios, links have to be created with both long and short-term national development plans of the Planning Commission, Ministry of industries, and other relevant government agencies. In its present form, the policy prepared by the consultants for the Ministry of Housing, Works, and Urban Affairs appears to be a theoretical exercise, as it does not reflect any kind of coordination with government plans and policies such as industrial location, employment, infrastructure development, energy and local government policies.

Finally, a word of caution may be added on mistaken assumptions about population redistribution policies. An IGU report (Pryor and Kosinski 1978) identifies these as:

1. Population distributional goals can be achieved by the provision of employment opportunities, without social infrastructural and institutional changes to provide the motivation for relocation and the acceptance of migrants in new receiving areas.

2. Policy attention should be focussed on medium sized settlements, the set of larger receipient regions for immigrants, or local problem areas such as squatter communities. Instead, policies may be devised to, in a statistical sense, modify the average rather than the modal distribution of the population on various characteristics; thus policies may be directed to encouraging a limited relocation to rural areas and small towns.

3. Unmarried young adult males are the main "consumers" of redistribution policy innovations, especially employment incentives. Rather, the demographic and social importance of family migration and of changing migration sex ratios over time should be recognised.

4. Locational incentive "packages", including direct and indirect taxation benefits and salary loadings, planned residential environments and expanded employment opportunities attract potential migrants. There is considerable evidence that it is very difficult to convince even government employees to move, because locational preferences are very complex phenomena and locational interia a reality for the majority of the population (Hansen 1973, Mann 1973).

5. Information about target areas -- low-cost housing schemes, industrial estates, land settlement projects -- is positive, and efficiently conveyed by the mass media. Migration research however stresses the vital role of interpersonal channels of communication, familial and communal links, and

the highly selective nature of the information and attitudes conveyed about places and projects.

6. Redistribution programmes and incentives are able to achieve major population redistributions now and in the future.

7. The provision of roads, education, and other social and welfare infrastructure bring 'development' to an area and hence discourage outmigration. On the contrary, the evidence is that such provisions accelerate dissatisfaction, heighten aspirations, and accentuate out-migration.

These latter comments are reinforced when one looks at national development plans and the acceptability of redistribution policies to governments around the world. Ginsburg (1973) has noted that

> "an examination of a number of national plans indicates that insufficient thought has, for the most part, been given to the problem of a locational strategy. If some thought has been given, it is disguised by rhetoric that says something else, or it is only implicit in what are generally sectoral plans ... (Even where there is concern with regional development) the principle of regional equity is adhered to; that of efficiency follows behind".

The same must be said generally of policies affecting migration streams, and where they exist, of population redistribution policies in particular.

CHAPTER - 8

# A CASE STUDY OF MIGRANTS IN KARACHI

Census data have a useful but limited scope in migration analysis because they provide information on the volume and direction of migration only at the aggregate level. Moreover, such data are inadequate even in quality for carrying out comprehensive investigations into the complex interactions involved in the migration phenomenon. While no single approach of data collection can be considered as sufficient, micro-level analysis through sample surveys help in a better understanding of the process of migration and urbanization. A sample survey of internal migrants was therefore carried out for this study. The main object of the survey was to obtain first hand information on the role of different factors which influence the decision-making process of migration and their subsequent impacts at the individual or micro-level.

## Survey Procedure and Sample Size:

Metropolitan Karachi was selected as a case study because it has remained the destination for migrants from all parts of the country. A questionnaire. (Appendix-A) was designed for the purpose and interviews were conducted in 1980-81. The questionnaire comprised five broad sections. The first of these related to the demographic characteristics of the migrants such as age, sex, marital status, household size and educational background. The second section explored the economic characteristics of the respondents including their employment pattern, land-ownership as well as possession of household assets. The next part on

housing and related services included occupancy status, nature of housing structure including size, construction material, utilities and services. It also dealt with shopping behaviour journey to work and associated problems of migrants. Questions pertaining to various aspects of determinants and consequences of migration were incorporated in the fourth section. The final section investigated the social and behavioural aspects of migrants such as their attitudes towards their friends/relatives, perception of the environment, participation in community activities, recreation, preferences in spending funds, problems and future plans.

Within the given constraints, every effort was made to make the survey as random as possible. The classic procedure of choosing the subjects was not strictly followed due to the local as well as work conditions. The procedure involved visits to migrant colonies (including Katchi Abadis) as well as random selection of subjects at their places of work, market centres and public places. The sample comprised 500 household-heads incorporating individuals from a variety of occupations and age groups. The rate of response in the interviews was 100 percent and, therefore, quite satisfactory. The results of the survey have been analyzed in the following section. All figures referring to the survey, unless otherwise stated, are for the same period. The analysis has been supplemented by discussions of more significant points, and compared with the parallel figures for Karachi, the province of Sind and Pakistan where it was considered necessary.

Demographic Characteristics:

The age analysis of the total migrant population,

comprising 1680 persons, confirms the well known fact that migration rates vary across age categories (figure-40) and are highest in the early working years (15-30 and 30-40). This conforms to the observations of the population census data of 1981 for Karachi, Sind and Pakistan (Table-70) as well as to an Indian study which found that in the Third World, migration rates were highest between the ages of 15 and 30 (Connell, Das Gupta, Laishley and Lipton 1976). The life cycle regularity partially pertains to a rite of passage into adulthood and independence, but it may be related to improving ones economic or social standing. As a rule, children (below 15 years) and aged (60 years and above) constitute the dependent population, where as the working population of the age group 15-59 years supports these two groups. The age-dependency ratio of the sample was 78.9. This ratio was lower as compared to that for the country as well as for the province. However, the figures were slightly higher than those for Karachi as a whole. Only 2.1 percent of the sample population was aged as compared to 7.0 percent for Pakistan, indicating that migrants generally return to their places of origin after retirement, or when they have accumulated enough resources to support their families back home. Figure-41 gives the ratio of dependent population to the total population of the sample.

The sex ratio of the migrant population was 138. It was higher as compared to both Metropolitan Karachi and the province of Sind (table-70). The high masculanity ratio is a clear indication of male selective migration phenomenon.

The findings shows that 29 percent of the surveyed

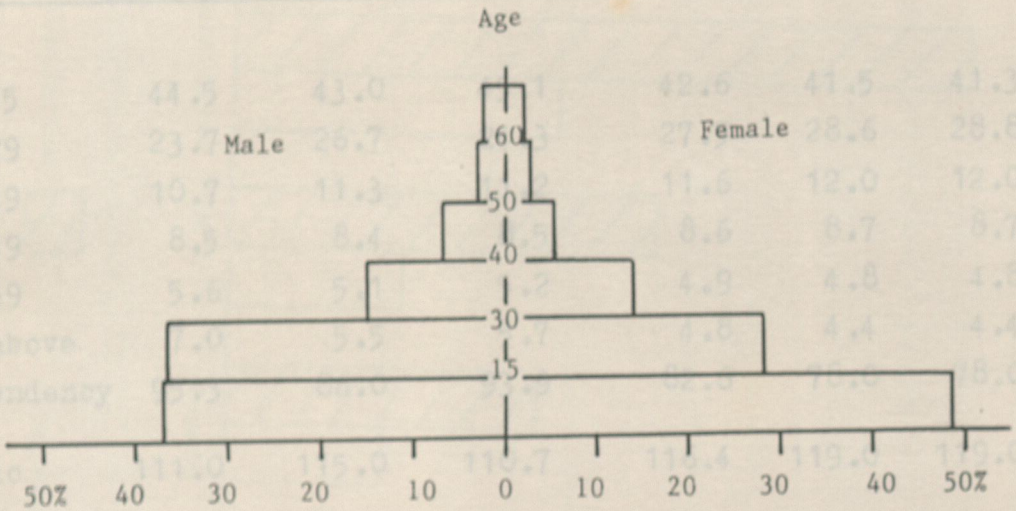


Figure 40: Age and Sex structure of Migrant population

TABLE - 70

AGE STRUCTURE
(PERCENTAGES)

| Age Structure | Pakistan | | Sind | | Karachi | | Migrant Population |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Age Group | | | | | | | |
| Below 15 | 44.5 | 43.0 | 45.1 | 42.6 | 41.5 | 41.3 | 42.0 |
| 15 - 29 | 23.7 | 26.7 | 24.3 | 27.5 | 28.6 | 28.8 | 32.0 |
| 30 - 39 | 10.7 | 11.3 | 11.2 | 11.6 | 12.0 | 12.0 | 15.0 |
| 40 - 49 | 8.5 | 8.4 | 8.5 | 8.6 | 8.7 | 8.7 | 6.2 |
| 50 - 59 | 5.6 | 5.1 | 5.2 | 4.9 | 4.8 | 4.8 | 2.7 |
| 60 and above | 7.0 | 5.5 | 5.7 | 4.8 | 4.4 | 4.4 | 2.1 |
| Age Dependency Ratio | 95.3 | 86.0 | 93.9 | 82.6 | 78.0 | 78.0 | 78.9 |
| Sex Ratio | 111.0 | 115.0 | 110.7 | 116.4 | 119.0 | 119.0 | 138.0 |

SOURCE: i. Population Census of Pakistan 1981.
ii. Survey Data.

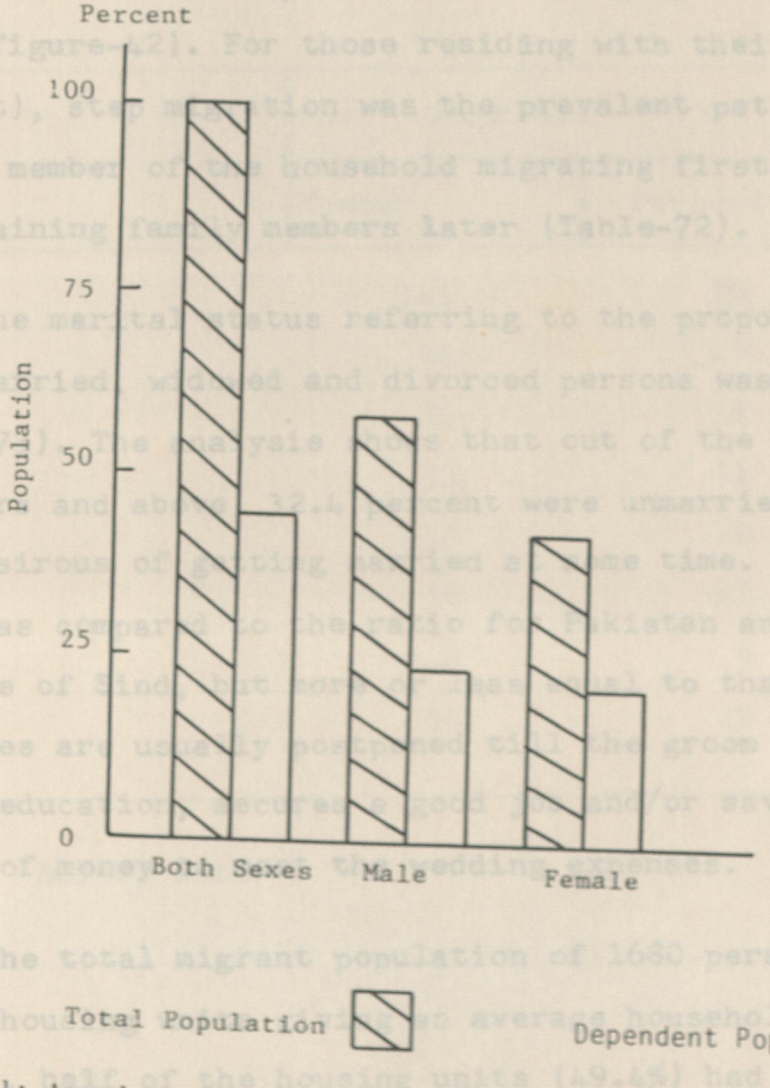


Figure 41: Age dependency ratio of migrant population

migrants did not have any dependents. Table-71 classifies the sample according to the number of dependents per migrant. The dependents of about two third (64%) respondents were living with them at Karachi, while 29 percent had left their families at the places of origin. The remaining 7 percent constituted families split between the origins and the destination (figure-42). For those residing with their families (whole or split), step migration was the prevalent pattern with the earning member of the household migrating first and bringing the remaining family members later (Table-72).

The marital status referring to the proportion of married, never married, widowed and divorced persons was also examined (Table-73). The analysis shows that out of the total adults (15 years and above) 32.4 percent were unmarried. However, they were desirous of getting married at some time. This ratio was higher as compared to the ratio for Pakistan and for the province of Sind, but more or less equal to that for Karachi. Marriages are usually postponed till the groom completes higher education, secures a good job and/or saves sufficient amount of money to meet the wedding expenses.

The total migrant population of 1680 persons was living in 500 housing units giving an average household size of 3.4. However, half of the housing units (49.4%) had single households comprising 14.7 percent of the population. The remaining half contained 85.3 percent with an average of 5.7 persons per housing unit. This figure was less compared to Metropolitan Karachi (6.8) and its parent province (7.1) as well as that for the whole country (6.7). A classification of household

TABLE -71

MIGRANTS BY NUMBER OF DEPENDENTS.

| Number of Dependents | Migrants | |
|---|---|---|
| | Number | Percent |
| 0 | 145 | 29 |
| 1 | 44 | 9 |
| 2 | 39 | 8 |
| 3 | 55 | 11 |
| 4 | 53 | 10 |
| 5 | 56 | 11 |
| 6 | 44 | 9 |
| 7 | 64 | 13 |

SOURCE : Survey Data

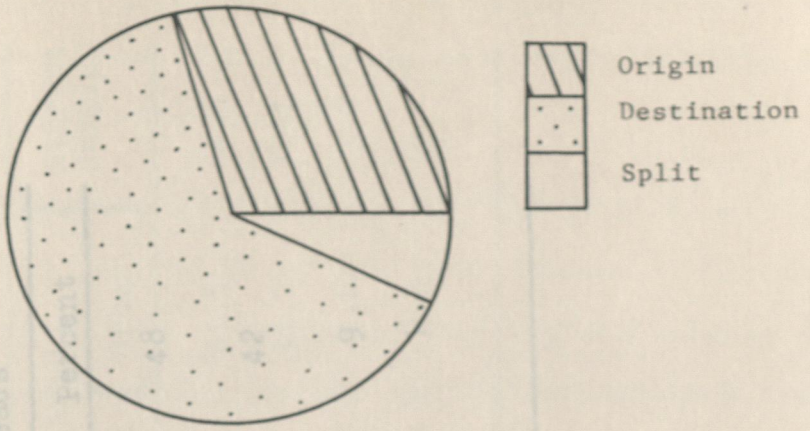


Figure 42. Migrant's dependents by place of residence

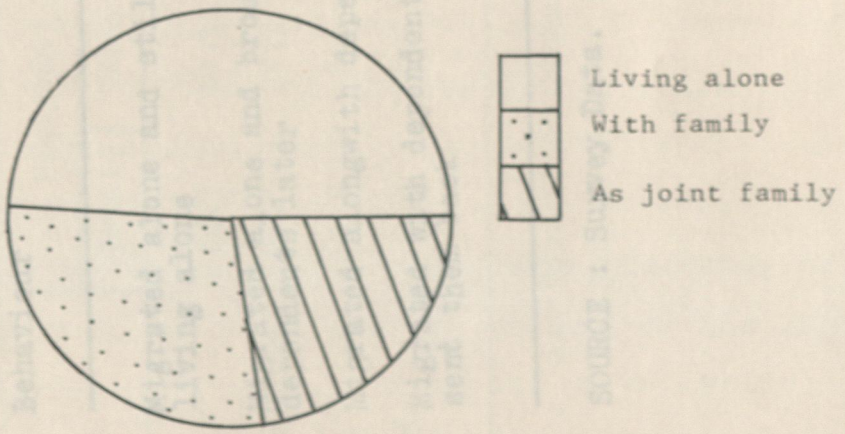


Figure 43: Family pattern of Migrants

TABLE - 72

MIGRANT'S BEHAVIOUR TOWARDS DEPENDENTS

| Behaviour | Household heads | |
|---|---|---|
| | Number | Percent |
| Migrated alone and still living alone | 242 | 48 |
| Migrated alone and brought dependents later | 209 | 42 |
| Migrated alongwith dependents | 44 | 9 |
| Migrated with dependents and sent them back | 5 | 1 |

SOURCE : Survey Data.

TABLE -73

POPULATION BY MARITAL STATUS (15 YEARS AND ABOVE)

(Percentages)

| Marital Status | Pakistan | | Sind | | Karachi | | Migrant Sample |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Married | 68.7 | 64.5 | 69.1 | 63.9 | 62.1 | 61.8 | 64.6 |
| Never Married | 25.1 | 29.9 | 24.8 | 30.4 | 32.9 | 33.2 | 32.4 |
| Widowed | 5.9 | 5.5 | 5.9 | 5.5 | 4.8 | 4.8 | 3.0 |
| Divorced | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | - |

SOURCES : i. Population Census of Pakistan 1981.
ii. Survey Data.

size for the sample by frequency of occurence is given in table-74. Apart from those living alone, 56 percent households were single families, while 44 percent were residing as joint/ extended families (figure-43).

The definition of literacy for the purpose of this study was the same as that used by the 1981 census of Pakistan i.e. a person who can read a newspaper and write a simple letter. This implies that all those who had passed primary level were deemed as literates. The literacy ratio of the migrant population (10 years and above) was 70 percent. This was significantly high as compared to the national figure of 26.2 percent. It was even higher than the literacy ratio of the province as well as that of Karachi (figure-44). Education meets the shortage of trained and qualified manpower which is an important factor for increasing productivity and accelerating economic growth. Data on educational attainment is therefore essential for policy planning and development plans. Out of the total educated persons in the sample, 19 percent had primary, 15 percent middle and 19 percent matriculation. Post-matriculates formed two third (66%) of the literate population, out of which more than a fourth (28%) were graduates (B.A./ B.Sc.). Table-75 given a comparative account of the distribution of educated persons (10 years and above) by educational attainment for the sample, Karachi, Sind and Pakistan. The higher level of education among the migrants confirms the findings of a study that there exists a strong positive correlation between the years of schooling and the propensity to migrate (Burki 1973).

TABLE - 74

HOUSEHOLD STRUCTURE OF SAMPLE

| Household size. | Number | Percent |
|---|---|---|
| Total household | 500 | 100.0 |
| Less than 2 persons | 247 | 49.4 |
| 2-4 Persons | 45 | 9.0 |
| 4-6 Persons | 85 | 17.0 |
| 6-8 Persons | 70 | 14.0 |
| 8-10 Persons | 33 | 6.6 |
| 10 and above | 20 | 4.0 |

SOURCE : Survey Data

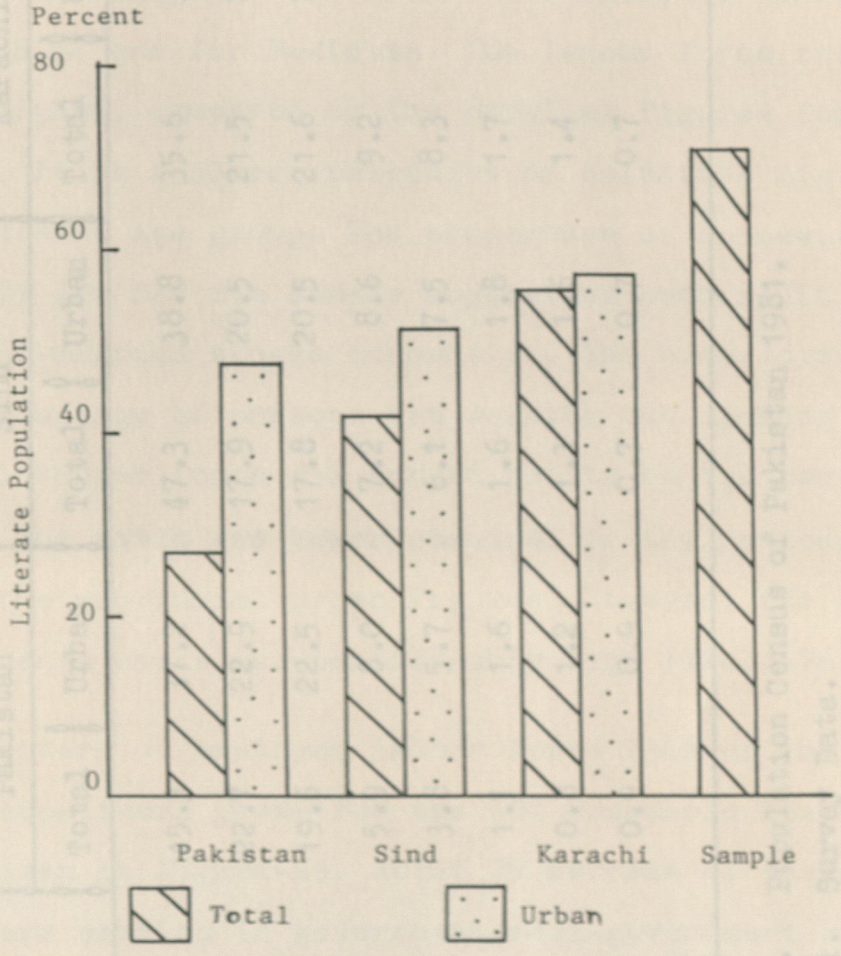


Figure 44: Population (10 years and above) by literacy ratio

TABLE - 75

EDUCATED POPULATION BY EDUCATIONAL ATTAINMENT

(Percentages)

| Level of Education | Pakistan | | Sind | | Karachi | | Migrant Population |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Primary | 45.3 | 37.2 | 47.3 | 38.8 | 35.6 | 35.3 | 18.8 |
| Middle | 22.7 | 22.9 | 17.9 | 20.5 | 21.5 | 21.5 | 14.7 |
| Matriculation | 19.6 | 22.5 | 17.8 | 20.5 | 21.6 | 21.7 | 19.4 |
| Intermediate | 5.9 | 8.0 | 7.2 | 8.6 | 9.2 | 9.3 | 8.9 |
| B.A./B.Sc. | 3.8 | 5.7 | 6.1 | 7.5 | 8.3 | 8.4 | 18.6 |
| M.A./M.Sc. | 1.1 | 1.6 | 1.6 | 1.8 | 1.7 | 1.7 | 10.7 |
| Professional | 0.8 | 1.2 | 1.3 | 1.6 | 1.4 | 1.8 | 4.1 |
| Others | 0.9 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 | 4.8 |

SOURCES : i. Population Census of Pakistan 1981.
ii. Survey Data.

Economic Characteristics:

The labour force i.e. employed and unemployed was 31.9 percent of the total sample. The population not in labour force comprised children below 10 years, housewives, students and others. Table-76 gives the percentage of population by economic activity and unemployment rate for the sample, Karachi, the province of Sind and for Pakistan. The labour force ratio of the sample was highest compared to the parallel figures for the other three. It is a clear indication of selective migration of the productive age group. The proportion of housewives was comparatively low for the sample suggesting both split families as well as un-married single households. The unemployment rate i.e. the percentage of persons not working but looking for work to the total labour force was worked out to be 4.4 percent for the sample. The ratio was lower compared to the national urban as well as the provincial urban figures. However, the percentage for Karachi as a whole was considerably high (Table-76).

The pattern of employed labour force (94% of the sample) by major occupational group for the 500 household heads interviewed is given in figure-45. About 29 percent of these were office workers serving in government/semi-government or private institutions/organizations. The second major group was that of unskilled workers such as labourers, loaders, chowkidars etc. Yap (1975) suggested that the percentage of labour force employed in the informal sector (unskilled and semi-skilled workers) was higher among migrants (in large urban centres) in so far as it is a way station for absorption into the formal labour sector.

TABLE - 76

POPULATION BY ECONOMIC ACTIVITY

(PERCENTAGES)

| Economic Activity | Pakistan | | Sind | | Karachi | | Migrant Population |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Labour Force | 27.6 | 25.3 | 27.7 | 25.4 | 25.8 | 25.7 | 31.9 |
| Not in Labour Force | 72.4 | 74.7 | 72.3 | 74.6 | 74.2 | 74.3 | 68.1 |
| Children below 10 | 31.3 | 29.9 | 32.6 | 29.8 | 28.6 | 28.3 | 41.9 |
| Housewives | 29.3 | 26.5 | 27.5 | 25.2 | 24.1 | 24.0 | 15.5 |
| Students | 5.5 | 10.6 | 6.9 | 12.8 | 14.6 | 15.0 | 8.7 |
| Others | 6.3 | 7.7 | 5.3 | 6.8 | 6.9 | 7.0 | 2.0 |
| Unemployment Rate | 3.1 | 5.2 | 3.3 | 5.9 | 7.4 | 7.6 | 4.4 |

SOURCES : i. Population Census of Pakistan 1981.
ii. Survey Data.

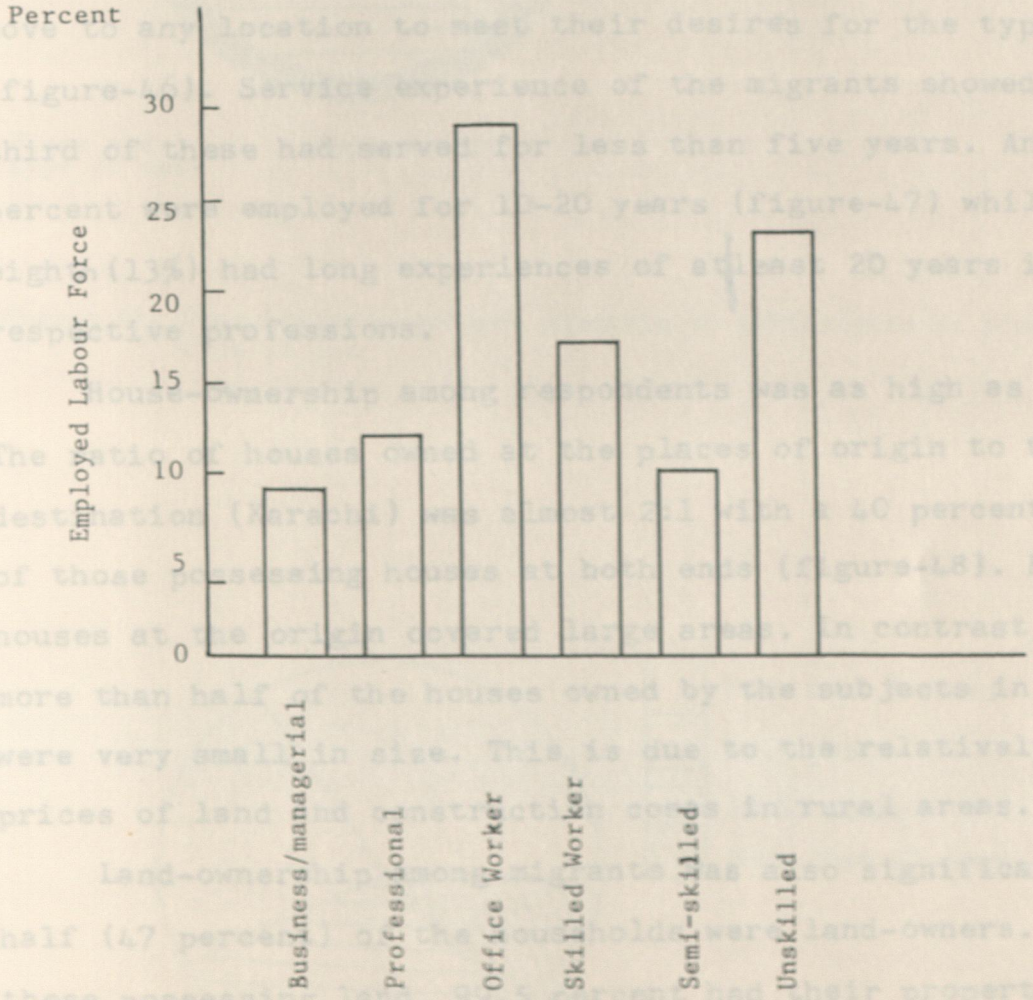


Figure 45: Migrants by major occupational group

The job satisfaction ratio was 81 percent for the employed household heads. About half of the dissatisfied persons wanted office work or government jobs at or near the places of origin; nearly 29 percent opted for Karachi with a desire for improved status (lower income to higher, temporary job to permanent, unskilled to skilled/technical, and office work to business/ managerial); about 7 percent aspired to work abroad. The remaining 13 percent of the dissatisfied persons had liking for specific jobs (business, technical or specialized) and were prepared to move to any location to meet their desires for the type of work (figure-46). Service experience of the migrants showed that a third of these had served for less than five years. Another 29 percent were employed for 10-20 years (figure-47) while about one eighth (13%) had long experiences of atleast 20 years in their respective professions.

House-ownership among respondents was as high as 69 percent. The ratio of houses owned at the places of origin to those at the destination (Karachi) was almost 2:1 with a 40 percent overlap of those possessing houses at both ends (figure-48). Most of the houses at the origin covered large areas. In contrast to this, more than half of the houses owned by the subjects in Karachi were very small in size. This is due to the relatively lower prices of land and construction costs in rural areas.

Land-ownership among migrants was also significant. About half (47 percent) of the households were land-owners. Among those possessing land, 99.5 percent had their property at the places of origin. The only exception was a person who owned a piece of land in Kasur (Punjab) but himself belonged to Quetta

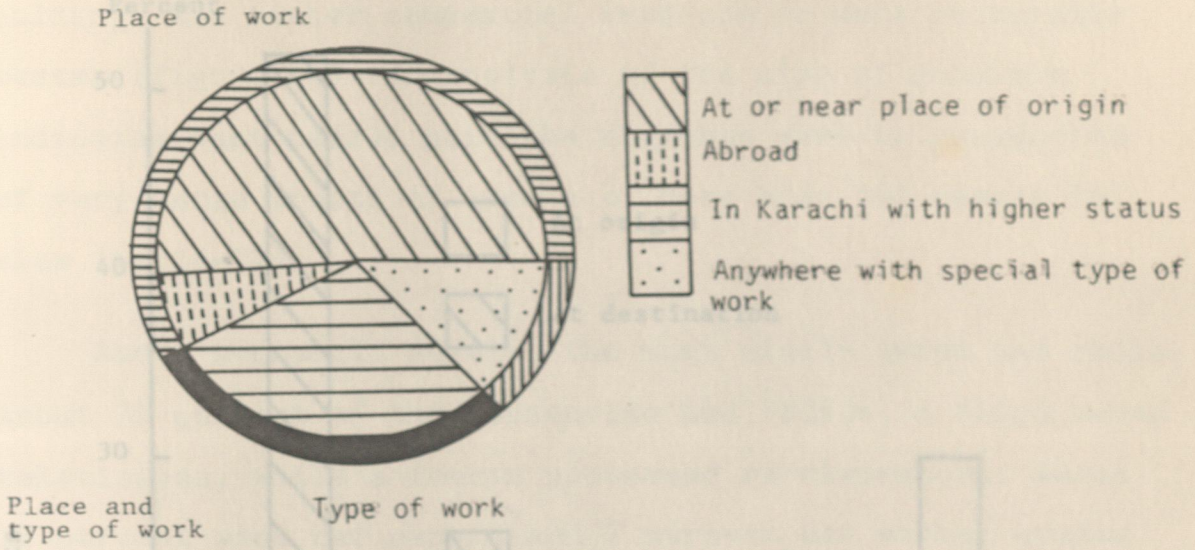


Figure 46: Dissatisfied employed migrants by preferences of place/ type of job

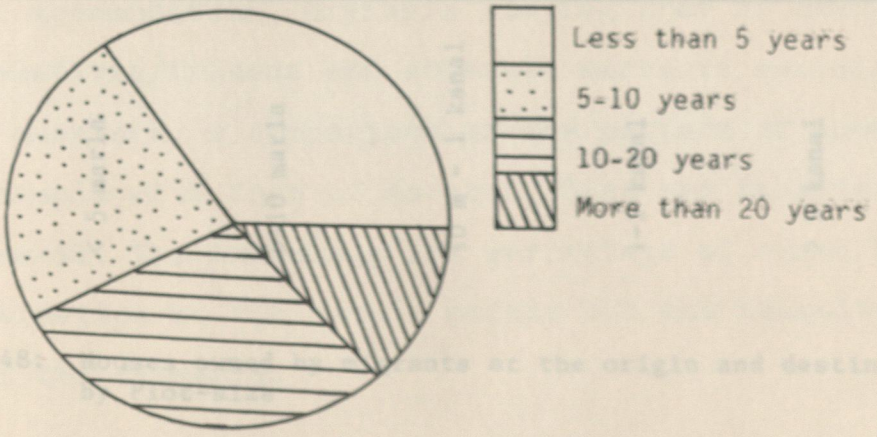


Figure 47: Job experience of household heads

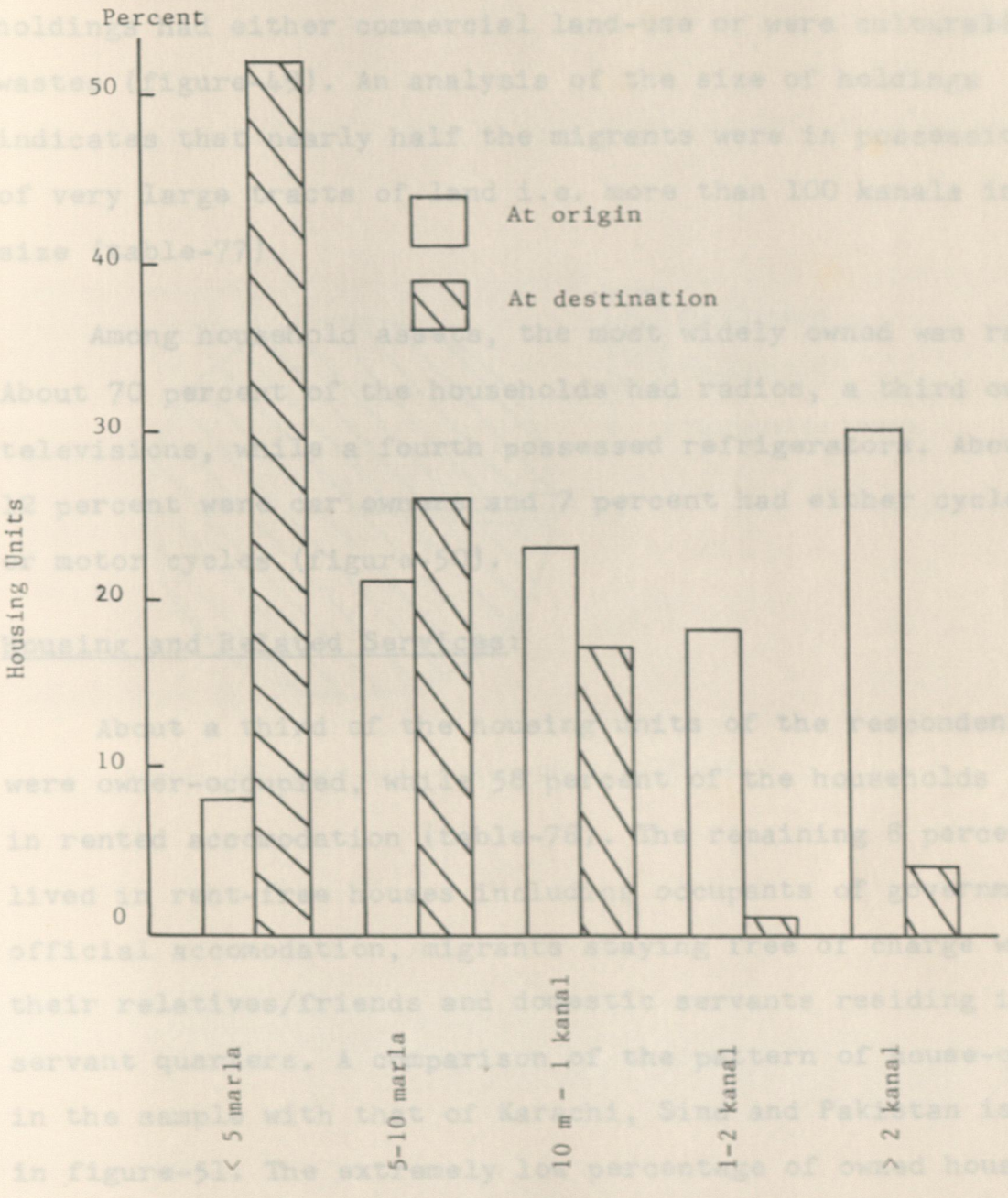


Figure 48: Houses owned by migrants at the origin and destination by Plot-size

(Baluchistan). About 98 percent of the land holdings were under the plough. The remaining 2 percent non-agricultural holdings had either commercial land-use or were culturable wastes (figure-49). An analysis of the size of holdings indicates that nearly half the migrants were in possession of very large tracts of land i.e. more than 100 kanals in size (table-77).

Among household assets, the most widely owned was radio. About 70 percent of the households had radios, a third owned televisions, while a fourth possessed refrigerators. About 12 percent were car owners and 7 percent had either cycles or motor cycles (figure-50).

Housing and Related Services:

About a third of the housing units of the respondents were owner-occupied, while 58 percent of the households lived in rented accomodation (table-78). The remaining 8 percent lived in rent-free houses including occupants of government/ official accomodation, migrants staying free of charge with their relatives/friends and domestic servants residing in servant quarters. A comparison of the pattern of house-ownership in the sample with that of Karachi, Sind and Pakistan is shown in figure-51. The extremely low percentage of owned houses at the destination in the sample points out the relative instability of the migrants.

Classification of tenants by value of rent paid is given in table-79. Almost three fourth of the respondents were

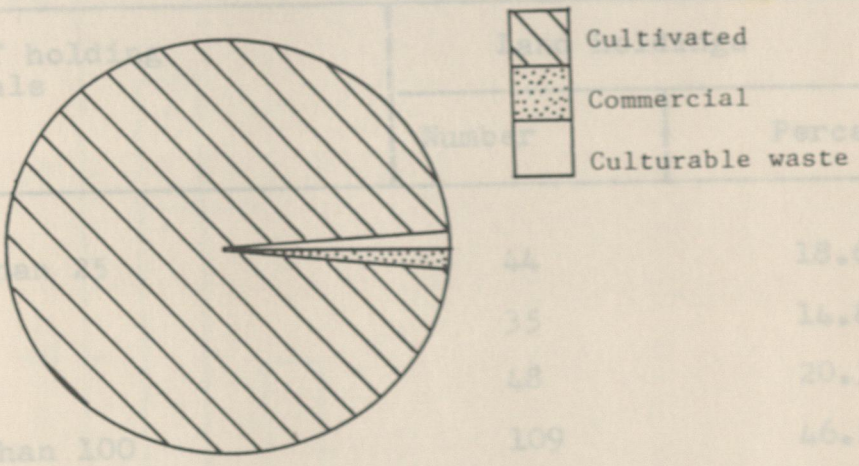


Figure 49: Land use of migrant's holdings

TABLE-77

AVERAGE SIZE OF LAND HOLDINGS POSSESSED BY MIGRANTS

| Size of holding in Kanals | Land holdings | |
|---|---|---|
| | Number | Percent |
| Less than 25 | 44 | 18.6 |
| 25-50 | 35 | 14.8 |
| 50-100 | 48 | 20.3 |
| More than 100 | 109 | 46.2 |

SOURCE: Survey Data.

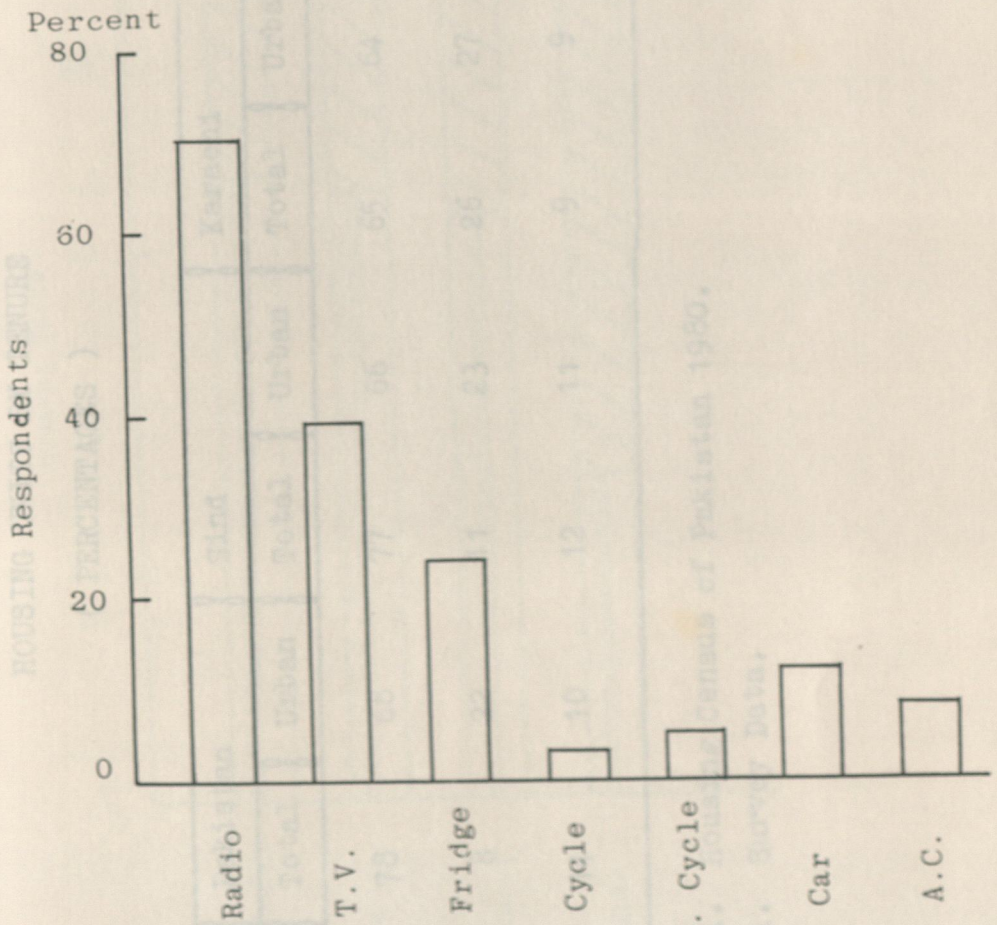


Figure 50: Possession of household assets among migrants

TABLE - 78

HOUSING UNITS BY TENURE

( PERCENTAGES )

| Occupancy Status | Pakistan | | Sind | | Karachi | | Sample |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Owned | 78 | 68 | 77 | 66 | 65 | 64 | 34 |
| Rented | 8 | 22 | 11 | 23 | 26 | 27 | 58 |
| Rent Free | 14 | 10 | 12 | 11 | 9 | 9 | 8 |

SOURCES : i. Housing Census of Pakistan 1980.
ii. Survey Data.

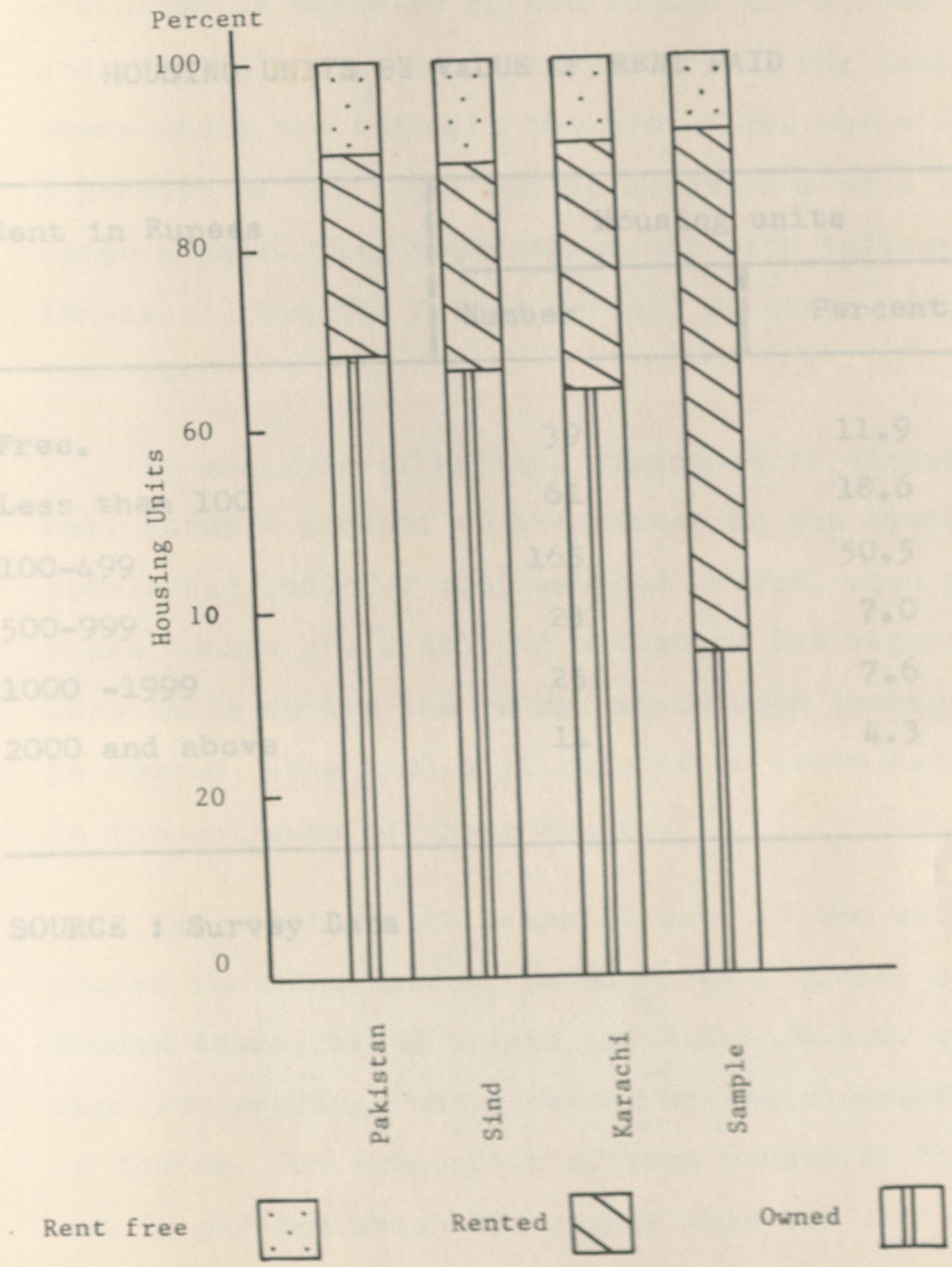


Figure 51: Housing units by tenure

TABLE - 79

HOUSING UNITS BY VALUE OF RENT PAID

| Rent in Rupees | Housing units | |
|---|---|---|
| | Number | Percent |
| Free. | 39 | 11.9 |
| Less than 100 | 61 | 18.6 |
| 100-499 | 165 | 50.5 |
| 500-999 | 23 | 7.0 |
| 1000 -1999 | 25 | 7.6 |
| 2000 and above | 14 | 4.3 |

SOURCE : Survey Data

paying rents below the average figure of Rs.514.00. The main reason for low rental was small house size (table-80) as well as deficient utilities and services. The plot sizes presented in table-80 do not follow any standard classification and give only a generalized picture of the local situation where about two thirds of the plot sizes where very small. Only 3 percent of the total sample households were living in very large houses. They represented the rich business community (Sheikhs) from the Punjab as well as other joint/extended families.

An analysis of housing structure of migrants shows that only about 8 percent of the houses in the sample were Katcha (table-81) built of mud, unbaked bricks, wood and thatch. These houses are unable to withstand the vagaries of weather, especially during the rainy season when leakage through roofs is common. Long spells of rain often prove hazardous resulting in the collapse of these houses.

The construction material used in the walls of pucca houses includes stones, baked bricks, blocks and cement. Wooden beams, baked bricks and R.C.C./R.B.C. girders are used for roofing, while cement and baked bricks are used in floors. The proportion of such houses in the sample area was 59 percent which was higher than the ratio for Pakistan but considerably lower than that for Karachi (figure-52). The semi-pucca houses were almost a third of the entire housing stock in the study area. These are usually built with a combination of baked bricks, stones, mud and/or cement. The

TABLE - 80

HOUSING UNITS BY PLOT SIZE

| Plot Size | Category | Housing Units | |
|---|---|---|---|
| | | Number | Percent |
| Less than 5 marla* | Very Small | 326 | 65.2 |
| 5 - 10 marla | Small | 84 | 16.8 |
| 10 - 20 marla | Medium | 42 | 8.4 |
| 1 - 2 Kanal** | Large | 31 | 6.2 |
| More than 2 Kanal | Very Large | 17 | 3.4 |

SOURCE : Survey Data

*A marla is a unit of land measurement equivalent to 25.29 Sq. meters (272.25 Sq. feet).

**A Kanal is equivalent to 20 marla.

TABLE - 81

HOUSING UNITS BY CONSTRUCTION MATERIAL USED

(PERCENTAGES)

| House Type | Pakistan | | Sind | | Karachi | | Sample |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Pucca | 15 | 43 | 31 | 66 | 84 | 86 | 59 |
| Semi-pucca | 28 | 36 | 9 | 14 | 8 | 7 | 33 |
| Katcha | 57 | 21 | 60 | 19 | 8 | 7 | 8 |

SOURCES : i. Housing Census of Pakistan 1980.
ii. Survey Data.

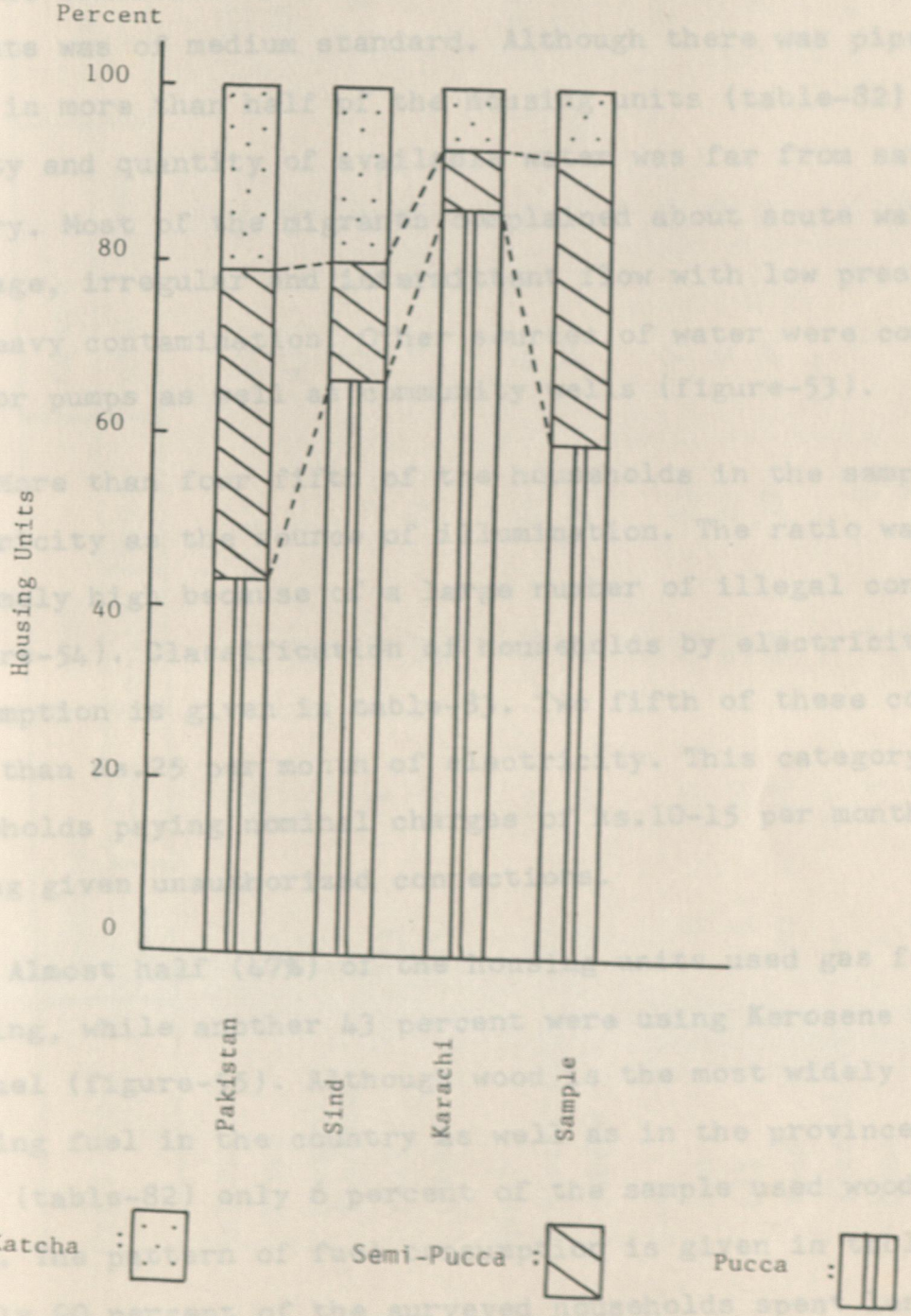


Figure 52: Housing units by construction material used

marked difference in the qualitative index of construction between the sample and Karachi as a whole reflects sub-standard housing of migrants in this metropolitan city.

The condition of utilities and services available to migrants was of medium standard. Although there was piped water in more than half of the housing units (table-82) the quality and quantity of available water was far from satisfactory. Most of the migrants complained about acute water shortage, irregular and intermittent flow with low pressure and heavy contamination. Other sources of water were community taps or pumps as well as community wells (figure-53).

More than four fifth of the households in the sample used electricity as the source of illumination. The ratio was extremely high because of a large number of illegal connections (figure-54). Classification of households by electricity consumption is given in table-83. Two fifth of these consumed less than Rs.25 per month of electricity. This category included households paying nominal charges of Rs.10-15 per month for having given unauthorized connections.

Almost half (47%) of the housing units used gas for cooking, while another 43 percent were using Kerosene oil as fuel (figure-55). Although wood is the most widely used cooking fuel in the country as well as in the province of Sind (table-82) only 6 percent of the sample used wood for fuel. The pattern of fuel consumption is given in table-84 Nearly 90 percent of the surveyed households spent less than Rs.100 per month on fuel, with more than half of these paying

TABLE - 82

HOUSING UNITS BY SOURCE OF DRINKING WATER, LIGHTING AND COOKING FUEL

( PERCENTAGES )

| Utilities | Pakistan | | Sind | | Karachi | | Sample |
|---|---|---|---|---|---|---|---|
| | Total | Urban | Total | Urban | Total | Urban | |
| Water | | | | | | | |
| Piped | 13 | 38 | 21 | 43 | 44 | 46 | 57 |
| Community tap/pump | 20 | 26 | 32 | 42 | 48 | 48 | 41 |
| Well | 13 | 4 | 10 | 1 | 2 | 1 | 2 |
| Others | 54 | 32 | 37 | 14 | 6 | 5 | - |
| Light | | | | | | | |
| Electricity | 31 | 71 | 36 | 68 | 66 | 68 | 87 |
| Others | 69 | 29 | 64 | 32 | 34 | 32 | 13 |
| Fuel | | | | | | | |
| Gas | 6 | 22 | 15 | 33 | 37 | 40 | 47 |
| Oil | 6 | 20 | 11 | 25 | 35 | 36 | 43 |
| Wood | 70 | 48 | 64 | 37 | 24 | 21 | 6 |
| Electricity | - | - | - | - | - | - | - |
| Coal | 1 | 1 | 1 | 2 | 1 | 1 | - |
| Others | 17 | 8 | 8 | 3 | 2 | 2 | 4 |

SOURCES : i. Housing Census of Pakistan 1980.
ii. Survey Data.

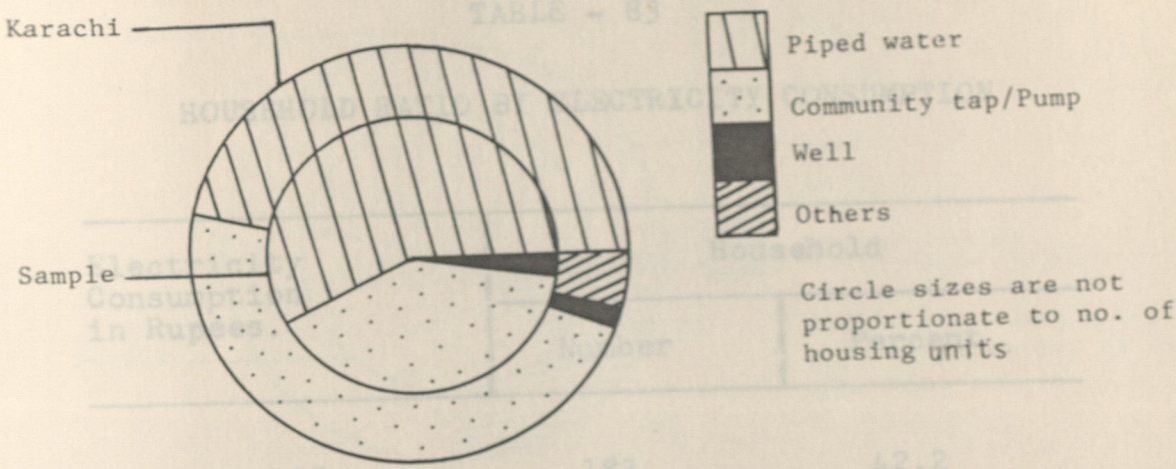


Figure 53: Sources of water supply in sample compared with Karachi

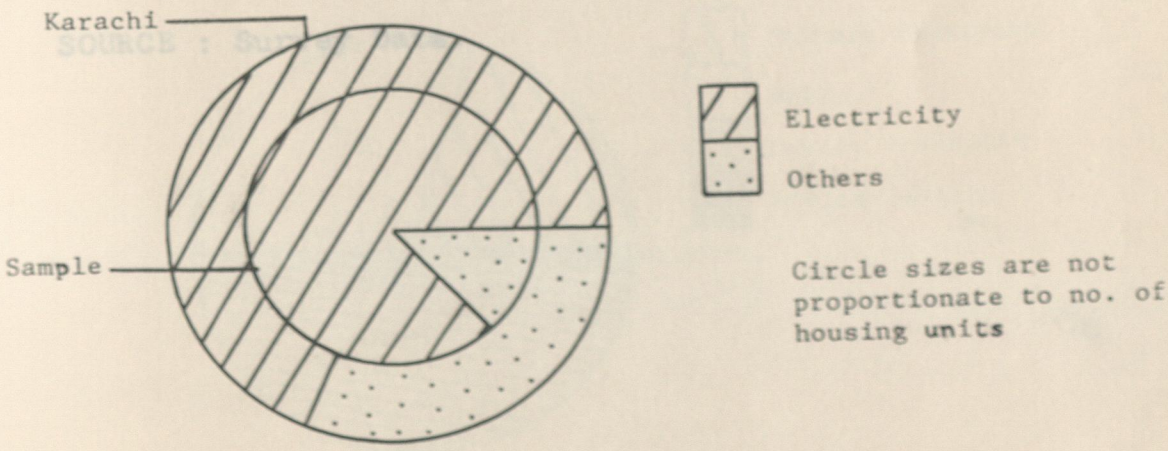


Figure 54: Source of illumination in sample compared with Karachi

TABLE - 83

HOUSEHOLD RATIO BY ELECTRICITY CONSUMPTION

| Electricity Consumption in Rupees. | Household | |
|---|---|---|
| | Number | Percent |
| Less than 25 | 183 | 42.2 |
| 25 - 50 | 113 | 26.0 |
| 50 - 100 | 65 | 15.0 |
| 100 - 200 | 34 | 7.8 |
| Above 200 | 39 | 9.0 |

SOURCE : Survey Data.

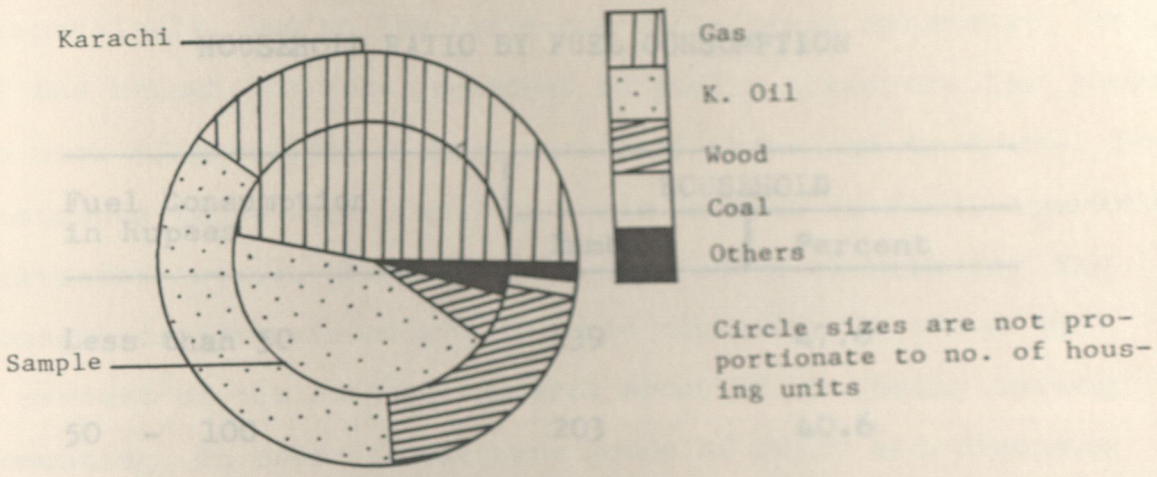


Figure 55: Housing units by source of cooking fuel

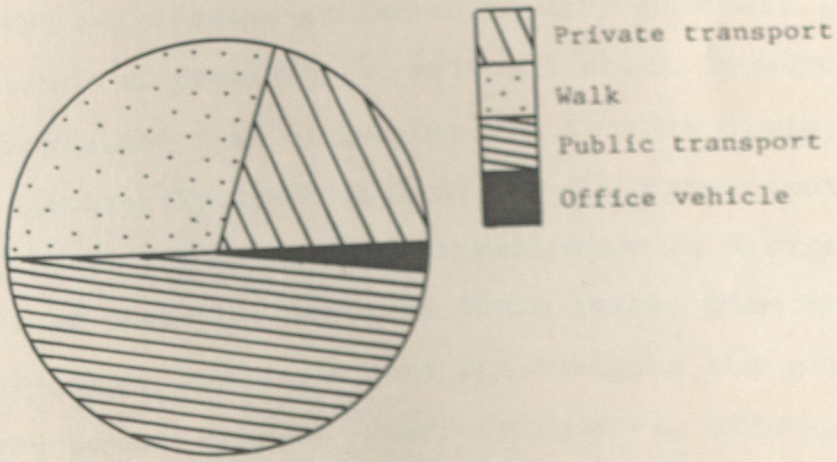


Figure 56: Type of transport used by migrants for journey to work

TABLE - 84

HOUSEHOLD RATIO BY FUEL CONSUMPTION

| Fuel Consumption in Rupees | HOUSEHOLD | |
|---|---|---|
| | Number | Percent |
| Less than 50 | 239 | 47.8 |
| 50 - 100 | 203 | 40.6 |
| 100 - 200 | 52 | 10.4 |
| 200 - 500 | 6 | 1.2 |

SOURCE : Survey Data.

even less than Rs.50.

Among services in migrant colonies, education and health facilities were available to only 14 and 17 percent households respectively. Due to low car/motor cycle/cycle ownership, half of the households were dependent on public transport for journey to work (figure-56). A large number of these had to travel long distances (more than 6 km.) on cycle or even by foot. Approximate distances between the residences and places of work for the households interviewed are given in table-85. It shows that 2 percent of the subjects covered about 50 km. daily during commuting. In order to purchase goods of daily and frequent use, about two fifth of the respondents shopped within their 'mohallahs' or in nearby shopping areas (less than 1 km.) In contrast to this, about 14 percent travelled more than 6 km. for purchasing frequently used items (table-86).

Despite facing certain housing problems, about two fifth (38%) of the respondents preferred to live in their present places because of proximity to work and about 16 percent due to cheap rents. About an eighth desired to live close to their friends/relatives (table-86). Out of the 500 respondents, more than half (54%) had changed their residence in Karachi. About 69 percent of these had switched their houses more than once (figure-57). Among reasons stated for changing the place of living were better housing, nearness to work, allotment of official accomodation, lower rents, purchase or construction of own house or forced evacuation by landlords (table-87).

Migration-Related Characteristics:

The search for and evaluation of migration opportunities

TABLE - 85

DISTANCE FROM MIGRANT'S RESIDENCE TO PLACE OF WORK AND PLACE OF SHOPPING

| Distance from Residence to | Distance in Kilometers | | | | | |
|---|---|---|---|---|---|---|
| | Less than 1 | 1 - 3 | 3 - 6 | 6 - 12 | 12 - 24 | More than 24 |
| Place of work | 130<br>(26) | 62<br>(12) | 130<br>(26) | 106<br>(21) | 62<br>(12) | 10<br>(2) |
| Place of Shopping | 210<br>(42) | 94<br>(19) | 126<br>(25) | 53<br>(11) | 17<br>(3) | -<br>- |

SOURCE: Survey Data

NOTE: Figures in paranthesis indicate percentages.

TABLE - 86

REASONS STATED BY MIGRANTS FOR RESIDING IN PRESENT ACCOMODATION AT KARACHI

| Reason | Respondents | |
|---|---|---|
| | Number | Percent |
| Nearness to Work | 190 | 38 |
| Own house | 117 | 23 |
| Low rental | 78 | 16 |
| Nearness to friends/ relatives | 60 | 12 |
| Official accomodation | 44 | 9 |
| Good Locality | 11 | 2 |

SOURCE : Survey Data.

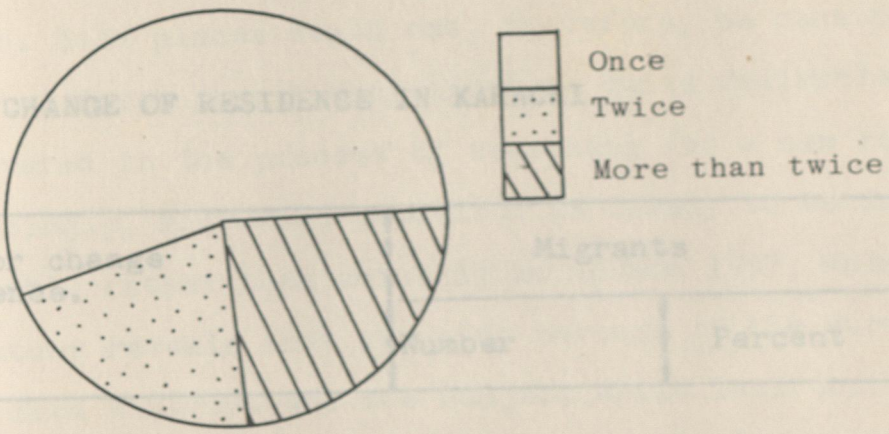


Figure 57: Number of Times migrants changed residence in Karachi

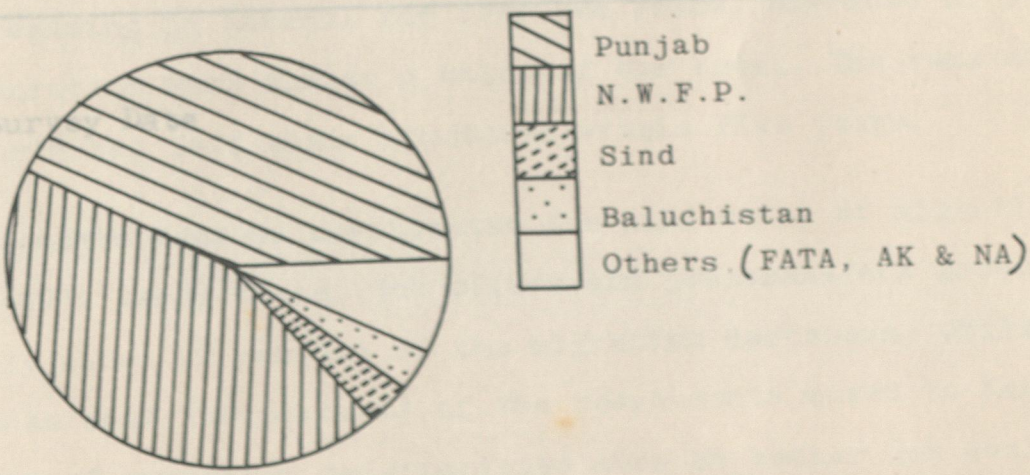


Figure 58: Migrants by province/area of birth

TABLE - 87

CHANGE OF RESIDENCE IN KARACHI

| Reason for change of residence. | Migrants | |
|---|---|---|
| | Number | Percent |
| Economic | 60 | 22 |
| Own House | 57 | 21 |
| Better House | 67 | 25 |
| Nearness to work | 64 | 24 |
| Evacuated by landlords | 20 | 8 |

SOURCE : Survey Data

takes place within the confines of the migrants cognitive or mental map (Gould and White 1974) which may differ considerably from the objective map of the real world. There may be many places about which the migrant whould have no or minimal information. Such places would not, therefore, be considered in the decision (even though they might be quite desirable) unless discovered in the process of searching for a new residence. Accordingly, migration behaviour is likely to be intendedly rational, rather than actually so (Simon 1957, Wolpert 1965). The study reveals that about 86 percent of the surveyed migrants came from N.W.F.P. and the Punjab, while less than 4 percent belonged to the province of Sind (figure-58). Nearly 88 percent of the respondents had migrated directly to the metropolitan city bypassing the intervening opportunities in other cities, which shows that Karachi was the nearest city in their mental space. Analysis of the duration of migration (table-88) indicates that more than two fifths of the respondents had been continuously residing in Karachi for over ten years. Migrants of 5-10 years duration were almost a third of the total. The remaining one fourth had left their hometowns within five years.

Economic reasons constituted the main cause of migration (table-89). Among these, job offers and job transfers accounted for only about 18 percent of the migration decisions, while more than half (59 percent) of the respondents moved to Karachi in terms of perceived opportunities such as better job availability, carreer benefits etc. Among social reasons, the largest number of moves had been made to attain higher/specialized education, followed by movements resulting from the influence

TABLE-88

MIGRANT'S DURATION OF RESIDENCE IN KARACHI

| Number of years. | Migrants. | |
|---|---|---|
| | Number | Percent |
| Less than 5 | 125 | 25 |
| 5 - 10 | 157 | 31 |
| More than 10 | 218 | 44 |

SOURCE : Survey Data

TABLE - 89

REASON FOR MIGRATION

| Reason | Migrants | |
|---|---|---|
| | Number | Percent |
| Economic | 381 | 76.2 |
| Job Offer | 59 | 1 1.8 |
| Job Transfer | 29 | 5.8 |
| Perceived Benefits | 293 | 58.6 |
| Social | 117 | 23.4 |
| Education | 67 | 13.4 |
| Relatives | 44 | 8.8 |
| Marriage | 4 | 0.8 |
| Health | 2 | 0.4 |
| Political | 2 | 0.4 |

SOURCE : Survey Data.

of relatives/friends living at the destination. The role of inter-personal communication also helps in distinguishing 'active' and 'passive' migrants (Hagerstrand 1957, Findley 1977). The active migrant is motivated to seek economic or social betterment in a more independent manner, and utilizes formal and impersonal sources of information such as radio, newspapers, government agencies or employers to seek the destination offering the best opportunities. By contrast, the passive migrant is highly dependent upon interpersonal sources. About 42 percent of the surveyed migrants belonged to the passive group, and had been goaded by friends/relatives already living in Karachi, while 58 percent were active migrants. About a third of the respondents had been materially or physically helped in the process (figure-59).

The total labour force constituted 94% of the household heads. About 19 percent of these were already employed at the time of migrating. These included migrants who were transferred to or had been offered a job in Karachi. Nearly a fifth of the total labour force secured jobs within a week of their arrival in Karachi. These included daily wage earners. More than a third of the labour force, however, were unable to find employment till atteast two months after reaching Karachi (table-90). Businessmen or self employed constituted 3 percent of the labour force. About two thirds of the employed household heads were satisfied with their initial jobs while a third continued to seek better employment.

The most common mode of transport for migration was the

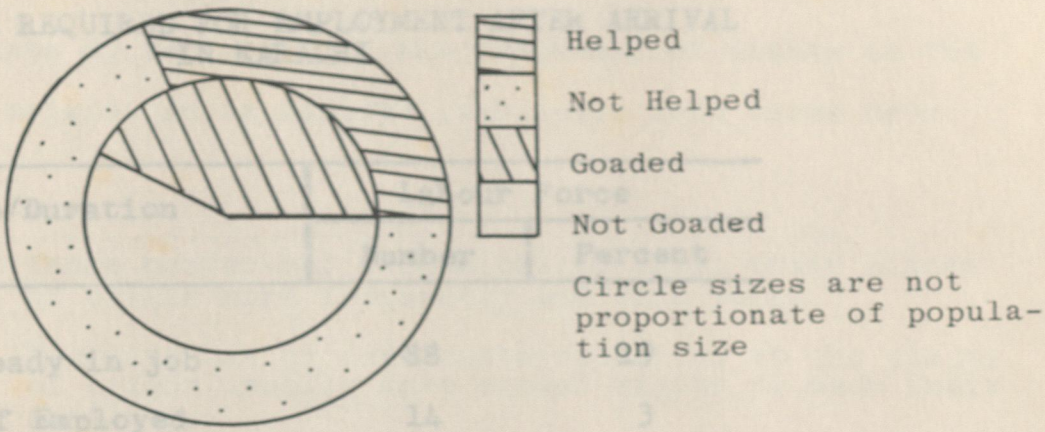


Figure 59: Respondents goaded/helped by friends or relatives

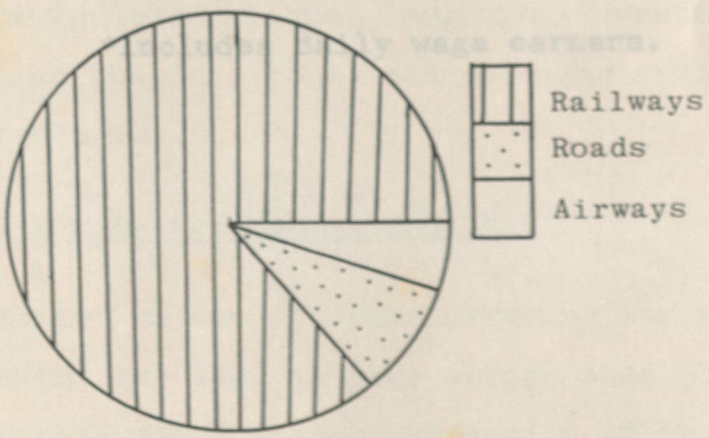


Figure 60: Mode of transport used for migration

TABLE - 90

TIME REQUIRED FOR EMPLOYMENT AFTER ARRIVAL IN KARACHI

| Time/Duration | Labour Force | |
|---|---|---|
| | Number | Percent |
| Already in job | 88 | 19 |
| Self Employed | 14 | 3 |
| Within 1 week* | 83 | 18 |
| 1 week - 1 month | 72 | 15 |
| 1 month - 2 months | 41 | 9 |
| More than 2 months | 170 | 36 |

SOURCE : Survey Data

*Includes daily wage earners.

train which had been used by 86 percent of the respondents due to its relative safety, convenience and low fare. About 9 percent came by road, while only 5 percent travelled by air (figure-60).

Migrants by variation in the frequency of visits to the places of origin can be divided (table-91) into three main types.

i. Those better-off economically, visit their places of origin more frequently and vice versa.

ii. Migrants having dependents/relatives at the places of origin usually make annual visits to meet their families.

iii. Short duration migrants i.e. those who visit their home towns less frequently.

More than two thirds of the respondents were found to have been facing problems (resulting from migration) which would not have been at their places of origin. The most common problem faced was separation from relatives and lack of communal life. Others included health, language, education, prejudice and others such as housing, food, economic and environmental problems (table-92).

Behavioural and Environmental Aspects:

Information on how migrants perceive and react to their new environment may lead to more enlightened planning decisions. It was with this aim that the perception of the migrant households concerning the environment in which they were living as well as their future plans were investigated. Further, migrants membership in society/communal organization, their participation in self help projects as well as their behaviour in social life

TABLE - 91

MIGRANT'S VISITS TO PLACE OF ORIGIN

| Frequency of visits to origin | Migrants | |
|---|---|---|
| | Number | Percent |
| Less than a year | 75 | 15 |
| Once a year | 196 | 39 |
| Once in few years | 147 | 29 |
| Only once | 28 | 6 |
| Never | 54 | 11 |

SOURCE : Survey Data

TABLE - 92

PROBLEMS RESULTING FROM MIGRATION

| Type of Problem | Respondents | |
|---|---|---|
| | Number | Percent |
| Separation from relatives | 278 | 56 |
| Lack of Communal life | 108 | 22 |
| Health | 93 | 19 |
| Language | 23 | 5 |
| Education | 18 | 4 |
| Prejudice | 16 | 3 |
| Housing | 14 | 3 |
| Others | 22 | 5 |

SOURCE : Survey Data.

were also examined with the hope that it would be of some value in social planning.

More than half the respondents thought that their living was better in Karachi as compared to their places of origin (figure-61 and table-93) while a fourth considered it somewhat equal. In comparing their households in Karachi with those of their 'bradari' at the places of origin, 65 percent rated it equal, where as a fourth considered it better (figure-62).

A third of the respondents were not satisifed with their health condition in Karachi, while only 9 percent considered it better (figure-63). About 12 percent of the surveyed migrants or their families had suffered from a disease after migrating. A third of these fell ill soon after reaching Karachi, while 12 percent had been frequently suffering from bad health. Table-94 suggests that infections and water-borne diseases such as stomach disorders, malaria and flu were most common among migrants. This was primarily due to contaminated water, lack of proper drainage and substandard living.

A comparison of the migrant households with the households of friends/relatives living in Karachi revealed that about 85 percent were satisfied with their household environments, with a fourth considering it better than others (figure-64). About 71 percent of the households rated themselves equal to most members of their occupation, while 23 percent considered themselves to be better off (figure-65).

The migrants were not found to be very active in community

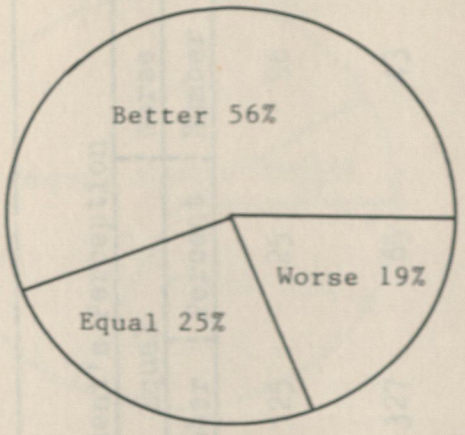


Figure 61: Respondent's perception of living in Karachi compared to living at their places of origin

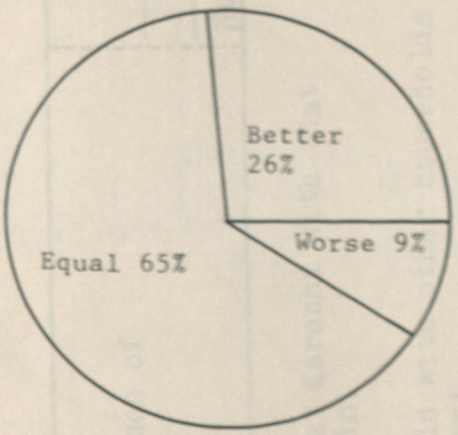


Figure 62: Respondent's perception of own household compared to other households in bradari

TABLE - 93

MIGRANT'S PERCEPTION OF THEIR LIVING ENVIRONMENT

| Comparison of | Respondent's Perception | | | | | |
|---|---|---|---|---|---|---|
| | Better | | Equal | | Worse | |
| | Number | Percent | Number | Percent | Number | Percent |
| Living at Karachi with that at origin. | 279 | 56 | 125 | 25 | 96 | 19 |
| Household with other households of Bradari. | 130 | 26 | 327 | 65 | 43 | 9 |
| Household with households of friends/relatives in Karachi | 127 | 25 | 301 | 60 | 72 | 15 |
| Household with households of same occupation. | 118 | 23 | 353 | 71 | 29 | 6 |
| Health with that at place of origin. | 44 | 9 | 289 | 58 | 167 | 33 |

SOURCE : Survey Data

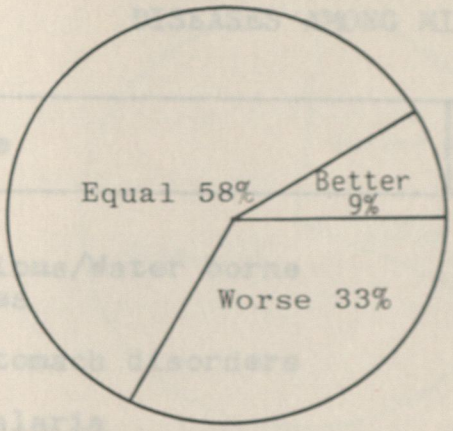


Figure 63:Comparative rating of respondents health in Karachi to their health at the places of origin

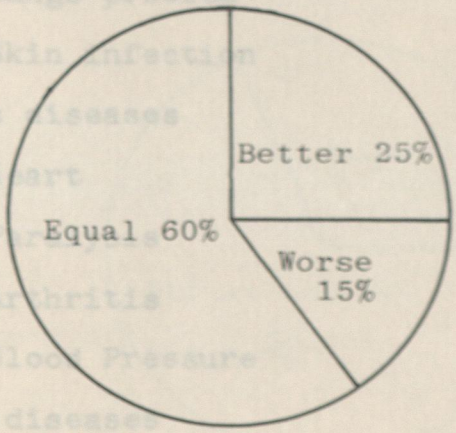


Figure 64: Respondents perception of their households compared to households of friends/relatives in Karachi.

TABLE - 94

DISEASES AMONG MIGRANTS

| Disease | Migrants |
|---|---|
| Infectious/Water borne diseases | |
| Stomach disorders | 16 |
| Malaria | 8 |
| Flu | 10 |
| Typhoid | 2 |
| Jaundice | 2 |
| Eye infection | 1 |
| Measles | 2 |
| Polio | 1 |
| Tuberculosis | 1 |
| Lungs problem | 1 |
| Skin infection | 2 |
| Stress diseases | |
| Heart | 4 |
| Paralysis | 1 |
| Arthritis | 1 |
| Blood Pressure | 1 |
| Other diseases | |
| Kidney trouble | 5 |
| Asthma | 2 |

SOURCE : Survey Data.

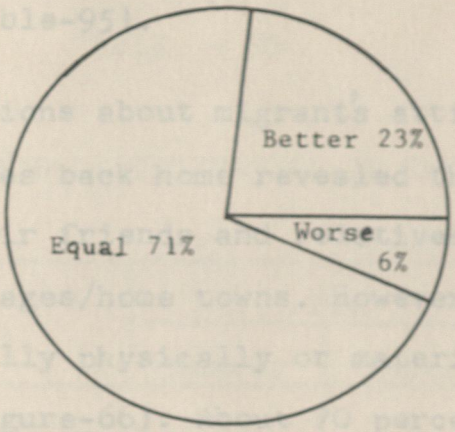


Figure 65 : Migrant's rating of their households in their occupational group

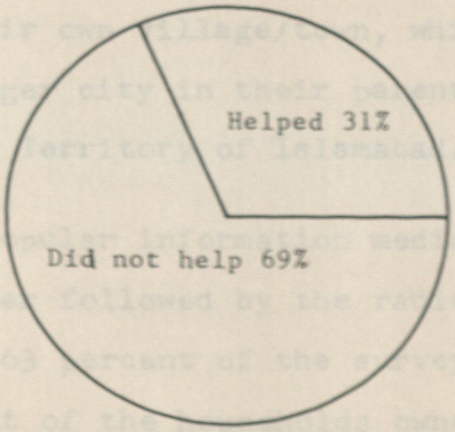


Figure 66: Proportion of migrants who actually helped other friends/relatives in the process of migration

participation or in societal membership. Less than a fifth of the respondents participated in community activities and only a fourth were members of some kind of organization/ association (table-95).

Investigations about migrant's attitudes towards their friends/relatives back home revealed that three fourths of them wanted their friends and relatives to earn living outside the parent villages/home towns. However, only two fifths of these had actually physically or materially helped others in the process (figure-66). About 70 percent of the interviewed migrants had friends or relatives working outside then places of origin but inside the country. Friends/relatives of more than half of the respondents were living abroad. Table-96 gives a broad classification of migrants having friends/relatives residing outside the places of origin. Two fifths of the respondents friends/relatives had initially migrated to Karachi, but later on went elsewhere. Almost half of these had emigrated to another country. About 68 percent of the other half had returned to their own village/town, while a third had moved either to a larger city in their parent province or to the Federal Capital Territory of Islamabad.

The most popular information media amongst the respondents was the newspaper followed by the radio. Newspapers were read daily by about 63 percent of the surveyed migrants (figure-67). About 70 percent of the households owned radios and more than half of these listened to the broad cast daily (figure-68). Among those listening to the radio daily or frequently, about 8 percent did so without owning a radio set. Television

TABLE - 95

RESPONDENT'S PARTICIPATION IN COMMUNAL ACTIVITIES

| Communal Activity | Yes | | No | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Membership in any association/organization | 124 | 25 | 376 | 75 |
| Participation in activities | 88 | 18 | 42 | 82 |

SOURCE : Survey Data

TABLE - 96

MIGRANT'S FRIENDS/RELATIVES WORKING OUTSIDE PLACE OF ORIGIN

| Friends/relatives working | Respondents | |
|---|---|---|
| | Number | Percent |
| In Pakistan | | |
| None* | 150 | 30 |
| 1 - 10 | 208 | 42 |
| 10 - 50 | 121 | 24 |
| Abroad | | |
| None* | 234 | 47 |
| 1 - 10 | 223 | 44 |
| 10 - 50 | 43 | 9 |
| More than 50 | - | - |

SOURCE : Survey Data

* Includes those having no knowledge about friends/relatives.

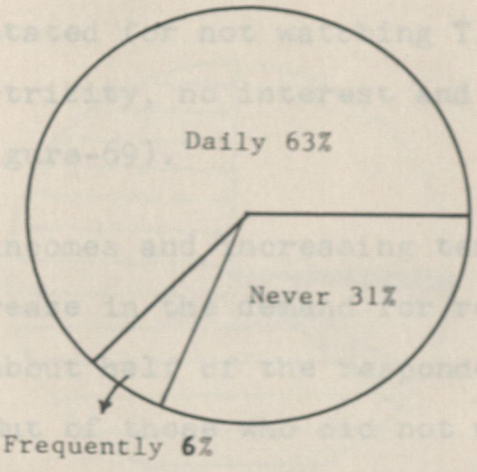


Figure 67: Migrant's behaviour in reading newspapers

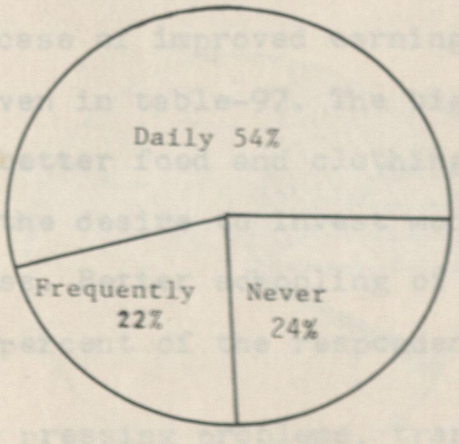


Figure 68: Migrant's behaviour in listening to the Radio

ownership was 39 percent with a third of the respondents watching T.V. daily. Another 12 percent did so frequently. About 14 percent of these watched T.V. without owning it. The reasons stated for not watching T.V. were lack of money/ time, no electricity, no interest and perceived religious antagonism (figure-69).

Rising incomes and increasing tension have caused an enormous increase in the demand for recreational and cultural facilities. About half of the respondents went to the cinema frequently. Out of those who did not watch movies, about a fifth had no time, while an eighth did not have so much spending capacity. A little over three fourth considered movies to be waste of time and money, and preferred to stay home and watch T.V. (figure-70). Other recreational activities among migrants included sports, outing, reading, walking, social visits, music, card games etc. (figure-71).

The respondents were asked to state their preferred spending in case of improved earnings. The aggregate answers have been given in table-97. The biggest preference was spending on better food and clothing for the family. It was followed by the desire to invest money in property (land/house) or in business. Better schooling of children was also desired by about 30 percent of the respondents.

Amongst pressing problems, transportation emerged as the most significant followed by fuel supply (gas), lack of drainage and acute water shortage. The rating of housing problem was also proportionately high (table-98). The most pressing felt

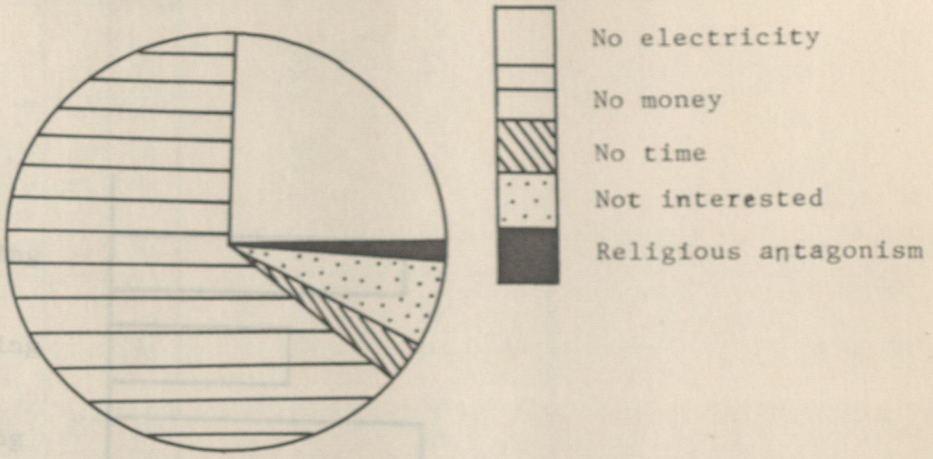


Figure 69: Reasons stated by migrants for not watching T.V.

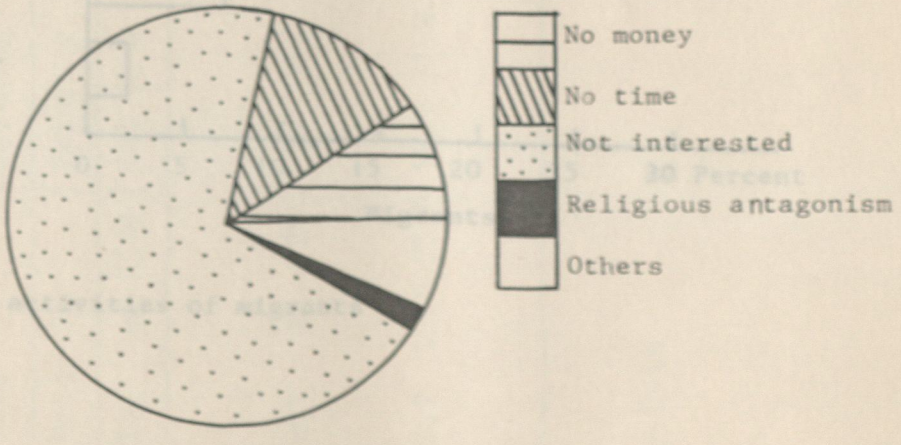


Figure 70: Reasons stated by migrants for not going to Cinema

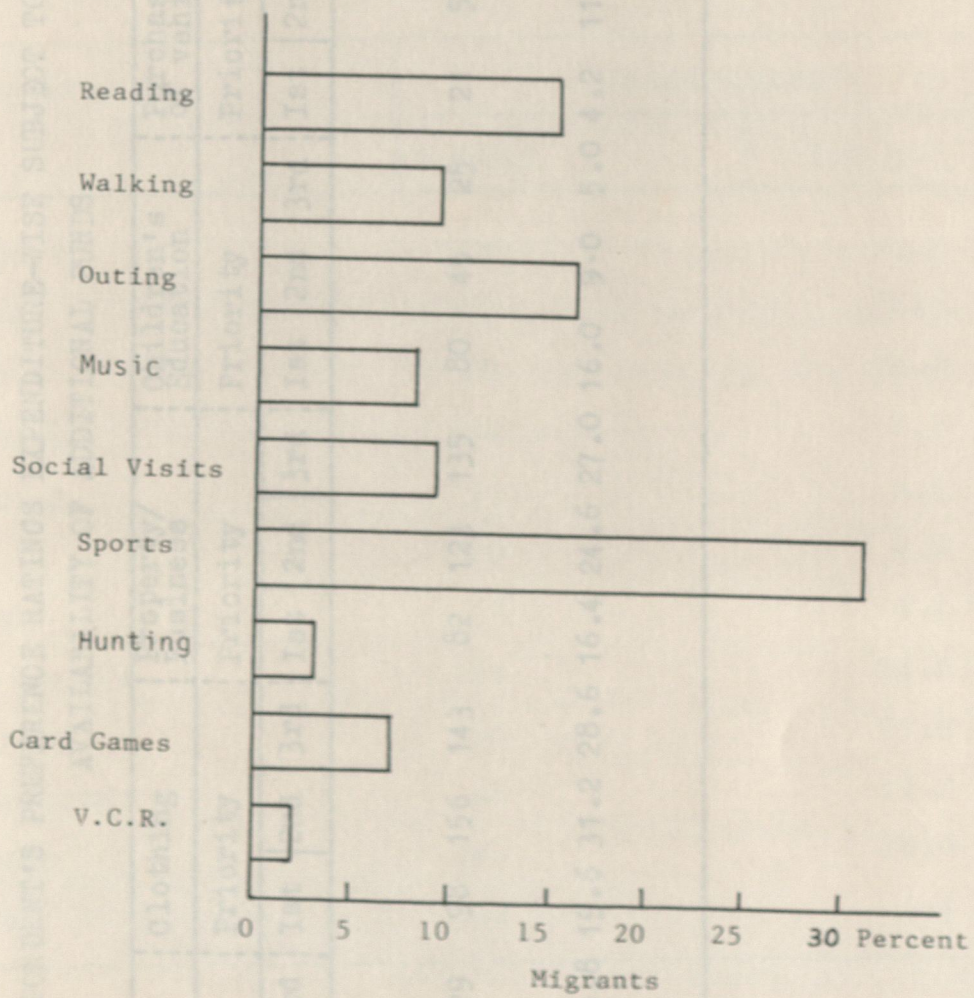


Figure 71: Recreational activities of migrants

TABLE - 97

RESPONDENT'S PREFERENCE RATINGS EXPENDITURE-WISE SUBJECT TO AVAILABILITY OF ADDITIONAL FUNDS

| RESPONDENTS | Food | | | Clothing | | | Property/ Business | | | Children's Education | | | Purchase of vehicle | | | Others | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Priority | | | Priority | | | Priority | | | Priority | | | Priority | | | Priority | | |
| | Ist | 2nd | 3rd | Ist | 2nd | 3rd | Ist | 2nd | 3rd | Ist | 2nd | 3rd | Ist | 2nd | 3rd | Ist | 2nd | 3rd |
| NUMBER | 201 | 98 | 129 | 98 | 156 | 143 | 82 | 123 | 135 | 80 | 45 | 25 | 21 | 56 | 59 | 18 | 22 | 9 |
| PERCENT | 40.2 | 19.6 | 25.8 | 19.6 | 31.2 | 28.6 | 16.4 | 24.6 | 27.0 | 16.0 | 9.0 | 5.0 | 4.2 | 11.2 | 11.8 | 3.6 | 4.4 | 1.8 |

SOURCE: Survey Data

TABLE - 98

GENERAL PROBLEMS FACED BY MIGRANTS IN KARACHI

| Type of Problem | Respondents | |
|---|---|---|
| | Number | Percent |
| Transport | 201 | 40.2 |
| Housing | 103 | 20.6 |
| Health | 99 | 19.8 |
| Education | 14 | 2.8 |
| Financial | 31 | 6.2 |
| Food | 20 | 4.0 |
| Climate | 7 | 1.4 |
| Water supply | 121 | 24.2 |
| Fuel(gas) | 154 | 30.8 |
| Electricity | 66 | 13.2 |
| Sewerage | 140 | 28.0 |
| Others | 32 | 6.4 |

SOURCE : Survey Data

need of the migrants was the provision of health facilities.

Less than half of the surveyed household heads had plans of returning to their parent villages/towns at some time. Two fifths of these intended to go back within 5 years. This category also included persons who wanted to return home as soon as they got a favourable chance. Migrants who were to spend a longer time (5-10 years) in Karachi mostly comprised students and those employed in transferable jobs (table-99). The main reason given by most of the migrants for wanting to return to their home towns was to live amongst family/relatives. Other reasons included dissatisfaction with Karachi's environment, property in the village, health problems and the ambition to serve their parent villages (table-100).

The migrants were asked whether they would prefer to stay in Karachi or return to their places of birth if they were provided the same income back home. In such a case two thirds of the respondents preferred to return. However, a third opted to stay in the metropolitan city because of perception of better future prospects, adjustment to urban social life or recreational facilities (table-101).

Almost half of the respondents perceived that they could utilize their skills better by serving abroad. Three fourths of these considered Middle-East as the ideal destination. About 17 percent desired to go to U.S.A./Europe or the Far-East. The remaining 7 percent were ambitious to work in any foreign country (figure-72).

TABLE - 99

MIGRANT'S PLANS TO RETURN TO PLACE OF ORIGIN
BY TIME PERIOD

| Time Period | Respondents | |
|---|---|---|
| | Number | Percent |
| Less than 5 years | 90 | 40 |
| 5 - 10 | 59 | 26 |
| more than 10 years | 75 | 34 |

SOURCE : Survey Data

TABLE - 100

REASONS OF PREFERENCE FOR RETURNING TO PLACE OF ORIGIN

| Reason | Respondents | |
|---|---|---|
| | Number | Percent |
| To stay with relatives | 166 | 74 |
| Dissatisfied in Karachi | 22 | 10 |
| Property (Land,house) at origin | 15 | 7 |
| Health problems | 10 | 4 |
| Desire to serve home town | 11 | 5 |

SOURCE : Survey Data.

TABLE - 101

REASONS FOR BECOMING LIFE-TIME MIGRANTS IN KARACHI

| Reason | Respondents | |
|---|---|---|
| | Number | Percent |
| Better prospects in Karachi | 103 | 60 |
| Well established in Karachi | 45 | 26 |
| Better social life in Karachi | 23 | 13 |
| Family fued at the place of origin | 1 | 1 |

SOURCE : Survey Data.

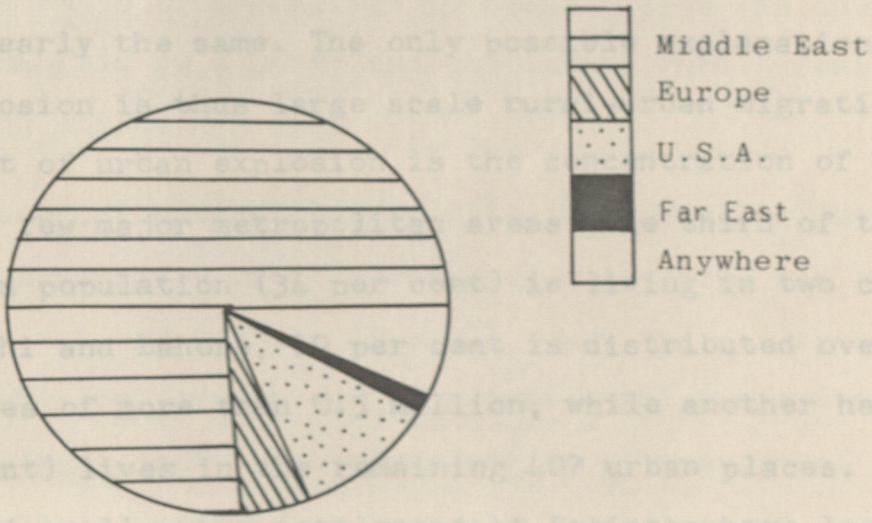


Figure 72: Migrant perception of ideal country/region for better utilization of skills.

CHAPTER-9

## SUMMARY AND CONCLUSIONS

The urban population of Pakistan has been increasing at a very high rate of 4.3 per cent against 3 per cent per annum overall growth rate for the country as a whole. All available evidences suggest that natural increase in urban and rural areas is nearly the same. The only possible explanation of the urban explosion is thus large scale rural-urban migration. A concomitant of urban explosion is the concentration of population in a few major metropolitan areas. One third of the total urban population (34 per cent) is living in two cities viz. Karachi and Lahore, 19 per cent is distributed over six other cities of more than 0.5 million, while another half (47 per cent) lives in the remaining 407 urban places. Intermediate and small urban settlements of Pakistan have lagged behind and not shared the proportionate growth of urban population in the past.

The pattern of regional inequalities diagnosed in this study, is an outcome of a number of historical, socio-economic, and political factors. Its genesis can be traced back to the 'British Raj' of the ninteenth century. British economic policies were geared to their own economic and strategic needs, resulting in disparate economic development and generation of growth poles. These growth poles became the foci of agglomeration economies after the country's independence.

The 'development from above' model of urban-industrialization was addopted in Pakistan in the early years of planned

development. It only created serious problems of industrial concentration in the major metropolitan centres of Karachi and Lahore which possessed the required infrastructure, economies of scale and external economies for industrial establishments. Subsequently, creation of job opportunities, better living standards, social services and community amenities generated powerful pull forces for migrants. The natural increase of population in these cities was therefore outpaced manifold by a heavy and continuing rural-urban and urban-urban shift.

The unequal development in which bigger urban settlements gained a major share of developmental activities has resulted in the neglect and decline of small towns and villages in terms of physical growth and development which has led to economic stagnation. A conscious policy of management of urban growth is required so that the big cities do not grow too fast and attain unmanageable sizes for the urban administrations to tackle. An integrated policy regarding the relative growth of small, medium-sized and large cities is yet to be implemented. In fact, contradictory signals are sent by public policy regarding the growth of large cities.

It is estimated that if the current trend continues, the urban population would increase from 23.8 million to more than 50 million by the end of the century; and even if family planning programs for population control become successful, by all indications the surge of urban population growth will continue towards major urban settlements adding

to the misery of these cities. The process of urbanization is inevitably linked with economic development. But the problems that it brings in its wake can be kept within manageable limits if the population is equitably distributed between small, medium and large cities and a policy of location of economic activities consistent with this objective is effectively carried out. Action is also needed for developing management capabilities in urban administration. The most important issues relate to distribution of urban services. While subsidies are justified on account of low paying capacity of the urban poor, beneficiaries of the subsidies are the richer sections of the population.

The physical quality of life and facilities in metropolitan cities, which were inadequate to begin with, have and will continue to be deteriorated under the constant influx of in-migrants. Furthermore, emigrants who are employed in urban settings in foreign countries are likely to settle in urban areas when they return to Pakistan, and may thus increase the burden on the already deteriorating facilities. The problems of housing shortages, substandard dwellings, slums and blighted neighbourhoods, deficient public services and utilities, and employment have already reached the crisis point. Karachi is at the threshold of a period of government decision-making that will determine whether it can rise to meet the challenge that confronts it. If it is successful, Karachi can become a vital modern metropolis acting as an engine of development for the entire nation. But, if present policies, which allow it to sprawl extravagantly are not changed, and if action

is not taken quickly enough to remedy its tremendous inequities, it will still grow, but it will enter a period of crisis and deterioration that is terrible to contemplate.

Large scale internal migration to Karachi is the outcome of both 'pull' and 'push' factors resulting from socio-economic imbalances in the country. The sample survey of migrants in Karachi revealed that economic reasons constituted the main cause of migration. Among these, job offers and job transfers accounted for only about 18 per cent of the migrations, while more than half (59%) of the respondents moved to Karachi in terms of perceived opportunities such as better job availability and career benefits. Interpersonal communications played a very important role in influencing migration decisions. More than two fifths of the surveyed migrants had been goaded by friends/relatives already living in Karachi, and nearly a third were actually (physically or materially) helped in the process.

A large majority (86%) of the subjects in the sample belonged to N.W.F.P. (44%) and the Punjab (42%), and most of these had migrated directly to the metropolitan city bypassing the intervening opportunities of other urban centres. This behaviour brings out the relative accessibility of Karachi in the mental maps of perspective migrants. Migration was the prevalent pattern with the earning member of the household migrating first and bringing the remaining family members later.

Demographic characteristics of the sample population

such as high masculanity ratio, low dependency ratio, predominance of single males in the productive age group and high literacy ratio are indicative of the selectiveness of the migration phenomenon.

Although house/land ownership at the places of origin was high among migrants, the ratio of houses owned in Karachi was quite low indicating the relative instability of migrants at the destination. However, more than half (56%) of the respondents considered their living better in Karachi as compared to the place of origin. A fourth of the households rated themselves even better than the households of other friends/relatives residing in Karachi.

The main problems resulting from migration were separation from relatives and lack of communal life. Among other pressing problems, transportation emerged as the most significant followed by substandard housing with deficient amenities and utilities such as fuel (gas) availability, water supply, drainage, health and education facilities.

More than half of the respondents did not aspire to return to their birth places. A third desired to stay in Karachi even if provided the same incomes in their home towns because of perceived future prospects, better career opportunities and adjustment to urban social life in the metropolitan city. Three fourths of the surveyed migrants wanted their friends and relatives to earn living outside their villages, and about two fifths had actually helped others in the migration process. Almost half of the migrants thought that they could utilize

their skills better by serving abroad especially in the Middle East.

There is no specific population distribution policy in the country, and the measures adopted to deal with the problems resulting from increasing concentrations in urban areas have been isolated and piecemeal. These curative measures need to be backed by strong preventive measures such as effective rural development programmes, establishment of intermediate towns, decentralization of industries and promotion of public works programmes in low growth regions. Redistribution of sources of revenue between the federal government, provinces and local bodies is needed so that the local bodies are enabled to attain greater self-sufficiency in financing their operations.

Attempts have been made from time to time to decentralize the industrialization process into the urban centres of backward areas through fiscal, administrative, and other measures. These macro-economic policies did initially achieve some success in the 1960's, but, large scale government investment in basic industries and infrastructure reversed the trend. The creation of townships and deconcentration of a few industries were not a long range solution to over-concentration and undisciplined urbanization. The effectiveness of these approaches in relieving congestion are temporary.

Realizing the problem, the Ministry of Urban Affairs is seriously working on a National Human Settlemnt Policy, so that a 'balanced' development can be promoted as a compromise between

the 'centre-down' and the 'bottom-up' paradigms. A study of the draft report of this policy, however, presents a number of shortcomings, such as, lack of coordination with other policies and a proper frame of implementation. In its existing shape, it is more an urban population redistribution policy (up to the year 2003), rather than a human settlement policy.

A critical aspect that has been neglected from both-- the rural development strategy (through local governments) and the human settlement policy (interim report), is the complimentarity between urban and rural areas. It should be pointed out here, that alleviation of rural-urban disparities, and integration between the two, necessitates development through regional development programs. Winnick's 'place-prosperity' approach implies that "concern for inter-regional or other dimensions of spatial equity may contribute towards solving the problems arising from the inequitable distribution of personal income and welfare. If 'place-prosperity' is a resonable surrogate for 'people-prosperity', it follows that, maximizing specified policy variables within a geographically defined area, becomes almost equivalent to maximizing the welfare of the 'target' population within that area (Winnick 1966)."

Due to lack of data, the objective evaluation of differential spatial impacts of the Government's regional policies is extremely difficult, if not impossible. Moreover, the subject is essentially controversial, and no methodological clarity on the magnitude of such impacts is possible until a comprehensive input-output model of the economy, with regional subsectors, is constructed. Nevertheless, broad generalizations

regarding the direction of the overall impact of government policies and programs should exhibit a reduction in the gaps in imbalances of economic health-- which does not appear very promising in the case of Pakistan.

Although regional planning has been extended to the provincial and district levels in Pakistan, they are dependent on the Federal Government's support for budget allocation, and also look forward to the Federal Government for advice in matters related to planning and development. Therefore, these efforts need to be substantiated by the Federal Government, with clearcut indications of national regional planning policies and strategies. They should also provide a framework for the coordination of provincial regional plans, and form a basis for the nationalization of regional plans, or for the regionalization of national plans.

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No. _____

Date _____

INTERVIEWER _____

INTERVIEWEE _____

CHECKER _____

# APPENDIX-A
# QUESTIONNAIRE

1. Age : _____
2. Sex : _____
3. Religion _____
4. Marital status _____
5. Tribe _____
6. Place of birth _____
7. Present occupation _____
8. Experience in job _____
9. Educational background _____
10. Managerial/Professional/Office worker/Skilled/Semi Skilled/ Unskilled.
11. Are you satisfied with your job and place of work? Yes/No
12. If not, what type of job and place of work would you like?
    - (i) Type of job _____
    - (ii) Place of work _____
13. Do you possess any land? Yes/No
    - (i) Where? _____
    - (ii) Area of land _____
    - (iii) Use of land _____
14. Do you possess any house? Yes/No
    - (i) Where? _____
    - (ii) Area of house? _____

Contd...2.

15. Present Place of living _____ Why? _____

15(a). Housing and related problems :-

(i) House type _____

(ii) Katcha/Semi pucca/Pucca

(iii) Owned/rented

(iv) If rented, rent/month _____

(v) Area of the house _____

(vi) If the house has electricity - monthly expenditure _____

(vii) Water supply: Tap _____ Community well _____

Well in house _____

(viii) Fuel used _____ Source of fuel _____

Monthly consumption _____

16. Condition of amenities: Radio/TV/Fridge/Car/Airconditioner/ Education/health/transport.

17. Distance from residence to place of work _____

18. Mode of transport to work/study _____

19. Place of shopping? _____ Distance _____

20. Do you watch TV daily _____ Frequently _____

If not, why? _____

21. How often do you go to cinema? _____ If not,why? _____

_____

22. How often do you read the newspaper ? _____

If never, why? _____

23. How often do you listen to the radio? _____

If never, why? _____

24. Any other means of recreation? _____

25. Are you a member of a communal organisation/association? Yes/No

Contd....3.

26. When did you leave your place of birth? _____

27. How many times did you migrate ? _____

28. What was your medium of transport ? _____

29. Last place of residence? _____

30. Reasons for migration :-

(i) Economic: Job/transfer/Offer of job/ perception of better prospects/any other _____

(ii) Social: Relatives/education/health/marriage/ any other _____

(iii) Political : _____

31. Did some one help you in migrating to Karachi? _____

32. Did some one goad you to migrate to Karachi? _____

33. Have you changed your residence in Karachi? Yes/No

If yes. How many times? _____

Why did you change your residence? _____

34. Where did you live when you first come to Karachi?

_____

35. How soon did you get a job after coming to Karachi? _____

36. Were you satisfied with that job? Yes/No

37. How often do you visit your place of origin? _____

38. Did you visit your home more frequently during the early years of migration? Yes/No. If yes, why? _____

39. Do you have any dependents? Yes/No. If yes, how many? _____

Where do they live?

With respondent _____ Back home _____

Contd...4.

40. Did you come to Karachi alone or with dependents?

(i) Came alone and called dependents later

(ii) Came alongwith dependents

(iii) Brought dependents and sent them back.

41. Details of dependents :-

| Age | Sex | Relation | Education/Skill | Occupation |
|---|---|---|---|---|
| | | | | |

| Place of work | Place of living |
|---|---|
| | |

42. Did you or your family suffer from any disease after coming to Karachi? Yes/No. If yes, which disease ? _____

When ? _____

Contd...5.

43. Has any member of the household ever participated in any group or self help activity in the community? Yes/No

44. Do you rate your living in Karachi better or worse than the life at your origin? Better _____ Worse _____ Equal _____

45. Do you rate your household to be better or worse than most of the households of friends/relatives living in Karachi?

Better _____ Worse _____ Equal _____

46. How do you rate your household in your bradari?

Better _____ Worse _____ Equal _____

47. How do you rate yourself in comparison to most members of your occupation? Better _____ Worse _____ Equal _____

48. How do you rate condition of housing better or worse than the condition at your place of origin? Better _____ Worse _____ Equal _____

49. Do you face any problems which you would not have faced at your Place of origin? Yes/No. If yes, please specify: Separation from relatives/health/education/language/communal life/prejudice/ any other _____

50. How do you rate your condition of health as compared to your place of origin? Better _____ Worse _____ Equal _____

51. Would you like your other relatives/friends to earn a living outside the village? Yes/No.

52. Have you helped any relative/friend to earn a living outside your place of origin? Yes/No.

53. In the last five years how many of your friends/relatives left for (i) abroad? _____ (ii) for employment outside your village ? _____

Contd.....6.

54. Have any of your friends who had migrated to Karachi again migrated somewhere? Yes/No. If yes, where? _____

55. Are you planning/Do you intend to go back to your place of origin?

Yes/No. Why? _____

When? _____

56. Do you consider you can utilize your skill better by serving abroad? Yes/No. If yes, where? _____

57. If you had more money to spend every month, how would you want to spend it. Give first three preferences in order of priority and out of: Food/Clothing/water supply/play ground/dispensary/adult education/post office/bank/electricity/transport/any other _____

_____

58. If you get the same income at your origin, would you prefer to stay here or return to your place of origin?

Stay here _____ Why? _____

Return _____

59. Problems, if any:

(i) _____

(ii) _____

(iii) _____

APPENDIX - B

PAKISTAN : Classification of Districts By Population Size Classes

1901 - 81

| Year | Districts by Population Size Classes | | | |
|---|---|---|---|---|
| | < 0.2 million | 0.2-0.5 million | 0.5-1.0 million | > 1.0 million |
| (1) | (2) | (3) | (4) | (5) |
| 1901 | Karachi<br>Lasbela<br>Khairpur<br>Quetta<br>Sibi<br>Loralai<br>Zhob<br>Chagai | Kohat<br>Bannu<br>D.I.Khan<br>Attock<br>Sargodha<br>Mianwali<br>Jhang<br>D.G.Khan<br>Sahiwal<br>Bahawalpur<br>R.Y.Khan<br>Jocobabad<br>Larkana<br>Nawabshah<br>Dadu<br>Tharparkar<br>Thatta<br>Kalat | Hazara<br>Peshawar<br>Rawalpindi<br>Jhelum<br>Gujrat<br>Faisalabad<br>Lahore<br>Gujranwala<br>Sheikhupura<br>Muzaffargarh<br>Multan<br>Sukkur<br>Hyderabad | Sialkot |
| 1911 | Bannu ←<br>Karachi<br>Lasbela<br>Quetta<br>Sibi<br>Loralai<br>Zhob<br>Chagai<br>+ Kharan<br>+ Mekran | + Mardan<br>Kohat<br>D.I.Khan<br>Mianwalli<br>Sahiwal<br>Bahawalpur<br>R.Y.Khan<br>Jacobabad<br>Larkana<br>Nawabshah<br>→ Khairpur<br>Dadu<br>Tharparkar<br>Thatta<br>Kalat | Hazara<br>Peshawar<br>→ Attock<br>Rawalpindi<br>Jhelum<br>Gujrat<br>→ Sargodha<br>Faisalabad<br>→ Jhang<br>Lahore<br>Gujranwala<br>Sheikhupurna<br>→ D.G.Khan<br>Muzaffargarh<br>Multan<br>Sukkur<br>Hyderabad | Sialkot |

Continued.....2

| (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|
| 1921 | Lasbela<br>Khairpur ←<br>Quetta<br>Sibi<br>Loralai<br>Zhob<br>Chagai<br>Kharan<br>Mekran | Mardan<br>Kohat<br>→Bannu<br>D.I.Khan<br>Jhelum ←<br>Mianwalli<br>D.G.Khan ←<br>Bahawalpur<br>R.Y.Khan<br>Jacobabad<br>Larkana<br>Nawabshah<br>Dadu<br>Tharparkar<br>Thatta<br>→Karachi<br>Kalat | Hazara<br>Peshawar<br>Attock<br>Rawalpindi<br>Gujrat<br>Sargodha<br>Faisalabad<br>Jhang<br>Gujranwala<br>Sheikhupura<br>Muzaffargarh<br>Multan<br>→Sahiwal<br>Sukkur<br>Hyderabad | →Lahore<br>Sialkot |
| 1931 | Lasbela<br>Quetta<br>Sibi<br>Loralai<br>Zhob<br>Chagai<br>Kharan<br>Mekran | Mardan<br>Kohat<br>Bannu<br>D.I.Khan<br>Mianwalli<br>R.Y.Khan<br>Jacobabad<br>Larkana<br>→Khairpur<br>Dadu<br>Tharparkar<br>Thatta<br>Karachi<br>Kalat | Hazara<br>Peshawar<br>Attock<br>Rawalpindi<br>→Jhelum<br>Gujrat<br>Sargodha<br>Jhang<br>Gujranwala<br>Sheikhupura<br>→D.G.Khan<br>Muzaffargarh<br>Sahiwal<br>→Bahawalpur<br>Sukkur<br>→Nawabshah<br>Hyderabad | →Faisalabad<br>Lahore<br>Sialkot<br>→Multan |
| 1941 | Lasbela<br>Quetta<br>Sibi<br>Loralai<br>Zhob<br>Chagai<br>Kalat ←<br>Kharan<br>Mekran | Kohat<br>Bannu<br>D.I.Khan<br>R.Y.Khan<br>Jacobabad<br>Khairpur<br>Dadu<br>Thatta<br>Karachi | Hazara<br>→Mardan<br>Peshawar<br>Attock<br>Rawalpindi<br>Jhelum<br>Sargodha<br>→Mianwalli<br>Jhang<br>Gujranwala<br>Sheikhupura<br>D.G.Khan<br>Muzaffargarh<br>Bahawalpur<br>Sukkur<br>→Larkana<br>Nawabshah<br>Hyderabad<br>→Tharparkar | →Gujrat<br>Faisalabad<br>Lahore<br>Sialkot<br>Multan<br>→Sahiwal |

Continued...3

| (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|
| 1951 | Lasbela | Kohat | Hazara | Gujrat |
| | Sibi | Bannu | Mardan | →Sargodha |
| | Loralai | D.I.Khan | Peshawar | Faisalabad |
| | Zhob | Jacobabad | Attock | Lahore |
| | Chagai | Khairpur | Rawalpindi | →Gujranwala |
| | Kharan | Dadu | Jhelum | Sialkot |
| | Mekran | Thatta | Mianwalli | Multan |
| | | →Quetta | Jhang | Sahiwal |
| | | →Kalat | Sheikhupura | →→Karachi |
| | | | D.G.Khan | |
| | | | Muzaffargarh | |
| | | | →R.Y.Khan | |
| | | | Bahawalpur | |
| | | | Sukkur | |
| | | | Larkana | |
| | | | Nawabshah | |
| | | | Hyderabad | |
| | | | Tharparkar | |
| 1961 | Lasbela | Kohat | Mardan | →Hazara |
| | Sibi | Bannu | Attock | →Peshawar |
| | Loralai | D.I.Khan | Jhelum | →Rawalpindi |
| | Zhob | Khairpur | Mianwalli | Gujrat |
| | Chagai | Dadu | D.G.Khan | Sargodha |
| | Kharan | +Sanghar | Muzaffargarh | Faisalabad |
| | Mekran | Thatta | Bahawalpur | →Jhang |
| | | Quetta | +Bahawalnagar | Lahore |
| | | Kalat | →Jacobabad | Gujranwala |
| | | | Sukkur | →Sheikhupura |
| | | | Larkana | Sialkot |
| | | | →Nawabshah | Multan |
| | | | Tharparkar | Sahiwal |
| | | | | →R.Y.Khan |
| | | | | →Hyderabad |
| | | | | Karachi |
| 1972 | +Chitral | D.I.Khan | +Dir | Hazara |
| | +Malakand P.A. | →Sibi | +Swat | →Mardan |
| | Lasbela | Kalat | →Kohat | Peshawar |
| | Loralai | +Kachhi | →Bannu | Rawalpindi |
| | Zhob | →Mekran | Attock | →Jhelum |
| | Chagai | | Jacobabad | Gujrat |
| | Kharan | | →Khairpur | Sargodha |
| | | | Larkana | →Mianwalli |
| | | | →Dadu | Faisalabad |
| | | | →Sanghar | Jhang |
| | | | →Thatta | Lahore |
| | | | →Quetta | Gujranwala |
| | | | | Sheikhupura |
| | | | | Sialkot |

Continued.....4

| (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|
| | | | | → D.G.Khan |
| | | | | → Muzaffargarh |
| | | | | Multan |
| | | | | Sahiwal |
| | | | | → Bahawalpur |
| | | | | → Bahawalnagar |
| | | | | R.Y.Khan |
| | | | | → Sukkur |
| | | | | → Nawabshah |
| | | | | Hyderabad |
| | | | | → Tharparkar |
| | | | | Karachi |
| 1981 | Lasbela | → Chitral | Dir | → Swat |
| | Sibi | → Malakand P.A. | Kohat | + Mansehra |
| | + Panjgur | + Kohistan | Bannu | + Abbotabad |
| | + Gwadar | Quetta ← | → D.I.Khan | Mardan |
| | Kharan | + Pishin | + Shikarpur | Peshawar |
| | + Kohlu | → Loralai | + Badin | → Attock |
| | Chagai | + Nasirabad | Sanghar | Rawalpindi |
| | | Kachhi | Thatta | Jhelum |
| | | Kalat | | Gujrat |
| | | + Khuzdar | | Sargodha |
| | | + Turbat | | Mianwalli |
| | | → Zhob | | Faisalabad |
| | | + Islamabad. | | Jhang |
| | | | | Sialkot |
| | | | | Gujranwala |
| | | | | Sheikhupura |
| | | | | Lahore |
| | | | | + Kasur |
| | | | | D.G.Khan |
| | | | | Muzaffargarh |
| | | | | Multan |
| | | | | + Vehari |
| | | | | Sahiwal |
| | | | | Bahawalpur |
| | | | | Bahawalnagar |
| | | | | R.Y.Khan |
| | | | | → Jacobabad |
| | | | | Sukkur |
| | | | | → Larkana |
| | | | | Nawabshah |
| | | | | → Dadu |
| | | | | Hyderabad |
| | | | | Tharparkar |
| | | | | Karachi. |

SOURCES: Population Censuses of Pakistan 1961, 1972 & 1981

→ Moved to next larger size-class

← Moved to lower size-class

+ New District added

APPENDIX - C

TABLE - I

PAKISTAN : IN-MIGRATION TO DISTRICTS 1951-73

| DISTRICT | Migrants | | |
|---|---|---|---|
| | 1951 | 1961 | 1973 |
| Hazara | 17,703 | 13674 | 73,095 |
| Mardan | 23,600 | 51,197 | 104,467 |
| Peshawar | 79,839 | 121,878 | 162,151 |
| Kohat | 15,928 | 16,470 | 18,502 |
| D.I. Khan | 21,744 | 14,433 | 20,218 |
| Bannu | 9,782 | 9,414 | 8,492 |
| Attock | 14,971 | 13,604 | 26,503 |
| Rawalpindi | 46,989 | 106,178 | 266,071 |
| Jhelum | 22,075 | 29,513 | 50,059 |
| Gujrat | 32,659 | 47,152 | 103,745 |
| Sargodha | 75,876 | 102,539 | 136,042 |
| Mianwali | 10,437 | 40,483 | 50,862 |
| Faisalabad | 107,089 | 149,489 | 268,749 |
| Jhang | 20,394 | 37,099 | 70,054 |
| Lahore | 112,187 | 197,525 | 312,324 |
| Gujranwala | 70,557 | 93,707 | 231,886 |
| Sheikhupura | 51,525 | 61,906 | 142,486 |
| Sialkot | 38,842 | 44,301 | 107,956 |
| D.G. Khan | 2,435 | 7,040 | 35,406 |
| Muzaffargarh | 8,214 | 53,681 | 148,004 |
| Multan | 89,873 | 141,230 | 318,864 |
| Sahiwal | 100,725 | 115,247 | 185,000 |
| Bahawalpur | 143,675 | 81,304 | 122,896 |
| Bahawalnagar | | 89,827 | 84,420 |
| R.Y. Khan | | 138,959 | 125,662 |
| Jacobabad | 7,451 | 29,369 | 19,652 |
| Sukkur | 21,038 | 33,167 | 66,551 |
| Larkana | 21,009 | 27,902 | 33,839 |
| Nawabshah | 42,406 | 59,412 | 82,144 |
| Khairpur | 12,660 | 33,996 | 44,011 |
| Hyderabad | 34,984 | 91,802 | 135,000 |
| Dadu | 13,002 | 23,168 | 24,416 |
| Tarparkar | 28,596 | 35,736 | 39,429 |
| Sanghar | - | 53,900 | 51,654 |
| Tatta | 4,326 | 8,662 | 21,540 |
| Karachi | 150,537 | 310,814 | 594,151 |
| Quetta | 31,315 | 40,608 | 58,454 |
| Sibi | 19,292 | 12,504 | 25,034 |
| Loralai | 6,879 | 9,576 | 5,374 |
| Zhob | 3,913 | 4,952 | 5,067 |
| Chagai | 1,279 | 1,124 | 5,225 |
| Kalat | 1,002 | 9,064 | 3,506 |
| Kachhi | - | - | 23,880 |

| | | | |
|---|---|---|---|
| Karan | 123 | 492 | 4,018 |
| Mekran | 135 | 864 | 10,717 |
| Lasbela | 482 | 9,185 | 8,734 |

SOURCES : i. Population Census of Pakistan 1961.

ii. Post Census Housing Economic and Demographic Survey (HED) 1973.

APPENDIX - C

TABLE - II

PAKISTAN : IN-MIGRATION TO DISTRICTS 1981

( MIGRANTS IN THOUSANDS )

| District | Migrants |
|---|---|
| **N. W. F. P.** | |
| Chitral | 1.5 |
| Dir | 13.8 |
| Swat | 39.2 |
| Malakand | 23.7 |
| Kohistan | 4.2 |
| Mansehra | 14.0 |
| Abbottabad | 57.9 |
| Mardan | 45.0 |
| Peshawar | 212.1 |
| Kohat | 46.6 |
| Bannu | 14.8 |
| D.I. Khan | 18.6 |
| **P U N J A B** | |
| Attock | 31.2 |
| Rawalpindi | 307.9 |
| Jhelum | 69.9 |
| Gujrat | 183.2 |
| Mianwali | 106.6 |
| Sargodha | 274.7 |
| Faisalabad | 854.4 |
| Jhang | 172.8 |
| Sialkot | 291.9 |
| Gujranwala | 466.2 |
| Sheikhpura | 408.8 |
| Lahore | 687.9 |
| Kasur | 268.4 |
| D.G. Khan | 59.6 |
| Muzaffargarh | 294.3 |
| Multan | 430.6 |
| Vehari | 250.9 |
| Sahiwal | 515.4 |
| Bahawalpur | 193.3 |
| Bahalnagar | 256.4 |
| R.Y. Khan | 191.7 |
| **S I N D** | |
| Jaccobabad | 12.1 |
| Sukkur | 120.2 |
| Shikarpur | 11.9 |

Table II (Continued)

| | |
|---|---|
| Larkana | 27.7 |
| Nawabshah | 118.0 |
| Khairpur | 43.7 |
| Dadu | 60.8 |
| Hyderabad | 338.3 |
| Badin | 81.7 |
| Sanghar | 105.0 |
| Tharparkar | 99.9 |
| Thatta | 27.0 |
| Karachi (Div.) | 1728.2 |
| **B A L U C H I S T A N** | |
| Quetta | 108.0 |
| Pishin | 7.8 |
| Loralai | 68.1 |
| Zhob | 6.4 |
| Chagai | 4.0 |
| Sibi | 10.1 |
| Nasirabad | 28.2 |
| Kachhi | 6.9 |
| Kohlu | 1.6 |
| Kalat | 5.5 |
| Khuzdar | 5.9 |
| Kharan | 0.9 |
| Lasbela | 6.3 |
| Turbat | 2.4 |
| Gawadar | 1.5 |
| Panjgur | 0.8 |
| **I S L A M A B A D** | |
| Islamabad | 113.1 |

---

SOURCE : Population Census of Pakistan 1981.

APPENDIX - D

TABLE - I

PAKISTAN : PROVINCIAL SHARE OF IN-MIGRANTS TO SELECTED CITIES 1951

( MIGRANTS IN THOUSANDS )

| City (Place of Enumeration) | Province/Administrative Region (Place of Birth) | | | | | |
|---|---|---|---|---|---|---|
| | Pakistan | Punjab | Sind | N.W.F.P. | Baluchistan | F.A.T.A. |
| Karachi | 150.54<br>(100) | 54.28<br>(36.1) | 14.57<br>(9.7) | 47.95<br>(31.8) | 33.74<br>(22.24) | - |
| Lahore | 94.44<br>(100) | 84.46<br>(86.7) | 1.56<br>(1.6) | 10.80<br>(11.1) | 0.62<br>(0.6) | - |
| Faisalabad | 15.25<br>(100) | 14.43<br>(94.6) | 0.04<br>(0.3) | 0.72<br>(4.7) | 0.06<br>(0.4) | - |
| Rawalpindi | 52.07<br>(100) | 35.55<br>(68.3) | 0.63<br>(1.2) | 15.68<br>(30.1) | 0.21<br>(0.4) | - |
| Hyderabad | 17.29<br>(100) | 6.02<br>(34.8) | 8.15<br>(47.2) | 2.50<br>(14.4) | 0.62<br>(3.6) | - |
| Multan | 12.54<br>(100) | 11.34<br>(90.4) | 0.14<br>(1.1) | 0.97<br>(7.7) | 0.10<br>(0.8) | - |
| Gujranwala | 7.91<br>(100) | 7.55<br>(95.4) | 0.08<br>(1.0) | 0.26<br>(3.2) | 0.03<br>(0.4) | - |

Continued Appendix - D
Table-I.

| | | | | | | |
|---|---|---|---|---|---|---|
| Peshawar | 48.97<br>(100) | 21.22<br>(43.3) | 0.89<br>(1.8) | 14.68<br>(30.0) | 0.21<br>(0.5) | 11.96<br>(24.4) |
| Sialkot | 10.24<br>(100) | 8.29<br>(80.9) | 0.27<br>(2.6) | 1.52<br>(14.9) | 0.17<br>(1.6) | - |
| Sargodha | 23.27<br>(100) | 19.89<br>(85.5) | 0.53<br>(2.3) | 2.70<br>(11.6) | 0.09<br>(0.4) | 0.05<br>(0.2) |
| Quetta | 32.33<br>(100) | 19.39<br>(60.0) | 1.30<br>(4.0) | 8.60<br>(26.6) | 2.90<br>(9.0) | 0.15<br>(0.4) |

SOURCE : Population Census of Pakistan 1961.

Note : Figures in Parantheses indicate percent share.

APPENDIX - D

TABLE - II

PAKISTAN : PROVINCIAL SHARE OF IN-MIGRANTS TO SELECTED CITIES 1961

( MIGRANTS IN THOUSANDS )

| City (Place of Enumeration) | Province/Administrative Region (Place of Birth) | | | | | |
|---|---|---|---|---|---|---|
| | Pakistan | Punjab | Sind | N.W.F.P. | Baluchistan | F.A.T.A. |
| Karachi | 282.55 (100) | 140.27 (49.6) | 21.03 (7.5) | 96.11 (34.0) | 21.57 (7.6) | 3.58 (1.3) |
| Lahore | 170.81 (100) | 136.03 (79.6) | 5.80 (3.4) | 26.86 (15.7) | 1.99 (1.2) | 0.13 (0.1) |
| Faisalabad | 55.65 (100) | 49.73 (89.4) | 1.07 (1.9) | 4.32 (7.7) | 0.32 (0.6) | 0.22 (0.4) |
| Rawalpindi | 73.66 (100) | 48.92 (66.4) | 4.67 (6.3) | 18.79 (25.5) | 0.64 (0.9) | 0.65 (0.9) |
| Hyderabad | 39.20 (100) | 13.08 (33.4) | 16.61 (42.4) | 7.31 (18.6) | 1.52 (3.9) | 0.68 (1.7) |
| Multan | 36.57 (100) | 32.07 (87.7) | 0.94 (2.6) | 3.12 (8.5) | 0.32 (0.8) | 0.12 (0.4) |
| Gujranwala | 20.00 (100) | 18.74 (93.7) | 0.31 (1.5) | 0.82 (4.1) | 0.14 (0.7) | - |

Continued Appendix - D
Table-II.

| | | | | | | |
|---|---|---|---|---|---|---|
| Peshawar | 22.26<br>(100) | 13.67<br>(61.4) | 0.22<br>(1.0) | 8.28<br>(37.2) | 0.09<br>(0.4) | - |
| Sialkot | 17.95<br>(100) | 13.81<br>(76.9) | 0.12<br>(0.6) | 3.44<br>(19.2) | 0.58<br>(3.3) | - |
| Sargodha | 7.51<br>(100) | 6.62<br>(88.1) | 0.02<br>(0.3) | 0.86<br>(11.4) | 0.01<br>(0.2) | - |
| Quetta | 27.73<br>(100) | 17.57<br>(63.3) | 0.52<br>(1.9) | 6.74<br>(24.3) | 2.91<br>(10.5) | - |

SOURCE : Population Census of Pakistan 1961.

Note : Figures in Parantheses indicate percent share.

APPENDIX - D

TABLE - III

PAKISTAN : PROVINCIAL SHARE OF IN-MIGRANTS TO SELECTED CITIES 1973

( MIGRANTS IN THOUSANDS )

| City (Place of Enumeration) | Province/Administrative Region (Place of Birth) | | | | | |
|---|---|---|---|---|---|---|
| | Pakistan | Punjab | Sind | N.W.F.P. | Baluchistan | F.A.T.A. |
| Karachi | 503.82<br>(100) | 220.20<br>(43.8) | 43.49<br>(8.6) | 181.49<br>(36.0) | 46.83<br>(9.3) | 11.80<br>(2.3) |
| Lahore | 267.97<br>(100) | 190.60<br>(71.2) | 11.06<br>(4.1) | 31.74<br>(11.8) | 31.81<br>(11.9) | 2.76<br>(1.0) |
| Faisalabad | 108.93<br>(100) | 92.64<br>(85.1) | 5.64<br>(5.2) | 4.05<br>(3.7) | 5.66<br>(5.2) | 0.94<br>(0.8) |
| Rawalpindi | 168.50<br>(100) | 105.23<br>(62.5) | 7.22<br>(4.3) | 48.65<br>(28.8) | 6.12<br>(3.6) | 1.29<br>(0.8) |
| Hyderabad | 63.39<br>(100) | 19.46<br>(30.7) | 29.03<br>(45.8) | 9.15<br>(14.4) | 5.47<br>(8.6) | 0.28<br>(0.5) |
| Multan | 67.21<br>(100) | 47.20<br>(70.3) | 2.67<br>(4.0) | 4.39<br>(6.5) | 12.51<br>(18.6) | 0.44<br>(0.6) |
| Gujranwala | 62.86<br>(100) | 54.97<br>(87.5) | 1.43<br>(2.3) | 3.22<br>(5.1) | 2.02<br>(3.2) | 1.22<br>(1.9) |

Continued Appendix - D

| | | | | | | |
|---|---|---|---|---|---|---|
| Peshawar | 30.95<br>(100) | 8.16<br>(26.4) | 2.73<br>(8.8) | 13.02<br>(42.1) | 0.59<br>(1.9) | 6.45<br>(20.8) |
| Sialkot | 15.53<br>(100) | 9.48<br>(61.0) | 0.69<br>(4.4) | 0.46<br>(3.0) | 4.78<br>(30.8) | 0.12<br>(0.8) |
| Sargodha | 24.01<br>(100) | 20.17<br>(84.0) | 0.51<br>(2.1) | 1.93<br>(8.0) | 1.15<br>(4.8) | 0.25<br>(1.1) |
| Quetta | 24.59<br>(100) | 9.78<br>(39.8) | 2.62<br>(10.7) | 5.57<br>(22.6) | 5.57<br>22.6) | 1.06<br>(4.3) |

SOURCE : Post Census Housing, Economic and Demographic Survey 1973.

Note : Figures in Parantheses indicate percent share.

APPENDIX - E

TABLE - I

PAKISTAN: DISTRICTS BY TWELVE SELECTED INDICATORS 1961

| Districts | Pop. Density | Pop. Growth | Degree of Urbaniza-tion | In-Migration | Student/ 1000 persons | Hosp.Beds/ 1000 persons | Literacy Ratio | Value Added by Ma-nufactur-ing (per Capita) | Value Added by Agr. (per Capita) | Banks (per Capita) | Road Density | Electricity Consumption (per capita) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Peshawar | 737 | 31 | 32.7 | 122 | 52.4 | 0.9 | 15.7 | 111.6 | 62.4 | 36 | 17.1 | 75.2 |
| Hazara | 220 | 8 | 7.0 | 14 | 42.6 | 0.5 | 11.7 | 34.8 | 12.1 | 14 | 3.4 | 9.3 |
| Mardan | 672 | 29 | 13.0 | 51 | 38.6 | 0.3 | 9.8 | 61.0 | 82.1 | 14 | 17.2 | 39.5 |
| Kohat | 181 | 45 | 18.9 | 16 | 53.1 | 0.4 | 14.5 | 30.1 | 15.9 | 5 | 5.3 | 9.3 |
| Bannu | 210 | 30 | 10.9 | 9 | 31.9 | 0.7 | 10.8 | 42.0 | 153.7 | 5 | 7.0 | 9.9 |
| D.I.Khan | 81 | 18 | 19.4 | 14 | 31.1 | 1.0 | 10.6 | 9.0 | 158.8 | 5 | 4.9 | 43.8 |
| Abbottabad | 185 | 11 | 10.2 | 14 | 71.0 | 0.5 | 15.2 | 41.0 | 159.8 | 8 | 9.9 | 9.7 |
| R.Pindi | 562 | 25 | 35.8 | 106 | 112.5 | 0.9 | 32.4 | 173.0 | 191.7 | 49 | 11.8 | 13.1 |
| Jhelum | 270 | 10 | 14.0 | 29 | 108.5 | 0.2 | 24.8 | 206.1 | 21.9 | 13 | 7.8 | 59.4 |
| Gujrat | 586 | 15 | 12.6 | 37 | 78.4 | 0.2 | 18.1 | 30.0 | 29.1 | 16 | 8.1 | 15.2 |
| Sargodha | 307 | 26 | 19.3 | 103 | 64.9 | 0.3 | 16.0 | 34.6 | 33.8 | 20 | 9.7 | 19.2 |
| Faisalabad | 763 | 25 | 21.5 | 149 | 63.1 | 0.2 | 18.1 | 101.0 | 18.7 | 43 | 6.7 | 57.7 |
| Jhang | 317 | 23 | 16.0 | 37 | 57.1 | 0.3 | 14.1 | 1.4 | 11.8 | 11 | 8.2 | 38.7 |
| Mianwali | 138 | 36 | 19.0 | 40 | 64.7 | 0.4 | 14.8 | 97.6 | 0.4 | 12 | 6.9 | 13.0 |
| Sialkot | 772 | 8 | 15.9 | 44 | 73.8 | 0.3 | 17.1 | 16.1 | 15.8 | 19 | 6.6 | 10.2 |
| Gujranwala | 559 | 23 | 26.7 | 94 | 70.6 | 0.2 | 17.2 | 31.4 | 27.6 | 25 | 7.8 | 27.6 |
| Sheikhupura | 467 | 17 | 12.5 | 62 | 47.5 | 0.2 | 12.2 | 139.7 | 43.9 | 17 | 8.6 | 6.0 |
| Lahore | 1119 | 31 | 59.1 | 198 | 89.9 | 0.6 | 25.0 | 99.5 | 2.5 | 99 | 3.3 | 83.6 |
| Sahiwal | 505 | 18 | 11.2 | 115 | 37.7 | 0.3 | 11.1 | 30.6 | 29.9 | 22 | 9.0 | 27.2 |
| Multan | 480 | 28 | 21.3 | 141 | 41.3 | 0.4 | 14.4 | 68.7 | 99.8 | 43 | 7.2 | 67.1 |
| Muzaffargarh | 176 | 32 | 7.4 | 54 | 37.2 | 0.3 | 9.9 | 21.0 | 72.5 | 7 | 6.4 | 4.4 |
| D.G. Khan | 83 | 24 | 12.4 | 7 | 32.1 | 0.5 | 8.1 | 2.5 | 87.7 | 4 | 2.4 | 1.1 |
| Bahawalpur | 77 | 39 | 18.8 | 81 | 49.8 | 0.8 | 11.5 | 2.9 | 36.7 | 8 | 1.3 | 4.3 |
| Bahawalnagar | 240 | 31 | 12.7 | 90 | 48.2 | 0.3 | 10.8 | 27.9 | 7.9 | 10 | 4.7 | 1.7 |
| Rahim Yar Khan | 226 | 53 | 11.1 | 139 | 39.1 | 0.3 | 10.4 | 92.0 | 93.7 | 15 | 2.0 | 4.5 |
| Khairpur | 78 | 48 | 9.8 | 34 | 38.2 | 0.2 | 11.9 | 110.7 | 57.1 | 6 | 1.4 | 31.8 |

TABLE - I (Continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jacobabad | 177 | 24 | 11.0 | 29 | 23.9 | 0.4 | 9.2 | 7.9 | 3.1 | 8 | 1.3 | 2.3 |
| Sukkur | 151 | 14 | 25.5 | 33 | 50.3 | 0.5 | 17.2 | 87.1 | 11.8 | 20 | 3.7 | 23.1 |
| Nawabshah | 239 | 41 | 12.9 | 59 | 43.5 | 0.2 | 14.4 | 29.5 | 9.2 | 8 | 5.3 | 2.1 |
| Larkana | 211 | 20 | 16.2 | 28 | 39.5 | 0.3 | 14.2 | 5.1 | 27.6 | 10 | 6.7 | 3.3 |
| Sangarh | 104 | 34 | 16.5 | 54 | 33.6 | 0.2 | 12.1 | 28.2 | 69.1 | 8 | 5.6 | 0.7 |
| Tharparkar | 54 | 21 | 12.8 | 36 | 29.8 | 0.4 | 9.4 | 43.4 | 43.3 | 13 | 0.5 | 2.5 |
| Dadu | 66 | 16 | 11.3 | 23 | 40.7 | 0.4 | 15.5 | 47.4 | 74.5 | 6 | 0.9 | 6.2 |
| Hyderabad | 259 | 44 | 40.0 | 92 | 42.1 | 0.9 | 16.2 | 158.5 | 61.6 | 47 | 4.8 | 97.2 |
| Thatta | 52 | 25 | 5.8 | 9 | 30.1 | 0.4 | 10.9 | 32.7 | 88.2 | 3 | 2.7 | 1.2 |
| Karachi | 1506 | 80 | 93.6 | 311 | 86.1 | 1.0 | 38.1 | 637.8 | 13.2 | 72 | 0.0 | 168.1 |
| Lasbela | 13 | 20 | 3.5 | 9 | 3.9 | 0.2 | 3.4 | 0.0 | 37.4 | 1 | 0.0 | 0.0 |
| Quetta | 50 | 28 | 45.6 | 41 | 48.7 | 2.5 | 22.9 | 35.4 | 6.3 | 15 | 2.8 | 75.2 |
| Zhob | 8 | 37 | 12.3 | 5 | 18.0 | 0.9 | 6.8 | 0.0 | 88.5 | 0 | 0.3 | 2.7 |
| Chagai | 2 | 18 | 13.9 | 1 | 23.9 | 0.5 | 7.7 | 0.0 | 10.2 | 0 | 0.8 | 0.5 |
| Loralai | 15 | 28 | 17.1 | 10 | 15.7 | 0.8 | 4.9 | 0.0 | 94.6 | 1 | 1.1 | 0.4 |
| Sibi | 12 | 3 | 13.3 | 13 | 17.4 | 0.7 | 5.8 | 16.7 | 12.6 | 2 | 1.0 | 0.4 |
| Kalat | 11 | 18 | 7.7 | 9 | 11.2 | 0.2 | 3.9 | 0.0 | 97.2 | 4 | 0.8 | 12.1 |
| Kharan | 2 | -22 | 14.9 | 0 | 9.1 | 0.3 | 4.1 | 0.0 | 13.7 | 0 | 0.0 | 1.3 |
| Makran | 6 | - 3 | 17.0 | 1 | 13.3 | 0.2 | 3.5 | 0.0 | 76.1 | 0 | 0.0 | 0.0 |

APPENDIX - E

TABLE - II

PAKISTAN: DISTRICTS BY TWELVE SELECTED INDICATORS 1972

| | Pop. Density | Pop. Growth | Degree of urbaniza-tion | In-Migration | Student/ 1000 persons | Hosp.Beds/ 1000 persons | Literacy Ratio | Value Added by Ma-nufactur-ing (per Capita) | Value Added by Agr. (per Capita) | Banks (per Capital | Road Density | Electricity Consumption (per capita) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Peshawar | 1120 | 48 | 27.8 | 162 | 103.7 | 0.8 | 18.3 | 11.6 | 74.8 | 83 | 20.0 | 133.9 |
| Hazara | 383 | 46 | 7.0 | 73 | 99.8 | 0.4 | 17.8 | 34.8 | 20.6 | 49 | 6.0 | 36.2 |
| Mardan | 994 | 48 | 16.2 | 104 | 82.3 | 0.2 | 12.1 | 61.0 | 59.9 | 41 | 16.0 | 32.1 |
| Kohat | 214 | 54 | 16.0 | 19 | 84.3 | 0.4 | 20.4 | 30.1 | 96.9 | 18 | 5.0 | 33.9 |
| Bannu | 3354 | 51 | 10.2 | 8 | 77.9 | 0.8 | 13.8 | 42.5 | 140.7 | 7 | 7.0 | 16.6 |
| D.I. Khan | 136 | 35 | 18.8 | 20 | 67.3 | 0.8 | 14.2 | 9.3 | 264.4 | 6 | 5.0 | 53.1 |
| Abbottabad | 259 | 40 | 12.4 | 27 | 104.3 | 0.3 | 19.6 | 41.3 | 215.8 | 7 | 8.0 | 158.9 |
| R.Pindi | 856 | 58 | 44.1 | 266 | 160.2 | 0.6 | 42.8 | 173.9 | 84.2 | 120 | 19.0 | 98.7 |
| Jhelum | 379 | 40 | 15.9 | 50 | 143.4 | 0.2 | 32.8 | 6.1 | 62.1 | 37 | 8.7 | 80.8 |
| Gujrat | 838 | 43 | 14.7 | 104 | 109.9 | 0.2 | 22.4 | 30.9 | 55.3 | 43 | 9.1 | 74.1 |
| Sargodha | 439 | 43 | 23.5 | 136 | 88.7 | 0.3 | 19.9 | 34.6 | 87.2 | 9 | 10.6 | 66.2 |
| Faisalabad | 1206 | 58 | 24.8 | 269 | 91.6 | 0.2 | 21.4 | 1.0 | 68.9 | 13 | 7.5 | 102.9 |
| Jhang | 458 | 45 | 18.2 | 70 | 81.8 | 0.2 | 15.3 | 1.4 | 85.9 | 30 | 10.7 | 63.1 |
| Mianwali | 202 | 47 | 21.5 | 51 | 79.? | 0.3 | 15.5 | 97.6 | 69.3 | 29 | 7.1 | 87.4 |
| Sialkot | 1133 | 47 | 16.4 | 108 | 113.4 | 0.3 | 20.4 | 16.1 | 22.8 | 35 | 10.9 | 28.9 |
| Gujranwala | 890 | 59 | 28.7 | 232 | 104.9 | 0.1 | 21.8 | 31.4 | 2.0 | 63 | 8.8 | 103.2 |
| Sheikhupura | 720 | 53 | 14.8 | 142 | 94.8 | 0.1 | 17.0 | 39.7 | 88.8 | 33 | 8.6 | 276.2 |
| Lahore | 1694 | 52 | 64.2 | 312 | 123.4 | 1.2 | 32.5 | 99.5 | 24.6 | 33 | 14.7 | 153.1 |
| Sahiwal | 671 | 33 | 13.7 | 185 | 84.9 | 0.2 | 15.4 | 30.6 | 32.3 | 58 | 9.6 | 57.4 |
| Multan | 712 | 48 | 22.1 | 319 | 81.8 | 0,3 | 16.1 | 68.7 | 87.3 | 5 | 7.4 | 94.7 |
| Muzaffargarh | 278 | 58 | 7.7 | 148 | 72.8 | 0.2 | 11.8 | 21.0 | 46.9 | 23 | 6.7 | 63.8 |
| D.G. Khan | 122 | 47 | 12.9 | 35 | 65.8 | 0.3 | 10.6 | 2.5 | 92.1 | 7 | 3.0 | 7.5 |
| Bahawalpur | 111 | 46 | 21.6 | 123 | 69.6 | 0.6 | 13.0 | 2.9 | 7.1 | 7 | 2.8 | 33.7 |
| Bahawalnagar | 313 | 31 | 15.3 | 84 | 64.7 | 0.2 | 12.7 | 27.9 | 90.7 | 7 | 5.7 | 9.2 |
| Rahim Yar Khan | 304 | 38 | 14.6 | 126 | 90.0 | 0.2 | 13.8 | 92.0 | 37.2 | 35 | 6.6 | 56.3 |
| Khairpur | 119 | 45 | 16.1 | 44 | 74.4 | 0.1 | 21.2 | 10.7 | 34.0 | 6 | 2.5 | 54.6 |

TABLE - II (Continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jacobabad | 347 | 66 | 15.2 | 20 | 46.1 | 0.3 | 16.3 | 7.9 | 56.1 | 22 | 4.4 | 11.2 |
| Sukkur | 257 | 71 | 24.6 | 57 | 92.7 | 0.3 | 26.0 | 87.1 | 45.3 | 41 | 4.2 | 44.7 |
| Nawabshah | 416 | 96 | 14.0 | 82 | 62.1 | 0.1 | 22.7 | 29.5 | 9.0 | 30 | 6.1 | 30.5 |
| Larkana | 321 | 52 | 17.5 | 34 | 98.2 | 0.2 | 21.7 | 5.1 | 44.4 | 23 | 6.0 | 13.3 |
| Sangarh | 167 | 61 | 19.0 | 52 | 82.1 | 0.1 | 19.5 | 28.2 | 45.3 | 23 | 6.5 | 0.0 |
| Tharparkar | 93 | 40 | 10.3 | 39 | 61.6 | 0.3 | 15.4 | 43.4 | 60.2 | 32 | 0.9 | 0.0 |
| Dadu | 109 | 66 | 12.6 | 24 | 69.1 | 0.3 | 24.0 | 47.4 | 74.4 | 5 | 2.8 | 4.3 |
| Hyderabad | 498 | 75 | 36.6 | 135 | 72.1 | 0.7 | 27.0 | 58.5 | 0.6 | 82 | 4.0 | 98.5 |
| Thatta | 100 | 92 | 12.5 | 22 | 45.3 | 0.3 | 20.3 | 32.7 | 40.0 | 11 | 1.0 | 1.7 |
| Karachi | 2648 | 77 | 97.5 | 594 | 146.0 | 0.9 | 51.2 | 37.8 | 5.7 | 83 | 5.1 | 361.5 |
| Lasbela | 19 | 48 | 6.2 | 9 | 24.3 | 1.2 | 5.6 | 0.0 | 37.0 | 3 | 0.9 | 0.0 |
| Quetta | 94 | 88 | 37.7 | 58 | 99.4 | 1.7 | 23.9 | 35.4 | 47.4 | 27 | 3.3 | 89.8 |
| Zhob | 16 | 96 | 12.1 | 5 | 36.4 | 0.8 | 7.1 | 0.0 | 27.1 | 4 | 0.6 | 0.0 |
| Chagai | 3 | 58 | 17.2 | 5 | 57.8 | 0.2 | 11.1 | 0.0 | 61.8 | 1 | 0.9 | 0.0 |
| Loralai | 25 | 69 | 6.7 | 5 | 35.2 | 0.4 | 6.5 | 0.0 | 43.8 | 3 | 1.3 | 2.4 |
| Sibi | 34 | 76 | 8.6 | 25 | 22.8 | 0.2 | 5.9 | 16.7 | 41.1 | 6 | 0.5 | 0.0 |
| Kalat | 30 | 43 | 6.9 | 27 | 29.5 | 0.2 | 6.6 | 0.0 | 53.3 | 5 | 3.3 | 14.3 |
| Kharan | 4 | 98 | 7.0 | 4 | 26.8 | 0.3 | 5.7 | 0.0 | 92.1 | 1 | 0.0 | 0.0 |
| Makran | 13 | 102 | 24.5 | 11 | 36.2 | 0.1 | 5.8 | 0.0 | 33.9 | 4 | 0.0 | 0.0 |

APPENDIX - F

## NEW TOWNSHIP IN PESHAWAR

About four miles from Peshawar city, on Peshawar-Jamrud Road, we are developing the new township of Hayatabad. It is spread over an area of about 2,300 acres. The work was started about five years ago, and two out of the five phases have been developed. Work is now in progress on the third phase. The total number of plots will be nearly 19,000, and we propose to have 75% of these in the 5 and 10 marla (150 and 300 square yards respectively) category. In phases I & II, maximum size of the plots was 2 kanals (1200 square yards), but in phase III the maximum size of the plots will be limited to only 1 kanal (600 square yards).

According to our pricing policy, 1-kanal plots are sold at a profit, and the price of 5-marla plots is subsidized. The plot mix and the pricing were designed to encourage low-income families to buy plots in the new township. But, actual experience shows that even the small size plots remain outside the reach of the target group. The allotment price of a 5 marla plot in phase III has been kept at Rs.13,000 per plot, but the market value of the plot of the same size in Hayatabad is around 40,000 rupees. Because of this big difference in the allotment and market prices, the plots are in great demand. In phase III we are expecting over 40,000 applications for about 2,800 plots. Allotments will be by ballot, and the probability of any low-income person getting the plots is not very good. Even if a plot was originally alloted to a low-income family, the chances

are, that eventually, it would be bought by someone who can afford to pay the market price; and for a poor man, getting three times his investment, would be a very great temptation to sell the plot. The types of houses being constructed in the new township on 5-marla plots also confirm this. There is hardly any house which has less than 5 to 6 rooms, and in some cases, the construction is ostentatious by any standard. The point that I want to make is, that by developing new townships, we do not necessarily improve the living conditions of the poor people residing in one-room hovels. It is a complex and a critical issue, left to market mechanism alone, access to reasonable shelter in the vicinity of job opportunities will remain an impossible dream for a growing number of poor families.

As already said, in Pakistan, public sector involvement in housing for the low-income group has been very marginal. Denied of any guidance or meaningful support, it has been left to the vagaries of the market forces. In the past, a few attempts were made to provide public housing, but the programmes were abandoned. Lack of managerial skill to run these programmes, and institutional inadequacy became a major argument against the basic concept. Without direct government intervention, in my opinion, the housing situation in the country cannot improve. Analogies are dangerous, but here I would quote the example of how the production of food in the country was tackled in the past. Although both production and consumption are in the private sector, the whole programme is massively supported and regulated by the State, which ensures a fair price to the grower and to the consumer. Supply of irrigation water, seed, fertilizer, farm equipment, pesticide, and credit is all regulated and supported.

Similarly, procurement, storage, and distribution of major crops is being handled by the State. Initially the level of subsidy to this sector was very high, which is now being reduced. After food, shelter should now attract similar attention and support.

If an individual cannot pay for his shelter, can the State do it? Do we need economic justification? Or its justification rests in value judgement of the desirability of providing a basic need. There is no satisfactory way through this dilemma. But certainly the State can assist the individual to help himself. Ironically, when we are proposing assistance for the low-income group housing, the housing sector at present is under the burden of government imposed disincentives. The first step should be to remove these disincentives, then we can think of incentives, assistance, and perhaps eventually direct and indirect subsidy for the programme. Prominent disincentives are multiple tier taxation and levies, high level of excise duty on building material, and the cumbersome procedures for approval and obtaining loans. Similarly, the existing tenancy laws are also a big disincentive for the construction of houses which are meant for renting.

In all instances, the very poor are likely to be reached only through an increase in supply of rental units. In the past few years, the availability of rented accomodation has been falling. For a variety of reasons, the small investor is not building houses for renting. The private sector could be great help here in increasing the housing stock. Most of our existing policies are such, that small investors would not invest in housing, although in the past this has been a major field of

investment for medium and small investors. Our policies are designed to discourage construction of houses for renting. In a housing scheme, e.g., we do not allow more than one plot to a family. If a person is prepared to construct 10 small houses, why not provide him with land and other facilities.

Without assistance, nearly 70% of the city dwellers cannot afford to construct a two-room house, but the remaining 30%, given proper support, can not only construct their own houses, but will be able to substantially add to the housing stock available for rent. Rent laws should be amended to ensure fair rent to the landlord and to the tenant. With the increase in housing stock available for rent, the market rents would gradually get near to the fair rents. The rental income from houses constructed for the poor should be free of income-tax for all time to come. Location of these houses, their size and specification could be regulated to ensure that the benefit goes to the target group only.

RECOMMENDATIONS:

1. A fundamental shift in Government policy to the whole housing business is needed. It should change from 'benign neglect' to 'deliberate stimulation'.
2. Remove all the existing disincentives to the housing industry.
3. Help poor people to help themselves. This should cover plots, supply of building material at reasonable cost, easy access to appropriate technology for low-cost house construction, and credit facilities.
4. Provide special incentives to private investors to construct modest houses for renting out to low-income families.

SOURCE : Naeemullah, M. (1984) "Housing Problems and Prospects in Peshawar". Proceedings National Seminar on Management of Urban Development and Service to the Poor, Pakistan Administrative Staff College, Lahore.

APPENDIX - G

RURAL/URBAN BREAK-UP OF DEVELOPMENT EXPENDITURE
(FEDERAL, PROVINCIAL AND LOCAL GOVERNMENT)
Average of 4 years

Rs. in Millions

| S.No. | Sectors | Rural | Urban | Unallocated | Totals |
|---|---|---|---|---|---|
| 1. | Agriculture | 8926.966 | - | - | 8926.966 |
| 2. | Subsidy on fertilizer | 887.5 | - | - | 887.5 |
| 3. | Water | 5193.662 | - | - | 5193.662 |
| 4. | Power: | | | | |
| | i) Rural electrification | 999.5 | - | - | 999.5 |
| | ii) Secondary Transmission and Grid Stations | - | 1309.25 | - | 1309.25 |
| | iii) Rest (urban 88% & 12% rural) | 188.25 | 1381 | - | 1569.25 |
| | iv) K.E.S.C. | - | 1517 | - | 1517 |
| | Total Power | 1187.75 | 4207.25 | - | 5395 |
| 5. | Fuel: | | | | |
| | i) P.O.L. (90% urban & 10% rural) | 152.50 | 1373.25 | - | 1525.75 |
| | ii) O.G.D.C. | - | - | 340.75 | 340.75 |
| | iii) Rest | - | 870.75 | - | 870.75 |
| | Total Fuel | 152.50 | 2244 | 340.75 | 2737.25 |
| 6. | Industry & Minerals | - | 5700.411 | - | 5700.411 |
| 7. | Transportation & Comm- | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | unication: | | | | |
| | i) T&T (95% urban & 5% rural) | 41 | 774 | - | 815 |
| | ii) Civil Aviation | 12 | 220.5 | - | 232.5 |
| | iii) Ports & Shipping (95% urban & 5% rural) | 168.75 | 685.25 | - | 854 |
| | iv) Urban Transport | - | 276 | - | 276 |
| | v) Others | - | - | 2201.25 | 2201.25 |
| | vi) N.L.C. | - | - | 23.25 | 23.25 |
| | vii) P.I.A. | 1.75 | 108.50 | - | 110.25 |
| | viii) P.N.S.C. | 42.75 | 128.50 | - | 171.25 |
| | ix) K.P.T. | 58.00 | 174 | - | 232 |
| | x) Roads | - | - | 3126.68 | 3126.68 |
| | Total Transportation & Communication | 324.25 | 2366.75 | 5351.18 | 8042.18 |
| 8. | Physical Planning & Housing: | - | 669.75 | - | 669.75 |
| | i) Rural Water Supply | 1134.824 | - | - | 1134.824 |
| | ii) Rest | - | 6603.581 | - | 6603.581 |
| | Total Physical Planning & Housing | 1134.824 | 7273.331 | - | 8408.155 |
| 9. | Rural Development | 2178.856 | - | - | 2178.856 |
| 10. | Education: | | | | |
| | i) Primary Edu. | - | - | 761.636 | 761.636 |
| | ii) Secondary Edu. | 403.008 | 403.008 | - | 806.016 |
| | iii) Others (75% urban) | 377.289 | 1034.377 | - | 1411.666 |
| | Total Education | 780.297 | 1437.385 | 761.636 | 2979.318 |

| | | | | |
|---|---|---|---|---|
| 11. Health: | - | 14.315 | - | 14.315 |
| i) Rural Health Programmes | 1003.138 | - | - | 1003.138 |
| ii) Medical Education (75% urban) | 153.233 | 464.776 | - | 618.009 |
| iii) General Hospitals: | | | | |
| a) Teaching Hospitals (75% urb. 25% rural) | 116.65 | 352.3 | - | 468.95 |
| b) District & Tehsil Head Quarter Hospitals (50% urb. 50% rural) | 197.69 | 197.69 | - | 395.38 |
| Total Health | 1470.711 | 1029.081 | - | 2499.792 |
| All others | - | 138 | 4821.449 | 4959.449 |
| Totals | 22237.316 | 24396.208 | 11275.015 | 57908.539 |
| Percentages | 38.40% | 42.13% | 19.47% | 100% |
| Local Govt. (Break up not available) | 325 | 440 | | |
| i) Rural Local Councils | | | | |
| ii) Zila Councils | | | | |
| iii) Union Councils | | | | |
| Total | 22562.316 | 24836.208 | 11275.015 | 58673.539 |
| Percentages | 38.45% | 42.33% | 19.22% | 100% |
| Population | 57747 | 26035 | | |
| Allocation per resident | 0.391 | 0.954 | | |

Source: PEPAC, "National Human Settlement Policy for Pakistan: Interim Report, 1983.