

INTERNAL MIGRATION AND ECONOMIC
DEVELOPMENT IN IRAQ 1947-1975

by

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ABSTRACT

This thesis has undertaken the task of analysing the phenomenon of internal migration in Iraq within the context of economic development during the period 1947-1975. The urban population share has increased markedly in the last three decades, and as the employment growth rate in the industrial sector is low, the majority of the migrants are working in the tertiary sector where under-employment is increasing. In the meantime, the growth rate of the agricultural output has remained near zero, and the country's imports of agricultural and food items have increased sharply in the last decade, while thirty years ago, the country was gaining from the export of agricultural products. In 1974, the Government underlined the great importance of the problem of rural-urban migration - a problem that had been a constant worry to the authorities for many years.

The thesis' aims are to utilize the official published data and the fieldwork information collected by the author to: first, investigate the volume, pattern and determinants of internal migration; second, to analyse the economic, demographic and social characteristics of the migrants; third, to test directly the responses of the village residents to a variety of push and pull factors in the rural and urban areas. The first chapter assesses all the published official data related to migration in Iraq. It concludes that internal migration is mostly of the rural-urban type, and that migrants until the middle sixties were moving as families who settled mostly around the cities of Baghdad and Basra. The second chapter analyses the development policy during the period 1947-1965, in which two phases of migration are distinguished: the first phase during the period before 1958 and the enactment of the first Agrarian Reform Law, and the second phase after that. It concludes that during the first phase the low level of the

cultivators' income and poor welfare conditions, and the high concentration of landholdings have produced large numbers of rural-urban migrants during the period 1947-1957, reaching nearly 13 per cent of the rural population. Although only a very small proportion of those who were employed had got jobs in the industrial sector, the great majority of the migrants were better off with their new conditions. In the second phase, migration had accelerated, and during the period 1957-1965, nearly 24 per cent of the rural population left the rural areas. The causes were mainly the delay in the application of the Agrarian Reform Law, mismanagement of the agricultural sector, and the deterioration of the agricultural output. The third chapter, based mostly on the survey information collected by the author in 1974-1975, explores life in the villages, and lays down potential determinants to migration. It concludes that migration has entered a new third phase. While the migration rate has decreased considerably to nearly one third of the rate during the second phase, the migrants were mostly young jobless males with comparatively low incomes. This selective migration would have a stronger effect than family migration in terms of creating under-employment in the cities and depriving the agricultural sector of potential labour. The fourth chapter analyses the economic, demographic and social characteristics of the migrants and compares them with those of the village residents. It concludes that migrants are significantly different from non-migrants, as they are mostly young unmarried males, with relatively high educational attainment and lower level of income, who come from comparatively large households. The fifth chapter analysis the responses of the village residents to sets of push and pull factors in the rural and urban areas. It concludes that the economic factors, such as the low level of income and its fluctuations, and unemployment in the villages are the main causes of migration, and that getting jobs in the cities does not represent a problem to the migrants.

The thesis concludes that allocating lands to the cultivators and organizing co-operatives is not going to reduce rural-urban migration, and unless the wide gaps between incomes, as well as general welfare conditions in the rural and urban areas are reduced, and jobs are created in the rural areas, migration would continue at a high rate, and jobs in the tertiary sector would be satisfactory to the migrants so long as they provide them with better income.

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CHAPTER I

POPULATION GROWTH AND INTERNAL MIGRATION

Introduction

During the Abbasid rule in Iraq (754 A.D. - 1258 A.D.), when the capital city Baghdad was at its peak as centre of civilization, Iraq was reported to have supported about 20 million people. That comparatively large population was supported economically by resources from Iraq, as well as from other regions which then belonged to the Abbasid empire. The disintegration of the empire, increasing insecurity and the massive destruction that followed the Mongol invasions of 1258 and 1392, as well as various other invasions when the irrigation system upon which the prosperity of the people depended was ruined, art treasures were burned, libraries were dumped in the River Tigris and trade activities folded, has caused Iraq's population to decline rapidly.¹

1. Population Growth (1867-1965)

The earliest available population estimates are those given in the British Consular Reports for the mid-nineteenth century. They reported about 1.3 million people, which under the Ottoman administration included the three wilayets (extended regions) of Mosul in the north, Baghdad in the centre and Basra in the south.²

-
1. In 1534, the Ottoman Turks led by Sulayman the Magnificent, invaded Iraq, and the country remained under Turkish rule until the First World War, when it was occupied by the British. In 1920 Iraq became a mandated territory to Britain, in 1930 the country gained its independence, and in 1932 it was admitted as a member of the League of Nations.
 2. The former extended Mosul region included the present regions of Ninevah, Dhok, Arbil, Kirkuk and Sulaymania. The extended Baghdad region included the present regions of Baghdad, Diala, Anbar, Karbala, Babylon and Wasit. The extended Basra region included the present regions of Basra. Oadisia. Muthanna. Misan and Thi-Qar

The growth rate of the country's population seems to have been increasing gradually, and reached its maximum of 3.1 per cent annually during the period 1957-1965.³ This increase may be due to a falling mortality rate and steadily high fertility rate.⁴ The population growth rate among the various regions has not been uniform throughout the periods indicated in Tables 1.1 and 1.2. The regional growth rates of population during the first period of 1867-1890 were 1.8 in the north, 0.7 in the centre, and 1.6 in the south, and during the last period of 1957-1965 the growth rates were 2.6 in the north, 4.3 in the centre and 1.6 in the south. As may be observed from Table 1.2, the growth rates seem to fluctuate, particularly in the central and the southern regions. The regional distribution of the country's population is also changing. The percentage share of the northern region increased by 5.6 per cent between 1867 and 1965; the share of the central region increased by 9.7 per cent; while the share of the southern region decreased by 15.3 per cent.

The differences and fluctuations in the reported regional growth rates, particularly those calculated before 1935, are expected to be largely influenced by the degree of accuracy of the population estimates made in each of the regions, as will be explained later. After 1935, the fluctuations and differences are more likely to be attributed to two factors. The first is the

-
3. This rate is considerably higher than that for LDCs during the 1960s, which was 2.5 per cent. See, International Labour Office, The World Employment Programme (La Tribune de Geneve, Geneva, 1971), p.6.
 4. The social customs, particularly in the rural area, induce the majority of females to be married soon after puberty, which increases fertility, and offer no incentives to limit births.
-

regional differences in fertility and mortality rates (differences in the natural increase of population), and the second is the regional differences in net gain from migration.⁵ It is evident that the data available on the vital statistics inaccurately indicate the actual situation, and it is not possible to estimate the discrepancy between the actual and the registered figures for each region.⁶ Therefore, it is not possible to assess separately the contribution of the natural increase of population, and that of migration by using vital statistics data. Considerable differences in regional mortality rates are more likely to have taken place in earlier periods. As the country's revenue from the exports of oil began to increase, the government's expenditure increased on education and sanitary improvement projects, such as water purification systems and medical facilities, which have considerably reduced mortality in general and infant

-
5. Ancient Iraq had experienced many waves of immigration, very often in the form of invasions, from Asia, the Arab peninsula, Persia and Europe. However, in the last few decades, external migration has not considerably influenced the size of the population in Iraq. The figures in Tables 1.1 and 1.2 exclude the foreigners residing in Iraq and Iraqis living abroad. The Iraqis living abroad were reported only in the 1957 and 1965 censuses. There were 40,984 Iraqis living abroad in 1957 and 49,815 in 1965, which represented six per thousand of the population.
 6. Particularly in the rural areas, a large proportion of births and deaths take place without being officially reported. Births of boys were sometimes not reported by parents in order to avoid military conscription in the future, and sometimes boys were reported as girls for that same purpose. On the other hand, deaths, particularly of infants, may not be reported in order to avoid the burial tax.

mortality in particular.⁷ In 1918, the country had only one or two hospitals worthy of the name, 25 Iraqi doctors and 40 British medical officers.⁸ By 1950 there were 82 hospitals, 4,901 beds (about one hospital bed for each 1,000 population), and 448 dispensaries. Between 1950 and 1955 the number of hospitals increased by 40 per cent, the number of beds by 58 per cent (about one hospital bed for each 650 population), and there were 1,014 doctors in the country, 920 of them Iraqis.⁹ Research carried out in 1953 in Samawa, a town on the lower Euphrates River and the capital of the present region of Muthanna, showed that a water purification system and a mother and child health centre in the town in the early fifties had reduced the infant mortality rate from 390 per thousand to 70 per thousand.¹⁰ Between 1920 and 1950, epidemics which used to ravage the area, such as cholera, the plague, smallpox and louse-borne typhus, were brought under effective control. Other endemic diseases, such as malaria, also declined as hospital and dispensary services began to reach the rural areas.

-
7. Between 1933 and 1949 oil revenues increased gradually from less than £1 million to about £3 million. In 1950, with the increase in the rate of oil royalty from 4/- to 6/- per ton oil, revenues reached £6.8 million. When royalties were superseded in 1951 by profit sharing, revenues reached £15.1 million. They reached £40.8 million in 1952, and £84.6 million in 1958. See, Edith and E.F. Penrose, Iraq: International Relations and National Development (Ernest Benn, London, 1978), pp.150 and 167.
 8. F.I. Qubain, The Reconstruction of Iraq 1950-1957 (London, 1958), p.18.
 9. F.I. Qubain, op.cit., p.230, and Statistical Abstract 1955 (Government of Iraq, Ministry of Economics, Baghdad).
 10. D.G. Addams, "Current Population Trends in Iraq", Middle East Journal, 1956, p.160.

Table 1.1 : The Population Distribution by Regions (1867-1965) ¹¹

<u>Year</u>	Total Population (thousands)	<u>Northern Region</u>		<u>Central Region</u>		<u>Southern Region</u>	
		Number (thousands)	Per cent	Number (thousands)	Per cent	Number (thousands)	Per cent
1867 ¹²	1280	265	20.7	491	38.4	524	40.9
1890 ¹³	1726	401	23.2	575	33.3	750	43.5
1905 ¹⁴	2250	540	24.0	855	38.0	855	38.0
1919 ¹⁵	2848	703	24.7	966	33.9	1179	41.4
1935 ¹⁶	3605	1041	28.9	1319	36.6	1245	34.5
1947 ¹⁷	4816	1347	28.0	2043	42.4	1426	29.6
1957 ¹⁸	6298	1722	27.3	2764	43.9	1812	28.8
1965 ¹⁹	8047	2118	26.3	3872	48.1	2057	25.6

11. The sources of the table: Population estimates for the years before 1947 are taken from M.S. Hasan, "Growth and Structure of Iraq's Population", Bulletin of the Oxford University Institute of Statistics, Vol.20, 1958, p.340; for 1947 from Government of Iraq, Ministry of Social Affairs, The Census of Population 1947 (Baghdad); for 1957 from Government of Iraq, Ministry of Interior Affairs, The Census of Population 1957 (Baghdad); for 1965 from Iraq, Ministry of Planning, The Census of Population 1965 (Baghdad).
12. The population estimate in 1867 was prepared by Consul-General Sir A.B. Campbell, and published in British Parliamentary Papers, 1867, LXVII, pp.266-7.
13. The estimate of 1890 is taken from M. Vital Cuinet's work, La Turquie d'Asia (4 volumes) (Paris, 1892).
14. The estimate of 1905 is based on the British consular estimates as given in the Handbook of Mesopotamia, published by the Admiralty Naval Intelligence Service (London, 1918).
15. The estimates of 1919 were prepared for the British military authorities by the regional administrative officers, and the estimates of the cities' populations were based on the number of houses in each city, and those of the rural populations were based on the agricultural and livestock tax revenues. All the estimates made before 1927 were prepared without an enumeration process. The first attempt to enumerate the people was made in 1927, when numerators were stationed in mosques and schools, and heads of families were asked to report to them. This process took place in the cities only, and a whole year passed before it was completed. In 1929, the results of the census were dismissed by the government as inaccurate.
16. The estimate of 1935 is based on a census carried out by the Iraqi government. The numeration process took nearly 3 months, and the numerators were again stationed in public places where people reported to them. The main purpose of this census was to prepare for military conscription, and it was exactly for that reason that many people, particularly those in the military age groups, avoided being reported. The census results were ignored by the government, and were neither classified nor published.
17. The 1947 census was the first to be carried out by numerators who went from house to house with questionnaire forms. The numeration took one day in the urban areas and about 10 days in the rural areas. The nomadic people and the Iraqis living abroad were not included.
18. The 1957 census was completed in one day in the whole country, and is considered more accurate than all other censuses.
19. The numeration process of the 1965 census continued for a month, and was interrupted in the north because of the fighting, and therefore in many areas the process was not completed.

Table 1.2 : Population Growth Rates by Regions (1867-1965)

Period	<u>Total Population</u>		<u>Northern Region</u>		<u>Central Region</u>		<u>Southern Region</u>	
	Percentage Increase	Growth Rate	Percentage Increase	Growth Rate	Percentage Increase	Growth Rate	Percentage Increase	Growth Rate
1867-1890	34.84	1.31	51.32	1.82	17.11	0.69	43.13	1.57
1890-1905	30.36	1.78	34.66	2.0	48.7	2.68	14.0	0.88
1905-1919	26.58	1.7	30.19	1.9	12.98	0.88	37.89	2.32
1919-1935	26.58	1.48	48.08	2.48	36.54	1.97	5.6	0.34
1935-1947	33.59	2.44	29.39	2.17	54.89	3.71	14.54	1.14
1947-1957	30.77	2.72	27.84	2.49	35.29	3.07	27.07	2.42
1957-1965	27.77	3.11	23.0	2.62	40.09	4.3	13.52	1.6

Source: Calculated from Table 1.1.

The limited external migration, steady fertility rates and declining mortality rates throughout the country suggest that internal migration is becoming the dominant factor contributing to the regional differences in population growth rates and the changing distribution of population among the regions.

2. Population Composition

The concepts of "migrant" and "migration" seem clearer when considered in the light of the population balancing equation:

$$P_1 = P_0 + (B-D) + (I-O)$$

where

P_0 = Population at the beginning of a time period

P_1 = Population at the end of a time period

B = The number of births during the period

D = The number of deaths during the period

I = The number of immigrants during the period

O = The number of emigrants during the period

Following this equation, a migrant may be defined as a person entering or leaving the population of a given place, and migration may be broadly defined as a "permanent or semi-permanent change of residence".²⁰ For some purposes it will be necessary to consider restrictions like the distance moved, the length of the time period of the movement, the permanence of the movement and the nature of the move, i.e., voluntary as opposed to involuntary movement, which may be included in the different definitions of "migrant" and "migration". These restrictions may be imposed to suit the particular data used and the purpose of the study carried out.

20. E. Lee, "A Theory of Migration", Demography (1965), p.49.

Estimates of the volume of net migration may be obtained by using the balancing equation and assuming that population increase unaccounted for by natural increase is imputed to net migration. However, births and deaths are under-recorded in Iraq, as in so many less-developed countries, and data on them are inadequate to estimate the number of migrants. Changes of addresses are also severely under-reported, and cannot therefore be used for this purpose. The only sources of information that can be used to estimate migration are the data supplied by individuals in the census enquiries concerning their place of birth. These data are provided only in the last three censuses of 1947, 1957 and 1965. In the 1947 census data, individuals are classified by their place of birth and place of residence. Details concerning the place of residence are given at the Nahia level, the smallest administrative unit, and the residential status, whether rural or urban, was also stated, but at the regional level only the place of birth was referred to with no further details.²¹ In the 1957 census data, the places of birth and residence were given at the regional level. Further details concerning the place of residence were given, where the individual was stated as residing either at the region's capital or outside it, but no further details were given as to whether the residence was rural or urban. The data on the place of birth which were collected in the 1965 census are still not published, and the data that have been made available for this study have the individuals classified by their place of residence and place of

21. The country is divided administratively into Regions, each region is divided into Qadhas, and each Qadha is divided into Nahias.

birth at the regional level, with no further details.²²

Considering the limitations of the data referred to earlier, only interregional migration regardless of the residential status of the migrants, can be measured directly. Regarding the place of birth of the migrants, the interregional migrants are composed of two components, these are the rural-urban migrants and the urban-urban migrants. The two components as stated earlier, are inseparable.

Nomadic-Rural-Urban Shift of Population

The rural-urban migration cannot be measured directly from the place of birth data as given in the censuses of population. The attempt is made here to analyse the changes in the nomadic-rural-urban composition of the population in order better to understand the significance of the rural-urban migration. The figures in Tables 1.3 and 1.4, although derived from different sources with different margins of error, may still be considered adequate to bring out the general trend of the change in the population composition.

In 1867, about 35 per cent of the population were nomads living mainly on the transport of caravan trade. 41 per cent of the population were rural, and depended for their living on cultivation and grazing. The urban population, who were engaged in handicraft industries, trade and administration, represented 24 per cent of the population.²³ The nomads declined in number and

22. R. al-Saadi and Dr.M.V. George, Population Redistribution and Internal Migration in Iraq 1947-1965 (Demographic Centre, Cairo), Doc.CDC/S73/17.

23. M.S. Hasan, op.cit., p.343.

Table 1.3 : Nomadic, Rural, Urban Composition of
Population (1867-1965)²⁴

<u>Date</u>	<u>Region</u>	<u>Urban</u>		<u>Rural</u>		<u>Nomadic</u>		<u>TOTAL</u>
		<u>Number</u> (thous.)	<u>%</u>	<u>Number</u> (thous.)	<u>%</u>	<u>Number</u> (thous.)	<u>%</u>	<u>Number</u> (thous.)
1867	North	55	22	140	52	70	26	265
	Centre	206	41	170	39	115	23	491
	South	49	9	215	41	260	50	524
	Iraq	310	24	525	41	450	35	1280
1890	North	85	22	223	55	93	23	401
	Centre	270	28	340	59	65	13	675
	South	75	10	400	53	275	37	750
	Iraq	430	25	963	50	433	25	1826
1905	North	133	25	254	47	153	28	540
	Centre	317	15	468	78	70	7	855
	South	83	9	602	72	170	19	855
	Iraq	533	24	1324	59	393	17	2250
1930	North	147	23	519	66	82	11	765
	Centre	531	36	855	56	64	4	1460
	South	103	9	872	83	88	8	1063
	Iraq	808	25	2246	68	234	7	3288
1947	North	482	36	795	59	70	5	1347
	Centre	944	46	1074	53	25	1	2043
	South	438	31	833	59	155	10	1426
	Iraq	1864	38	2702	57	250	5	4816
1957	North	577	34	1106	64	39	2	1722
	Centre	1343	48	1404	51	17	1	2764
	South	525	29	1278	70	10	1	1813
	Iraq	2445	39	3788	60	66	1	6299
1965	North	904	43	1214	57	-	-	2118
	Centre	2373	61	1499	39	-	-	3872
	South	835	41	1222	59	-	-	2057
	Iraq	4112	51	3935	49	-	-	8047

24. Sources: M.S. Hasan, op.cit., p.344; Government of Iraq, The Census of Population 1957 (Baghdad); Government of Iraq, Census of Population 1965 (Baghdad, 1973).

Table 1.4 : Annual Growth Rates of Nomadic, Rural and Urban Populations by Regions (1867-1965)

<u>Period</u>	<u>NORTH</u>			<u>CENTRE</u>			<u>SOUTH</u>			<u>IRAQ</u>		
	<u>Urban</u>	<u>Rural</u>	<u>Nomadic</u>	<u>Urban</u>	<u>Rural</u>	<u>Nomadic</u>	<u>Urban</u>	<u>Rural</u>	<u>Nomadic</u>	<u>Urban</u>	<u>Rural</u>	<u>Nomadic</u>
1867-1890	1.91	2.04	1.24	1.18	3.06	-2.51	1.87	2.74	0.24	1.43	2.67	-0.17
1890-1905	3.03	0.87	3.37	1.08	2.15	0.5	0.68	2.76	-3.26	1.44	2.15	-0.65
1905-1930	0.4	2.9	-2.53	2.08	2.44	-0.4	0.87	1.49	-2.67	1.68	2.14	-2.1
1930-1947	7.24	2.54	-0.94	3.44	1.35	-5.69	8.89	-0.27	3.39	5.04	1.09	0.39
1947-1957	1.82	3.36	-6.02	3.59	2.72	-3.93	1.83	4.37	-31.53	2.75	3.44	-14.25
1957-1965	5.77	1.17	-	7.37	0.82	-	5.97	-0.56	-	6.71	0.48	-

Source: Calculated from Table 1.3.

proportion until they had almost disappeared by 1965. Their decline was mainly due to the increased security and stability in the country with the consequent decline in tribal warfare. It was also due to their realization of the profitability of cultivation. Nomadic tribes also may have been induced by their Shaikhs to settle in the rural areas and give up their nomadic life in order to be able to claim the ownership of the land they cultivated, as will be explained later. The rural population increased in number, and also slightly in proportion, and in 1965 it represented 49 per cent. The urban population increased in number and more than doubled in proportion, and in 1965 it represented 51 per cent of the total population. Up to 1930 the rapid decline in the nomadic population was accompanied by a sharp increase in the rural population, which came from the settled nomads who began to depend for their living on agriculture, and reached its maximum share of 68 per cent in 1930, while the urban share of the population remained almost constant. After independence in 1930, the urban population started to grow faster than before as capital expenditure and employment increased in the urban areas, and was accompanied by a declining share of the rural population as a result of rural-urban migration. The changing composition of population is depicted in Fig.1.1.

Although the attractive and improving welfare conditions in the urban areas must have lured migrants, the particularly poor conditions in the rural areas were the main cause of rural-urban migration. The high concentration of cultivated lands with few owners was striking, about 5 per cent of the holdings represented

Percentage

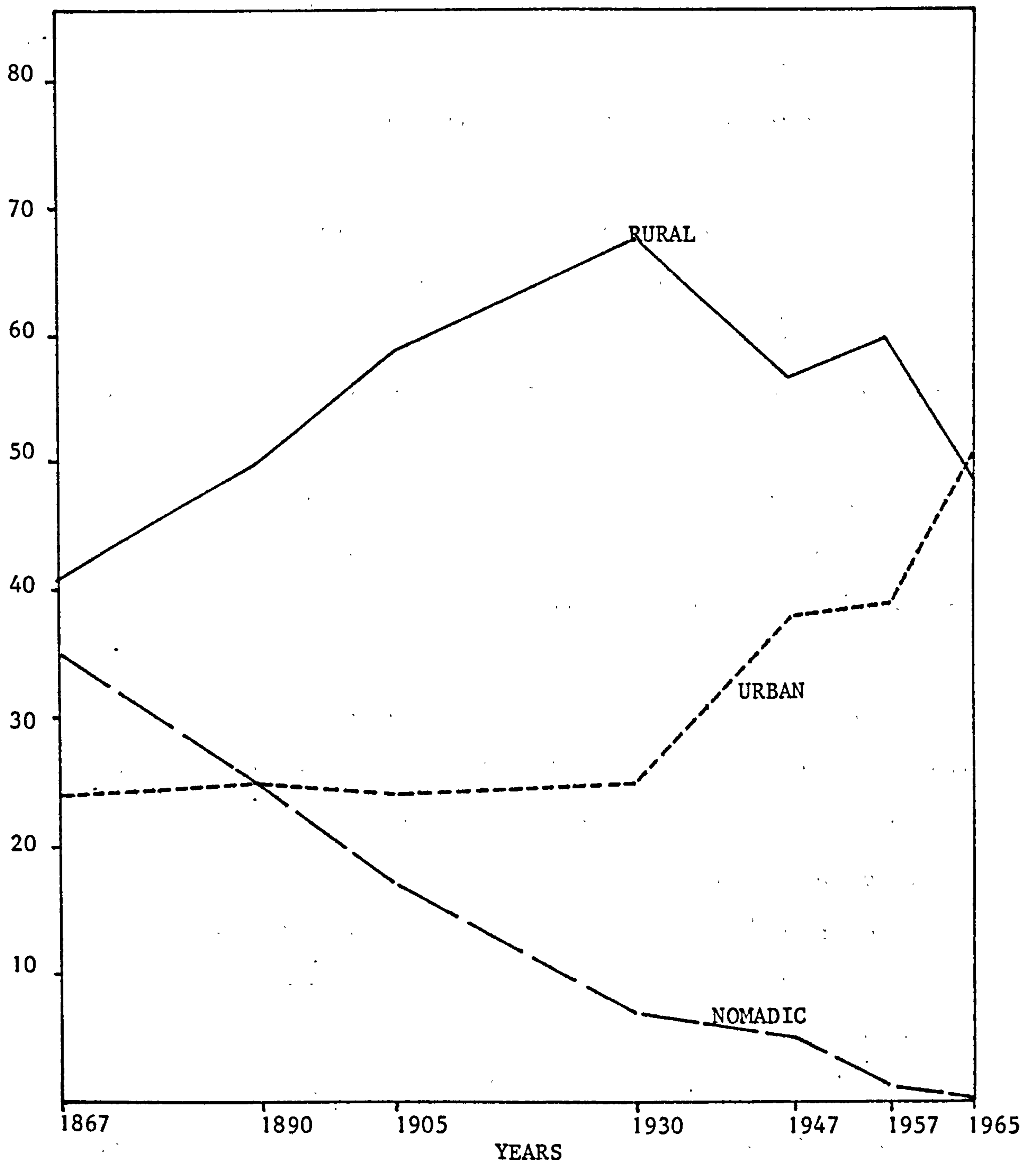


Figure 1.1:
The Percentage Distribution of the Nomadic, Rural and Urban
Components of the Population (1867-1965).

nearly 80 per cent of the total area of all the holdings.²⁵

Clothing, food and shelter were primitive, and income was near the subsistence level because of the high proportion of the crops taken as rent for the land, particularly in the south.²⁶ The decline of the rural proportion was interrupted during the period 1947-1957, where it increased by 3 per cent mainly because of the sharp decrease of the nomadic population in number and proportion during this period.

The trends in the country's population composition are not quite uniform among the various regions. The decline of the nomadic population in absolute and relative terms was more marked in the central region than in the southern region, while the nomadic population in the northern region declined more slowly than in the other two regions. This, however, was expected, for nomads in the central region had a better opportunity to sense the security that prevailed around the capital city, Baghdad. Work in agriculture near the capital, where demand for food is high and transport facilities to the markets are available, could also have induced the nomads in the region to settle. The rural population in the central region began to increase in number and proportion earlier and faster than in the other regions, reaching its peak share of 78 per cent at the beginning of the century, and then started to decrease while the rural shares of population in other regions were

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25. Government of Iraq, Ministry of Planning, Central Bureau of Statistics, The Results of the Agricultural and Livestock Census in Iraq for the year 1958-1959 (Government Printer, Baghdad), p.6.
 26. International Bank for Reconstruction and Development, The Economic Development of Iraq (Johns Hopkins University Press, Baltimore, 1952), p.6.

still increasing. In the northern and the southern regions, the rural populations reached their highest shares of 66 per cent and 83 per cent respectively in 1930. By 1965, the rural share in the central region decreased to only 39 per cent, while the rural shares in the northern and southern regions decreased to 57 per cent and 59 per cent respectively. Between 1867 and 1905, the urban share of population in the central region decreased markedly from 41 per cent to 15 per cent as the handicraft industries of Baghdad declined sharply under the competitive pressure of cheaper machine-made imports,²⁷ but afterwards it increased sharply reaching 36 per cent in 1930, and by 1965 the share increased to 61 per cent of the region's population. On the other hand, the urban shares in the northern and southern regions remained steady at about 23 per cent and 9 per cent respectively until 1930, but increased sharply to 36 per cent and 31 per cent in 1947, and reached 43 per cent and 41 per cent respectively in 1965.

The Definition of Urban Population

Before the new definition is attempted in this study, the official definition of urban population should be explained. The censuses' definition of the term "urban" was entirely an administrative one, where it was given to every place which has a municipality (Region centre, Qadha centre, or Nahia centre), irrespective of demographic, economic and other considerations. A more customary definition would consider (1) a physical element which emphasizes a comparatively high density of settlement, and (2) an occupational element which recognizes the concentration of employment in secondary

27. M.S. Hasan, op.cit., p.345.

and tertiary industries.²⁸ It is not possible to take into account the second consideration in an operational definition of urban population for Iraq for the following reasons: (1) in the censuses of 1947 and 1957, the individuals are classified by a set of occupations, but no clear definitions are given of these occupations; also the two sets of occupations in the two censuses do not correspond; (2) the details concerning the occupational composition of the population in the 1947 census were given at the Nahia level for urban and rural populations, as defined administratively, while the details in the 1957 census are given at the Qadha level only, with no separate classifications for rural and urban populations; (3) the data concerning the population's occupational composition which were collected in the 1965 census, are still unpublished.

A new urban definition, therefore, will have to be based mainly on a demographic criterion. Laborious work had to be undertaken in this study to reclassify the urban population of the country in the three censuses according to three different definitions. The first definition includes all the residential centres that have more than 10,000 people; the second includes those with more than 5,000 people; and the third includes the centres with over 2,000 people. The application of these definitions will give a clearer picture of the rural to urban shift of the population, because many urban centres, as defined administratively - particularly in the 1947 census - are very small market towns with less than 1,000 population and with

28. B. Goodall, The Economics of Urban Areas (Pergamon Press, Oxford, 1972), pp.20-22.

agriculture as the dominant economic activity. These towns can hardly be distinguished from villages. Using the three definitions has reduced the urban population, as defined administratively, by 37 per cent, 29 per cent and 20 per cent respectively in 1947; by 19 per cent, 10 per cent and 3 per cent respectively in 1957; and by 13 per cent, 7 per cent and 3 per cent respectively in 1965. It is quite clear that populations of small market towns in 1947 represented a much higher proportion of the urban population than in 1965. Obviously, applying the first definition would yield a lower share for the urban population than the second and third definitions. As indicated in Tables 1.5-1.9 (inclusive), whichever of the three definitions is considered, the urban share of population in each region has increased during each of the two periods of 1947-1957 and 1957-1965. When the three definitions were applied, the urban share of the country's population increased by 7.3 per cent, 7.7 per cent and 7.0 per cent respectively during the first period, and increased by 13.1 per cent, 12.4 per cent and 11.9 per cent respectively during the second period. The differences that occurred when different definitions were applied are minor when they are taken at the country level, but could be considerable when they are taken at the regional level.

The growth rates of urban and rural populations are calculated in Tables 1.8 and 1.9. They indicate that all the urban centres in the two periods and whichever is the definition used, are growing at rates higher than the national rate of growth.²⁹ On the other

29. For a comparison it is worthwhile mentioning that the urban population annual growth rate in Iraq in the second period was considerably higher than that for the LDCs in the 1960s, which was about 4.7 per cent. See, International Labour Office, op.cit., p.6.

Table 1.5 : Rural and Urban Composition of the Population (1947)

<u>Regions</u>	DI ³⁰		DII ³¹		DIII ³²		<u>Total Population</u>
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	
Ninevah and Dhok	25.66	74.34	30.64	69.36	32.22	67.78	595,190
Sulaymania	14.79	85.21	17.61	82.39	21.6	78.4	226,400
Arbil	11.21	88.79	14.42	85.58	17.2	82.8	239,776
Kirkuk	23.69	76.31	25.92	74.08	29.81	70.19	286,005
Diala	7.48	92.52	11.05	88.95	17.47	82.53	272,413
Anbar	5.67	94.33	16.59	83.41	19.09	80.91	192,983
Baghdad	59.61	40.39	62.22	37.78	63.52	36.48	817,205
Wasit	7.08	92.92	15.1	84.9	20.02	79.98	224,938
Babylon	18.17	81.83	21.89	78.11	25.47	74.53	261,206
Karbala	31.21	68.79	31.21	68.79	31.98	68.02	274,264
Qadisia and Muthanna	9.28	90.72	11.0	89.0	19.8	80.2	378,118
Maysan	11.89	88.11	13.57	86.43	18.69	81.31	307,021
Thi-Qar	6.46	93.54	11.1	88.9	13.58	86.42	371,867
Basra	32.97	67.03	34.67	65.33	36.3	63.7	368,799
TOTAL	24.2	75.8	27.42	72.58	30.64	69.36	4,816,185

Source: Derived as explained in the text.

30. DI refers to the first definition which includes the population of the centres with over 10,000 people.

31. DII refers to the second definition which includes the population of the centres with over 5,000 people.

32. DIII refers to the third definition which includes the population of the centres with over 2,000 people.

Table 1.6 : Rural and Urban Composition of the Population (1957)

<u>Region</u>	DI		DII		DIII		<u>Total Population</u>
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	
Ninevah and Dhok	26.96	73.04	31.65	68.35	33.98	66.02	755,447
Sulaymania	16.01	83.99	18.44	81.56	22.37	77.63	304,895
Arbil	14.6	85.4	20.72	79.28	23.3	76.7	273,383
Kirkuk	30.96	69.04	34.76	65.24	37.67	62.33	388,839
Diala	10.17	89.83	17.11	82.89	21.53	78.47	329,836
Anbar	19.29	80.71	22.01	77.99	23.74	76.26	253,023
Baghdad	61.67	38.33	64.11	35.89	65.0	35.0	1,313,012
Wasit	16.31	83.69	18.42	81.58	21.95	78.05	295,899
Babylon	22.35	77.65	22.35	77.65	28.66	71.34	354,779
Karbala	76.86	21.14	76.86	21.14	79.82	20.18	217,375
Qadisia and Muthanna	10.94	89.06	19.12	80.88	22.1	77.9	520,470
Maysan	16.23	83.77	18.29	81.71	24.27	75.73	329,840
Thi-Qar	13.96	86.04	16.75	83.25	17.67	82.33	458,848
Basra	40.71	59.29	45.31	54.69	46.61	53.39	503,330
TOTAL	31.49	68.51	35.1	64.9	37.63	62.37	6,298,976

Source: Derived as explained in the text.

Table 1.7 : Rural and Urban Composition of the Population (1965)

<u>Regions</u>	DI		DII		DIII		<u>Total Population</u>
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	
Ninevah and Dhok	37.43	62.57	38.17	61.83	39.51	60.49	888,601
Sulaymania	23.71	76.29	26.62	73.38	29.23	70.77	399,768
Arbil	31.37	68.63	35.02	64.98	38.0	62.0	356,293
Kirkuk	39.95	60.05	44.37	55.63	47.62	52.38	473,626
Diala	26.55	73.45	29.41	70.59	31.94	68.06	397,363
Anbar	39.77	60.23	55.26	44.74	58.12	41.88	307,012
Baghdad	75.73	25.27	77.13	22.87	77.85	22.15	2,045,375
Wasit	21.06	78.94	26.64	73.36	29.7	70.3	334,331
Babylon	25.94	74.06	33.41	66.59	35.84	64.16	448,168
Karbala	72.41	27.59	72.41	27.59	73.07	26.93	339,854
Qadisia and Muthanna	23.45	76.55	28.18	71.82	31.93	68.06	543,228
Maysan	18.72	81.28	22.97	77.03	29.09	70.91	345,467
Thi-Qar	19.01	80.99	33.49	66.51	36.25	63.75	498,850
Basra	59.79	40.21	59.79	40.21	61.62	38.38	669,479
TOTAL	44.55	55.45	47.5	52.5	49.56	50.44	8,047,415

Source: Derived as explained in the text.

Table 1.8 : Rural and Urban Annual Population Growth (1947-1957)

<u>Regions</u>	DI		DII		DIII	
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Ninevah and Dhok	2.92	2.23	2.74	2.26	2.96	2.17
Sulaymania	3.84	2.87	3.5	2.92	3.38	2.92
Arbil	4.03	0.93	5.05	0.55	4.44	0.55
Kirkuk	5.92	2.09	6.19	1.82	5.56	1.9
Diala	5.11	1.63	6.49	1.21	4.09	1.42
Anbar	16.12	1.16	5.69	2.06	5.01	2.14
Baghdad	5.21	4.31	5.17	4.32	5.1	4.42
Wasit	11.72	1.71	4.85	2.37	3.73	2.53
Babylon	5.27	2.57	3.32	3.05	4.34	2.66
Karbala	7.19	-15.17	7.19	-15.17	7.06	-15.58
Qadisia and Muthanna	4.96	3.06	9.12	2.26	4.39	2.95
Maysan	3.9	0.21	3.77	0.16	3.38	0.01
Thi-Qar	10.31	1.27	6.14	1.46	4.84	1.63
Basra	5.36	1.9	5.96	1.34	5.77	1.35
TOTAL	5.46	1.69	5.29	1.58	4.85	1.63

Source: Calculated from Tables 1.5 and 1.6.

Table 1.9 : Rural and Urban Annual Population Growth (1957-1965)

<u>Regions</u>	DI		DII		DIII	
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Ninevah and Dhok	6.32	0.1	4.47	0.78	3.99	0.94
Sulaymania	8.65	2.21	8.3	2.09	6.97	2.25
Arbil	13.74	0.58	10.38	0.83	9.89	0.65
Kirkuk	5.81	0.72	5.67	0.47	5.54	0.29
Diala	15.4	-0.19	9.54	0.32	7.52	0.55
Anbar	6.75	1.2	9.41	-0.3	9.07	-0.41
Baghdad	8.45	-0.17	8.17	-0.09	8.11	-0.18
Wasit	4.83	0.8	6.33	0.2	5.45	0.22
Babylon	4.9	2.36	8.27	1.0	5.88	1.61
Karbala	4.62	9.32	4.62	9.32	4.58	9.63
Qadisia and Muthanna	10.59	-1.37	5.53	-0.95	5.27	-1.16
Maysan	2.39	0.2	3.49	-0.16	2.89	-0.24
Thi-Qar	5.03	0.29	5.25	0.04	5.59	-0.14
Basra	8.73	-1.3	7.28	-0.28	7.31	-0.56
TOTAL	7.68	0.42	7.08	0.41	6.72	0.41

Source: Calculated from Tables 1.6 and 1.7.

hand, all the rural areas are growing at rates lower than the national rate, with the exception of the Sulaymania region in the first period and Karbala region in the second period. During the first period, three regions had rural growth rates of less than 1 per cent, and the number increased to 11 regions, many of them with negative rural growth rates, during the second period.

Although all the rural areas are losing people in favour of the urban areas, and all the urban populations are growing at rates exceeding the national rate, the region of Baghdad seems to have maintained its position as the most urbanized region in the country. Baghdad's urban share of the population, according to the first definition, increased from 59.6 per cent in 1947 to 61.7 per cent in 1957 to 75.7 per cent in 1965. The other highly urbanized regions are Basra, Ninevah and Dhok, Karkuk and Karbala. Baghdad region alone, however, included about 38 per cent of the urban population in 1947 and 1957, and about 41 per cent of the urban population in 1965.

3. Urban Population Growth

Regardless of the definition of urban population, the components of the change in the urban population from one census year to another are the following:

$$U_{(t+n)} - U_{(t)} = N + M + R + B$$

where

$U_{(t+n)}$ = Urban population at year $t+n$

$U_{(t)}$ = Urban population at year t

n = Number of years between the two censuses

N = Natural increase in population of urban centres

M = Net migration to urban centres which are classified as urban in both censuses.

- R = Net population of reclassified and declassified urban centres in the second census
- B = Net population occurring from changes in boundaries of urban centres which are classified as urban in both censuses.

The censuses of 1947, 1957 and 1965 provide data on the urban population as defined administratively. Data on vital statistics suffer from considerable under-registration and are not useful to estimate the natural increase of the urban population. In the three censuses of population the data concerning the place of birth are given at the regional level and therefore cannot be used to estimate directly the migration component of the change in the urban population. The reclassified and declassified urban centres can be traced in the censuses data, but details as to whether a reclassified urban centre was previously a part of another urban centre or a declassified urban centre, has later become part of an already recognised urban centre, are not available. Part of the urban population change is due to changes in boundaries of the urban centres, particularly the large centres of Baghdad, Basra and Mosul, but there are no detailed maps available which would help to trace these changes and thus consider their effect on the size of the urban population. However, the effect of boundary changes is expected to be comparatively small. It is believed that the natural increase of urban population and net migration to urban centres are the two major components of urban population growth.

The attempt is made here to estimate the natural increase of the urban population indirectly by employing the method of the

age-and-sex-specific census survival ratios (CSR).³³ The data in the 1947 census are considered unsuitable for this purpose because of inaccurate reporting of age and sex.³⁴ Also, the individuals in the 1947 census were classified in ten year age groups instead of a single year or five year age groups, which makes them less useful to study the age selectivity of migration. The estimation of the natural increase of urban population was therefore made only for the intercensal period 1957-1965. The individuals in the 1957 census were classified in five year age groups, and since the intercensal period is eight years, the single year age groups data in the 1965 census had to be regrouped in the age groups 0-8, 8-13, 13-18, 18-23, etc., to suit the grouping in the 1957 census. The country's sex-and-age-specific survival ratios were then calculated. In order to apply these ratios to the regional urban population much laborious work had to be carried out to group the urban population in the 1957 census for each of the fourteen regions, and to classify them by sex and age groups, which was not done in the census tables. This work involved 180 urban centres. The urban population in the 1965 census had also to be regrouped for each

33. For details concerning the application of the CSR method see: E.S.Lee, A.R.Miller, C.P.Brainerd and R.A.Easterlin, Population Redistribution and Economic Growth, United States, 1879-1950, Vol.I (The American Philosophical Society, Philadelphia, 1957), pp.15-56.

34. It has been argued that the coverage of the 1947 census was not satisfactory for the following reason; the male population represented 47 per cent of the total population compared with 50 per cent in the 1957 census. This abnormality of the sex proportion is found to be concentrated in the rural areas and in certain age groups, particularly those close to military age. See, Mediterranean Development Project, Iraq, Country Report, (Food and Agricultural Organisation of the United Nations, Rome, 1959), Appendix II-1.

region to suit the eight years interval between the two censuses. The age data in the 1965 census' tables are given for the urban population of each region as a whole and not for each urban centre separately; therefore it is not possible to exclude the urban centres (as defined administratively) whose population is below the level required in the three urban definitions constructed earlier. As a result, only the administrative definition of urban population is used in these estimates, and the other three demographic definitions are not employed for this purpose. The aggregation of the urban population in the age data of the 1965 census has also made it difficult to exclude the reclassified urban centres and therefore confine the estimates to the urban centres which appeared in the two censuses, and on the other hand, the non-existent data in the 1957 census on the reclassified urban centres in the 1965 census have made it difficult to include them.

The basic assumption that has to be made when the CSR method is applied is that sex-and-age-specific mortality rates of the urban population are equal in all the regions of the country, and correspond to those of the country as a whole. There are no suitable data to test the validity of this assumption in the case of Iraq, but it is believed that mortality rates tend to be lower in Baghdad region where comparatively better health services and higher standards of living exist than in other regions, and that mortality rates in the urban areas in general are lower than those in the rural areas.

The figures in Table 1.10 represent the shares of the natural increase component and the net migration component of the absolute increase in the urban population. These two components, however, embody the effect of changes in boundaries and net reclassification of urban centres. Taking the country as a whole, the net migration component is about 1.7 times the natural increase component when the total population is considered, and 1.5 times and 1.9 times when the male and female populations, respectively, are considered. Female migrants are only slightly higher in number than male migrants, so the reason why the percentage share of the female migration component is higher than the share of the male migration component is mainly due to the fact that there are more males than females in the urban areas, which in 1965 represented 52.2 per cent of the total urban population. In some regions the shares of the two components differ markedly from their shares at the national level. In the region of Maysan, for example, the net migration component represented only 7 per cent of the absolute increase, and 93 per cent was due to the natural increase components, which indicates how unattractive the urban centres of Maysan are to migrants. On the other hand, in the region of Basra, the net migration component represented 71.2 per cent of the absolute increase. Four regions only out of the fourteen had migration components' share higher than that in the country as a whole: they were Baghdad, Basra, Anbar and Diala.

The most attractive urban centres to migrants, as presented in Table 2.11, are in the region of Baghdad. These urban centres attracted 50.4 per cent of the total net migrants to all the urban

Table 1.10 : The Components of the Absolute Increase in the Urban Population by Regions (1957-1965)

Regions	Absolute Increase			Natural Increase (%)			Net Migration (%)		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Ninevah and Dhok	74061	64735	138796	52.63	46.51	49.78	47.37	53.49	50.22
Sulaymanis	27916	20181	48097	36.49	49.57	41.98	63.51	50.43	58.02
Arbil	28898	32166	61064	49.46	29.86	39.13	50.54	70.14	60.87
Kirkuk	44228	34932	79160	45.04	52.68	48.41	54.96	47.32	51.59
Diala	31780	29053	60833	32.22	30.11	31.21	67.78	69.89	68.79
Anbar	32511	27456	59967	27.41	32.20	29.60	72.59	67.80	70.40
Baghdad	378415	368770	747185	33.14	26.22	29.73	66.86	73.78	70.27
Wasit	17497	15766	33263	46.56	75.24	60.16	53.44	24.76	39.84
Babylon	30470	29288	59758	48.62	42.30	45.52	51.38	57.70	54.48
Karbala	41033	35896	76929	52.86	47.67	50.44	47.14	52.33	49.56
Qadisia and Muthanna	32342	29869	62211	50.99	43.51	47.40	49.01	56.49	52.60
Maysan	11036	9513	20549	92.27	93.82	92.99	7.73	6.18	7.01
Thi-Qar	17271	13560	30831	64.29	64.59	64.42	35.71	35.41	35.58
Basra	91457	88086	179543	31.95	25.64	28.85	68.05	74.36	71.15
Total	858915	799271	1658186	39.54	34.66	37.19	60.46	65.34	62.81

Source: Derived as explained in the text.

Table 1.11 : The Regional Distribution of Net Migrants
to Urban Centres by Regions (1957-1965)

<u>Regions</u>	<u>Males</u>		<u>Females</u>		<u>Totals</u>	
	Number	%	Number	%	Number	%
Ninevah and Dhok	35082	6.8	34625	6.6	69707	6.7
Sulaymania	17730	3.4	10177	1.9	27907	2.7
Arbil	14605	2.8	22562	4.3	37167	3.6
Kirkuk	24307	4.7	16531	3.2	40838	3.9
Diala	21540	4.1	20305	3.9	41845	4.0
Anbar	23601	4.5	18616	3.6	42217	4.1
Bghdaad	253006	48.7	272070	52.1	525076	50.4
Wasit	9350	1.8	3903	0.7	13253	1.3
Babylon	15657	3.0	16900	3.2	32557	3.1
Karbala	19341	3.7	18786	3.6	38127	3.7
Qadisia and Muthanna	15851	3.1	16873	3.2	32724	3.1
Maysan	853	0.2	588	0.1	1441	0.1
Thi-Qar	6167	1.2	4802	0.9	10969	1.1
Basra	62239	12.0	65502	12.5	127741	12.3
Total	519329	100.0	522240	100.0	1041569	100.0

Source: Derived as explained in the text.

centres in the country. Second to Baghdad is the region of Basra, which attracted 12.3 per cent of the total net migrants. On the other hand, the regions of Maysan, Thi-Qar and Wasit attracted as little as 0.1 per cent, 1.1 per cent and 1.3 per cent respectively of the total net migrants.

The sex ratio (males/females) of the net migrants in the country as a whole is 0.99 (Table 1.11). This ratio is not equally balanced in the regions. The highest ratios are 2.4 and 1.7 in the regions of Wasit and Sulaymania respectively, and lowest ratio is 0.7 in the region of Arbil. However, the total number of net migrants to the urban centres in these three regions represent only 7.6 per cent of the total net migrants. On the other hand, the sex ratios in the regions of Baghdad, Basra and Ninevah and Dhok, which together attracted 69.4 per cent of the total net migrants, are 0.9, 1.0 and 1.0 respectively.

The regional variations of the absolute increase of the urban population have changed the regional distribution of the urban population. The figures in Table 1.12 indicate that during the period 1957-1965, only five regions have increased their share of the urban population at the expense of the other nine regions, and 74 per cent of this increase is made by the region of Baghdad alone, which increased its share by 4.2 per cent of the total urban population. The contributions of the natural increase component and the net migration component to the changes in the regional distribution of urban population, vary from one regions to another. The change in the regions' share of the total urban population comes from the differences between the actual values of the

Table 1.12 : The Change in the Regional Distribution of the Urban Population (1957-1965)

Regions	Regional Distribution of Urban Population 1957	Regional Distribution of Urban Population 1965	Regional Distribution of Urban Population	Regional Distribution of Natural Increase in Urban Centres	Regional Distribution of Migration to Urban Centres	Contribution of the Natural Increase Component	Contribution of Net Migration											
Ninevah and Dhok	11.1	11.1	10.1	9.9	10.0	11.5	10.9	11.2	6.8	6.6	6.7	0.4	-0.2	0.1	-4.3	-4.5	-4.4	
Sulaymania	3.3	3.2	3.2	3.3	2.9	3.1	3.0	3.6	3.3	3.4	1.9	2.7	-0.3	0.4	0.1	0.1	-1.3	-0.5
Arbil	3.1	2.8	3.0	3.2	3.3	3.3	4.2	3.5	3.9	2.8	4.3	3.6	1.1	0.7	0.9	-0.3	1.5	0.6
Kirkuk	6.3	6.1	6.2	5.8	5.4	5.6	5.9	6.6	6.2	4.7	3.2	3.9	-0.4	0.5	0.0	-1.6	-2.9	-2.3
Diala	3.1	3.0	3.0	3.3	3.3	3.3	3.0	3.2	3.1	4.1	3.9	4.0	-0.1	0.2	0.1	1.0	0.9	1.0
Anbar	2.5	2.6	2.6	3.0	2.9	3.0	2.6	3.2	2.9	4.5	3.6	4.1	0.1	0.6	0.3	2.0	1.0	1.5
Baghdad	35.5	33.7	34.6	38.9	38.7	38.8	36.9	34.9	36.0	48.7	52.1	50.4	1.4	1.2	1.4	13.2	18.4	15.8
Wasit	2.8	2.9	2.9	2.5	2.6	2.5	2.4	4.3	3.2	1.8	0.7	1.3	-0.4	1.4	0.3	-1.0	-2.2	-1.6
Babylon	4.2	4.3	4.3	4.0	4.1	4.0	4.4	4.5	4.4	3.0	3.2	3.1	0.2	0.2	0.1	-1.2	-1.1	-1.2
Karbala	6.7	7.5	7.1	5.9	6.3	6.1	6.4	6.2	6.3	3.7	3.6	3.7	-0.3	-1.3	-0.8	-3.0	-3.9	-3.4
Qadisia and Muthanna	4.7	5.1	4.9	4.3	4.6	4.4	4.9	4.7	4.8	3.1	3.2	3.1	0.2	-0.4	-0.1	-1.6	-1.9	-1.8
Maysan	3.4	3.5	3.4	2.5	2.5	2.5	3.0	3.2	3.1	0.2	0.1	0.1	-0.4	-0.3	-0.3	-3.2	-3.4	-3.3
Thi-Quar	3.9	4.4	4.2	3.1	3.3	3.2	3.3	3.2	3.2	1.2	0.9	1.1	-0.6	-1.2	-1.0	-2.7	-3.5	-3.1
Basra	9.5	9.7	9.6	10.0	10.2	10.1	8.6	8.2	8.4	12.0	12.5	12.3	-0.9	-1.5	-1.2	2.5	2.8	2.7

Source: Derived as explained in the text.

natural increase and net migration and their expected values. The expected values are those equal in proportion to the regions' shares of the country's urban population at the beginning of the period.

Five regions, all of them in the southern part of the country, have lost some of their share through the natural increase component. The region of Basra incurred the highest loss of 1.2 per cent of the total natural increase. The other nine regions have all increased their shares. About 42 per cent of this increase went to the region of Baghdad alone, which represented 1.4 per cent of the total natural increase.

On the other hand, nine regions have lost some of their share through the net migration component. The region of Ninevah and Dhok incurred the largest loss of 4.4 per cent of the total net migrants, followed by the regions of Karbala, Maysan and Thi-Qar. The other five regions have increased their share, and 73 per cent of this increase was made by the region of Baghdad alone, which represented 15.8 per cent of the total net migrants.

As is clearly shown in Table 1.12, most of the change in the regional distribution of the urban population has come through the net migration component, where ten regions had more than 50 per cent of the absolute increase in urban population attributed to the migration component.

The CSR was then applied to the urban population of the country as a whole. The net migration component in this case represented the net rural-urban migration in the country. The results in Table 1.13 show the rural-urban migrants classified by age groups

Table 1.13 : Rural-Urban Migration by Age Groups and Urban and Rural Rates, 1957-1965

Age Groups	<u>Rural-Urban Migrants</u>			<u>Rural-Urban Migrants/ Urban Population</u>			<u>Rural-Urban Migrants/ Rural Population</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-	157363	155577	312940						
8-	79524	77513	157037	26.8	28.9	27.8	27.5	30.4	28.8
13-	84912	71344	156256	38.4	36.6	37.5	50.8	45.3	48.1
18-	45189	43675	88864	26.2	26.0	26.1	37.4	30.7	33.8
23-	21532	19695	41227	14.4	13.9	14.2	19.5	15.8	17.6
28-	12667	10228	22895	11.0	9.12	10.1	12.5	7.7	9.8
33-	18378	23278	41656	15.4	21.6	18.3	16.1	21.7	18.8
38-	19548	25625	45173	21.1	28.7	24.8	20.4	27.7	23.9
43-	16129	17027	33156	24.4	28.4	26.3	21.7	26.4	23.9
48-	16704	16951	33655	25.6	27.3	26.5	22.6	24.9	23.7
53-	14186	11653	25839	25.3	24.5	24.9	31.3	30.7	31.0
58-	9671	12059	21730	20.2	24.6	22.4	21.6	27.7	24.6
63-	1897	5138	7035	5.4	13.0	9.4	3.9	8.8	6.6
68-	5126	8543	13669	23.0	33.8	28.8	23.7	44.8	33.6
73-	2113	3642	5755	16.3	25.4	21.1	11.4	21.1	16.1
78+	14403	18377	32780	55.2	55.8	55.5	41.9	58.6	49.9
Total excluding 0-8 age group	361979	364748	726727						
TOTAL	519342	520325	1039667						

Source: Derived as explained the text.

and as percentages (rates) of the corresponding urban and rural age groups. The urban and the rural rates indicate that the propensity to migrate is the highest in the 13-18 and 18-23 age groups, where the rural-urban migrants represented 37.5 per cent and 26.1 per cent respectively of the corresponding age groups in the urban area (urban rate), and 48.1 per cent and 33.8 per cent respectively of the corresponding age groups in the rural areas (rural rate). The comparatively higher rural rates are due to the fact that migration has reduced the rural residents of these age groups, while increasing their numbers in the urban centres. The age groups 38-58 and 68-73 also have comparatively high propensity to migrate, while the tendency to migrate for the people over 78 years old is strikingly high. The age groups 28-33 and 63-68 have a markedly low tendency to migrate. This age pattern of rural-urban migrants seems applicable for males and females, which indicates that migrants moved as families rather than individuals. Contrary to the clear evidence presented here, some writers apparently drawing from other countries' experiences, have frequently mentioned that rural-urban migration in Iraq during the 1950s and 1960s was dominated by young males.³⁵ Figures 1.2 and 1.3 provide a clear illustration of the age pattern of migration. The figures in Table 1.14 are the urban rates of net migration by regions, calculated also by the CSR method. It is noticeable that the age

35. See, for example, A.R. Al-Hilali, Problems of Agricultural Credit in Iraq (Al-Najah Press, Baghdad, 1957), pp.68-69; F. Al-Ansari, The Population of Iraq: A Comparative Demographic and Geographic Study (Damascus, 1970), p.124.

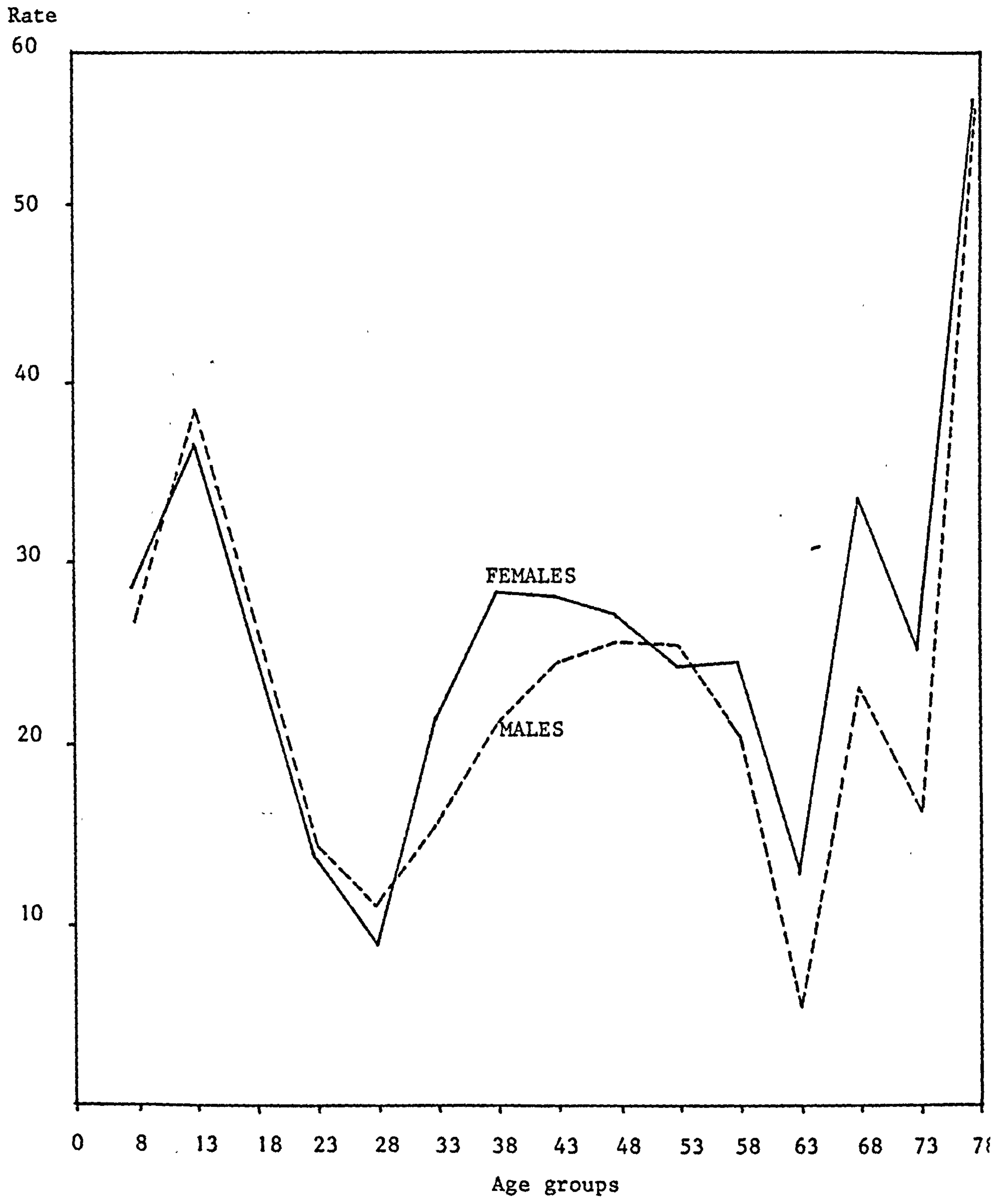


Figure 1.2:
The Urban Rates of Rural-Urban Migrants by Age Groups (1957-1965)

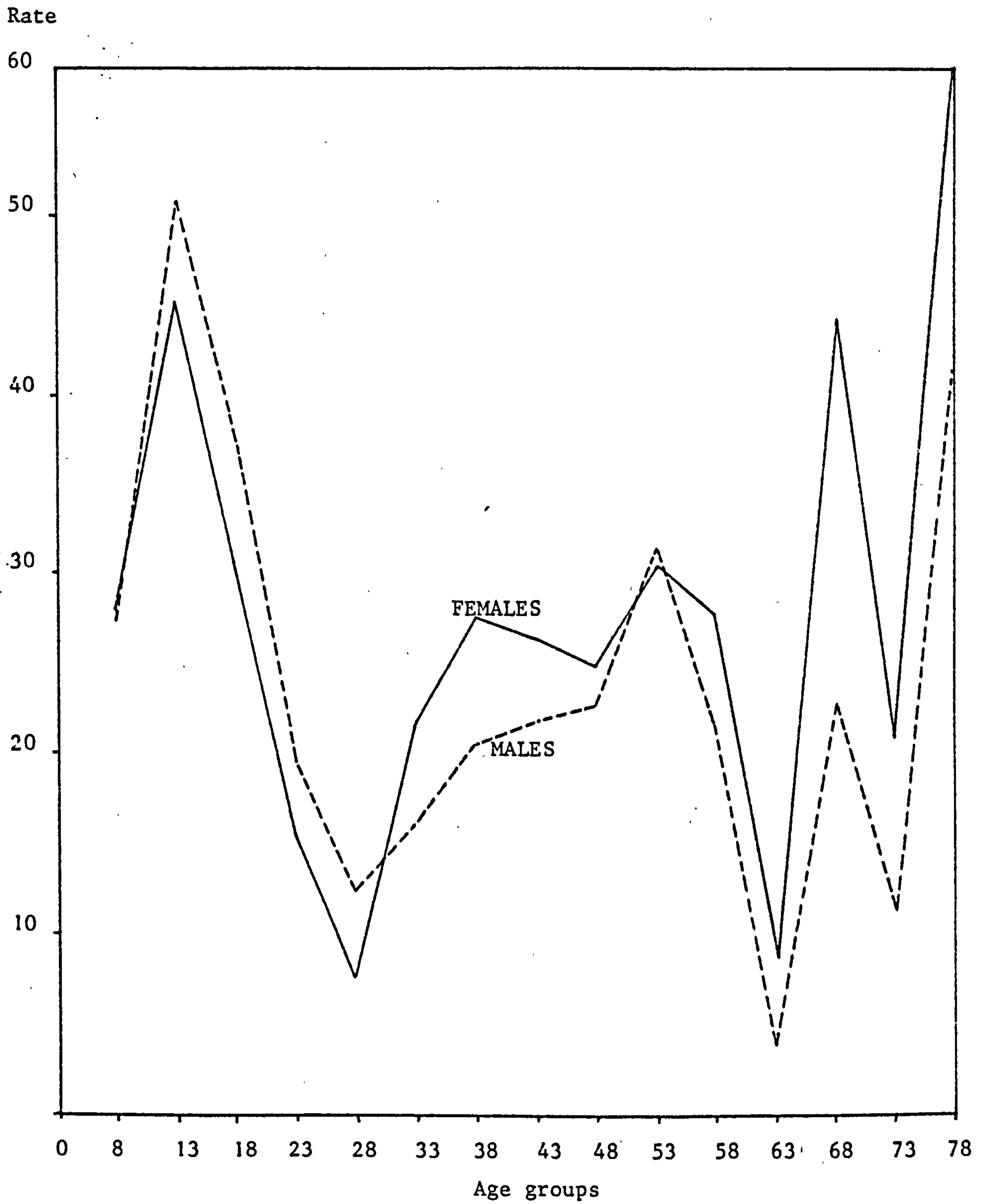


Figure 1.3:
The Rural Rates of Rural-Urban Migrants by Age Groups (1957-1965)

Table 1.14 : Net Migration Rates by Regions and Age Groups. (1957-1965)

Age Groups	Ninevah and Dhok mania	Sulay-	Arbil	Kirkuk	Diala	Anbar	Baghdad	Wasit	Babylon	Karbala	Qadisia and Muthanna	Maysan	Thi-Qar	Basra
0-														
8-	21.8	18.28	34.8	14.04	32.9	35.4	35.5	20.07	24.2	18.5	19.4	6.9	7.8	33.6
13-	28.4	35.61	42.23	29.16	42.4	43.26	47.6	28.34	30.0	23.1	25.7	13.0	13.3	41.1
18-	13.6	30.06	24.1	31.04	31.7	33.8	37.9	7.86	14.4	2.1	10.5	-10.5	1.9	27.5
23-	2.1	15.4	16.08	14.73	17.3	25.32	21.7	-47.05	9.9	9.2	9.4	-13.6	-2.8	24.4
28-	2.3	15.73	2.73	2.64	21.6	28.72	13.1	7.02	8.1	10.6	5.9	-11.5	3.7	19.5
33-	16.0	18.80	18.13	9.22	24.7	32.72	22.3	14.08	10.3	9.7	13.1	-3.2	7.1	24.1
38-	16.1	17.2	29.69	12.15	29.2	35.18	31.3	20.46	23.0	15.2	20.7	-5.2	17.8	27.2
43-	21.1	23.18	31.08	22.69	35.6	36.91	32.0	26.53	17.9	18.0	20.4	6.6	9.7	27.6
48-	21.8	23.47	39.72	11.26	28.4	36.36	33.3	21.36	24.5	10.8	22.1	6.7	12.5	30.9
53-	14.4	17.0	35.2	14.5	31.9	32.81	32.5	13.34	17.1	21.7	19.2	4.4	1.4	28.6
58-	16.9	13.89	34.24	7.82	31.7	34.15	29.4	12.70	20.2	4.5	16.7	2.6	5.2	30.1
63-	6.9	6.53	32.94	3.37	19.5	20.12	9.5	8.27	8.7	4.0	13.6	-6.8	-0.2	10.7
68-	15.8	7.20	22.05	9.96	29.3	30.02	43.6	15.21	21.7	9.2	24.2	6.5	12.6	31.2
73-	11.4	10.18	22.3	6.69	22.7	31.57	31.7	13.03	17.0	11.2	22.9	8.3	9.0	19.2
78+ .	50.4	48.41	58.82	56.32	57.8	58.71	59.8	52.32	54.7	57.8	55.3	35.7	35.7	57.1

Source: Derived as explained in the text.

pattern of the net migrants to the urban centres of any of the fourteen regions is similar to that of the country, although the number of net migrants varies considerably from one region to another. Figure 1.4 illustrates a comparison between net migrants to urban centres in the regions of Baghdad and Maysan, which made the largest gain and the largest loss respectively, with the country's net migration to urban centres. The comparison shows the similarity in the age pattern of the migrants.

4. Interregional Migration

Due to the lack of uniformity concerning the region of birth data, which was explained earlier, considerable work had to be done in this research to prepare the data of these censuses at a common level, which in this case has to be the regional level. In terms of the place of birth data, migration is defined by residence in a region other than that of birth. Accordingly, the migrant is the person living in a region at the time of the census though born in any other region, and the non-migrant is the person born in a region, and living there at the time of the census.

This definition of migration does not perfectly distinguish migrants from non-migrants. Persons who are classified as non-migrants may, in reality, be migrants who returned to their region of birth before the census was undertaken. It is possible, therefore, that persons with greater migration tendency are less likely to be classified as migrants, while those who have made a single migration movement would certainly be. Multiple migration movements would not appear in these data, so if a person migrates, for example, from

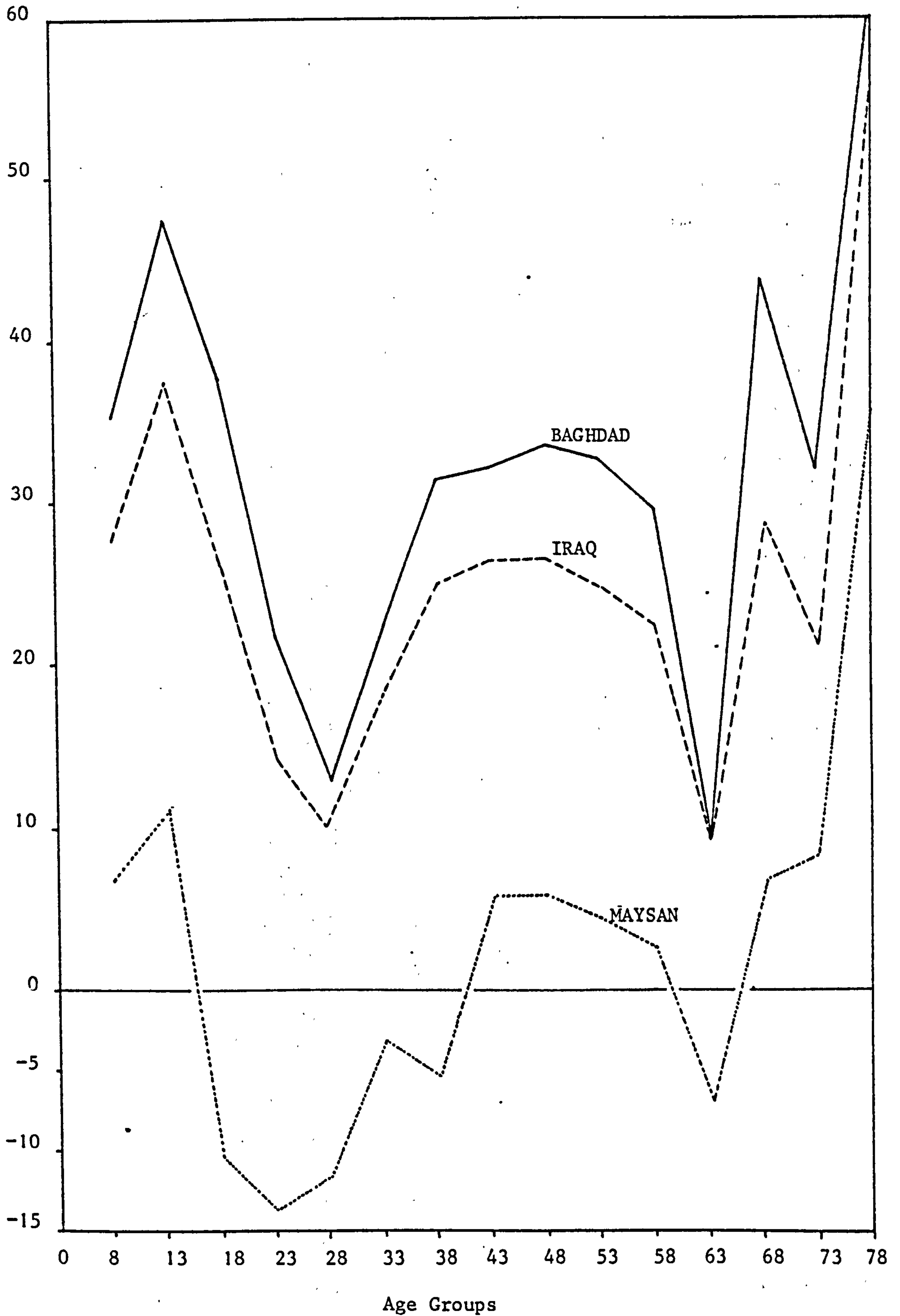


Figure 1.4:
Net Migration Rates to Urban Centres by Age Groups (1957-1965)

Maysan to Wasit, and then migrates to Baghdad before the census time, he would be classified as a direct migrant from Maysan to Baghdad. Migrants who died before the census were also not counted. The number of migrants whose place of birth was not stated and was classified as unknown, represented 1.1 per cent, 2.3 per cent and 1.1 per cent of the total migrants in the three censuses respectively. It is believed that those migrants would be more likely to be of rural origins, and would tend to be illiterate and relatively old; they would not possess birth certificates nor any clear memory as to their place of birth. However, it was not possible to consider these factors, and they were distributed among the regions according to the regional distribution of the other migrants. Due to lack of details concerning the place of birth, which was given at the regional level, no adjustment was possible regarding the minor changes in the regional boundaries. Finally, these data give no indication as to when a person living outside his region of birth left that region or entered the region of residence. The span of life, however, is the only restriction on the period over which the migration could have occurred, but none of the three censuses provided age data for the migrants. The ambiguity that is due to the indefiniteness of the time period may be partially solved by computing the intercensal migration.

The figures in Tables 1.15 to 1.17 show the lifetime migration rates, which were calculated from the place of birth data in the three censuses. The regions of Baghdad, Basra, Kirkuk and Wasit have maintained their position in the three censuses among the

Table 1.15 : Migration Rates by Regions (1947)

<u>REGIONS</u>	<u>In-Migration</u>			<u>Out-Migration</u>			<u>Net Migration</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	2.7	1.3	1.9	6.5	4.1	5.2	-3.8	-2.8	-3.3
Sulaymania	3.0	2.1	2.5	6.1	2.7	4.2	-3.1	-0.6	-1.7
Arbil	4.3	4.2	4.3	5.2	2.3	3.6	-0.8	1.8	0.6
Kirkuk	10.4	5.1	7.5	7.4	7.4	7.4	-3.1	-2.2	0.2
Diala	8.9	7.2	8.0	10.8	7.9	9.3	-1.9	-0.6	-1.3
Anbar	8.3	4.7	6.5	9.2	7.9	8.5	-0.8	-3.2	-2.0
Baghdad	21.7	19.0	20.4	5.9	5.5	5.7	15.8	13.5	14.7
Wasit	13.0	11.9	12.4	13.8	11.4	12.5	-0.8	0.6	-0.1
Babylon	6.2	5.2	5.7	12.6	10.6	11.6	-6.4	-5.4	-5.9
Karbala	3.8	4.0	3.9	7.2	6.1	6.6	-3.4	-2.1	-2.7
Qadisia and Muthanna	5.8	3.9	4.7	7.0	5.0	5.9	-1.2	-1.1	-1.1
Maysan	3.8	3.1	3.4	38.7	29.0	33.4	-34.9	-25.8	-29.9
Thi-Qar	2.8	2.0	2.3	9.9	4.7	6.8	-7.1	-2.7	-4.4
Basra	16.3	14.1	15.2	3.4	2.7	3.1	12.9	11.4	12.1

Source: Calculated from the population census of 1947, op.cit.

Table 1.16 : Migration Rates by Regions (1957)

<u>REGIONS</u>	<u>In-Migration</u>			<u>Out-Migration</u>			<u>Net Migration</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	2.1	1.4	1.7	7.6	6.1	6.9	-5.5	-4.8	-5.2
Sulaymania	5.1	3.5	4.3	5.9	3.6	4.7	-0.8	-0.1	-0.5
Arbil	5.2	3.1	4.1	8.2	5.7	7.0	-3.0	-2.7	-2.8
Kirkuk	9.1	7.6	8.3	7.0	5.2	6.1	2.1	2.3	2.2
Diala	5.1	4.3	4.7	15.2	11.8	13.6	-10.2	-7.5	-8.9
Anbar	7.6	5.0	6.3	12.1	10.9	11.5	-4.5	-5.9	-5.2
Baghdad	26.9	24.8	25.9	3.2	3.3	3.2	23.7	21.6	22.7
Wasit	12.5	11.5	12.0	18.4	15.4	16.8	-6.0	-3.9	-4.9
Babylon	5.7	4.7	5.2	15.5	13.5	14.5	-9.8	-8.8	-9.3
Karbala	11.1	10.7	10.9	14.1	11.7	12.9	-3.0	-1.0	-2.0
Qadisia and Muthanna	5.5	6.0	5.7	9.5	7.9	8.7	-4.0	-2.0	-3.0
Maysan	3.3	2.8	3.1	57.4	55.1	56.2	-54.1	-52.3	-53.2
Thi-Qar	2.5	2.1	2.3	12.5	9.1	10.7	-9.9	-7.1	-8.4
Basra	16.6	15.6	16.1	3.5	2.7	3.1	13.1	12.9	13.0

Source: Calculated from the population census of 1957, op.cit.

Table 1.17 : Migration Rates by Regions (1965)

<u>REGIONS</u>	<u>In-Migration</u>			<u>Out-Migration</u>			<u>Net Migration</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	3.6	1.9	2.8	12.2	11.2	11.7	-8.5	-9.3	-8.9
Sulaymania	17.5	7.0	12.4	6.3	4.3	5.4	11.1	2.7	7.1
Arbil	14.9	4.8	10.1	10.6	8.6	9.7	4.2	-3.7	0.5
Kirkuk	11.4	5.8	8.7	8.7	6.9	7.8	2.7	-1.1	0.9
Diala	6.5	5.0	5.8	16.9	15.9	16.4	-10.4	-10.8	-10.6
Anbar	6.3	5.2	5.8	14.5	12.3	13.4	-8.2	-7.1	-7.7
Baghdad	26.1	25.1	25.6	2.7	2.4	2.6	23.4	22.7	23.0
Wasit	7.8	7.6	7.7	24.9	21.2	23.0	-17.1	-13.7	-15.3
Babylon	4.7	4.2	4.5	14.6	10.0	12.3	-9.8	-5.7	-7.8
Karbala	2.5	4.2	3.3	13.0	11.5	12.3	-10.6	-7.4	-9.0
Qadisia and Muthanna	4.0	3.5	3.7	17.8	11.5	14.6	-13.8	-8.0	-10.9
Maysan	3.8	2.5	3.1	51.2	46.7	49.0	-47.4	-44.2	-45.8
Thi-Qar	3.3	3.4	3.3	19.0	13.0	15.9	-15.7	-9.6	-12.6
Basra	10.4	9.2	9.8	5.6	3.0	4.3	4.9	6.1	5.5

Source: Calculated from R. al-Saadi and Dr. M.V. Geroge, op.cit.

five regions with the highest in-migration rates. Baghdad region appears consistently as the most attractive destination to migrants, and in the three censuses it attracted 42 per cent, 52 per cent and 59 per cent respectively of the country's lifetime migrants. The regions of Ninevah and Dhok, Maysan and Thi-Qar have maintained their position among the five regions with the lowest in-migration rates. On the other hand, the regions of Maysan, Wasit and Diala have maintained their position among the five regions with the highest out-migration rates. The region of Maysan appears consistently as the one whose population has the highest tendency to migrate, where the out-migrants from the region represented 26 per cent, 29 per cent and 19 per cent respectively of the country's lifetime migrants. The regions of Baghdad, Basra and Sulaymania have maintained their position among the five regions with lowest out-migration rates. The regions which gained on the net from migration were four in 1947, three in 1957, and five in 1965. The regions of Baghdad, Basra and Kirkuk were gaining on the net in the three censuses. The net gain of Baghdad represented 72 per cent, 80 per cent and 87 per cent of the total net gain in the three censuses respectively. The regions of Maysan, Ninevah and Dhok, and Thi-Qar have consistently lost on the net more than other regions. Maysan's loss represented 55 per cent, 47 per cent and 29 per cent of the total loss in the three censuses respectively.

Intercensal Migration

The intercensal migration for each region is estimated as follows:

$$\overset{*}{I}_m + \overset{*}{I}_f = [I_m(t+n) - S_m I_m(t)] + [I_f(t+n) - S_f I_f(t)]$$

$$\overset{*}{O}_m + \overset{*}{O}_f = [O_m(t+n) - S_m O_m(t)] + [O_f(t+n) - S_f O_f(t)]$$

$$N_m + N_f = [\overset{*}{I}_m - \overset{*}{O}_m] + [\overset{*}{I}_f - \overset{*}{O}_f]$$

where:

* = Intercensal, in-or-out-migrants

I = Lifetime in-migrants

O = Lifetime out-migrants

N = Net intercensal migrants

S = Total survival ratio for the intercensal period

m = Refers to males

f = Refers to females

t = The year at the beginning of the intercensal period

n = The intercensal period in years.

While the estimation of the intercensal migration partially solves the problem of indefiniteness of the time period which is discussed earlier, other defects which originate from the use of place of birth data (also discussed earlier) are similarly applicable here. Apart from these defects, the total sex-specific survival ratios for the country's population were calculated and used in the estimation where it was not possible to use age-and-sex-specific survival ratios.

The figures in Tables 1.18 and 1.19 show the intercensal migration rates for the two periods. The rates calculated are the migrants per 100 average intercensal population. The regions of Baghdad and Kirkuk only have maintained their position in the two intercensal periods among the five regions with the highest in-migration rates. Baghdad is clearly the most attractive destination, and it attracted 64 per cent and 72 per cent of the total migrants in the first and second intercensal periods respectively. Only the region of Maysan has maintained its position

Table 1.18 : Intercensal Migration Rates (1947-1957)

<u>REGIONS</u>	<u>In-Migration Rates</u>			<u>Out-Migration Rates</u>			<u>Net Migration Rates</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	0.2	0.6	0.4	3.6	3.7	3.7	-3.4	-3.1	-3.2
Sulaymania	4.1	2.2	3.1	2.9	1.9	2.4	1.2	0.4	0.8
Arbil	2.3	-0.3	1.0	5.0	3.9	4.5	-2.7	-4.2	-3.5
Kirkuk	3.5	4.5	4.0	3.1	0.3	1.7	0.4	4.2	2.4
Diala	-1.6	-0.8	-1.2	8.2	6.8	7.5	-9.8	-7.6	-8.7
Anbar	2.3	2.1	2.2	6.8	6.5	6.6	-4.5	-4.3	-4.4
Baghdad	18.7	18.0	18.3	0.0	0.4	0.2	18.7	17.8	18.2
Wasit	4.2	4.4	4.3	10.5	9.2	9.8	-6.2	-4.7	-5.4
Babylon	2.0	1.6	1.8	8.6	7.8	8.2	-6.6	-6.1	-6.4
Karbala	5.9	5.7	5.8	5.2	4.7	5.0	0.7	1.1	0.9
Qadisias and Muthanna	2.7	3.7	3.2	6.7	5.0	5.8	-4.0	-1.4	-2.6
Maysan	0.4	0.2	0.3	29.5	31.1	30.4	-29.1	-30.9	-30.0
Thi-Qar	0.9	0.6	0.7	7.3	5.9	6.5	-6.3	-5.3	-5.8
Basra	6.6	8.2	7.4	1.4	1.2	1.3	5.2	7.0	6.1

Source: Derived as explained in the text.

Table 1.19 : Intercensal Migration Rates (1957-1965)

<u>REGIONS</u>	<u>In-Migration Rates</u>			<u>Out-Migration Rates</u>			<u>Net Migration Rates</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	2.3	0.9	1.6	7.0	7.0	7.0	-4.7	-6.1	-5.4
Sulaymania	15.8	5.2	10.7	2.5	2.1	2.3	13.3	3.1	8.4
Arbil	13.1	2.8	8.2	6.0	4.8	5.5	7.2	-2.0	2.7
Kirkuk	5.2	0.3	2.8	4.0	3.4	3.7	1.2	-3.0	-0.8
Diala	3.0	2.0	2.5	6.2	7.7	6.9	-3.1	-5.7	-4.4
Anbar	0.7	1.8	1.2	6.1	4.8	5.5	-5.4	-3.0	-4.2
Baghdad	12.7	13.5	13.1	1.0	0.6	0.9	11.6	12.8	12.2
Wasit	-2.0	-1.8	-1.9	11.4	9.3	10.3	-13.4	-11.0	-12.2
Babylon	0.7	1.0	0.9	4.0	0.5	2.2	-3.3	0.5	-1.4
Karbala	-4.6	-2.4	-3.5	6.3	5.7	6.0	-10.9	-8.2	-9.5
Qadisia and Muthanna	-0.7	-1.7	-1.2	10.0	4.7	7.3	-10.7	-6.3	-8.5
Maysan	1.0	0.0	0.5	2.8	-0.7	1.0	-1.8	0.8	-0.5
Thi-Qar	1.4	1.6	1.5	9.8	5.2	7.4	-8.4	-3.6	-5.9
Basra	-0.9	-1.5	-1.2	3.7	1.4	2.5	-4.5	-2.9	-3.7

Source: Derived as explained in the text.

among the five regions with the lowest in-migration rates. On the other hand, the regions of Wasit and Diala only have maintained their positions among the five regions with the highest out-migration rates. In the period 1947-1957, the region of Maysan had the highest number of out-migrants, which represented 32 per cent of the total migrants. In the period 1957-1965, the region of Ninevah and Dhok had the highest number of out-migrants, but that represented only 19 per cent of the total migrants. The regions of Baghdad, Basra and Sulaymania have maintained their positions among the five regions with the lowest out-migration rates. The regions that gained on the net from migration were five in the first period, and only three in the second period. The regions of Baghdad and Sulaymania have gained on the net in the two periods. The net gain of Baghdad represented 83 per cent and 84 per cent of the total net gain in the two periods respectively. The region of Maysan had the largest loss in the first period, which represented 41 per cent of the total loss, and the region of Qadisia and Muthanna had the largest loss in the second period, which represented 19 per cent of the total loss.

Displacement of Population

The population of six and eight regions in the first and second periods respectively have decreased proportionally. The region of Baghdad made the largest increase, where its share of the total population increased from 17 per cent in 1947 to 20.8 per cent in 1957, and 25.4 per cent in 1965, and the region of Maysan registered the largest loss when its share decreased from 6.4 per cent to 5.2 per cent to 4.3 per cent respectively.

The index calculated in Table 1.20 reflects the overall redistribution of population among the regions. The index is calculated by computing the change in the percentage of the country's population in each region between the censuses, and totalling the plus or the minus differences. The totals are equal and each, irrespective of the sign, is the redistribution index. The value of this index would be zero if there were no change in the per cent distribution of the population, and the value would be a hundred if there were a region with no population at the beginning of a period and all the population went to it by the end of the period. Figures 1.5 and 1.6 show the natural increase component and the net migration component of the population change in each region. Figures 1.7 and 1.8 show the contribution of each of the two components to the change in the population share of each region. Figures 1.5-1.8 are derived from Tables 1.21 and 1.22.

Conclusion

As Iraq began to recover from the Ottoman rule after the First World War, government revenues and therefore expenditures, also increased. It is clear from Table 1.23 that total revenues increased very slowly up to the early 1930s, and after that a sharp increase occurred where the average revenue in the period 1946-1950 was 6.6 times the average revenue in the period 1931-1935. The increase in revenue came from increased oil royalties and import duties. Exports of cereals, dates, cotton and various other agricultural products increased, particularly during the war, and the growing oil exports permitted rising imports. Capital

Table 1.20 : Displacement of Regional Population (1947-1965)

<u>Period</u>	Displacement of Population (Redistribution Index)		Displacement due to Natural Increase		Displacement due to Migration	
	Number	Per cent	Number	Per cent	Number	Per cent
1947-1957	330695	5.2	98611	1.5	232084	3.7
1957-1965	470774	5.8	227396	2.8	243378	3.0

Source: Derived as explained in the text.

Table 1.21 : Components of Regional Population Growth (1947-1957)

<u>REGIONS</u>	<u>Natural Increase of Population</u>			<u>Net Migration</u>			<u>Absolute Increase of Population</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	106102	76092	182194	-11346	-10591	-21937	94756	65501	160257
Sulaymania	55311	21124	76435	1546	514	2060	56857	21638	78495
Arbil	32794	9712	42506	-3325	-5574	-8899	29469	4138	33607
Kirkuk	68131	26735	94866	616	7352	7968	68747	34087	102834
Diala	48755	34889	83644	-14758	-11463	-26221	33997	23426	57423
Anbar	39350	30537	69887	-5118	-4728	-9847	34231	25809	60040
Baghdad	167589	134896	302485	101472	91850	193322	269061	226746	495807
Wasit	43979	41161	85140	-7617	-6562	-14179	36362	34599	70961
Babylon	61444	51730	113174	-9961	-9640	-19601	51483	42090	93573
Karbala	-27309	-31763	-59072	847	1336	2183	-26462	-30427	-56889
Qadisia and Muthanna	102005	52007	154012	-8342	-3318	-11660	93663	48689	142352
Maysan	67874	50633	118507	-43774	-51914	-95688	24100	-1281	22819
Thi-Qar	75687	35344	111031	-11554	-12496	-24050	64133	22848	86981
Basra	55990	51988	107978	11317	15236	26553	67307	67224	134531

Source: Derived as explained in the text.

Table 1.22 : Components of Regional Population Growth (1957-1965)

<u>REGIONS</u>	<u>Natural Increase of Population</u>			<u>Net Migration</u>			<u>Absolute Increase of Population</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ninevah and Dhok	95791	81831	177622	-19965	-24503	-44468	75826	57328	133154
Sulaymania	24105	41265	65370	24251	5252	29503	48356	46517	94873
Arbil	37840	36513	74353	11699	-3142	8557	49539	33371	82910
Kirkuk	44177	44253	88430	2751	-6394	-3643	46928	37859	84787
Diala	42371	41188	83559	-5859	-10173	-16032	36512	31015	67527
Anbar	36045	29795	65840	-7798	-4053	-11851	28247	25742	53989
Baghdad	275233	251815	527048	100759	104556	205315	375992	356371	732362
Wasit	43898	32941	76839	-20424	-17983	-38407	23474	14958	38432
Babylon	55689	43230	98919	-6566	1036	-5530	49123	44266	93389
Karbala	78972	70031	149003	-15014	-11510	-26524	63958	58521	122479
Qadisia and Muthanna	45344	22603	67947	-28170	-17019	-45189	17174	5584	22758
Maysan	14921	2444	17365	-3072	1334	-1738	11849	3778	15627
Thi-Qar	52351	15957	68308	-19273	-9033	-28306	33078	6924	40002
Basra	100729	87112	187841	-13320	-8372	-21692	87409	78740	166149

Source: Derived as explained in the text.

Table 1.23 : Average Government Revenue, Oil Revenue, Current Expenditure and Capital Expenditure 1921-1950
ID millions

	Total Government Revenue	Oil Revenue	Ordinary Expenditure	Capital Expenditure
1921-25	3.9	0	3.7	0
1926-30	4.1	0	4.2	0.1
1931-35	4.2	0.7	3.8	0.5
1936-40	7.6	1.6	5.8	2.4
1941-45	16.2	2.0	14.1	1.1
1946-50	27.9	3.4	25.1	3.5

Source: F. Jalal, The Role of Government in the Industrialization of Iraq 1950-1965 (Frank Cass, London, 1972), p.5.

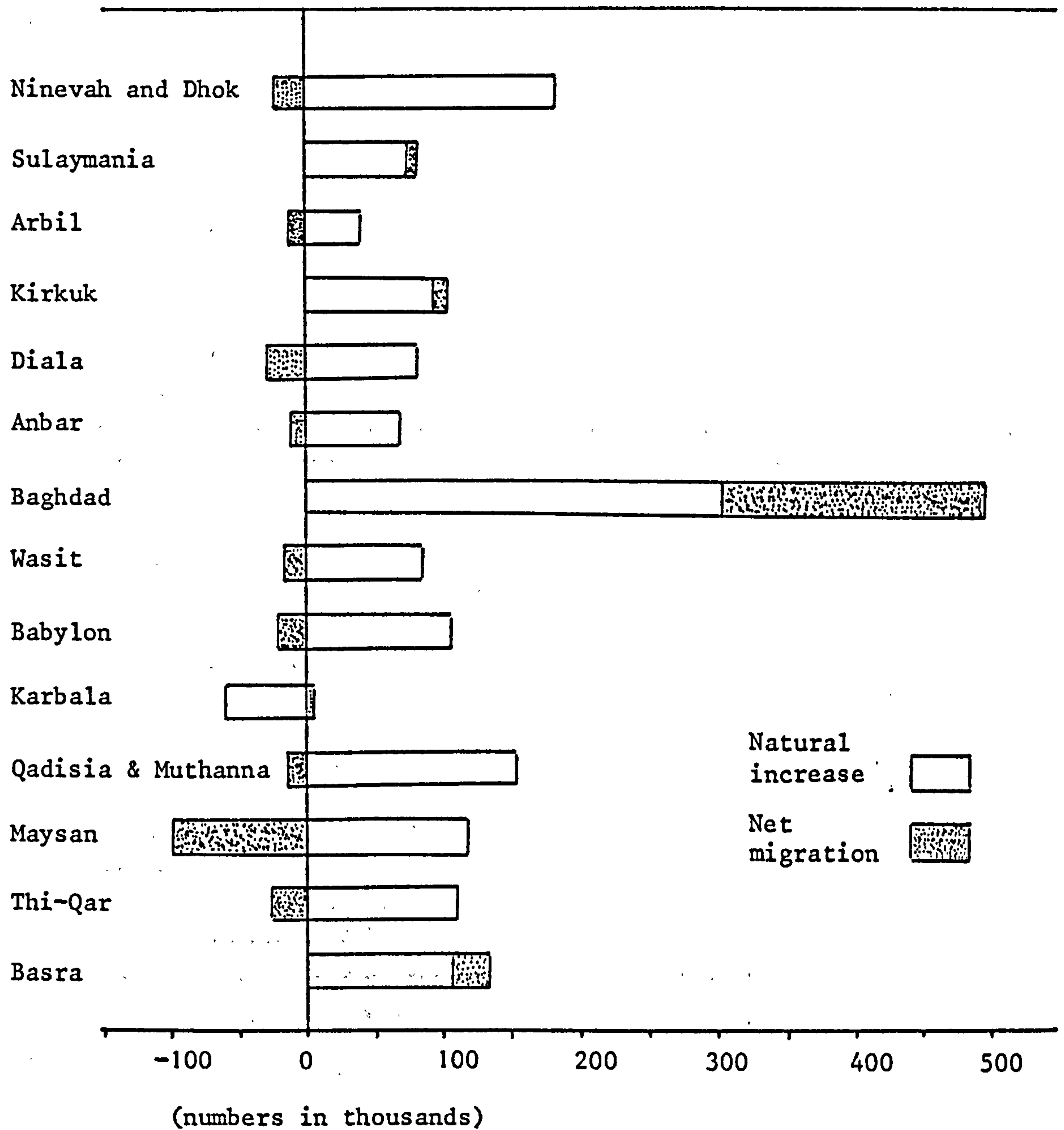


Figure 1.5 : Natural Increase and Net Migration Components of the Absolute Increase in Population (1947-1957)

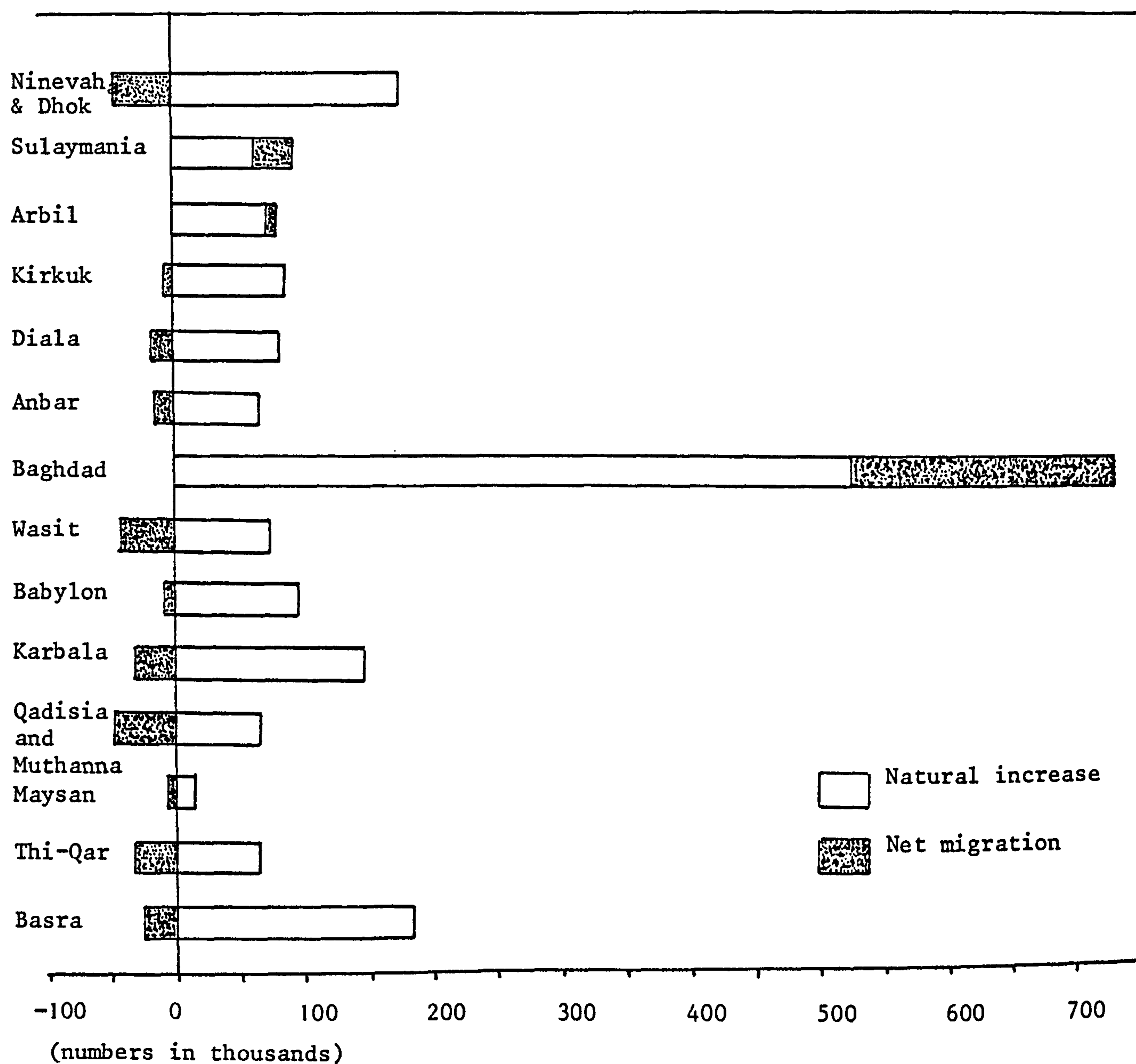


Figure 1.6 : Natural Increase and Net Migration Components of the Absolute Increase in Population (1957-1965).

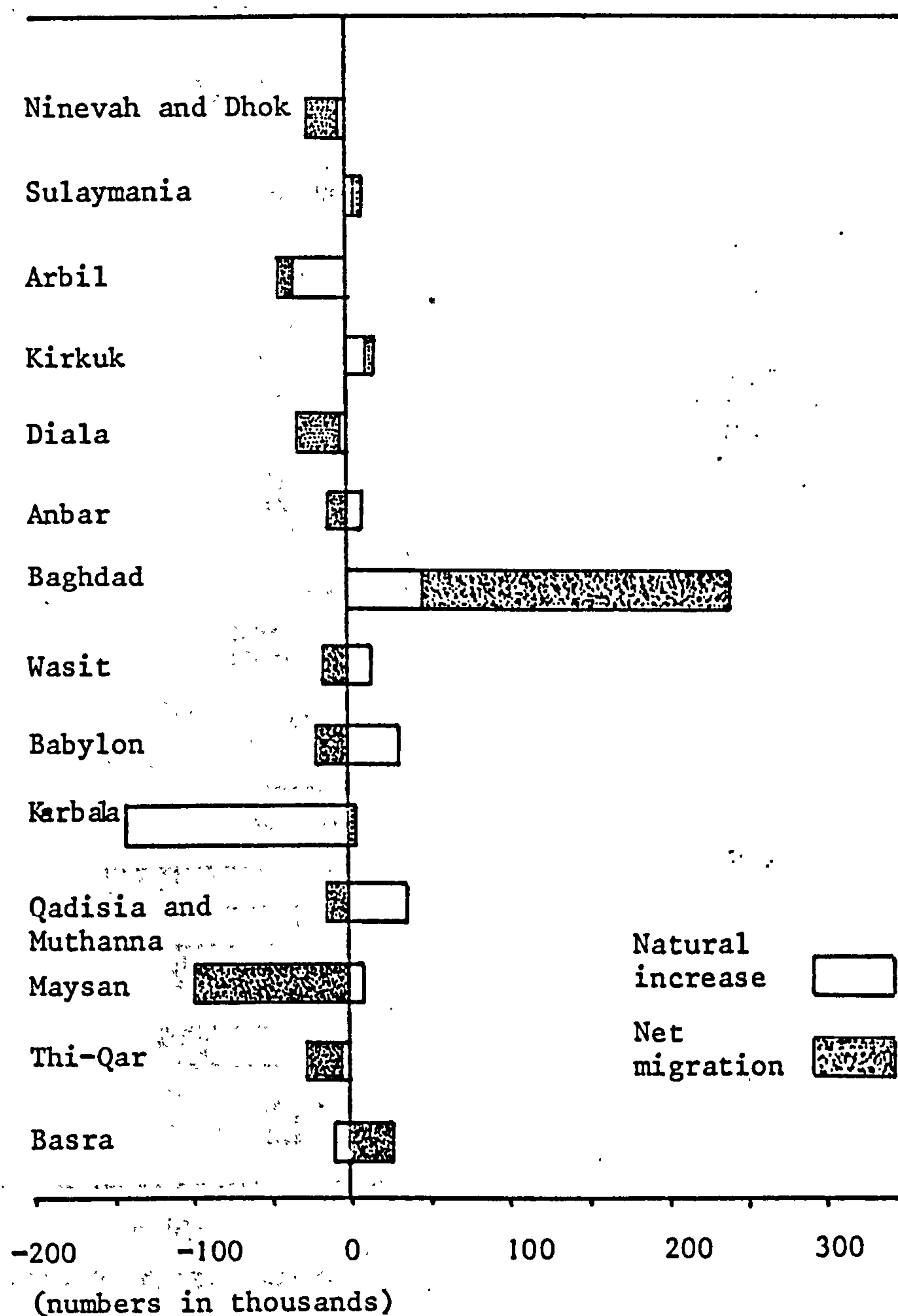


Figure 1.7 : Natural Increase and Net Migration Component of Displaced Population (1947-1957)

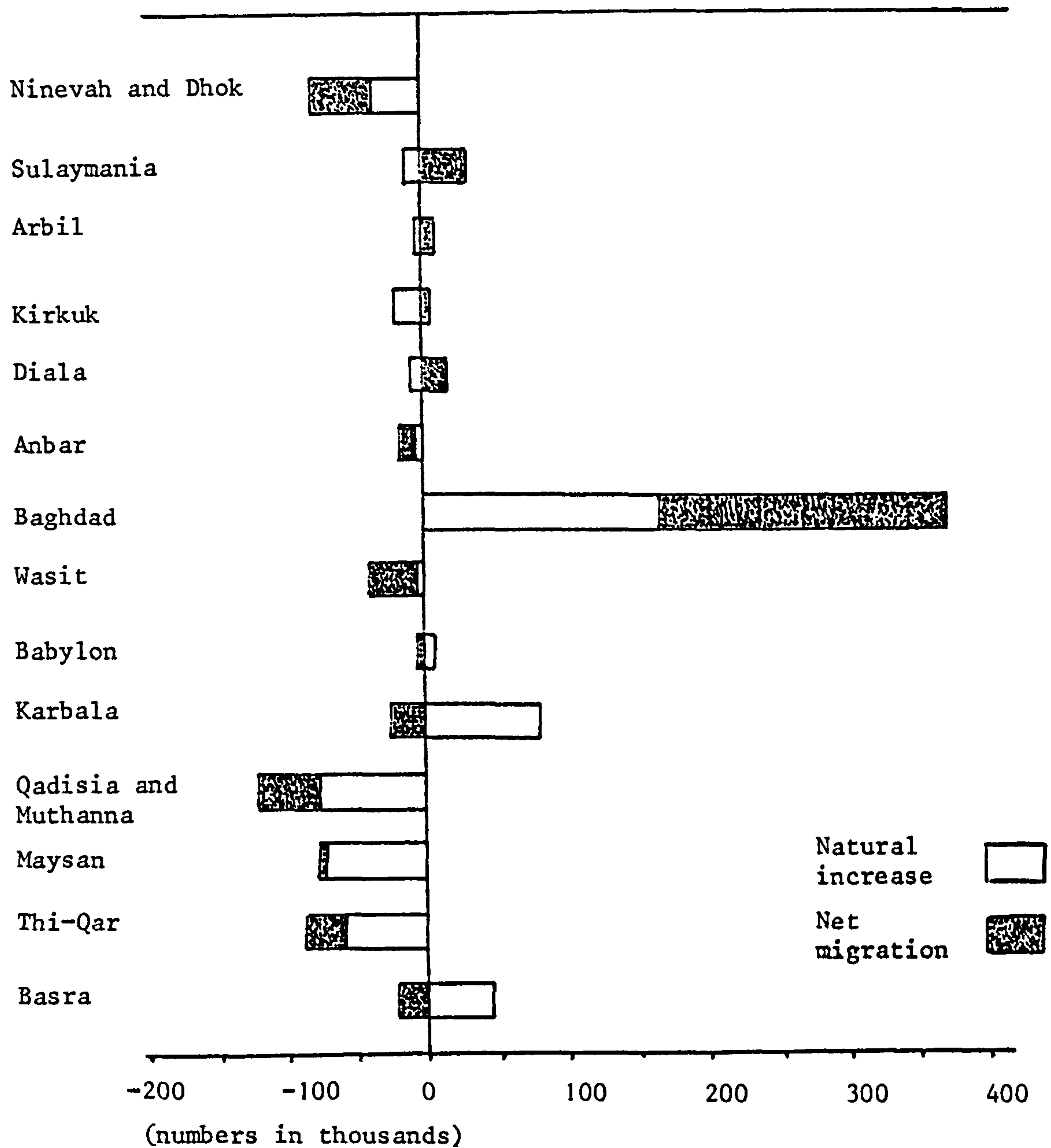


Figure 1.8 : Natural Increase and Net Migration Component of Displaced Population (1957-1965)

expenditure increased sharply after 1930, and in the period 1936-1940 it reached an average of 29.3 per cent of the total expenditure, compared with an average of 2.0 per cent only in the period 1926-1930. Government investment was devoted mostly to social overhead capital which included the building of schools, hospitals, clinics, quarantine stations, roads, bridges, barrages and canals, telephone and telegraph lines, government administrative buildings, etc.³⁶ As expenditure on health services and education increased, mortality rates decreased, and the population growth rate increased steadily from 1.3 per cent during the period 1967-1890, to 3.1 per cent during the period 1957-1965. It is also noticeable that the growth rate increased markedly after 1935, particularly in the central region as the improved conditions in the city of Baghdad began to attract migrants.

Nomadism in Iraq increased after the Mongol invasion and the various other invasions which followed it. Until the nineteenth century Iraq's laws were only loosely enforced, and conflicting claims were made on the land. The promulgation of the Ottoman Land Code in 1858 and the Land Registration Law in 1859, which sought to establish the Tapu system of tenure, were quite important in encouraging the settlement of the nomads.³⁷ Investment in irrigation and flood prevention projects started early in the twentieth century.

36. F. Jalal, op.cit., p.4.

37. The Tapu land (miri tapu) may be defined as "land in permanent tenure from the state under conditions enabling the holder to sell or mortgage it and leave it to his successors. Proof of such tenure may be supplied by documentary evidence or by factual evidence that the land has been used productively by the holder or his predecessor for 10 years during which no land rent was paid or that it has been planted with trees meeting specified conditions". See, International Bank for Reconstruction and Development, op.cit., p.139.

In 1914 the Hindya barrage was completed, the Kut barrage was completed in the late 1930s, and many other dams, barrages and canals were constructed later. The enactment of the Land Settlement laws of 1932 and 1938 which aimed at investigating and solving the conflicting claims to the land, and introduced Lazma tenure are also thought to have contributed to the settlement of the tribes.³⁸ The government investment in agriculture and the wartime boom in the 1940s together with the increased demand on agricultural products, had also stimulated private investment in pumps, particularly in the southern region and the area under cultivation increased substantially,³⁹ where the settling nomads were expected to have provided the labour force needed for it. The nomadic population share decreases steadily from 35 per cent in 1867 to only 5 per cent in 1947. It is noticeable that the central region had the lowest nomadic share of population, and its decline started earlier and faster than it did in the other two regions. The rural population increased steadily, reaching its peak share of 68 per cent of the total population in 1930 as a result of the increased settled nomads. It then began to decline, as the attraction of the cities increased and rural urban migration accelerated, reaching 49 per cent in 1965.

38. The Lazma land may be defined as "Land held under generally the same conditions as miri tapu, but with the stipulation that the government may veto the transfer of such land if it tends to disturb the peace, a precaution designed to prevent, where necessary, the transfer of tribal lands to people outside the tribe. Lazma grants are made upon proof that a person has made productive use of the land within the preceding 15 years". See, International Bank for Reconstruction and Development, op.cit., p.139.

39. Between 1934-1938 and 1950, the area under wheat and barley expanded by nearly 40 per cent and that under rice by rather more, largely in the south. By 1944 the total cultivated area in the irrigated zone had risen some four times over that in 1918. See, Edith and E. Penrose, op.cit., p.151.

The rural share in the central region reached its peak of 78 per cent before either of the other two regions did, and it began to decline earlier than it did in either of them. The urban population share, on the other hand, remained stable at about 25 per cent until 1930, and then increased sharply, reaching 51 per cent in 1965. The trend was the same in the northern and southern regions. In the central region, the urban share was declining until 1905, and then it increased sharply at an annual rate of 2.1 up to 1930. After 1930, the annual growth rate increased continually, reaching 7.4 per cent in the period 1957-1965 which was higher than the growth rates in the other two regions. When the three demographic definitions were employed and the small market towns with less than 2,000 population were excluded, the urban growth rates were higher than those calculated when the administrative definition of urban centres was employed. The urban growth rate was higher in the two periods when the first demographic definition, which included only urban centres with more than 10,000 population, was considered. Throughout the two periods, the region of Baghdad was among the regions that had high urban growth rate. It not only maintained its position as the most urbanized region in the country, but also increased its share of the country's urban population from 38 per cent in 1947 to 41 per cent in 1965.⁴⁰

The analysis of the absolute increase in urban population during the second period, by applying the CSR method, revealed

40. The share is calculated according to the second definition, which includes urban centres with more than 5,000 population.

that the net migration component represented about 63 per cent of the country's absolute increase of urban population. The significance of this component varied from one region to another. In the region of Baghdad, the net migration component represented more than 70 per cent of the absolute increase which amounted to more than 50 per cent of the total net migrants received by all the urban centres. On the other hand, in the region of Maysan, the migration component represented only 7 per cent of the absolute increase which amounted to only 0.1 per cent of the total net migrants.

The age pattern of the net rural-urban migrants in the country as a whole, and the net migrants to almost all the urban centres, beside the balanced sex ratio of the migrants, have given the picture that migrants moved as families rather than as individuals. A sample survey conducted in the city of Baghdad in 1964 among the migrants from the region of Maysan (Amara) revealed that 79.7 per cent of the migrants moved as complete families, 11.9 per cent moved as families following their heads, and 8.4 per cent moved as single males.⁴¹ As will be discussed in Chapter IV, this pattern of movement changed in the late 1960s and early 1970s in favour of the single male movement.

The estimates of the interregional migration indicate that Baghdad is the most attractive region to migrants. In the three censuses Baghdad attracted 42 per cent, 52 per cent and 59 per cent

41. M.M. Azeez, Geographical Aspects of Rural Migration from Amara Province, Iraq, 1955-1964, Table 6.6 (unpublished PhD thesis, University of Durham, 1968).

respectively of the country's lifetime migrants, and during the two intercensal periods it attracted 64 per cent and 72 per cent of the total intercensal migrants respectively, its net gain from interregional migration amounting to 83 per cent and 84 per cent of the total net gain in the two periods respectively.

CHAPTER II

INTERNAL MIGRATION (1947-1965)

Introduction

Iraq's twentieth-century decision-makers seem to have taken as their focus for an attainable target the agricultural prosperity of the past, particularly that time between the eighth and twelfth centuries. While the reasons behind giving priority to agriculture are undoubtedly sound, the authorities appeared to lack the necessary stability and strength needed to overcome the adverse effect of the socio-economic structure which dominated agriculture until 1958, and the organizational capacity and skills that were needed to replace the old structure with a more efficient one after 1958. Investment in agriculture did not produce the required improvement in the welfare conditions of the actual cultivator to keep him on the land, and investment in industry did not absorb the rural-urban migrants productively. Instead, rural-urban migration has accelerated, and migrants have settled in shanty-towns around the major urban centres, mainly those of the capital, Baghdad.

Early Attempts to Reform

Attempts to improve the welfare conditions of the actual cultivators started in the nineteenth century. The enactment of the Ottoman Land Code in 1858 and the Land Registration Law in 1859 aimed at organizing agriculture under one type of tenure (Tapu). Accordingly, the Tapu right to a piece of land was given to those who provided evidence that

they had cultivated the land for ten consecutive years.¹ This system was expected to end the conflicting claims to the land, to increase stability and therefore improve productivity. It would allocate land to the actual cultivators whose prosperity depended on the land, and who devoted much of their time and resources to improving its productivity, and would also encourage the nomadic tribes to settle and take up agriculture as their main source of living, where it would also become easier for the authorities to keep them under control. The new laws would also help to improve the taxation system and increase the tax revenue, because the tax payer (land owner) would be easily identified.

The outcome of the application of these laws was disappointing. The tribal chiefs (shaikhs) and some city notables managed to register most of the land in their names. The actual cultivator (tribe member) because of his ignorance feared that registering the land in his name would impose on him heavy taxes and might also subject him and members of his family to military conscription. Shaikhs and local grandees were also reported to have supported this belief and encouraged the cultivators to resort to them for protection. The corrupt administrative system also played a role in reaching that outcome. As a result, the cultivators became share-croppers, or tenants who actually received a small proportion of the output, and therefore their economic condition did not improve. Since it was very difficult to produce evidence that cultivation of a piece of land had been maintained for ten years - something which is particularly hard for land cultivated with temporary

1. International Bank for Redevelopment and Construction, op.cit., p.139.

crops like wheat, barley and rice, which, in fact, occupy most of the cultivated land - false evidence was frequently presented and easily accepted, especially by corrupt administrators. Therefore conflicting claims to the land were not nullified, the sought after stability was not achieved, and some of the poor cultivators fled the rural areas and settled in nearby urban centres. Signs of rural-urban migration were clear in the official data since the early 1930s.

Soon after independence the government came to realize the economic importance of agriculture on which about 75 per cent of the population then depended for their living, and which was the main source of revenue to the country before oil revenues became significant. In 1930 the government invited Sir Ernest Dawson, a British land expert, to make a comprehensive study of the conditions of agriculture. Dawson reported on two important features of agriculture. First, that the land potentially cultivable was much larger than the land actually under cultivation. He estimated the cultivable area at about 92,000 square kilometres, of which about 45 per cent was in the rainfall zone, which is located mainly in the northern half of the country, with the rest in the irrigated zone of the southern part. Only small portions of the rainfall and irrigated zones were under cultivation in each year.² Second, that conflicting claims to the land would have serious economic repercussions. He explained that

"no man engaged in the management and cultivation of a landholding, large or small, can be expected to sink his capital in the land and devote his energies unreservedly to its development, if he is uncertain whether he and his heirs will benefit by his husbandry".³

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2. Sir E. Dowson, An Inquiry into Land Tenure and Related Questions: Proposals for the Initiation of Reform (Letchworth, 1932), p.11 and Table I.
 3. Ibid., p.33.

The government took two important measures in accordance with Dowson's recommendations. In order to control the disastrous floods to which the country was subjected in the spring season, and to provide sufficient water to bring the vast potentially cultivable lands under cultivation, the government invested heavily in flood control and irrigation projects. About 59 per cent of the investment funds during the period 1934-1938 (amounting to nearly ID.1.9 million) was allocated to irrigation.⁴ In order to solve the problem of the conflicting claims to the land, the government passed the Land Settlement Law in 1932 (amended in 1938), and initiated a cadastral survey to be conducted by settlement committees. According to the new law a new type of tenure (Lazma) was introduced.⁵ The Lazma right to the land (similar to the Tapu right, but with the stipulation that the government may veto the transfer of Lazma) was to be given to those who proved a productive use of the land during the preceding fifteen years.⁶ But in application the same thing happened again, and shaikhs and influential notables managed with the help of corrupt officials to register large portions of the state land in their names, and the government did nothing to stop this illegal practice.⁷ A proof of even one year's use of the land was sometimes considered sufficient.⁸ The cultivators once again lost their right to the land, which then became concentrated in the hands of a select few. Beside these laws which practically granted the ownership of the land to the shaikhs, another law, passed in 1933, which

4. F. Jalal, op.cit., p.6.

5. F. Qubain, op.cit., pp.84-85.

6. International Bank for Redevelopment and Construction, op.cit., p.139.

7. F. Baali, "Agrarian Reform in Iraq: Some Socio-Economic Aspects", The American Journal of Economics and Sociology, Vol.28, 1969, p.62.

8. F. Qubain, op.cit., p.85.

enumerated the rights and duties of the cultivators, had to all intents and purposes secured to the shaikhs the labour force required to cultivate the land. The law stated that cultivators who are indebted to their landlords should cultivate the land for as long as required until they pay their debts, and while in debt if they leave to go to another landlord, then he will be obliged to guarantee the payment of the debt. The cultivator was also expected to have a certificate from his landlord indicating his non-indebtedness in order to be qualified for a job offered by the government, a municipality or a company.⁹ This law was expected to induce the landlords to increase their share of the output and the interest rate on the credit they gave in order to keep the cultivators in debt.

Development Policy

Beside Dowson's study, other studies prepared for the government also emphasized the country's vast wealth of cultivable land which required sufficient water. The Haigh Commission Report (1949),¹⁰ estimated the cultivable land to be 27 million donums,¹¹ of which only 12.7 million were under cultivation.¹² The Report suggested more irrigation projects which would increase the cultivated land to 25.7 million donums. The KTAM Report (1952)¹³ estimated the cultivable land to be 22 million donums, of which only 13 million donums were cultivated. The IBRD Report (1952) stated that the cultivable land is

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9. T. Al-Shaybani, The Reality of Agricultural Ownership in Iraq (in Arabic) (Dar Al-Ahali, Baghdad, 1958), pp.44-45.
 10. F.F. Haigh, Report on the Control of the Rivers of Iraq and the Utilization of their Waters (Baghdad, 1951).
 11. Donum = Meshara = 0.62 acre = 0.25 hectare.
 12. Of the area under cultivation only about half is actually planted annually and the rest is left fallow.
 13. Knappen-Tippetts-Abbott-McCarthy Engineers, Report on the Development of the Tigris and Euphrates River Systems (New York, 1952).

about three times that under cultivation.¹⁴ The various estimates of the cultivable land varied significantly because apparently different definitions of what is cultivable land were used. However, they all contributed to the formation of a development policy which the government adopted for many years - the policy of investing mostly in flood control and irrigation projects.

Investment in flood control projects, which can also be used for irrigation, is certainly important. Floods in the past have very often caused great damage. The two major flood control projects of Lake Habbania on the Euphrates and Wadi Tharthar on the Tigris, which together cost about ID.20.5 million, prevented the recurrence of a flood disaster in 1956 similar to that of 1954 which caused losses estimated at ID.7-10 million.¹⁶ The benefit of reducing the flood damage would go mainly to the land owners, and very little to the cultivators due to their low share of the output.

The IBRD mission realized the low share of the cultivator, and estimated it at about 50 per cent of the crop in the irrigation zone, and substantially less than that when the land is irrigated by pumps owned by the landlord, and if seed, draught animals or machinery were supplied by the landlord.¹⁷ The cultivator's condition was thought to be better in the rainfall zone. The IBRD mission stated that:

"The depressed economic condition of the fellah or share-cropper undoubtedly retards progress. It undermines the health and vigour of the rural population, limits the market for industrial products and may in the long run jeopardize the stability of the social order".¹⁸

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- 14. International Bank for Reconstruction and Development, op.cit., p.8.
 - 15. F. Jalal, op.cit., p.33.
 - 16. K.M. Langley, The Industrialization of Iraq (Harvard University Press, Cambridge, Mass., 1967), p.120.
 - 17. International Bank for Reconstruction and Development, op.cit., p.6.
 - 18. Ibid., p.6.

The mission argued that the cultivators' condition would be improved by increasing their bargaining power against the landlords and giving them access to the means of production, and by raising the productivity of the land. It also argued that the growing opportunities for alternative employment in industry, and the opening of state lands to settlement would improve the cultivators' bargaining power. However, the IBRD Report recommended that:

"Any development programme for Iraq must obviously put primary emphasis on agriculture. Over 60 per cent of the population is engaged in agriculture and both industry and commerce depend in turn largely upon farming and animal husbandry. Moreover, large increases in output can be realized both by raising the productivity of livestock and farmland already in use and by bringing under cultivation large areas presently idle".¹⁹

In spite of this emphasis on agriculture and the recognition of the poor conditions of the cultivators, the Report did not explain how the cultivators' access to the means of production could be arranged in a way that would increase their bargaining power. This seemed very difficult as long as the cultivators were under the legal and traditional control of the landlords. It looked more realistic, under that economic and social order, to improve their bargaining power by offering them alternative employment opportunities in industry. The IBRD Report did not advise the Development Board to invest in industry in order to increase its labour absorptive capacity, but recommended that:

"The mission believed that complete government ownership of industry should be adopted only where absolutely necessary. In general it will prove necessary only where private capital is not available either because the contemplated investment is too large, or because the investment is in a new untried field which does not for the moment appeal to private capital".²⁰

19. Ibid., p.4.

20. Ibid., p.39.

The industrial projects suggested by the Report were certainly not selected to provide alternative employment sufficient to increase the bargaining power of the 60 per cent of the total population engaged in agriculture. The Report suggested that:

"Among the new industrial enterprises which could be advantageously launched are a jute mill, bonemeal fertilizer plants, an automobile tyre factory, a small steel mill, a central machine shop, a concrete batching plant and a plant for the manufacture of date boxes. For all of these there is sufficient demand, and production could take place economically on a small scale".²¹

It is believed that the landowners who had strong influence on the government and the parliament would have objected to the industrial expansion, which would compete for the labour supply available in agriculture, and therefore increase the cultivators' share. Iversen elaborated on this problem, and argued that:

"Certain factors do, however, seem to indicate that the agricultural sector will tend to have the upper hand. First, it must be assumed that the rural population will be very reluctant to make radical changes in occupational and social status. Consequently it may be difficult to induce agricultural workers to move to the towns, even if the prospects of earnings and material wellbeing are much better, whereas it may be relatively easy to settle them in other districts within the agricultural sector. Although a similar lack of agility may be found within a part of the urban population, it seems likely that it will have less strength, so that a certain outflow from the towns cannot wholly be excluded.

Secondly, it may be that politically influential circles among the big landed proprietors will oppose the movement of agricultural workers and tenants to the towns, even if these are themselves inclined to make the change. At present the rural population is more or less tied in serfdom and provides the large estates with very cheap labour. It is therefore only to be expected that the landowners would try to retard any change in this situation".²²

21. Ibid., p.39.

22. C. Iversen, Monetary Policy in Iraq (Ejnar Munksgaard, Copenhagen, 1954), p.147.

Iversen also argued that while it is difficult to create new industries, Iraq's large comparative advantages in agriculture would favour more investment there that could compete on equal terms with producers abroad.²³ Salter, while recognizing the poor conditions of the cultivators,²⁴ stressed that "the principal natural assets of Iraq are of course her alluvial soil and her water and the greatest natural opportunity of development is through irrigation and drainage".²⁵ He agreed with Iversen in his argument for investing mainly in agriculture and added that:

"A third reason for industrialization has great force in countries whose population is already too great to be economically employed on the limited land available and is increasing rapidly and far beyond the limit to which new land can be brought into cultivation. Here, under penalty of starvation or semi-starvation, industrial production is a necessity. This reason, the strongest of all where it is applicable, does not apply at all in Iraq, and will not do so for many years to come. On the contrary the potential increase in cultivable land largely exceeds the labour required for it".²⁶

As a conclusion to his point of view Salter recommended that:

"The amount of development money to be devoted by the Board in the years immediately ahead to expanding industry should obviously be on an altogether smaller scale than what is allotted to the support and expansion of agriculture".²⁷

The cultivator was not a tenant in the Western sense of the word: he neither leased a specified piece of the land for a certain period, not had he the discretion in using it.²⁸ The landholders (shaikhs)

23. Ibid., p.177.

24. Lord Salter, The Development of Iraq: a Plan of Action, for Iraq Development Board (Caxton, London, 1955), p.54.

25. Ibid., p.15.

26. Ibid., p.17.

27. Ibid., p.18.

28. International Bank for Reconstruction and Development, op.cit., p.143.

and their agents (sirkals) used to assign a plot of land to each cultivator each year, dictate the type and quality of seed to be sown, and prescribe the time and methods of ploughing, irrigating, harvesting, etc. They often provided the cultivators with seeds, draught animals and other means of production.²⁹ While some of these services were quite useful to the cultivators (particularly the provision of the seeds) the landholders' share, as a result of providing them, would increase out of all proportion to the costs they incurred.

"When the land is pump-irrigated, the fellah's share is generally only two-sevenths or three-sevenths of the crop. In date and fruit groves where the land owners must make a heavy investment and the value of output is high the fellah may only get a fifth to an eighth of the crop. In the rain-fed zone the fellah usually retains 90 per cent of the winter crop and even more if the land is relatively remote from the town or city. His share of summer crops which can only be grown with water furnished by the landowner may range from two-thirds to one-half provided he supplies his own seeds and implements. In general the fellah's share is larger in the north because manpower is less plentiful in relation to available land, yields tend to be lower owing to uncertain rainfall and the fellah frequently has long-established rights to the cultivation of his land".³⁰

Whenever the subsistence level of living of the cultivators did not permit a further reduction in their share, which was quite often the case, the cultivators remained in debt to the landholder, and therefore were kept on the land by the force of the law. The cultivators had neither the financial means to invest in tools and machines, nor the incentive to care for a particular piece of land. The landholders, who usually resided in the cities, did very little to improve the fertility of the land. Beside their tribal and financial influence on the cultivators, the big landlords, who were usually hereditary shaikhs,

29. Ibid., p.143.

30. Ibid.

had considerable influence on the government, and this influence was often used to prevent the implementation of certain measures recommended by experts to improve the cultivators' economic conditions at the expense of the landlords. It is ironical to note that their influence depended on their control over these very cultivators or tribesmen. Salter explained that "successive governments have usually felt that new legislation on land tenancy must be kept within the bounds of what will not be actively resisted by landowners".³¹ Investing heavily in irrigation projects would increase the productivity of the land and the income of the already privileged landlords, while the benefit to the cultivators under that socio-economic system would be limited. Providing services like education has also reportedly been resisted by some landlords.³² The government development policy evolved along the line of least resistance, and it was decided that the large areas of Miri Sirf land - the vacant land which belonged to the government³³ - be made cultivable with the aid of new irrigation and drainage works and distributed to small settlers. Apart from the benefit to the new settlers, it was argued that the existence of such opportunities would lead to the improvement of the cultivators' conditions on the large holdings.³⁴ Salter, trying not to get involved in this argument, explained:

"It is not for a foreign adviser to assess the political reasons which may require a modification of the policy which could be chosen purely on economic considerations. He can only call attention to some of the consequences if the policy of confining the benefits [the benefits of irrigation projects] to Miri Sirf land is pursued".³⁵

31. Lord Salter, op.cit., p.54.

32. F. Baali, op.cit., p.64.

33. International Bank for Reconstruction and Development, op.cit., p.139.

34. Lord Salter, op.cit., p.55.

35. Ibid.

He argued that such confinement may force unprepared expansion of new settlements, and that irrigation schemes could benefit at low cost the privately-owned land as well, but he suggested that arrangements should be made so that landlords pay for the cost of drainage.³⁶ He realized the organizational difficulties that would arise with the establishment of new settlements, and pointed out the comparatively low cost of increasing the productivity of the already cultivated land by investing in drainage scheme, which was estimated by the Haigh Commission at ID.2 per meshara, compared with that of opening up new land.³⁷

According to the law of 1945, known as the Dujaila law, Miri Sirf lands which were to be opened up by the new Dujaila canal were to be distributed in small holdings to cultivators in the Dujaila settlement, which was situated about 25 miles south-east of Kut, and was about 25 miles long and 15 miles wide. A proportion of these cultivators would be graduates of agricultural schools, retired officials and ex-servicemen. This law, however, did not win the consent of the parliament needed to achieve its intended aim. The shaikhs in the neighbourhood of the canal were expecting to get the newly-irrigated lands for themselves. Later on they managed to secure nearly half the new land as their registered property and permanent water rights, in return for a nominal price of £1.5s per donum.³⁸ The Miri Sirf Lands Development Law of 1951 was intended to organize the distribution of all state lands which had been or would be developed or reclaimed. In 1954 there were seven schemes of settlement, Dujaila, Shahrzoor, Hawija, Makhmur, Latifia, Sinjar

36. Ibid.

37. Ibid., p.194.

38. D. Warriner, Land Reform and Development in the Middle East: A Study of Egypt, Syria and Iraq (RIIA, London and New York, 1957), p.159. (Hereafter referred to as Warriner 1957)

and Musayab. The official figures indicated that 2,126,580 donums were distributed to cultivators who were settled in these schemes, which involved 10,766 holdings and 53,830 people including the cultivators and their families.³⁹ However, these figures are misleading. Warriner explained that the area which had actually been distributed to small farmers in settlement schemes which came under the Miri Sirf Land Development Committee, according to a report by the Committee's president, amounted to only 232,960 donums distributed to 3,434 settlers.⁴⁰ Of the 1800 thousands donums listed as distributed land in the Sinjar Scheme a large proportion of the best land was granted in registered title to the tribal shaikhs in that region.⁴¹ In the Latifia scheme, 40 per cent of the settlers were former officials and ex-servicemen, who generally sub-let their holdings and lived in the cities.⁴² The comparatively small number of cultivators that received land in the settlements was not sufficient to improve the bargaining power of the cultivators to any degree. In some of the settlements some immediate beneficial results were shown. In the Dujaila settlement the cultivators were reported to be better clothed, housed and fed than cultivators elsewhere.⁴³ Family income on the settlements ranged from \$290 per family to over \$1,400, which is considerably higher than the average family income of share-croppers.⁴⁴ Untilled lands gave high yield, but within a few years as salt accumulated, the yield declined substantially. Fisk explained that

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39. Government of Iraq, Ministry of Economics, Principal Bureau of Statistics, Statistical Abstract (Baghdad, 1954), Table 110, p.82.
 40. D. Warriner 1957, op.cit., p.161.
 41. Ibid., p.160.
 42. Ibid., p.170.
 43. B. Fisk, "Dujaila: Iraq's Pilot Project for Land Settlement", Economic Geography, Vol.28, 1952, p.354.
 44. M. Yudelman, "Some Issues in Agricultural Development in Iraq", Journal of Farm Economics, Vol.40, 1958, p.86.

"the drainage problem clamours for action. Long-settled areas have but three years of grace remaining before their soils build up salt to toxic strength".⁴⁵ The rapid salinization in the Dujaila settlement has alerted the Ministry of Agriculture and the Development Board. An experimental drainage programme started on the settlement in 1954 produced dramatic results. Some barley yields increase 4.4 times over the old yields.⁴⁶ Besides the salinization problem, there were other problems concerning the lack of social and health services, recreational facilities, technical education, etc. Warriner explained that:

"Even if this type of settlement were to be carried out on a much larger scale, it would not be able to bring about an improvement in the conditions of cultivators on privately-owned estates by causing a shortage of labour, because there is so much underemployment on the land. The rural exodus to the towns reduces the numbers of cultivators on private estates to a far greater extent than settlement schemes even on a bigger scale could do".⁴⁷

Research conducted in the late 1950s along the Daghhara canal, originally a natural bifurcation of the Euphrates river which irrigated a stretch of land located in the two regions of Babylon and Qadisia, revealed that:

"The rising tide of urban migration had created a labour shortage here during the period in question, and even the most rapacious landowners were being forced to offer favourable tenancy terms, lest they be altogether without cultivators".⁴⁸

The soil salinity has seriously reduced the yield of the land in the southern part of the country and the incomes of the cultivators in consequence. The Haigh Commission estimated that about 60 per cent of

45. B. Fisk, op.cit., p.354.

46. J.L. Simmons, "Agricultural Development in Iraq: Planning and Management Failures", Middle East Journal, Vol.19, 1965, p.136.

47. D. Warriner 1957, op.cit., p.162.

48. R.A. Fernea, "Land Reform and Ecology in Post-revolutionary Iraq", Economic Development and Cultural Change, Vol.17, 1969, p.363.

the land irrigated by flow had been seriously affected by salt. The IBRD enquiries and observations indicated that as much as 20 to 30 per cent of cultivated land has been abandoned over the last few decades because of salt accumulation, while on a large part of the remaining land yields have declined by 20 to 50 per cent, and even more.⁴⁹ According to the FAO soils experts, salinity in the late 1950s was found to have affected as much as 70 to 85 per cent of the irrigated area.⁵⁰ The problem is less severe in the pump-irrigated lands which are slightly higher than the water table and therefore provided - to some degree - with natural drainage, and also because irrigation on these lands involve cash, less excessive water is used than on the flow-irrigated lands, which lessened the soil salinity.⁵¹ The process seems to continue in a vicious circle. As the farmers' income declines because of the soil salinity, more water will be used to wash the salt away, but the excessive use of water raises the water table and increases salinization of the soil by evaporation.⁵² The cultivated area shifts about as canals silt up, and the land is impoverished by salt, and therefore soil salinity spreads. The salinity problem has also seriously affected the settlement scheme. The cultivators on the settlement, not having the freedom of shifting cultivation enjoyed by those working for landlords, had to abandon their lands and migrate to the cities. Warriner observed that in the Dujaila settlement, one tract out of the eight has been abandoned almost entirely, two others were seriously affected by salt, and crop yields fell from about 400 kg. per donum to about 250 kg.

49. International Bank for Reconstruction and Development, op.cit., p.17.

50. Food and Agricultural Organization, op.cit., Ch.III, p.12.

51. D.H. Davies, "Observations on Land Use in Iraq", Economic Geography, Vol.33, 1957, p.130.

52. Salter, op.cit., p.193.

As a result, about 300 cultivators were given new land.⁵³ The same problem was also serious in the Latifia settlement.⁵⁴

The establishment of co-operatives whose aim was to make the means of production available to the cultivators, was not taken seriously, not even in the settlements. The IBRD Report explained that:

"Co-operatives have unfortunately made little progress. There is an impressive law on co-operatives which provides, among other things, for their registration and the auditing of their accounts by the government. The government also received an excellent report on co-operative possibilities made by an expert in 1947. Neither the law nor the report have really been implemented".⁵⁵

After the revolution of July 1958, the problems encountered in the agricultural sector were among those to be tackled immediately. The Law of Agrarian Reform was enacted on 30th September of the same year. It was prepared beforehand in Egypt and followed, in principle, the Egyptian law of 1952. Its main provisions were:

1. The individual landholding was limited to 1,000 donums of irrigated land, or 2,000 donums of rain-fed land. Land in excess of these limits was to be expropriated by the state.⁵⁶
2. The expropriated and the state-owned agricultural land was to be redistributed among the cultivators. Each cultivator would receive between 30-60 donums of irrigated land or 60-120 donums of rain-fed land, according to the productivity of the land.⁵⁷
3. The expropriation process was to be completed in five years, during which time cultivation in the land awaiting expropriation was to be continued as before.⁵⁸
4. The cultivators receiving land were expected, during the first five years, to cultivate their land with care, otherwise the ownership of the land might be withdrawn, after special investigation by a special court, and the cultivator would be considered a tenant.⁵⁹

53. D. Warriner 1957, op.cit., pp.164-5.

54. Ibid., p.170.

55. International Bank for Reconstruction and Development, op.cit., p.261.

56. Government of Iraq, Agrarian Reform Law, No.30, 1958, Article 1.

57. Ibid., Article 10.

58. Ibid., Article 4.

59. Ibid. Article 26

5. One or more co-operative societies were to be formed in each Nahia to include the cultivators who received land, and they could include other cultivators whose land did not exceed the limit specified by the law. The functions of the co-operative included the provision of loans, seed, fertilizers and machines necessary for the production, as well as marketing services. The co-operative was also expected to organize the cultivation of the land and the construction of canals and drainage systems.⁶⁰

The law was therefore prepared to solve the problem of the very high concentration of land in few hands and to replace the old exploitive relations between cultivators and landlords. The application of the law, however, met with various difficulties and the results were disappointing. While expropriation of land went ahead, the distribution process was very slow, particularly in the first five years after the law was enacted. Political instability during this period and conflicting strategies, favouring individual ownership on one side and collectivization on the other adopted by different governments and sometimes by different members of the same cabinet, have seriously contributed to the delay and inefficiency in the application of the law. The agricultural census of 1958-59 revealed that the total area of landholdings was about 32.2 million donums, of which 23.3 million donums were privately owned in the Tapu or Lazma forms. The rest included the state-owned land (Miri Sirf), which amounted to 4.7 million donums. The rest included land in the form of Mulk, Waqf and land with unsettled title which was state land, but was occupied by cultivators, particularly in the Maysan and Thi-Qar regions.⁶¹ The landlords subject to expropriation according to the law were 2,433, and the total area subject to expropriation was about 6 million donums, which is about

60. Ibid., Article 32.

61. D. Warriner, Land Reform in Principle and Practice (Clarendon Press, Oxford, 1969), p.88. (Hereafter referred to as Warriner 1969.)

26 per cent of the privately-owned land. Up to March 1966, about 5.1 million donums of the privately-owned land were expropriated, of which only about 1 million donums were redistributed to cultivators - which is less than 17 per cent of the area subject to expropriation. The total distributed land, including the state land as well as the state land settlements before 1958, was about 2.3 million donums allocated to 46,293 families.⁶² The Ministry of Agrarian Reform had under its temporary management about 7.4 million donums leased to tenants under temporary contracts, of which 2.8 million donums were expropriated land and the rest state land. The expropriated land which was neither distributed nor leased by the Ministry, amounted to about 1 million donums, and was probably uncultivable. The number of families operating land leased from the Ministry were 253,835, and together with those receiving ownerships, the number would be 300,128 families, representing about 60 per cent of the families working in agriculture.

The application of the law was particularly delayed in Maysan and Thi-Qar regions, where the process of settlement of title was not completed. Two supplementary laws were passed in 1961 and 1964 in this regard concerning the two regions, and it was only then that the distribution process started, but it went very slowly.⁶⁴

The fall in agricultural production after 1958 was partly due to severe droughts in 1959, 1960 and 1963, and the epidemic of equine fever which destroyed thousands of horses usually used for ploughing.⁶⁵ Another contributory factor was the uncertainty caused by the delayed distribution

62. Ibid., p.91.

63. Ibid., pp.91 and 92.

64. Ibid., p.93.

65. R.A. Fernea, op.cit., p.358.

and other managerial failures. On requisitioned land owners did not cultivate more than they expected to retain. Cultivators who were tenants of the state quite often cultivated most of their land instead of leaving half of it fallow, which reduced its productivity. The failure to replace the landlords' functions in pump maintenance and other basic production and marketing activities was an important retardative factor. The imported Russian machinery (tractors and harvesters) did not have suitable engine-cooling systems, and did not suit the hard soil; maintenance and repair facilities were inadequate and spare parts were not easily obtained.⁶⁶

In 1964 there were 65 agricultural co-operatives in the country. Their activities included the provision of seed and pesticides and the hire of tractors to plough members' holdings. Only three co-operatives owned tractors, and only two marketed products.⁶⁷ In addition they lacked credit, trained organizers and equipment. Credit increased after 1964, and at the end of 1963 a centre for co-operative training was established with the assistance of the FAO. The participation in these co-operatives was small, because according to the law the majority of the land recipients were temporary tenants of the Ministry and therefore were unable to participate in co-operatives which included only land-owners. This problem was solved in 1964 when a special amendment to the law was passed in this respect.⁶⁸ The marketing activities of the co-operatives was crippled by the lack of credit to buy or regularly rent lorries for this purpose, but mainly by the fact that the majority of the villages are not linked to roads, and this increases the marketing costs.

66. Warriner 1969, op.cit., p.95.

67. Ibid., p.96.

68. Ibid., p.97.

In spite of all the setbacks that accompanied the application of the law, it can still be argued that the cultivators' income did improve, even in the first few years, simply because they did not pay the old high rent. According to the law the temporary tenants were expected to pay rent to the Ministry at the rate of 22 to 27 per cent of their net produce on irrigated land and 7 per cent on rain-fed land, but the majority of them and the new owners were not paying.⁶⁹

During the period 1951-1965, five overlapping economic plans were presented. They replaced each other as the oil revenue rose sharply during this period, thus increasing the funds available for investment, and also as new studies were completed giving more recommendations to the authorities on investment opportunities. In 1950 the government formed the Development Board and entrusted it with the task of investing 100 per cent of the oil revenue (later reduced to 70 per cent) in order to raise the standard of living in the country. In its first plan (investment programme) for the period 1951-56 the Development Board allocated 42.5 per cent of its called expenditure of I.D.155.4 million to the agricultural sector.⁷⁰ The actual investment in any of the sectors deviated considerably in all of the plans from the projected investment, for such reasons as administrative inefficiency in the implementation, over-estimation of revenues, and sometimes because detailed studies concerning the projects included in the plan were not completed in time.

The figures in Table 2.1 show the sectoral distribution of the actual investment made through the five economic plans. Until 1954 the

69. Ibid., p.102.

70. F. Jalal, op.cit., Table III.1, p.33.

Table 2.1 : Percentage Distribution of Actual Investment
by Sectors, (1951-1965)

<u>Year</u>	<u>Agriculture</u>	<u>Industry</u>	<u>Communication</u>	<u>Building</u>	<u>Total Investment ID.million</u>
1951	51.6	0.0	19.3	29.0	3.1
1952	44.8	1.2	21.8	32.1	7.8
1953	57.7	4.1	15.4	22.7	12.3
1954	55.5	9.5	20.5	14.3	20.9
1955	36.2	2.8	26.2	34.7	32.0
1956	28.6	11.6	21.3	38.4	43.0
1957	21.9	15.0	21.6	40.4	57.4
1958	24.1	22.7	15.1	38.0	52.3
1959	20.6	9.6	25.2	44.4	49.9
1960	22.7	12.0	16.6	48.6	47.5
1961	15.7	11.5	23.1	49.5	60.8
1962	10.7	17.5	26.9	44.8	58.7
1963	8.4	17.7	34.2	39.6	53.5
1964	9.0	22.2	25.4	43.2	74.0
1965	10.3	26.4	21.7	41.5	57.1

Source: F. Jalal, op.cit., p.67.

agricultural sector received the highest share of the actual investment reaching nearly 54 per cent, the emphasis on the expansion of land under cultivation, as discussed earlier, having required such a large allocation. The share of the industrial sector was only 5.9 per cent. Following the advice in the IBRD Report, the industries selected by the Development Board were mainly those which depended on domestic raw materials and the demand in the local market. While the Report suggested that employment opportunities in industries would pressurize the landlords to improve the welfare conditions of the cultivators to keep them on the land, the type of industries preferred in the Report and the amounts actually invested in this sector were not sufficient to produce the required impact. After 1958 the Planning Board (which had replaced the Development Board) allocated less investment to agriculture in the provisional plan of 1959-62 and the detailed economic plan of 1961-65. The industrial sector got the first priority in the detailed economic plan.⁷¹ While the actual investment in agriculture during the period 1951-1958 represented 32.1 per cent of the total, it represented only 13.5 per cent during the period 1959-65. On the other hand, the share of the industrial sector increased from 12.6 per cent to 17.1 per cent.⁷² The swing of investment to industry was apparently the result of the belief of the Planning Board that industry was more productive than agriculture and would increase national income by a higher percentage with regard to capital and labour.⁷³ As will be explained later, this

71. Ibid., p.38.

72. Ibid., p.67.

73. J.M. Hashim, National Economic Planning in Iraq: Between Allocation and Execution (Government Press, Baghdad, 1969), p.17, and F. Jalal, op.cit., p.50.

swing in the investment allocation did not increase the employment share of the industrial sector. Its impact on the sector's share of the GDP was also limited, as shown in Table 2.2

The Conditions of the Migrants in the Urban Centres

The rural-urban migrants were concentrated mainly in the urban areas of Baghdad and Basra. In 1965 there were 523760 and 65632 migrants living in Baghdad and Basra respectively. The studies concerning the conditions of the migrants in the urban areas which were conducted during the period 1947-1965 focused mainly on Greater Baghdad. However, the housing census which was conducted in 1956 gives some information concerning the numbers and conditions of the sarifas, mud house and tent dwellers residing in the urban areas of the country who are mainly rural migrants. The Housing Census Report revealed that in 1956 there were 16,413 sarifas in Greater Baghdad occupied by 17,058 families and 92,173 people, representing 12.6 per cent of the total urban dwellers. There were also 27,491 mud houses and 85 tents. In Greater Basra there were 13,906 sarifas occupied by about 14,452 families and 78,094 people, which represented 49 per cent of the total urban dwellers.⁷⁴ The migrants (sarifa dwellers) seemed to be concentrated in certain districts of Greater Baghdad. Of the nine districts of Greater Baghdad given in the census report, the district of Carrada Centre alone included 35 per cent of the total number of sarifas and 34 per cent of the migrants. The district of Adhamia Centre included 21 per cent of the sarifas and

74. The figures on families and people for Greater Basra are not available in the census report. They were, however, estimated in this study according to the number of families and people per sarifa as reported in Greater Baghdad.

Table 2.2 : Percentage Distribution of Gross Domestic Product (at current prices) (1953-1965)

Year	Agric- ulture	Mining of Qu.Ex.Oil	Manufac- turing	Construc- tion	Electri- city, gas and water	Transport, communica- tions and storage	Trade	Banking, Insur- ance and real estate agents	Owner- ship of dwellings	Public Admin- istra- tion and defence	Services	GDP at factor cost exclu- sive of oil	Crude Oil as % of total GDP excluding oil
1953	36.8	0.5	10.2	5.8	0.8	11.0	9.2	1.7	6.0	9.4	8.7	194.04	66.4
1954	37.7	0.4	9.7	7.7	0.8	9.8	9.2	1.6	5.3	9.3	8.6	224.84	66.5
1955	29.0	0.7	11.9	9.4	1.0	10.9	9.5	2.0	5.4	10.8	9.4	225.6	71.4
1956	32.3	0.6	11.6	9.0	0.9	10.0	9.7	2.3	4.5	10.2	9.0	276.45	55.1
1957	35.2	0.5	11.1	8.7	0.8	9.4	9.4	2.1	4.0	10.1	8.5	316.96	35.7
1958	30.0	0.6	11.9	9.6	0.9	9.9	8.9	2.4	4.0	12.1	9.6	309.27	56.7
1959	25.7	0.6	14.0	9.0	0.9	10.7	8.2	2.6	3.6	14.3	10.4	319.62	59.4
1960	27.4	0.5	15.2	6.5	1.0	11.1	9.1	2.4	3.3	12.8	10.7	357.29	58.2
1961	28.8	0.5	14.7	5.9	1.2	11.3	9.0	2.7	3.0	12.7	10.2	406.03	51.5
1962	31.3	0.4	14.5	4.4	1.2	10.5	8.6	2.5	2.8	13.3	10.4	448.19	46.9
1963	25.5	0.4	15.0	4.7	1.2	11.4	8.4	3.0	2.9	15.7	11.7	428.1	56.6
1964	25.5	0.8	12.2	5.1	2.1	8.7	11.9	1.5	5.6	16.3	10.3	522.8	51.8
1965	26.1	0.8	11.8	5.2	2.0	9.9	11.9	1.6	5.1	15.2	10.2	586.5	47.9

Source: Calculated from Government of Iraq, Ministry of Planning, Central Statistical Organization, Annual Abstract of Statistics 1971, (Baghdad), Table 316, pp.448-9; and Government of Iraq, Ministry of Planning, Central Statistical Organization, Annual Abstract of Statistics 1973 (Baghdad), Table 191, pp.336-7.

22 per cent of the migrants.⁷⁵ The main shanty-town in eastern Baghdad was that of Al-asima which began to expand during the early 1950s due to migrants coming mainly from Maysan region. It was located and stretched along the sides of the main open drain of Baghdad (Al-Shtayt) southward - along the central bund - to Al-Rasheed barracks and northward to the neighbourhood of Al-Sulaykh district, forming other smaller shanty-towns. The main shanty-town on the western side of Baghdad was that of Al-Shakria, and Al-Sarrafa was the largest in the central part of Baghdad.⁷⁶

The migrants residing at Al-asima shanty-town were estimated in 1955 by Warriner at 40,000 people.⁷⁷ Phillips, using a 4 per cent sample survey which she carried out in that area in 1957, estimated the migrants at 34,000 people.⁷⁸ No specific estimates were made for other shanty-towns. Dr. Critchley, a Professor of Public Health and Social Medicine at Baghdad's Medical College, explained the physical setting of Al-asima as follows:

"This area was the waste land to the east of the bund which surrounds Baghdad, and it was a desert site studded with pits of varying sizes, which have been produced by the excavation of mud and clay for building purposes. The area was also used by the Municipality as well as private individuals as a dumping ground for human and animal excreta and rubbish. In addition the few surface water drains in the east of the city are pumped over the bund into this area, just after receiving the washings from the city abattoirs. The polluted and foul-smelling liquid, which formed a sizeable stream, wound its way through the conglomeration of mud buildings... There were no sanitary arrangements in the houses or in the district, hence the inhabitants simply defecated indiscriminately, adding their small contributions to the already grossly polluted ground".⁷⁹

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75. Government of Iraq, Ministry of Economic, Principal Bureau of Statistics, Report on the Housing Census of Iraq for 1956 (Baghdad), Table 22, p.15.
76. M. Azeez, op.cit., pp.262-278.
77. D. Warriner 1957, op.cit., p.181.
78. D.G. Phillips, Rural to Urban Migration in Iraq, Economic Development and Cultural Change, July 1959, p.412.
79. A.M. Critchley, "Observations on a Socio-Medical Survey in Iraq", Journal of the Iraqi Medical Profession, June 1956, pp.71-72. Also D.G. Phillips, op.cit., p.412.

Housing Conditions

Nearly 94 per cent of the families considered in the sample taken by Phillips were living in sarifas built either of reeds and mud, or of mud or reed alone. About 89 per cent of the families had only one room. The typical sarifa is built over a wooden frame, and has walls and roof of reed matting,⁸⁰ the walls usually being plastered over with mud during the winter season. The average size of a single-room sarifa is about 27 square feet, and here an average of six people live, sleep, cook and sometimes accommodate their animals too.⁸¹ The sarifa type of accommodation is similar to that common in the rural areas of the southern regions, from where most of the rural migrants in Baghdad originate. The sarifa can be fairly easily moved from one site to another, and as no special tools are required to remove the roof, the family members themselves can move their sarifa and re-erect it elsewhere without calling in any outside assistance.⁸² The low cost and simple construction and removal of the sarifa make it a popular type of accommodation among the migrants, particularly the new arrivals, who will search for some time for an appropriate site. The location of the new arrival is largely governed by the location of his relatives and friends, which might require the new arrival to move his sarifa a few times before he is finally settled. About 61 per cent of the migrants interviewed by Azeez revealed that they chose a site near their friends and relatives. Phillips explained that Al-asima shanty-town is culturally and physically

80. D.G. Phillips, op.cit., p.416.

81. F. Baali, "Social Factors in Iraqi Rural-Urban Migration", American Journal of Economics and Sociology, Vol.40, October 1966, p.361.

82. Report on the Housing Census of Iraq for 1956, op.cit., p.9.

similar to the extensive hut settlements in and around Basra city, which is second only to Baghdad as a destination of internal migration.⁸³ Being closer to the marshes where the necessary building materials are easily obtainable, some of the sarifas in Basra are quite substantial. The "kubar", an elaborate development of the sarifa in Basra, has walls built of reeds and mud and a roof made of palm-leaves on sawn-up palm-tree trunk. Some kubars have as many as five rooms.⁸⁴ The furniture in the sarifa is very modest. Of the 259 families visited by Phillips in Al-asima, 96.9 per cent had bedding (mats and comforters), 88 per cent had kerosene cooking stoves (one-burner), 82.2 per cent had rugs (unrolled for sitting), and 79.5 per cent had a storage chest. Only a few families had some items in addition to those mentioned above. About 12.7 per cent had radios (battery), 11.2 per cent had a table, 2.3 per cent had a chair, 0.8 per cent had a charcoal heating stove, 0.4 per cent had a sewing machine, and 4.2 per cent had bicycles.⁸⁵ None of the sarifas included in Phillips' sample had any kind of plumbing. Only two families were proprietors of outdoor water taps. Only seven per cent of the families had access to a latrine, and there were no washing facilities of any description in the entire settlement.⁸⁶ The housing census revealed that in the district of Karrada centre, which included nearly 35 per cent of the sarifas in Greater Baghdad, only 14 per cent of the sarifas had lavatories, one per thousand had a bath, and two per thousand had electricity.⁸⁷

83. D.G. Phillips, op.cit., p.411.

84. Report on the Housing Census of Iraq for 1956, op.cit., p.31.

85. D.G. Phillips, op.cit., p.417.

86. Ibid.

87. The census report did not give these details for all the districts of Greater Baghdad.

Diet

The low income of the migrants and their ignorance concerning the nutritional value of food items have contributed to their insufficient diet. Information on the type and quality of food eaten by the migrants is limited. Phillips explained that "the diet consists of round flat loaves of bread baked in outdoor mud ovens fired by twigs or dung, cooked dishes such as stews and rice prepared outdoors on a kerosene burner, and sweetened tea".⁸⁸ A sample survey conducted by the government in 1954 in the built-up area of Baghdad city and its environs and the sarifa camps provided some useful information. The sample was confined to households carefully selected so that they would be representative of all households in which the wage earners were receiving ID.20 per month or less. Altogether 291 households covering 2,025 persons were selected in the built-up area, and 59 households covering 335 persons were selected from the sarifa camps.⁸⁹ The monthly expenditure per person in the sarifa camps was ID.2.145 compared with ID.2.839 in the built-up area. The sarifa dweller devoted about 66 per cent of his total expenditure to food items, of which 51 per cent went to cereals, 16 per cent to meat, 17 per cent to sugar and tea, 7 per cent to vegetables, and 9 per cent to other foods.⁹⁰ More detailed information was provided by the Household Budget Enquiry which was conducted by the government in Baghdad city and its environs in 1961. The sample included 756 households covering 5,620 persons, randomly selected from the built-up area, and 126 households, covering 732 persons, randomly selected from the sarifa

88. D.G. Phillips, op.cit., p.416.

89. Statistical Abstract, 1955, op.cit., p.131.

90. Calculated from ibid., pp.132-3.

camps.⁹¹ This sample was not confined to a particular income group, as was the case with the 1954 sample study. The monthly expenditure per person in the sarifa camps was ID.3.335, compared with ID.7.728 in the built-up area.⁹² The greater difference between the expenditure per person in the two areas in this study compared with that of the 1954 study is due in large part to the difference in the selection procedure of households. In the sarifa camps the individual on average allocated 61 per cent of his total expenditure to food items, of which 34 per cent was spent on bread, flour and cereals, 20 per cent on meat and fish, 17 per cent on sugar and tea, 9 per cent on vegetables and 20 per cent on other food items.⁹³ The households in the sarifa camps whose total expenditure was less than ID.5 per consumption unit, represented 52 per cent of the total households. In these households the individual, on average, allocated 68 per cent of his total expenditure to food items, of which 37 per cent went on bread, flour and cereals, 20 per cent on meat and fish, 21 per cent on tea and sugar, 8 per cent on vegetables, and 14 per cent on other foods.⁹⁴

Table 2.3 shows the calories and the nutrients supplied by the foods consumed per person per day. The study made by the National Nutrition Institute of the Ministry of Health revealed that the daily calorie consumption per person was adequate in both areas. The daily intake of

91. Government of Iraq, Ministry of Planning, Central Bureau of Statistics, The Household Budget Enquiry in the City of Baghdad and its Environs (Baghdad, 1962), pp. 1 and 6.

92. Ibid., Table p.11.

93. Calculated from ibid., Table 16, p.11 and Table 19, p.12.

94. Calculated from ibid., Table 18, p.13, and Table 21, p.15. According to the scale adopted in the enquiry one consumer unit was given for the first adult in the household; 0.7 consumer unit for every other adult, and 0.5 unit for each child under 14 years. For example, a household composed of three adults and four children would comprise 4.4 units. See, ibid., p.3.

Table 2.3 : Average Daily Intake of Calories and Nutrients per Person

<u>Foodstuffs</u>	<u>Built-up Area</u>	<u>Sarifa camp</u>
Calories	2,228	2,231
Total proteins (g)	61.3	60.0
Animal protein (g)	16.1	8.7
Calcium (mg)	355.0	282.0
Iron (mg)	12.9	15.4
Vitamin A (i.u.)	3619	1539
Thiamine (mg)	1.13	1.19
Riboflavin (mg)	0.66	0.64
Niacin (mg)	10.9	12.5
Vitamin C (mg)	71.2	21.4

Source: The Household Budget Enquiry in the City of Baghdad and its Environs, 1962, op.cit., Table 25, p.18.

total protein was also sufficient, but the percentage of animal protein consumed by sarifa dwellers was considered low compared with that in the built-up area. The daily calcium intake by both groups was also considered low, particularly in the sarifa area where it was due chiefly to inadequate consumption of milk and milk products. The intake of thiamine, niacin and iron was adequate in both groups, and the sarifa dwellers had a little higher intake of the above three nutrients due to fortunate use of whole wheat bread and less use of rice. The intake of vitamin A in the built-up area was close to the recommended level of 4,100 i.u., but the intake of this vitamin in the sarifa camp was deficient due to inadequate consumption of green and yellow vegetables and fruits as well as milk and butter. Riboflavin (vitamin B2) intake of both groups was low due to a diet deficient in milk, meat and poultry products, and the sarifa dwellers also had a low intake of vitamin C because of low consumption of fruits and vegetables.⁹⁵

Employment

The migrants, before migration, were mostly cultivators. Azeez explained that 81 per cent of the heads of households who migrated from Maysan to Baghdad were cultivators, and about another 11 per cent were livestock keepers, sub-tribal chiefs and landholders.⁹⁶ However, only a few migrants took agricultural jobs in Baghdad, and Phillips found that only 0.9 per cent of Al-asima dwellers were working in agriculture.⁹⁷ She defined the labour force as anyone working or seeking work, and gave

95. Ibid., p.17.

96. M. Azeez, op.cit., p.204.

97. D.G. Phillips, op.cit., p.415.

a broad definition of skilled and unskilled work.

"Unskilled work was defined as any job requiring no special training, while skilled work was a job requiring some training, very little in most cases".⁹⁸

Only about 9.8 per cent of the working migrants were skilled, and only 12.8 per cent were employed in manufacturing industries where continuity of employment is more certain and wages are higher than in other sectors, and 76.3 per cent of the labour force were employed in construction, services and commerce. Of the 633 males included in the survey, 52 per cent were included in the labour force, while only 2 per cent of the 727 females were considered in the labour force. Typical jobs for men were as hod carriers and builders of mud huts, guards, porters, servants, unskilled office workers, truck or taxi drivers. Females were mostly engaged in commerce as venders of milk products from their cows and water buffaloes, or squatting beside the path with a tray of candies, cigarettes, or vegetables.⁹⁹ The employment structure of the migrants in Azeez's study is not comparable with that in Phillips' because Azeez grouped together the workers employed in construction, transport, manufacturing industries and porters and canvassers into one category called manual workers.¹⁰⁰ The household budget survey of 1962 revealed that migrants employed in construction services (including government employees) and commerce represented 80.1 per cent of the total employed, while the industrial workers and working proprietors in industry represented only 6.2 per cent. It seems that as rural-urban migration increased in the late fifties and early sixties, the proportion of the migrants employed in industry has decreased while the proportion of those employed in the service sector has increased considerably.

98. Ibid., p.414.

99. Ibid.

100. M. Azeez, op.cit., Table 8.5.

Income

The household budget survey of 1954 was confined to households with less than ID.20 a month. While this limitation makes the income of households selected from the built-up area unrepresentative of incomes in that area, it does not seriously affect the representation of the sample taken from the sarifa camps. The survey revealed that the monthly expenditure per household in the sarifa camps was ID.12.184, and the annual income per capita was ID.25.741.¹⁰¹ Phillips' survey resulted in a lower income. It showed that the monthly income per household was ID.9.3 and the annual income per capita ID.21.6.¹⁰² The average monthly income per household of about 92 per cent of the households was less than ID.20 and was less than ID.10 for about 65 per cent of the households. Only 12 out of the 259 households received a monthly income of ID.25 or more. Phillips explained that:

"The elite of Al-asima are the cattle owners, and although there are many animals in the area, ownership is fairly highly concentrated. Only six of the families in the sample owned cows and eleven owned water buffalo. The milk is made into cheese, clotted cream (geymur) and yoghurt (leban), a part-time job for women which was probably not reported fully in the employment figures, and brings a good income to the owner of a herd".¹⁰³

The Household Budget Survey of 1961 reported that the monthly income per household in the sarifa camps was ID.14, nearly 25 per cent of the household income in the built-up area, and the annual income per capita was ID.28.926.¹⁰⁴ The annual income per person employed in the sarifa camps was ID.145, nearly 32 per cent of the annual income per person employed

101. The average size of the household in the sarifa area was 5.68 persons. See, Statistical Abstract, 1955, op.cit., p.133.

102. D.G. Phillips, op.cit., p.415. The average household included 5.3 persons.

103. Ibid., p.416.

104. The Household Budget Enquiry, op.cit., pp.6-7.

in the built-up area, and about 63 per cent of the average annual wage in the industry.¹⁰⁵

Social Services

Forms of recreation are limited, and most common one for women, who were spending considerably fewer hours working than they used to in the rural area, was accepting their relatives and neighbours as visitors and visiting them, spending the time chatting and sipping tea. Older boys and men spent their leisure time in tea and coffee houses. Phillips found that 53 per cent of the adult males reported regular visits to the coffee houses and only 10 per cent reported going to the cinema.¹⁰⁶ For about 10 fils a person may spend hours in a tea house sipping tea and chatting, while one visit to the cinema may cost seven to ten times as much.¹⁰⁷

Although education was free, and clothes and supplementary meals were provided by the schools to pupils from poor families, the school enrolment ratio was very low in the sarifa camp. Phillips found that only 14.7 per cent of the children aged from 6 to 12 years were attending school, and the literate males in general represented 10.7 per cent of the total males, of whom a large proportion were taught by local religious leaders (mullahs) to read the holy Koran. of the 727 females, only three young girls were attending the mullah school, and the rest were illiterate.¹⁰⁸

105. The annual wage was calculated for 1962 where data on small establishments became available for the first time.

106. D.G. Phillips, op.cit., p.417.

107. One Iraqi dinar (ID) = 1,000 fils.

108. D.G. Phillips, op.cit., p.418.

The free medical care available at the hospital in Baghdad and at the Maternal and Child Health Centre in the nearby districts of Tel Muhammad and Shaikh Omar was not really utilized by the migrants. Phillips' interview teams observed untreated trachoma, debilitation from intestinal parasites, occasional cases of suspected buterbulosis, and illnesses of all kinds. A social centre in Tel Muhammad conducted free adult literacy classes and sewing classes for girls and women, and through the health clinic distributed free milk for babies, yet none of the respondents reported using these facilities.¹⁰⁹ Maybe the law, which was wellknown to the migrants but seldom enforced, that a migrant can be forcibly returned to his landlord if he is in debt had led the migrants to avoid contract with government institutions, feeling that anonimity is their best protection.¹¹⁰ This law, however, was even better known in the rural areas, and a more acceptable explanation for the migrants' negative attitude toward the available social services is that the decision to migrate was based mainly on push factors in the rural areas where getting away from the socio-economic system that governed their life there, and the modest income obtained in the urban area was sufficient inducement to migrate. The migrants seems to have little knowledge about the services available in the urban area, and have given it little significance in their decision to migrate. When they were asked why they had left their place of birth, the migrants' more common replies were: "We did not have enough to eat", "Our shaikh did not give us enough to eat", "Hunger", "Oppression by the shaikh", "Dispute with the shaikh over the size of our share", "we could not get enough water

109. Ibid.

110. Ibid.

for our crops", "Our land was flooded", "The crop died".¹¹¹ When the migrants were asked to compare their present condition with the previous one, 80 per cent of the families believed their total incomes, in cash and in kind, to be higher in the urban area; almost 90 per cent believed their present diet to be better, and 75 per cent believed their present housing to be better.¹¹² In the urban areas, the migrants realized various needs as they began to compare their conditions with those of the residents in the built-up area. When they were asked about their major needs, they emphasised better housing, purified water supply, permanent employment, higher wages, electricity, public baths, etc.¹¹³ The bad living conditions of the migrants were noticed by the authorities in the early fifties. The IBRD mission, realizing the need for improved housing conditions, recommended the establishment of a housing authority. This authority would be expected to take the initiative in providing suitable housing for the lowest economic strata of the population, and thus to include the sarifa dwellers.¹¹⁴ Regarding these people the mission recommended that they should be encouraged to build their own houses on suitable tracts of land, and should be supplied with some of the building materials; also that the site should be provided with purified water, sanitary facilities, schools, markets and health centres.¹¹⁵

111. D.G. Phillips, op.cit., p.413.

112. Ibid., p.419.

113. Ibid.

114. International Bank for Reconstruction and Development, op.cit., p.451.

115. Ibid., p.59.

In 1955, Salter reported that the Development Board had provided a grant for the construction of small houses in different parts of the country. The contracts included 1,930 houses, of which 1,000 were for sarifa dwellers in Baghdad, 500 for sarifa dwellers in Basra, and 430 for labourers in Tel Muhammad and Shaikh Omar districts in Baghdad.¹¹⁶ Salter also emphasized the need to establish the housing authority and considered the allocation of about ID.8,750,000 for housing schemes in the five years plan of 1955-1959 (which is slightly higher than the IBRD mission's recommendation of about ID.400,000 annually)¹¹⁷ as a very modest provision.¹¹⁸ As well as the sharp increase in the oil revenue, Salter's economic recommendations have contributed to the government's decision to introduce the six years plan of 1955-1960, in which housing schemes received about ID.24 million or ID.6 million annually.¹¹⁹ The floods of 1954 forced the sarifa dwellers to cross over the bund for safety, where they stayed for a few months before they were forcibly moved back. This incident has helped to publicize their bad conditions. Other factors, like the fear of political violence emerging from the sarifa camp - particularly after the Suez crisis in 1956 - and the spread of a smallpox epidemic at almost the same time, have also helped to force the government to take their case seriously. Early in 1957 wrecking teams were cutting swathes through Al-asima for streets, there were talks about the provision of electricity, drainage, plumbing, public baths and latrines, clinics and schools,¹²⁰ and the Development Board included the the sarifa dwellers in a housing scheme of 30,000 houses as part of the six years plan.¹²¹

116. Lord Salter, op.cit., p.222.

117. International Bank for Reconstruction and Development, op.cit., p.58.

118. Lord Salter, op.cit., p.22.

119. F. Qubain, op.cit., p.48.

120. D.G. Phillips, op.cit., p.420.

121. Ibid.

Cost of Living

The cost of living index for the rural-urban migrants has never been calculated. However, the available cost of living index for unskilled labourers in Baghdad City may be used as a good substitute. The first family budget enquiry in the country was conducted in 1945, and included a sample of families whose income in 1939 did not exceed ID.4.5 per month. The year 1939 was chosen as a base because the first nine months before the war were considered satisfactorily representative, compared with the previous years in terms of prices, employment and market conditions, and it was also the closest representative year to the respondents' memory. The average monthly income per family, including five members on average, was ID.3.386, which corresponded to the average monthly expenditure. This was allocated as follows: foodstuffs ID.2.041; clothes ID.0.271; rent ID.0.3; fuel and light ID.0.25; other items ID.0.524. Expenditure on foodstuffs alone represented 60.3 per cent of the total.¹²² If this income is to be considered representative of the migrant family's average income, then by comparing it with the family's average income in the sarifa camp calculated in the 1954 Household Budget Enquiry, it will be realized that the migrant's income after 15 years has increased by 317 per cent.¹²³ On the other hand, the general cost of living index during the same period has increased by 480 per cent, and the foodstuffs price index by 549 per cent.¹²⁴ This certainly does indicate a declining standard of

122. Statistical Abstract, 1955, op.cit., p.134.

123. The average household included 5 persons and 5.68 persons in the Household Enquiries of 1945 and 1954, respectively.

124. Statistical Abstract, 1955, op.cit., pp.132-3, 136.

living. During the war, as foreign demand increased, particularly in agricultural products, prices increased sharply and the wage rate for unskilled workers seemed to have also increased considerably. After the war prices slightly decreased. Between 1945 and 1955, the general cost of living index for unskilled workers decreased by 16.2 per cent. The ID.1.8 monthly income per capita in the sarifa camps (which was calculated by Phillips in 1957) was less by 16.1 per cent than that calculated in the 1954 enquiry.¹²⁵ The increase in the cost of living index in the late fifties and early sixties was also accompanied by an increase in income in the sarifa camps (Table 2.4). The 1961 enquiry revealed that income per capita in the sarifa camps was ID.2.411, which represented an increase by 12.4 per cent over income per capita calculated in the 1954 enquiry in the same area.

Sectoral Distribution of the Labour Force

Information about the sectoral distribution of the labour force is limited, not clear and sometimes inconsistent. The first attempt to classify the labour force by sectors was made in the 1947 population census. Nearly 4.8 per cent of the people employed according to this census were less than 10 years old, and their number decreased to 3.3 per cent in the 1957 census.¹²⁶ The first employment act which was passed in 1936 did not specify the maximum and minimum ages for work,¹²⁷ except for certain jobs.¹²⁸ The figures in Table 2.5 show estimates for the sectoral

125. D.G. Phillips, op.cit., p.415.

126. F. Al-Ansari, op.cit., p.188.

127. Ibid., p.187.

128. S.T. Mansoor, Interpretation of the Law of Work: A Comparative Study (Arabic text) (Al-dar Al-ahlia Press, Baghdad, 1972), p.32.

Table 2.4 : Cost of Living Indices for Unskilled Labourers in Baghdad (monthly averages)

Items	1945 ¹ (base year 1939=100)	1950 ¹	1955 ¹	1958 ²	1959 ²	1960 ² (base month January 1958=100)	1961 ²	1962 ³	1963 ³	1964 ⁴	1965 ⁴
Foodstuffs	655.4	548.5	572.9	94.9	96.1	100.7	103.3	103.0	110.3	110.8	110.7
Clothing	79.8	646.9	512.7	95.8	94.4	94.7	93.7	92.3	91.3	89.3	85.1
Rent	333.0	298.0	300.0	96.3	80.9	79.4	80.1	80.1	76.5	72.3	72.3
Fuel and Light	456.0	413.5	402.1	96.5	93.2	91.7	89.7	91.0	90.1	90.7	90.6
Cleaning materials	-	-	-	97.9	104.3	127.4	107.2	96.2	95.4	97.8	96.2
Miscellaneous	449.5	332.4	336.6	98.6	95.9	96.3	102.6	109.7	111.4	111.6	111.6
General Index Number	590.3	490.8	494.7	95.9	94.7	98.0	99.6	100.1	104.1	104.0	103.6

Source:

1. Statistical abstract 1955, op.cit., p.136.
2. The Central Bank of Iraq, Quarterly Bulletin, October-December 1962, No.44, p.46.
3. The Central Bank of Iraq, Quarterly Bulletin, October-December 1964, No.52, p.42.
4. The Central Bank of Iraq, Quarterly Bulletin, October-December 1966, No.60, p.40.

distribution of the labour force. Agriculture seems to be the dominant sector, while the industrial sector seems to have a small and rather stagnant share. The declining share of agriculture has been met by the increasing share of the service sector. The primary sector included agriculture, livestock, fishing, hunting and wood cutting: the secondary sector included manufacturing industries, mining, quarrying and construction; and the tertiary sector included the remainder of the economic activities.¹²⁹

Unemployment is high, particularly in the agricultural sector. Assuming that the economically active population falls in the 10-49 years ago group, the unemployment rate calculated from the 1947 and 1957 censuses were 46.5 and 53 per cent respectively in the rural area, and 34 and 24.9 per cent respectively in the urban area.¹³⁰ These figures do not include seasonal unemployment. The seasonal effect on employment, which is particularly significant on the rural area, is impossible to determine from the censuses data which are relevant to one day of the year. The FAO Report estimated that seasonal employment in agriculture could reach as high as 75-80 per cent.¹³¹ Balogh estimated that unemployment in agriculture fluctuates throughout the year between 20 and 50 per cent.¹³² The severe fluctuations in the employment rate in agriculture from one

129. These definitions were used by Al-Ansari, op.cit., p.199, and M.S. Hasan, op.cit., p.348.

130. Calculated from M.S. Hasan, Economic Development in Iraq: Foreign Trade and Economic Development, 1864-1858 (Beirut, 1965), pp.80-81. The total figures exclude the people in the armed forces, estimated to be about 50,000 and 110,000 in 1947 and 1957 respectively, pupils and students beyond the primary level estimated to be about 50,000 and 78,000 in 1947 and 1957 respectively, and the disabled who are in the economically active age, estimated to be about 35,000 to 37,000 in 1947 and 1957 respectively; see ibid., p.79.

131. Food and Agricultural Organization, op.cit., Ch.II, p.12.

132. M.S. Hasan, Policy of Economic Development in Iraq (Al-ani Press, Baghdad, 1958), p.84. This book is a translation into Arabic of a report prepared by Dr. T. Balogh of Oxford University.

season to another have certainly contributed to the differences between the estimates shown in Table 2.5. The difference between the two estimates of 1965, however, is due to other factors. The first estimate (I) prepared by N. Ström, a UN manpower expert, depended on a study prepared by another UN manpower specialist, M. Petersen. Regarding the agricultural sector, where the difference basically lies between the two estimates, Petersen made the assumption without a thorough investigation, that agricultural employment between 1957 and 1965 increased by nearly 12 per cent.¹³³ Petersen's estimate of the agricultural employment in 1957 was 22 per cent lower than that estimated by Al-Ansari; although they both used the 1957 census data.¹³⁴ The main argument that was put forward in support of the first estimate (I) was that:

"The mechanization of agriculture has in all countries, where introduced, resulted in higher production, paired with decreasing employment. There is no reason to anticipate that this relation would not be valid also for Iraq".¹³⁵

Obviously the negative impact of mechanization on employment would be more if agricultural production did not increase. The second estimate (II) depended on the assumption that the percentage share of employment in agriculture has remained constant at 53 per cent of the total employment during the period 1957 to 1965.¹³⁶ The labour force according

133. Nils Ström, Manpower in Iraq: Manpower Assessment Supply and Requirement (Ministry of Planning, Baghdad, mimeo, June 1969), Report No.1, p.14. The employment data collected in the 1965 census are not published.

134. The difference may be due to the vague definitions of the census data.

135. N. Ström, op.cit., p.14.

136. Nils Ström, Manpower in Iraq: Revised Estimations of Manpower Supply and Requirements (Ministry of Planning, Baghdad, mimeo, November 1969), Report No.3, p.11.

Table 2.5 : Distribution of Employed Labour Force by Major Economic Sectors

Year	Primary Sector (Agriculture)		Secondary Sector (Industry)		Tertiary Sector (Services)		TOTAL 000
	Number (ths.)	per cent	Number (ths.)	per cent	Number (ths.)	per cent	
1947 ¹	748	56.1	109	8.2	475	35.7	1332
1956 ²	1610	78.7	163	8.0	273	13.3	2046
1957 ³	859	48.1	199	11.1	728	40.8	1786
1965(I) ⁴	750	39.0	205	10.7	969	50.4	1924
1965(II) ⁵	1228	55.7	210	9.5	766	34.8	2204

Source:

1. Calculated from the Population Census of Iraq, 1947, op.cit., also in F. Al-Ansari, op.cit., p.231. The figures estimated by Hasan are different, particularly for the Secondary and Tertiary Sectors, see M.H. Hasan, Growth and Structure of Iraq's Population, op.cit., p.347.
2. Calculated from K.G. Fenelon, "Iraq: National Income and Expenditure, 1950-1956", pp.9 and 10, in Government in Iraq, Ministry of Planning, National Income in Iraq: Selected Studies (Shafik Press, Baghdad, 1970).
3. Calculated from Population Census of Iraq 1957, op.cit., also in F. Al-Ansari, op.cit., p.231.
4. Nils Ström, Report No.1, op.cit., p.45.
5. Nils Strom, Report No.12, op.cit., p.5.

to the second estimate (II) included people over 10 years of age,¹³⁷ and the female participation rate was assumed to be increasing gradually, starting from the rate of 2.4 per cent estimated from the 1957 census,¹³⁸ while the male participation rate was assumed to be slightly decreasing.¹³⁹ Ström admitted that the quality of the available data was poor, particularly that related to agriculture, "the most uncertain sector is agriculture about which no information has been found at all".¹⁴⁰

Apart from the important fact that the region of Baghdad includes the largest urban centres in the country and more than 40 per cent of the country's urban population, and there is a large service sector in which the majority of the employed rural migrants are working. The region is also attractive for other reasons. Until 1950 there was no appreciable industrialization except in four cities - Greater Baghdad, Greater Basra, Mosul City and Kirkuk City. All other cities, apart from Karbala and Najaf which were pilgrimage centres, were market towns looking to agriculture.¹⁴¹ The first industrial census in the country was conducted in 1954, and revealed that the region of Baghdad included about 21 per cent of all the industrial establishment in the country and 37 per cent of the labour force employed. The average annual wage in Baghdad was ID.100.2 compared with only ID.42 in the rest of the country. It also revealed that a large proportion of the small industries, which employed less than 20 people, were managed by the owners and

137. Ibid., p.10. The first estimate (I) included all ages.

138. Nils Ström, Manpower in Iraq: Employment Trends 1960-1969 (Ministry of Planning Baghdad, mimeo), Report No.12, p.3.

139. Ibid., p.3.

140. Ibid., p.4.

141. Edith and E. Penrose, op.cit., p.164.

members of their families instead of employing outsiders. A migrant, therefore, is more likely to get a job in large industries which employ more than 20 people, than in small industries. Nearly 42 per cent of the large industries are located in the city of Baghdad and its suburbs, which employed about 56 per cent of the people working in the country's large industries. The concentration of industries in Baghdad was increasing. In 1964 the industrial establishments in Baghdad represented 32 per cent of the total, and the number of workers employed represented 51 per cent. Employment in the construction sector was also concentrated in the region of Baghdad, which in 1964 included 50 per cent of the total number of people working in this sector.

Besides the better job opportunities available to migrants in Baghdad, the services on which some data are available, such as the health and educations, also indicate high concentration in this region.

Estimation of Interregional Migration

In order to study the determinants of interregional migration between 1947 and 1965, it is thought to be more appropriate to divide the period into two sections - 1947-1957, and 1957-1965. The division is justified, for the pattern and the magnitude of interregional migration is different in the two periods, as will be explained below. To begin with, in the first period five regions only had net gain from inter-regional migration: these were Sulaymania, Kirkuk, Baghdad, Karbala and Basra. In the second period the number of regions that had net gain decreased to three only - Sulaymania, Arbil and Baghdad. Baghdad and Sulaymania only have maintained their position among the gaining regions. Secondly, looking at the distribution of migrants by their region of birth

presented in Table 2.6, it may be observed that twelve regions have increased their share of the total intercensal migrants at the expense of the remaining two regions, namely Maysan and Babylon. The share of the region of Maysan, which produced about 32 per cent of the total migrants in the first period, dropped dramatically to only 1.1 per cent. The share of the region of Babylon decreased by 5.2 per cent of the total. On the other hand, the region of Ninevah and Dhok had a substantial increase in its share, from 8.1 per cent to 18.9 per cent. Thirdly, since the majority of the interregional migrants are of rural origin, it is important to consider the fact that the rural-urban migration rate increased considerably, from about 1.1 per cent annually in the first period, to 2.7 per cent in the second period, as is clearly shown in Table 2.7. Considering the first definition (DI) for example, the number of rural-urban migrants in the first period would be about 460,000, which is equal to about 13 per cent of the rural population in 1957, while their number in the second period would be about 1,052,000, which is equal to about 24 per cent of the rural population in 1965. Fourth is the enactment of the Agrarian Reform Law in 1958, which changed the production relations and the land distribution in the rural areas, and therefore different determinants of migration had to be considered.

From the discussion in the previous chapter, it was concluded that the only censuses which provided relevant data for the study of interregional migration are the last three censuses, of 1947, 1957 and 1965. Each enumerated person in these censuses was asked to state his region of birth. As this was the only question asked in relation to migration, the data obtained referred to lifetime interregional migration,

Table 2.6 : Percentage Distribution of Intercensal Migrants
by Region of Birth

<u>Regions</u>	<u>1947-1957</u>			<u>1957-1965</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
Ninevah and Dhok	7.9	8.3	8.1	16.3	22.6	18.9
Sulaymania	2.5	1.7	2.1	2.6	2.9	2.7
Arbil	4.0	3.4	3.7	5.4	6.2	5.7
Kirkuk	3.3	0.3	1.8	4.9	5.6	5.2
Diala	8.1	6.7	7.4	6.4	11.0	8.3
Anbar	5.0	4.6	4.8	4.9	5.2	5.0
Baghdad	-0.1	1.5	0.7	5.0	4.2	4.7
Wasit	8.3	8.3	8.3	9.6	12.1	10.6
Babylon	8.5	8.0	8.2	4.5	0.8	3.0
Karbala	4.1	3.9	4.0	4.8	6.5	5.5
Qadriya and Muthanna	9.0	8.0	8.5	14.6	10.1	12.7
Maysan	28.9	34.3	31.6	2.6	-1.0	1.1
Thi-Qar	8.6	9.1	8.8	12.5	10.5	11.7
Basra	2.0	1.8	1.9	6.0	3.3	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 2.7 : Rural-Urban Migration Rates (1947-1965)

<u>Definition of Urban Centres</u>	<u>1947-1957</u>			<u>1957-1965</u>		
	Total pop. growth rate	Rural pop. growth rate	Migration rate	Total pop. growth rate	Rural pop. growth rate	Migration rate
DI	2.72	1.69	1.03	3.11	0.42	2.69
DII	2.72	1.58	1.14	3.11	0.41	2.70
DIII	2.72	1.63	1.09	3.11	0.41	2.70

Source: Calculated from Table 1.8

which is due to the limited information given in the censuses, unadjustable for multi-stage movements and return migration.¹⁴²

In order to be able to investigate the determinants of migration, the migration data must be confined to a specific period so that the hypothesised determinants of migration can be identified, relevantly valued and statistically tested. The lifetime migration data obtained from the three censuses have, therefore, been allocated to the two periods of 1947-1957 and 1957-1965, according to the following formula:

$$M_i = \sum_{j=2}^{j=14} [(Imij_{(t+n)} - Emji_{(t+n)}) - S(Imij_{(t)} - Emji_{(t)})]$$

Where:

- M_i = Intercensal net migration in region (i)
- $Imij$ = Immigrants from region (j) to region (i)
- $Emji$ = Emigrants from region (i) to region (j)
- S = Overall survival ratio
- t = The year at the beginning of the period
- n = The length of the period in years.

In the migration model presented in this chapter, the net inter-regional migration was used as a dependent variable, mainly because regarding the 1965 census only net migration data were available for this study.

Evaluation of the Estimates

The inaccuracy of our estimates of the net interregional migration stems from various sources which may be summarised as follows:

142. The multi-stage migrant is the one who resides in more than one region of destination before he finally settles or, otherwise, returns to his region of origin.

1. Inaccuracies in the basic census data on migration. These arise from misreporting of place of birth, and under- or over-enumeration of migrants' population. This source of inaccuracy is applicable in the three censuses, although it is believed that the accuracy of reporting and enumeration had improved in the 1957 and 1965 censuses, compared with that of 1947.
2. Errors due to the lack of adjustment for boundary changes. These adjustments have been impossible to make because of the lack of precision concerning the information on the place of birth. The major changes in boundaries which were the result of creating two new regions, reported in 1965 census data, were adjusted to suit the previous administrative division of 14 regions.
3. The overall (national) survival ratio has been used in the estimation procedure instead of age-specific survival ratios, because data on migrants did not provide a breakdown by age groups. The use of national survival ratios has required the following assumptions. First, the mortality rates among the migrants are the same all over the country. Second the mortality rate for the migrants is identical to that of the nation as a whole. Third, international migration is negligible, and if it does exist, its effect would be equally distributed among the regions. These assumptions were unavoidable due to lack of data concerning the regional vital statistics and the regional origin of international emigrants.
4. The estimation of intercensal migration may also be distorted because of multi-movements and returned migrations, on which there are no data that can be used to make the appropriate

adjustment. This distortion is not expected to be greater in data on lifetime migration than in data on intercensal migration.

5. Bias may occur due to lack of adjustment concerning deaths of persons who migrated during the intercensal period.

However, all these setbacks are unavoidable if the estimation of the intercensal migration is to be achieved from the available data.

The Migration Model

The major concern in this section is to investigate the factors that influence interregional migration, and the magnitude with which each factor exerts its influence. Answers to questions like whether migrants represent random samples of the population, or do they belong to select groups of age, education, income, etc?, and whether migrants from different groups react differently toward various migration factors?, cannot be attempted because of the severe limitations of the censuses data in these respects.

A list of the potential structural variables was drawn up which included all the variables that would reasonably be expected to explain the migration streams which occurred during each of the two periods, 1947-1957, and 1957-1965, on which data can be found. The list included sixteen variables for the first period and eighteen variables for the second. These variables were chosen from the rural and the urban areas of the regions of origin and destination.

The estimated relationships are of the following forms:

- 1) For the period 1947-1957:

$$M_{ij} = f(L_i, L_j, K_i, K_j, D_{ij}, U_i, U_j, R_i, R_j, G_i, G_j, C_i, C_j, S_i, S_j, Y_{ij}, \text{random errors})$$

2) For the period 1957-1965:

$$M_{ij} = f(L_i, L_j, K_i, K_j, D_{ij}, U_i, U_j, R_i, R_j, T_i, T_j, C_i, C_j, Q_i, Q_j, S_i, S_j, Y_{ij}, \text{random errors})$$

Where:

M_{ij} = The absolute number of net gain of migrants of region (i) from region (j) during the intercensal period concerned. Alternatively, where p_i is the population of region (i), the migration rate M_{ij}/p_i was also tested.

$L_i(L_j)$ = The literate people, males and females who can read and write, in region (i)(j). For the second period this variable refers to the literate people in the urban areas only.

The education variable has been used in the analysis of migration in each of the two periods. For the period 1947-1957, the data were taken from the 1957 census of population. In order to reduce the element of bias in the estimate of the literates caused by the under-coverage of the census, the estimation, in order to be adjusted, was divided by the urban population of the relevant region and used in the model as a ratio, which at the same time reflects the impact of the educated on the rest of the population. The data for the period 1957-1965 was taken from the 1965 census data, and the adjustment procedure was also carried out in order to make the comparison possible between the contribution of the variable in explaining migration in each of the two periods.

The education variable has been used in various forms in many empirical studies to explain the spatial allocation of migrants in less-developed countries. Greenwood, for example, used the number of years of education per male in region (i)(j),¹⁴³ while Sahota employed four

143. M.J. Greenwood, "The Determinants of Labour Migration in Egypt", Journal of Regional Science, Vol.9, No.2, 1969, p.285.

different forms for this variable, distinguishing between two major age groups and between agricultural and non-agricultural sectors.¹⁴⁴

The following arguments may be presented to explain the positive relation between emigration and education. First, educated people are relatively more ambitious to improve their economic and social status, and more confident to achieve their ambitions; they tend to be more adaptable to the new environment and give less importance to their tradition and family ties. Second, educated people are more likely to obtain more information concerning wage rates, employment opportunities and welfare conditions in potential destinations, which reduces the uncertainty factor considered in the decision to migrate. Third, educated people are more likely to have jobs before moving, which further encourages them to migrate. The more educated a person is, the greater his employment opportunity, his earnings and his capacity to learn and train for new jobs. Fourth, in the regions where the education ratio is high, the average income for the region may tend to overstate the level of income available to the uneducated people, and therefore more people would emigrate than expected.¹⁴⁵ On the other hand, it could be argued that education may have a negative influence on emigration for the following reasons. First, an increase in an individual's level of education affects other variables which are considered by the migrant, such as more education may increase the employment opportunities open

144. G.S. Sahota, "An Economic Analysis of Internal Migration in Brazil", *Journal of Political Economy*, Vol.76, 1968, p.228.

145. R.E. Beals, M.B. Levy and L.N. Moses, "Rationality and Migration in Ghana", *Review of Economics and Statistics*, Vol.XLIX, No.4, November 1967, p.485.

at home to the potential migrants. Second, the negative correlation between education and emigration may also be due to the simultaneity problem.¹⁴⁶ If educated people migrate in a relatively greater number than the uneducated, this will lower the level of education in the region of origin and increase it in the region of destination, and this would bias the origin education coefficient downward and the destination education coefficient upward.

Therefore, it does not seem possible to specify the influence of the education variable one way or the other on migration until the empirical results are revealed.¹⁴⁷

$K_i(K_j)$ = The average expected income in the modern urban sector of region (i)(j)

In many development theories which have tackled the problem of labour mobility, for example, Lewis (1954),¹⁴⁸ Jorgenson (1964),¹⁴⁹ and Ranis and Fei (1961),¹⁵⁰ the income variable has always been hypothesised as the primary motivation for migration. This hypothesis seems to have been based on the assumptions of the neo-classical general equilibrium theory. Indeed, the importance of the income variable has been confirmed

146. R.Beals. M.B. Levy and L.N. Moses, op.cit., p.485.

147. An interesting discussion on the relationship between education and migration is presented by M. Godfrey in "Economic Variables and Rural-Urban Migration: Some Thoughts on the Todaro Hypothesis", Journal of Development Studies, 1973, No.10, pp.71-2.

148. W.A. Lewis, "Economic Development with unlimited Supplies of Labour", Manchester School, May 1954, Vol.22, pp.139-91.

149. D.W. Jorgenson, "The Development of the Dual Economy", Economic Journal, June 1961, Vol.71, pp.309-34.

150. G. Ranis and J. Fei, "A Theory of Economic Development", American Economic Review, September 1961, Vol.51, pp.533-56.

in various empirical studies on migration; for example, Gugler (1969),¹⁵¹ and Beals, Levy and Moses (1967).¹⁵² However, the significant influence that the availability of jobs in potential destinations may exert on the decision to migrate as a complementary component to the income variable, was observed by many economists, for example Schults (1945),¹⁵³ and Reynolds (1951).¹⁵⁴ Sjaastad (1962) in his investment approach to migration, also acknowledged the significant influence of the job opportunities on the decision to migrate.

"I have assumed that migration is mainly in response to differences in earnings over space. In the case of off-farm migration, however, rising unemployment in the non-farm sector has been observed to attenuate sharply the outflow from agriculture even though we may assume earnings differentials (for employed persons) to remain relatively stable".¹⁵⁵

Sjaastad suggested that the observed earnings differentials should be further discounted for the risk of unemployment.¹⁵⁶ Frank (1968) discussing the interrelationship between the demand and the supply of labour and the unemployment problem in Africa, also argued that:

"At any given wage rate and at any given point in time, the number of entrants into the urban labour force is not only a function of the prevailing wage rate, rural-urban real income differentials, etc., but probably also a function of the assessment of individuals of the subjective probability of getting a job".¹⁵⁷

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- 151. J. Gugler, "On the Theory of Rural-Urban Migration: the Case of Sub-Saharan Africa", Sociological Studies 2: Migration, edited by A.J. Jackson (Cambridge University Press, 1969), pp.134-55.
 - 152. R. Beals, M. Levy, and L. Moses, op.cit., pp.480-6.
 - 153. T.W. Schultz, Agriculture in an Unstable Economy (New York, 1945).
 - 154. L.G. Reynolds, The Structure of Labor Markets Wages and Mobility in Theory and Practice (Harper, New York, 1951).
 - 155. L.A. Sjaastad, "The Costs and Returns of Human Migration", Journal of Political Economy, 1962, p.91.
 - 156. Ibid.
 - 157. C.R. Frank, "Urban Unemployment and Economic Growth in Africa", Oxford Economic Papers, Vol.20, 1968, pp.266-7.

Todaro (1969) developed a more rigorous economic model of migration, with the provision of an elaborate mathematical presentation of the investment approach and the insertion of a job opportunity index. He emphasized the importance of the expected income differential variable in the migration decision, which is composed of the income differential variable multiplied by the job opportunity index. The major contribution of Todaro's model is the employment of the job opportunity index as an equilibrating force to arrive at an equilibrium proportion of the labour force that is not absorbed by the modern sector. Assuming that a one-time (year) horizon only is to be considered by the potential migrant and a random selection of employees, Todaro defined the job opportunity index (the probability of getting a job) as, "The ratio of new modern sector employment openings in period (t) relative to the number of accumulated job seekers in the urban traditional sector at time (t)",¹⁵⁸ which assumes a zero rate of labour turnover.¹⁵⁹ Alternatively, Todaro has defined the job opportunity index as the total number of jobs at time (t) relative to the total number of the labour force,¹⁶⁰ which assumes a complete labour turnover.

In this migration model the average income differential variable and the expected income differential variable with the two different

158. M.P. Todaro, "A Model of Labor Migration and Urban Unemployment in Less-Developed Countries", American Economic Review, March 1969, p.143.

159. Todaro originally defined the probability of getting a job (p) at period (t) as follows:

$$P(t) = \pi(o) + \sum_{i=1}^t \pi(i) \prod_{j=0}^{i-1} [1 - \pi(j)]$$

Where $P(o) = \pi(o)$

$\pi(i)$ = the probability of being selected for an urban job during period (t). Therefore $P(t) \rightarrow 1.0$ as $t \rightarrow \infty$;

160. J.R. Harris and M.P. Todaro, "Migration, unemployment and development: A two-sector analysis", American Economic Review, March 1970, Vol.60, pp.128-9.

alternatives of measuring the job opportunity index were considered. The average wage rate in the modern (industrial) sector was used as a substitute for income. For the period 1947-57, the data on the average wage rates were taken from the Industrial Census of 1954,¹⁶¹ which is the only source of data for that period. The data on small establishments which employ less than ten workers, and large establishment which employ more than ten workers, were mixed together to calculate the average wage rate. For the period 1957-65, the data on the average wage rates were taken from the annual industrial censuses which began in 1958,¹⁶ but until 1962 the published data in the industrial census are not useful, for they include the large establishments only. Therefore, the average wage rate for the second period was calculated from the data on the years 1962-65.

The influence that the income differential and the expected income differential variables exert on migration is agreed upon theoretically, and has been proved in various empirical studies. It is expected that, ceteris paribus, the higher the average income or expected income, in a region relative to other regions, the more the immigration to that region would be.

Dij = The distance in kilometres between the
major regional urban centres.

The distance variable has been repeatedly found to be an important factor in explaining the spatial allocation of migrants since the pioneering works of Ravenstein on migration in various European countries.

161. Government of Iraq, Ministry of Economics, Principal Bureau of Statistics, Report on the Industrial Census of Iraq 1954 (Al-Noor Press, Baghdad, 1956).

162. Government of Iraq, Ministry of Planning, Central Bureau of Statistics, The Results of the Industrial Census (Government Press, Baghdad), issues of 1958 to 1965.

Since then, two major interpretations of the influence of distance on migration have been proposed in the literature. According to the first interpretation, distance is considered a proxy variable for the intervening opportunities which the migrants encounter in their movements. Stouffer (1940) argued that:

"The number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities".¹⁶³

This interpretation may be more applicable for short-distance migration where the cost of movement represents a very small proportion of the migrant's income, and in developed countries where income per capita is comparatively high. It may be less applicable for long-distance migration and in under-developed, low-income countries. The second interpretation of the influence of distance, which has been widely accepted in the literature, is elaborately presented by Sjaastad (1962). Accordingly distance was considered a proxy variable to indicate the direct cost of movement which includes two kinds of costs: the first includes the out-of-pocket expenses incurred by the migrants and their belongings while travelling, the increase in cost of food, lodging, etc., and the opportunity cost of the time spent in travelling. The second is the non-money or psychic costs, which involve the reluctance of an individual to leave his family and friends and venture to less familiar surroundings.¹⁶⁴

163. S.A. Stouffer, "Intervening Opportunities: A Theory Relating Mobility and Distance", American Sociological Review, Vol.5, No.6, December 1940, p.846.

164. L. Sjaastad, op.cit., pp.83-5.

Schwartz (1973) referred to results in various migration studies which indicated that the high negative distance elasticity of migration cannot be explained mainly by the direct money cost of the movement which increases directly with distance. Sahota's study on Brazil, for example, showed that the effect of a 10 per cent gain in wage rate is neutralized by a 22 per cent increase in distance, while the cost of moving that distance was estimated to be retrievable by an unmarried person in little over 1.5 months.¹⁶⁵ Schwartz, therefore, tried to test two alternative hypotheses to explain the adverse effect of distance on migration by using data on the United States. He employed the age variable to reflect the psychic cost hypothesis and the education variable to reflect the information hypothesis, and concluded in favour of the information hypothesis.

"In all, the age effect on distance elasticity is weak but is more or less systematic in increasing the adverse effect of distance on the choice of a location. In contrast, education strongly affects this elasticity - diminishing the adverse impact of distance on the choice of destination".¹⁶⁶

In Iraq, where most of the interregional migrants are of rural origin, where cash income per capita is particularly low and the rural, social and physical surroundings are vastly different from those of the urban areas, the direct cost, psychic cost and information hypothesis are all expected to contribute to the adverse effect of distance on migration. However, it is not our task here to assess the significance of each of these

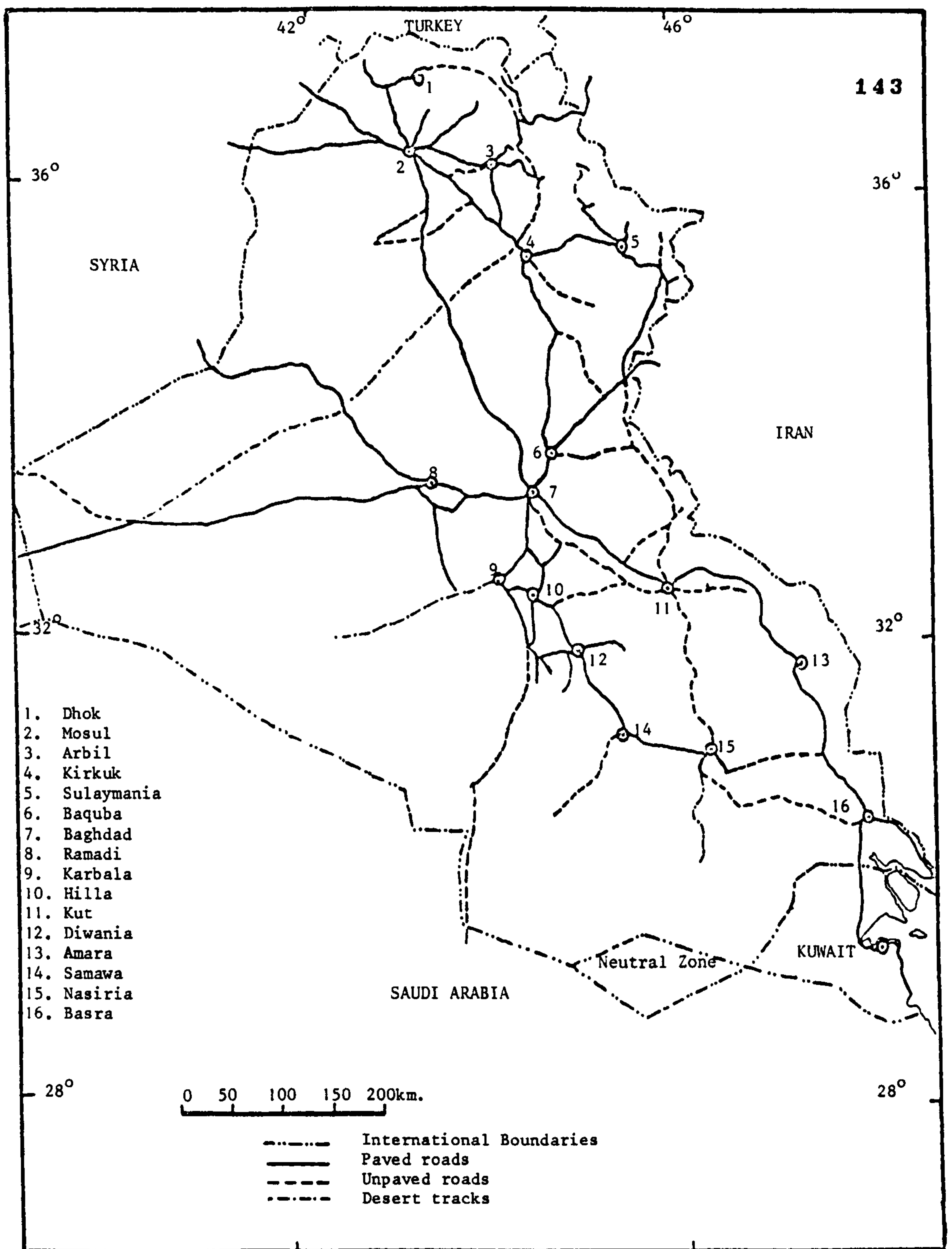
165. G.S. Sahota, op.cit., p.237.

166. A. Schwartz, "Interpreting the Effect of Distance on Migration", Journal of Political Economy, September/October 1973, p.1167.

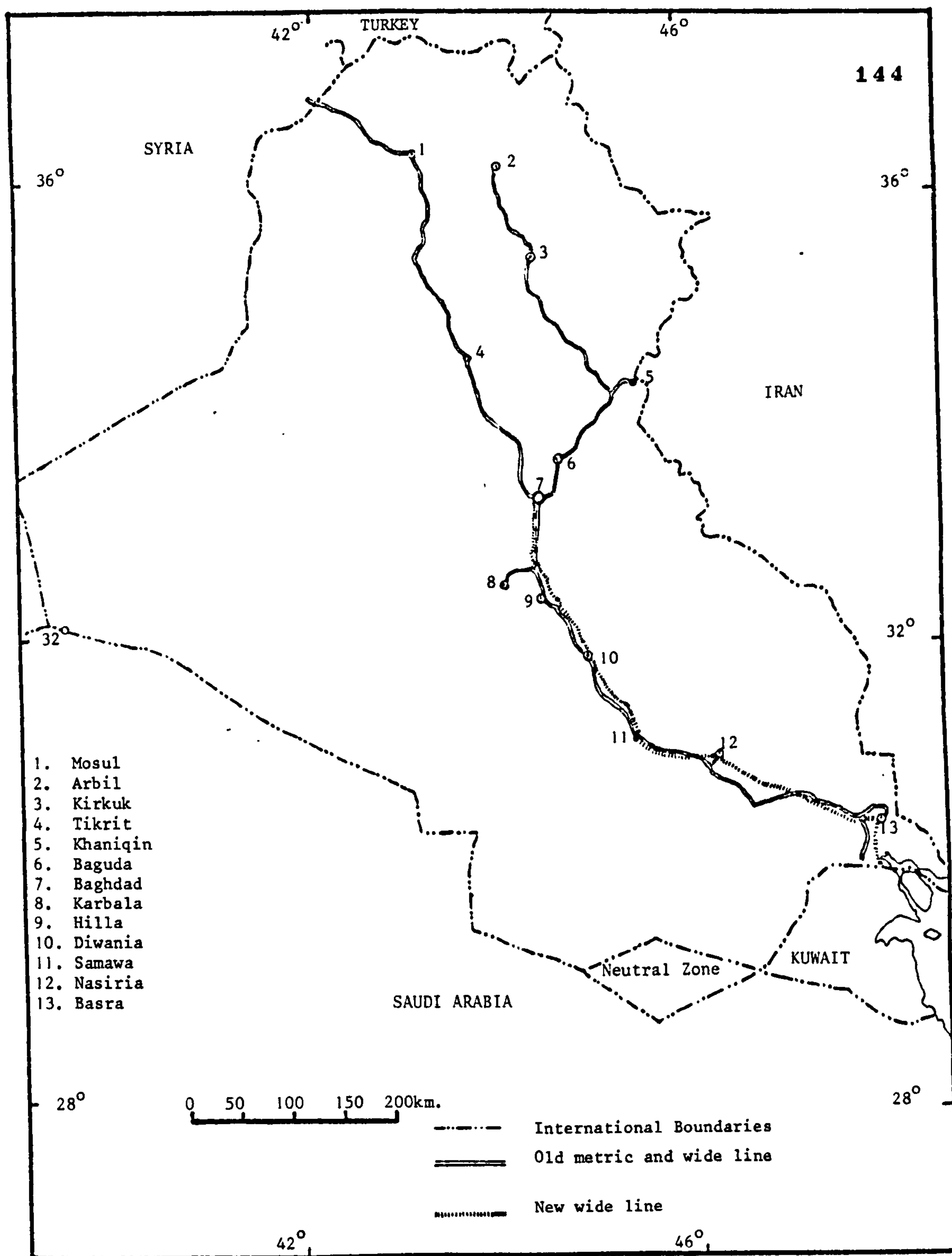
hypotheses. Certain reservations regarding the use of the distance variable in Iraq must be considered. The distance between any two regions is usually measured between the capitals of the regions as an approximation to the average distance the migrant would move between the two regions. This approximation may not work effectively in Iraq for various reasons. The regions of Iraq are enormously different in size: for example, while Anbar, Qadysia and Muthanna and Ninevah and Dhok represent 31.5, 19.0 and 11.6 per cent of the total area of Iraq respectively, other regions like Babylon, Karbala, Sulaymania and Thi-Qar represent 1.6, 1.6, 2.7 and 3.3 per cent of the total area respectively. Moreover, the regions are of different geometrical shapes, and the regional capitals from which distances are calculated are by no means located near the centres of the regions. The social distance moved by the migrant may also be significant in Iraq because of the ethnical differences in the Iraqi population. (See Map 3.1 in Chapter 3.)

The arguments presented above encourage the use of a contiguity dummy variable as a substitute for distance. It is expected that, ceteris paribus, the larger the distance between any two regions, the less the number of migrants exchanged between them. It is also expected that contiguous regions exchange more migrants as compared with non-contiguous regions.

The easy access to Baghdad city by road and rail, as illustrated in Maps 2.1 and 2.2, has facilitated the movement of migrants from all over the country to the city. Since Baghdad was built in the eighth century as the capital of the Abbasid empire, it has been a major central point for



Map 2.1 : Iraq: Major Roads and Tracks



Map 2.2 : Iraq: Railways

the roads in the area. They followed the river valleys where there is water, grass for grazing and animals for hunting,¹⁶⁷ and as a result, Baghdad was connected with the major cities of Kufa, Basra, Anbar and Mosul.¹⁶⁸ Camels, horses and mules, besides various types of boats in the Euphrates and Tigris rivers, were the means of transportation for passengers as well as goods. Railways and highways appeared in the twentieth century. The construction of the railways began just before the First World War, and continued during hostilities and afterwards. Until the middle 1960s, the main lines were:

1. Baghdad-Mosul-Tel Kohek: Constructed between 1913-1940.
2. Baghdad-Basra: Constructed between 1916-1919.
3. Baghdad-Baquba-Kirkuk-Arbil: Constructed between 1918-1949.

Three more lines: Baghdad-Kut, Basra-Amara and Baghdad-Falluja were opened in 1917-1918, and closed in 1922.¹⁶⁹

The railways became the principal means of transportation until the construction of highways began after the Second World War, and particularly in the early 1950s after the Development Board was formed. The main highways in the country were the following:

1. Baghdad-Kut-Amara-Basra.
2. Baghdad-Hilla-Diwania.
3. Baghdad-Ramadi-Ratba.
4. Baghdad-Samarra-Tikrit-Mosul.
5. Baghdad-Baquba-Kirkuk.
6. Mosul-Kirkuk-Arbil-Sulaymania.¹⁷⁰

167. M.R. Al-Feel, The Historical Geography of Iraq 1258-1534, (Al-Adab Press, Najaf, 1965), p.248.

168. Ibid., pp.259-64.

169. A.H. Al-Samarraie, Transportation in Iraq: A Study in Economic Geography (unpublished PhD thesis, Reading University, 1969), pp.119-32.

170. Ibid., p.138.

It is very clear that the railways and the major highways were designed so as to connect the rest of the country with the capital, Baghdad. With the establishment of highways and railways, the capital, being the largest urban centre where the administration and the industries of the country are concentrated, has become even more attractive to the migrants. Those who settled in the outskirts of Baghdad have formed a chain of small towns which extends along the railways and highways. A chain of such towns runs along the oldest railway line between Baghdad and Mosul via Samarra, ending at Kadhimia, nearly 10 km from Baghdad. Another similar chain extends along the Baghdad-Baquba highway (which was built during the Second World War), and ends at Al-Kamalia about 15 km from Baghdad. Along the Baghdad-Ramadi highway, which was also built during the Second World War, stretches the longest chain of towns, ending with Abu-Graib about 20 km from Baghdad. Other towns have also been formed on the highways connecting Baghdad with cities such as Al-Yarmouk on the Baghdad-Ramadi highway; Al-Bayaa on the Baghdad-Hilla highway; Al-Kamalia on the Baghdad-Baquba highway, and Al-Zafarania on the Baghdad-Kut-Amara highway. Chains of town or settlements have also developed along highways and railways in Mosul, Basra and Kirkuk, but to a lesser extent.¹⁷¹

$U_i (U_j)$ = the urban population of region $i(j)$.

The urbanization variable has been used in most of the empirical studies on migration. In this model the urban population as defined administratively was used. Larger urban populations reflect more job

171. Ibid., p.222.

opportunities, better education and health facilities, as well as all other factors considered in the "bright light" hypothesis concerning the attraction of urban centres to potential migrants.

$R_i(R_j)$ = the rural population of region $i(j)$. It is expected, since the majority of the interregional migrants are of rural origin, that regions with large rural populations lose more migrants than regions with small rural populations.

$G_i(G_j)$ = the Concentration ratio (Gini Index) of land holdings in region $i(j)$. The Gini Index is used in this model as a proxy to reflect the inequality in the distribution of agricultural land holdings. It is essential here to distinguish between ownership and holding. Ownership refers to land held in a form of Tapu, Lazma or Mulk Sirf.¹⁷² While holding refers to land held privately, irrespective of the title of the land, and includes besides the lands held under the three titles mentioned above, Miri Sirf, Waqf¹⁷³ and lands with unsettled title. The distribution of land is the best available indicator to reflect the distribution of income and since land holdings were privately utilized agriculturally, just like owned land, therefore in this model data on land holdings were utilized. This variable was employed in the first period only, because after the enactment of the agrarian reform law in 1958, the land distribution has changed, but no data are available on the land distribution during the period 1958-1965. The data used for the first period were taken from the agricultural census of 1958-1959, which is the only source of data in this regard. The census indicated a great disparity in land distribution. About 73 per cent of the land holdings

172. For definition see International Bank for Reconstruction and Development, op.cit., p.139.

173. For definition see ibid.

included only 6 per cent of the land privately held, while the top 1 per cent of the holdings included 55 per cent of the privately-held land.¹⁷⁴ The distribution of holdings is markedly different from one region to another. In Maysan region, for example, a region of extreme inequality, about 0.86 per cent of the land-holdings include more than 62 per cent of the privately-held land.¹⁷⁵ On the other hand, the top 7 per cent of the holdings in Sulaymania region included about 45 per cent of the privately-held land.¹⁷⁶ Besides the severe inequality in land distribution, there are reasons to believe that the agricultural census had even under-estimated the inequality, because some of the large land-holders had more than one holding. The census reported that in Wasit region, for example, there were only two regions which exceeded 100,000 donums,¹⁷⁷ while other sources reported several holdings well over 300,000 donums.¹⁷⁸ It was also reported that five or six owners held lands of about half-a-million donums, and two land-owners held properties exceeding one million donums.¹⁷⁹ It is expected that the greater concentration ratio (Gini Index) was in a region, then the greater the number of emigrants it would send.

$T_i(T_j)$ = The land distributed to cultivators in region $i(j)$ divided by the population depending on agriculture in the region.

As explained earlier, until 1958 the attempts to redistribute land to cultivators ended with the land being grabbed by shaikhs and city

174. Government of Iraq, Ministry of Planning, Central Bureau of Statistics, Results of the Agricultural and Livestock Census in Iraq for the year 1958-1959 (Government Press, Baghdad, 1961), p.7.

175. Ibid., p.312.

176. Ibid., p.91.

177. Ibid., p.280.

178. International Bank for Reconstruction and Development, op.cit., p.141.

179. D. Warriner, 1957, op.cit., p.142.

magnates. The settlement projects on Miri Sirf land, which started with the Dujaila project in the late 1940s, have had little impact in terms of the number of people receiving land. As shown in Table 2.8 by 1957 only 4,200 units of land had been distributed to, presumably, the same number of families, which represented less than 1 per cent of the families depending on agriculture.¹⁸⁰ The variable was therefore employed for the second period only. Distributed lands are expected to improve the income of the recipient families and their feeling of security. It is therefore expected that emigration from a region would be inversely related to the amount of land distributed in it.

$C_i(C_j)$ = the average annually cultivated land divided by the number of people depending on agriculture in region $i(j)$.

The land-labour ratio variable is intended in this model as a proxy for income per capita in the rural areas, for which there are no satisfactory estimates. During the period 1947-1965 four studies carried out by Fenelon, Haseeb, Maniakin and Rasputram have attempted to estimate national income in Iraq, but only Haseeb's study attempted to break up the data at the regional level. However, there are two serious drawbacks concerning the use of the regional income per capita in the rural areas, as estimated by Haseeb, for the purpose of assessing the standard of living. First, the regional figures were not adjusted for incomes transfer across provincial lines. Haseeb quite rightly considered the transfers of the profits of the crude oil production as the main

180. The number of people depending on agriculture was calculated from the agricultural census of 1958/59, which was 3,020,457. With the assumption that the average family includes six members, the number of families depending on agriculture would be 503,410. See, The Agricultural and Livestock Census in Iraq, 1958-59, op.cit., p.10.

Table 2.8 : The Miri-Sirf Projects in Operation by 1957

Name of the Project	Date Project started	Size of the Project in Donums	The Number of Units Distributed	Size of Units in Donums
Dujaila	1845	250,000	1,540	100
Hawila	1950	37,650	462	200
Shahrzoor	1951	32,500	380	70
Latifiya	1952	25,000	442	50
Makhmoor	1953	7,200	100	182/3
Sinjar	1956	1,000,000	935	150-300
Mussayab	1956	303,000	431	66
Total		1,644,350	4,200	

Source: W.E. Adams, "The Pre-Revolutionary Decade of Land Reform in Iraq", Economic Development and Cultural Change, Vol.11 (April 1963), p.272.

distorting factor, and adjusted the data in that respect by excluding the oil revenues.¹⁸¹ However, knowing that the landlords' share of the agricultural output is very high and that the majority of them live in large cities like Baghdad and Basra, whence they transfer and invest most of their incomes, the incomes transfer problem should not be overlooked if the data on regional agricultural output are to be used to indicate regional income per capita in the rural areas. Second, Haseeb's estimates of the regional value added of agricultural crops depended on crude criteria which assumed that productivity in agriculture is the same in all regions.

"The value added of field crops was distributed between the different provinces in the same proportion as the value of gross output of field crops. The value added of vegetables was distributed in the same proportion as the value of gross output in each province in 1960, for which detailed figures were available. The value added of fruit was distributed on the basis of the value of gross output in each province in 1958, which was based on the 1958-1959 census of agriculture, while that of dates was distributed on the basis of the value of gross output in each province in 1956".¹⁸²

The land-labour ratio variable is employed in each of the two periods. In the first period where large land-holdings dominated the agriculture sector, the concentration ratio was high and the cultivators were left with a very low level of income, the land-labour ratio was not expected to be a good proxy for income per capita. On the other hand, this variable is expected to be a better proxy and more significant statistically in the second period. It is expected that this variable is, ceteris paribus, negatively correlated with emigration.

181. K. Haseeb, The National Income of Iraq 1953-1961 (Oxford University Press, London, 1964), pp.12 and 29.

182. Ibid., p.177.

$Q_i(Q_j)$ = the literate people (males and females who can read and write) in the rural areas of region $i(j)$.

Some of the arguments that were applied concerning the effect of the education variable (L) may also be applied to this variable. The dissatisfaction hypothesis looks more applicable in the rural areas where the welfare conditions are virtually non-existent, and education and skills other than those directly applicable to agriculture are not rewarding. Educated people in the rural areas stand a better chance of finding a job in the urban areas than uneducated people, and those who have been educated in urban or semi-urban places have already made contact with the urban type of life which may strongly appeal to them and induce them to migrate. Due to the lack of data on the first period, the variable is applied for the second period only. It is expected that, ceteris paribus, the variable is positively correlated with emigration.

$S_i(S_j)$ = the ratio of the people enumerated in region $i(j)$ and born in region $j(i)$ to the number of people born and living in region $j(i)$, calculated at the beginning of the period.

The larger the number of immigrants in region (j) who were born in region (i), the more the flow of information from region (j) back to region (i) will be concerning employment opportunities, prevailing wage rates, social amenities and other welfare conditions. The presence of migrants in a destination region would also encourage potential migrants to move where relatives and friends of similar background would help to make the social transition easier, and also provide the recent migrant with food and shelter until he is settled. This argument may be exceptionally important in Iraq where most of the interregional migrants are of rural origin and would certainly require help from their friends in order to adjust to a completely different type of life.

It is important to point out that the distribution of relatives and friends is a function of past migration and all the variables that entered in its determination. Thus the introduction of the migration stock variable would reduce the overstatement given in most of the estimated coefficients.¹⁸³

The Results

With a view to determining the algebraic form of the migration function, linear and double-logarithmic constructions were tested. The following forms of the explanatory variables were tried, taking the urbanization variable (U) for illustration:

1. $U_i(j) = (U_i/U_j)^{\alpha_1}$
2. $U_i(j) = (U_i - U_j)^{\alpha_2}$
3. $U_i(j) = U_i^{\alpha_3}, U_j^{\alpha_4}$

It should be pointed out that Form (1) hypothesizes that migrants respond to relative differences in the variables. This specification implies that net migration has identical elasticity with respect to the origin and destination values of any variable (homogeneity restriction). Form (2) implies that migrants respond to absolute rather than relative differences in the variables, and the homogeneity restriction is also imposed as in the previous form. Form (3) implies that net migration may have different elasticity with respect to the origin and destination values

183. The migration stock variable was used in various studies on migration and produced successful results. For example see, M.J. Greenwood, "An Analysis of the Determinants of Geographic Labor Mobility in the United States", Review of Economics and Statistics, Vol.51, 1969, p.191; P.C. Langley, "The Spatial Allocation of Migrants in England and Wales 1961-1966", Scottish Journal of Political Economy, Vol.XXI, No.3, November 1974, p.272; B. Renaud, "The Economic Determinants of Internal Migration in Korea", Applied Economics, Vol.9, 1977, p.317.

of any variable. The different forms of the function and the variables were also tried at the regional level with 13 observations for each region. Only the results of Form (1) of the function for the country as a whole are displayed in this chapter, for they show more consistency with the theory and higher statistical significance than the regional results. (See Tables 2.9 to 2.12.)

The results revealed that the economic variables in the urban areas, namely the expected wage rate and the average wage rate variables, had insignificant effects on migration in both periods. With respect to this result the following reservations must be considered:

1. The average wage rate is calculated from data on the manufacturing industries, so in regions where the industries that employ a large proportion of the qualified manpower (and therefore pay comparatively higher wages), and are located, like the oil industries, in Baghdad, Ninevah and Dhok, Kirkuk, Anbar and Basra, the average wage rate will be overestimated, particularly for the rural migrants who stand little chance of getting a job in such industries.
2. The regional average wage rates were not deflated by regional price indices due to inadequate data. Therefore, the real wage rates in large cities like Baghdad, Mosul, and Basra may have been overestimated.
3. The two different estimates of the job opportunity index used in this study are based on Todaro's definitions. The first definition assumes that the employment turnover in the industrial sector is negligible, and the second definition assumes that the employment turnover is complete.

Table 2.9 : Linear Regression Results, 1947-1957

<u>Independent variables</u>	<u>Coefficients</u>	<u>Standard Errors</u>	<u>t-Ratio</u>
Ui/Uj	1523.08	250.72	6.0748***
Si/Sj	276.79	29.61	3.4770**
Yij	22.25	167.03	1.3301*
Gi/Gj	-4455.93	6825.52	-0.6528
Constant	2247.14	6897.31	0.3258

$\bar{R}^2 = 0.4503$

F = ***

df = 86

- *** = 1 per cent level of significance
** = 5 per cent level of significance
* = 10 per cent level of significance

<u>Simple Correlation Coeffieicents</u>				
Mij	Ui/Uj	Gi/Gj	Si/Sj	
Ui/Uj	0.6037			
Gi/Gj	-0.1020	-0.0762		
Si/Sj	0.3970	0.2284	0.0018	
Yij	0.2125	0.2166	-0.1030	-0.0449

Table 2.10: Logarithmic Regression Results (1947-1957)

<u>Independent Variables</u>	<u>Coefficients</u>	<u>Standard Error</u>	<u>t-Ratios</u>
Yij	0.8857	0.1325	6.6870***
Ui/Uj	0.5998	0.1546	3.8792***
Si/Sj	0.3049	0.0931	3.2761***
Gi/Gj	-2.5729	.1.3937	-1.8461**
Constant	5.3247	0.1697	31.3804***

$\bar{R}^2 = 0.5488$

F = ***

df = 86

* = 10 per cent level of significance

** = 5 per cent level of significance

*** = 1 per cent level of significance

<u>Simple Correlation Coefficients</u>				
	Mij	Ui/Uj	Gi/Gj	Si/Sj
Ui/Uj	0.4719			
Si/Sj	-0.1725	0.0321		
Yij	0.3965	0.3521	-0.0056	
Gi/Gj	0.5755	0.1724	-0.0958	0.0753

Table 2.11: Linear Regression Results (1957-1965)

<u>Independent Variables</u>	<u>Coefficients</u>	<u>Standard Error</u>	<u>t-Ratios</u>
Si/Sj	596.10	124.74	4.779***
Yij	568.61	149.21	3.811***
Ui/Uj	677.27	242.75	2.790***
Qi/Qj	-2219.91	1559.26	-1.424*
Ci/Cj	100.22	166.22	0.603
Ti/Tj	59.73	141.58	0.422
Constant	571.40	2118.99	0.270

$\bar{R}^2 = 0.4902$
F = ***
df = 84

* = 10 per cent level of significance
** = 5 per cent level of significance
*** = 1 per cent level of significance

	<u>Simple Correlation Coefficients</u>					
	Mij	Ui/Uj	Ti/Tj	Ci/Cj	Qi/Qj	Si/Sj
Ui/Uj	0.5255					
Ti/Tj	0.1245	0.2912				
Ci/Cj	-0.0833	-0.1768	-0.0087			
Qi/Qj	0.1193	0.1679	0.2031	-0.2958		
Si/Sj	0.5383	0.4861	0.1406	-0.1460	0.5030	
Yij	0.3220	0.1267	-0.0970	-0.1778	-0.0916	-0.0452

Table 2.12 : Logarithmic Regression Results (1957-1965)

<u>Independent Variables</u>	<u>Coefficients</u>	<u>Standard Error</u>	<u>t-Ratios</u>
Yij	0.8264	0.1616	5.112***
Ui/Uj	0.3485	0.2179	1.599*
Si/Sj	0.5423	0.1756	3.089***
Ci/Cj	0.2874	0.1582	1.816**
Ti/Tj	0.2021	0.1428	1.415*
Qi/Qj	-0.6698	0.5406	-1.239
Constant	5.9149	0.2116	27.947***

$$\bar{R}^2 = 0.3934$$

$$F = ***$$

$$df = 84$$

* = 10 per cent level of significance

** = 5 per cent level of significance

*** = 1 per cent level of significance

	<u>Simple Correlation Coefficients</u>					
	Mij	Ui/Uj	Ti/Tj	Ci/Cj	Qi/Qj	Si/Sj
Ui/Uj	0.3759					
Ti/Tj	0.2800	0.4560				
Ci/Cj	0.0163	-0.2638	0.0941			
Qi/Qj	0.0893	0.2478	0.1550	-0.3544		
Si/Sj	0.2973	0.4583	0.2008	-0.3275	0.6677	
Yij	0.4049	0.0847	-0.0323	-0.1133	-0.0644	-0.1075

Both definitions assume that the time horizon considered by the migrant to obtain a job in the industrial sector is one year, and that the selection of the employees is random. Both of the estimates yielded equally insignificant results. While it is our contention that the employment turnover in the industrial sector of Iraq is low, there are no data to qualify this hypothesis. The randomness of the selection procedure is also arguable for political, social and ethnic reasons, but the extent to which this source of bias exists is unknown.

It is worth pointing out that the reasons stated above, which could have contributed to the insignificant results of the used variables could equally have existed in other studies in which these variables were highly significant.¹⁸⁴ It is more likely that the insignificant results of the industrial wage variables are due to the exceptionally poor economic conditions we discussed earlier which exacerbated the pressure that the rural push forces exerted on rural migrants, who represent the great bulk of the interregional migrants, and forced them to be content with simple jobs in the service sector with a wage rate considerably less than that in the industrial sector.

The education variable and the urban education variable are found insignificant in the two periods respectively. As was noted earlier, the forces these variables exert on migration may counteract themselves. However, the multicollinearity between the variable and the urbanization variable may have contributed to the result.

184. See, for example, G. Laber, R.X. Chase, "Interprovincial Migration in Canada as a Human Capital Decision", Journal of Political Economy, 1971, pp.801-2.

The urbanization variable is found significant in both periods. The size of the urban centre reflects to a certain degree all the non-economic factors as well as indicating the employment opportunities in the service sector where jobs would be satisfactory to the rural migrants.

The distance variable is found significant with the correct negative sign in both periods. When the distance variable was replaced with the contiguity dummy variable the correlation coefficient improved, and the dummy variable was significant.

The rural education, Gini Index, land/labour ratio, redistribution rate and migration stock variables are all found significant with the expected sign.

The multiple correlation coefficients for the two periods were rather low. The reasons may be the limited number of explanatory variables inserted in the model on which the data are available, the inaccuracy of the data we used, the aggregate form of the migration variable, etc. However, many other migration studies which used cross-section data have obtained similar results.

Conclusion

The rural factors are shown to have had more influence on inter-regional migration than the urban factors in both periods. Floods, soil salinity and fluctuations in weather conditions were serious factors which lowered the productivity of the land and the income per capita in the rural areas. Until 1958 the landlords always managed to take a large share of the output, charged high rates of interest and kept the cultivators at the subsistence level and tied to the land. The housing, health and diet conditions were also desperate. In most cases the only barriers to

migration were the laws, particularly those of 1932, 1933 and 1938, and the direct force exercised by the landlords. Nevertheless, large numbers left the villages despite the risks they encountered, which varied from being returned home by force of law, to the expulsion (after confiscating their livestock and property) by the landlords of the migrants' family and relatives who could not leave the village. After 1958 and the enactment of the Agrarian Reform Law, the power of the landlords diminished, and the laws enacted before 1958 which tied the cultivators to the land were abolished. At the same time promises were given that the expropriation and redistribution process would be completed soon, and that agrarian co-operatives would be formed to organize the cultivation and marketing activities, and to replace the previous links the cultivators had with the landlords and their agents. The cultivators welcomed the new policy and waited for the promises to come true. In the meantime, they had to resist blackmail by the landlords, inefficiency of the bureaucracy in government offices handling the application of the new law, and uncertainty of the future. The political instability, the delay in the application of the new law and the disturbed social order in the rural areas made the cultivators sceptical about the future, and the migration waves started again, but this time more freely, because the risks the migrants used to face before had disappeared, and furthermore the promises given by the government to the residents of the shanty-towns on the outskirts of the cities were equally appealing to the potential migrants in the rural areas.

The dominance of the rural push factors in the migrants' decision function were clearly revealed in the results of a survey conducted by D. Phillips in 1957 in four parts of the outskirts of Baghdad city where

they were asked why they had left their place of birth, the common answers were such as: "We did not have enough to eat", "Oppression by the landlord", "Dispute with the landlord over the size of our share", "We could not get enough water for our crops", "Our land was flooded and the crop died". The results also reflected the insignificance of the job opportunities and the wage rate in the industrial sector on migration. Only 12.8 per cent of the migrants were employed in the manufacturing industries, while about 75 per cent were taking simple jobs in construction as hod carriers and mud-hut builders, and in the service sector as guards, porters, servants and unskilled office workers who were employed in large numbers especially by the government; some of the migrants were working as vendors of milk products, vegetables, cigarettes and candies. Most of these occupations were, in fact, disguised unemployment, but they still provided income which was considerably higher than that the migrants used to receive in the rural areas. About 40 per cent of the families received an annual income of about ID.90, 17 per cent received ID.150, and the top 18 per cent received about ID.200 or more. 80 per cent of the families believed their total incomes, in cash and kind, to be higher than in the rural areas; 75 per cent believed their present housing to be better, and 90 per cent believed their present diet to be better. In general the migrants were satisfied with the income they received from rather unproductive jobs. Jobs in the industrial sector, which provides comparatively higher incomes, were not urgently sought after by the migrants, and their availability may not have been an important factor in the migrants' decision function when they left the rural areas. In this case, the equilibrating mechanism of the job opportunity index in the industrial sector, as proposed by Todaro, would

be ineffective, and the equilibrium employment rate of migration would be much higher than that estimated by Todaro-type models. Migration from the rural areas towards the large urban centres will continue as long as the expected income of the migrant in urban centres is higher than that in the rural areas, irrespective of the type of jobs obtained. With the subsistence income and poor standard of living prevailing in the rural areas, the effective policy to control migration seems to be that which concentrates on improving the welfare conditions there. The policies pursued by the government in the 1960s aimed at solving the migration problem by subsidizing the migrants and replacing the shanty-towns around the cities with brick houses, while failing to make considerable improvements in the rural areas, had only been self-defeating and produced more migration.

CHAPTER III
RURAL-URBAN MIGRATION

Introduction

As discussed in Chapter I, the regional population growth rates during the two periods of 1947-1957 and 1957-1965, have varied considerably. The variations were mainly due to the considerable differences in the net migration component of the regional growth rates.

Internal migration has been originating mainly from the rural areas and drifting towards the urban centres. Policies for controlling the rural-urban migration would not be successful unless they were based on intensive studies and adequate data. Data concerning the number of the migrants, their economic and social backgrounds, their perception of their conditions in the rural areas and the expected conditions in the potential destinations, and their personal characteristics at the time of migration, are all of essential value if an effective migration policy is to be drawn up. Apart from the question included in the three censuses concerning the individual's region of birth, which is relevant to the measurement of internal migration, the censuses results shed no light on the economic and social background of the migrants and their personal characteristics. Available sources other than the censuses provide very little information in this respect, therefore intensive surveys and studies on migration are much needed.

A sample survey can be double-ended, i.e., conducted in the rural and the urban ends of the movement. Alternatively, the sample may be restricted to one of the two ends only, due to certain constraints such as time and expense. The data collected in each of the two ends have

advantages and drawbacks. The data obtained by the urban sample provide first-hand information as to why the migrants left the rural area,

including information on their economic and social background, personal characteristics and their perception of the push and pull factors in the rural and urban areas, all, of course, at the time of migration. On the other hand, it may be argued that the respondents in this case would be mostly the migrants who have managed to settle successfully in the urban area, whose opinion may exaggerate the push factors and the hardship in the rural areas and the advantages in the urban areas. The long period that may lapse between the time the survey is taken and the time of migration of some of the respondents may generate inaccuracy in the information given by the migrants regarding their economic and social background at the time of migration. While the information collected by the urban survey is of great importance to explain previous migrations, it is of less value when it comes to future migration, as the urban survey excludes the potential migrants who are residing in the rural areas.

The data obtained by the rural survey give second-hand information regarding the personal characteristics of the migrants at the time of migration, and offer very little information concerning their present condition in the urban area. These data provide no information on the migrants who migrated as households rather than as individuals, and did not leave members in the rural area who could participate in the survey's inquiry. The long time that may elapse between the time when the survey is conducted and the time of migration may reduce the relevance of the information given by the rural respondents concerning the social and economic conditions in the village, to the actual causes

of migration. In the rural survey the respondents are mostly non-migrants and some returned migrants, whose opinion may therefore tend to exaggerate the advantages in the rural areas and the disadvantages in the urban areas.

On the other hand, the respondents in the rural survey are regarded as potential migrants, and therefore studying their economic and social background and their perception of the factors that influence migration, is of great importance to interpret present and future migration.

The rural society in Iraq with its tribal roots and structure has kept the rural family ties strong. The rural migrants usually keep in touch with their villages and family members, either through the visits they make to the village on certain religious and social occasions, such as Eid al-Adha, Eid al-Fitr and Ashoora or through the visits their relatives and friends make to the urban centres. This aspect of the rural society in Iraq would lessen the defects in the information collected in the rural survey concerning the background and personal characteristics of the migrants, which was discussed earlier. Moreover, migration is the least static of all demographic phenomena, and since we are more interested in studying present and future migration rather than past migration, it is preferable for this research to consider field-work in the rural areas.

Two alternative methods of running a rural sample survey were ruled out in this research. The first is the double-run method, which is based on two stages. In the first stage a list is compiled of all the households making up the sample in the selected village, and then a questionnaire form is filled in for each household included in the sample

giving standard information on each individual, such as age, sex, marital status, level of education, occupation and income. Then after a reasonable interval, usually a year, the second run is made, and this reveals the exits (deaths and migration) from the population in the sample, and makes it possible to assess the volume of migration as well as describe the migrants qualitatively. This method was ruled out as unsuitable to this research because of the long time that has to elapse between the two runs and the high cost of the double-run procedure.

The second method is designed to cut out the first run by using an existing statistical document such as population census, providing that it is fairly recent, usually not older than five years, thus making it easier to identify the households and the individuals. This method was rejected because the nearest population census that classified the rural population by villages in Iraq was the one of 1957, which is rather too old to be used for this purpose.

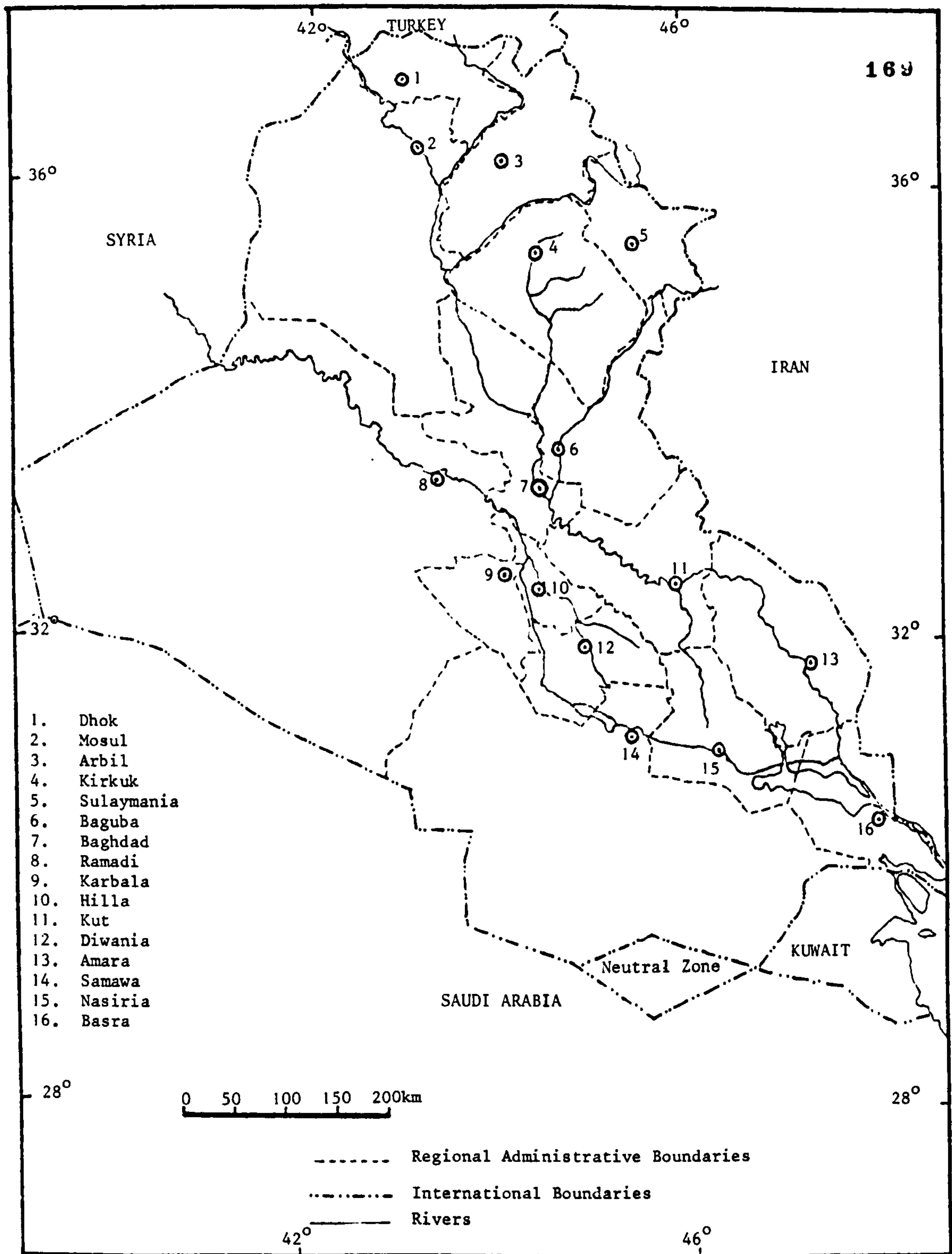
The field-work of this research was conducted in the rural areas of Ninevah and Babylon regions, in villages and rural schools. The work was done between November 1974 and April 1975, during which time data were collected on 138 extended households, which included 1,394 individuals, residing in 70 villages in the region of Ninevah, and 94 extended households, which included 965 individuals, residing in 40 villages in the region of Babylon. The sample was spread over villages randomly selected, and represented nearly 5 per cent of the total number of villages in each of the two regions.

1. The Selection of Ninevah and Babylon

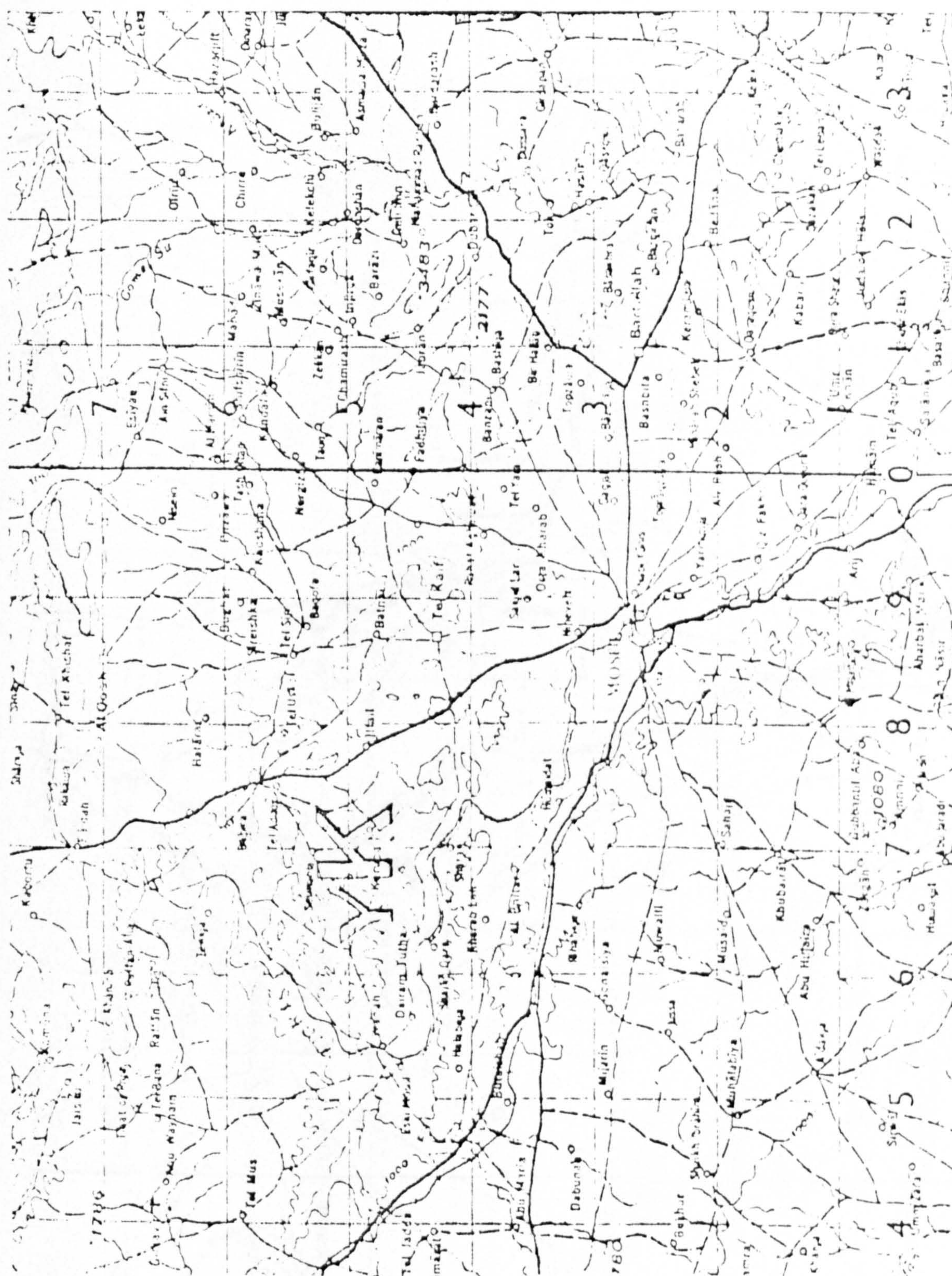
The two regions of Ninevah and Babylon were deliberately selected for this research from among the sixteen administrative regions because of their contrasting economic characteristics see Maps 3.1, 3.2. and 3.3. In Ninevah region about 98 per cent of the cultivated land depends on the rainfall, 1.3 per cent depends on flow irrigation, and 0.6 per cent depends on pump irrigation.¹ Nearly 98.5 per cent of the land under temporary cultivation is planted with temporary winter crops, of which 99.8 per cent are wheat and barley.² Other winter but non-cereal crops like broad beans, lentils, chick peas, Swiss chard, green onions, turnips and beetroot are also grown in the region, but comprise only a very small proportion of the land cultivated with winter crops, and involve a tiny part of the holdings. The summer crops cover only 1.5 per cent of the total cultivated land and involve about 13.9 per cent of the holdings. About 51 per cent of the land cultivated with summer crops is under industrial crops like cotton and sugar beet. Land under permanent cultivation included about 0.3 per cent of the total cultivated land, and involved about 3.5 per cent of the holdings.

The conditions in the Babylon region are clearly different from those in Ninevah. About 0.5 per cent only of the cultivated land in Babylon depends on the rainfall; 90.9 per cent depends on flow irrigation; 4.9 per cent on pump irrigation, and 3.7 on other means of irrigation.³ About 67.9 per cent of the cultivated land is under

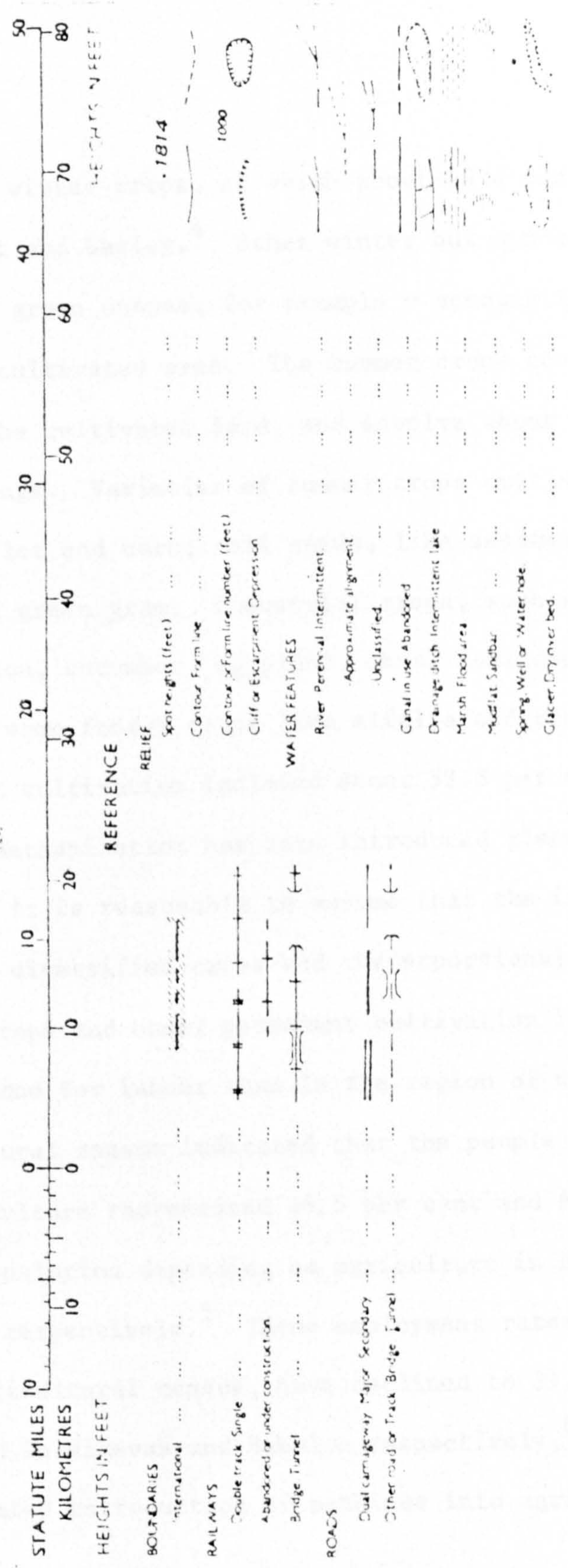
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1. The Results of the Agricultural and Livestock Census in Iraq for the year 1958-59, op.cit., p.25.
 2. Government of Iraq, Ministry of Planning, Central Statistical Organization, Results of 1971 Census of Agriculture (CSO, Baghdad, December 1973), Vol.I, pp.36, 40 and 44.
 3. The Results of the Agricultural and Livestock Census in Iraq for the Year 1958-59, op.cit., p.225.



Map 3.1 : Iraq: The Administrative Regions



Map 3.2 : The Region of Ninevah



Key to Maps 3.2 and 3.3

temporary winter crops, of which about 99.4 per cent is planted with wheat and barley.⁴ Other winter but non-cereal crops - broad beans and green onions, for example - account for very little in terms of cultivated area. The summer crops cover about 15.9 per cent of the cultivated land, and involve about 49.2 per cent of the holdings. Varieties of summer crops cultivated include cereals - paddy, millet and corn; oil seeds, like sesame; legumes like string beans and green gram; industrial crops, such as cotton; vegetables - water melon, cucumber, eggplant, okra, tomatoes, squash and onions; and also some fodder crops like alfalfa and clover. Land under permanent cultivation included about 53.8 per cent of the holdings.

As mechanization has been introduced almost equally in the two regions, it is reasonable to assume that the irrigation system, the more diversified crops and the proportionally larger areas under summer crops and under permanent cultivation in Babylon, would create more demand for labour than in the region of Ninevah. The 1958 agricultural census indicated that the people employed permanently in agriculture represented 46.5 per cent and 60.0 per cent of the total population depending on agriculture in Ninevah and Dhok and Babylon respectively.⁵ These employment rates, according to the 1971 agricultural census, have declined to 39.5 per cent and 53.5 per cent in Ninevah and Babylon respectively,⁶ mainly due to the accelerated introduction of machines into agriculture. The

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4. Results of 1971 Census of Agriculture, op.cit., pp. 36, 40 and 44.
 5. The Results of the Agricultural and Livestock Census in Iraq for the Year 1958-59, op.cit., pp.26 and 256.
 6. Results of 1971 Census of Agriculture, op.cit., pp.132 and 136.

differences between Ninevah and Babylon regions in terms of area, rural population density, the method of irrigation, the crops cultivated and employment, are very strong. The characteristics of the southern regions in general are close to those of Babylon region, while the characteristics of the northern regions are generally close to those of Ninevah region. The study of these two regions would therefore provide a good understanding of the factors relevant to rural-urban migration in the country.

Details concerning the life in the village were slightly more concentrated on Ninevah region, where more access was given.

2. Life in the Village

a. Housing

Accommodation does not represent a problem in the village. The skills, the labour force and most of the materials required to build a house are available in the village at a low cost. The majority of the villagers in Iraq live in mud houses (huts), and a very small number of the village residents live in tents or brick or stone houses, except in the marsh areas in the south where the sarifa, made basically of reeds, is a common form of accommodation. The average family of about 6 people usually has about 2 to 3 huts used for different purposes. The family tend to sleep all in one hut, for security reasons and also to reduce the cost of heating by kerosene or wood during the winter. The other huts are used for guests, to house the livestock and to store the food supply, moona. Sometimes an extra hut is kept to be occupied by an adult member of the family

after his marriage. The huts are usually built in the form of compounds with a courtyard, housh, in the middle, where a shaded mud oven, tannoor, is built in which the daily bread is baked. The yard is also used as a safe play-ground for the very young children.

Two different main types of huts are recognized in the village, the khaban type and the jamalon type. The khaban hut is the more expensive and the more hygienic of the two, and it is also the less common. The khaban hut, on average, is about 13 metres in length, 6 meters in width, and 4 to 5 meters high. The hut is built with mud bricks, liben. The brick, libna, is about 40 centimetre long, 20 centimetres wide, and 10 centimetres high. The mud bricks are prepared either by members of the family, or relatives, or by people from the village hired for that purpose. The mud is dug and mixed with water and then cut by wooden frames into bricks which are left in the sun to dry before they are used in the building. The mud is usually dug near the place where the hut is to be built. If water is not available near the building site, then the mud may be dug and cut somewhere else near the village, and the bricks are then carried by a cart to the building site. The cost of the mud bricks, if prepared by a hired worker, is about ID.10 per 1,000 bricks.

The building usually takes place early in the summer when water is still in sufficient supply after the rainy spring. Excessive rain in the spring could ruin the mud bricks if they

were cut then. The high temperature early in the summer is also useful for drying the bricks quickly and strengthening the new building. On the roof, thin wooden poles about 10-15 centimetres in diameter are laid widthwise over the hut with a distance of about 60 centimetres between one pole and another. One khaban hut takes about 20 poles. The poles are then covered with wire netting. On the top of that cane mats are laid with some small stones on them to keep them flat. Each mat costs about ID.0.60, and a single khaban hut requires about 15 mats. On the top of the mats fresh straw, usually collected during the harvest which starts in May, is laid to a thickness of about 10-15 centimetres. On the top of the straw one layer of mud bricks are placed, and then the whole roof is daubed with thin mud.

The jamalon hut is smaller in size. It is about 12 metres long, 4.5 metres wide and 2.5 metres high. On the top two thick wooden poles are laid lengthwise over the hut, one from each end, and meet in the middle at a supporting central pillar. From each of the long sides and resting against these two poles about 20 thinner and shorter poles, shagel, are laid to form a triangular roof. On the poles straw or cane mats are placed which are then covered with thin mud. The estimated costs for one khaban hut and one jamalon hut are presented in Table 3.1. The jamalon type is considerably cheaper, smaller in size and more primitive. This type is also without windows, for which holes are substituted, making the hut less hygienic. In general, the cost of building a hut is relatively small, especially if

Table 3.1 : The Estimated Costs of one Khaban hut and one Jamalon hut

<u>Materials</u>	<u>Khaban</u>		<u>Jamalon</u>	
	ID	Per cent	ID	Per cent
Mudbricks	40	38.1	13	26.0
Cane mats	9	8.6	3	6.0
Poles and pillars	30	28.6	22	44.0
Wire-netting	2	1.9	-	-
Door	2	1.9	2	4.0
Windows	2	1.9	-	-
Wages	20	19.0	10	20.0
TOTAL	105	100.0	50	100.0

PHOTOGRAPH 1

A general view of a typical village in terms of size and architecture.

PHOTOGRAPH 2

A housewife making clay bricks by using a wooden frame while her husband is digging up the clay. Women also participate in hard work like building the household huts.

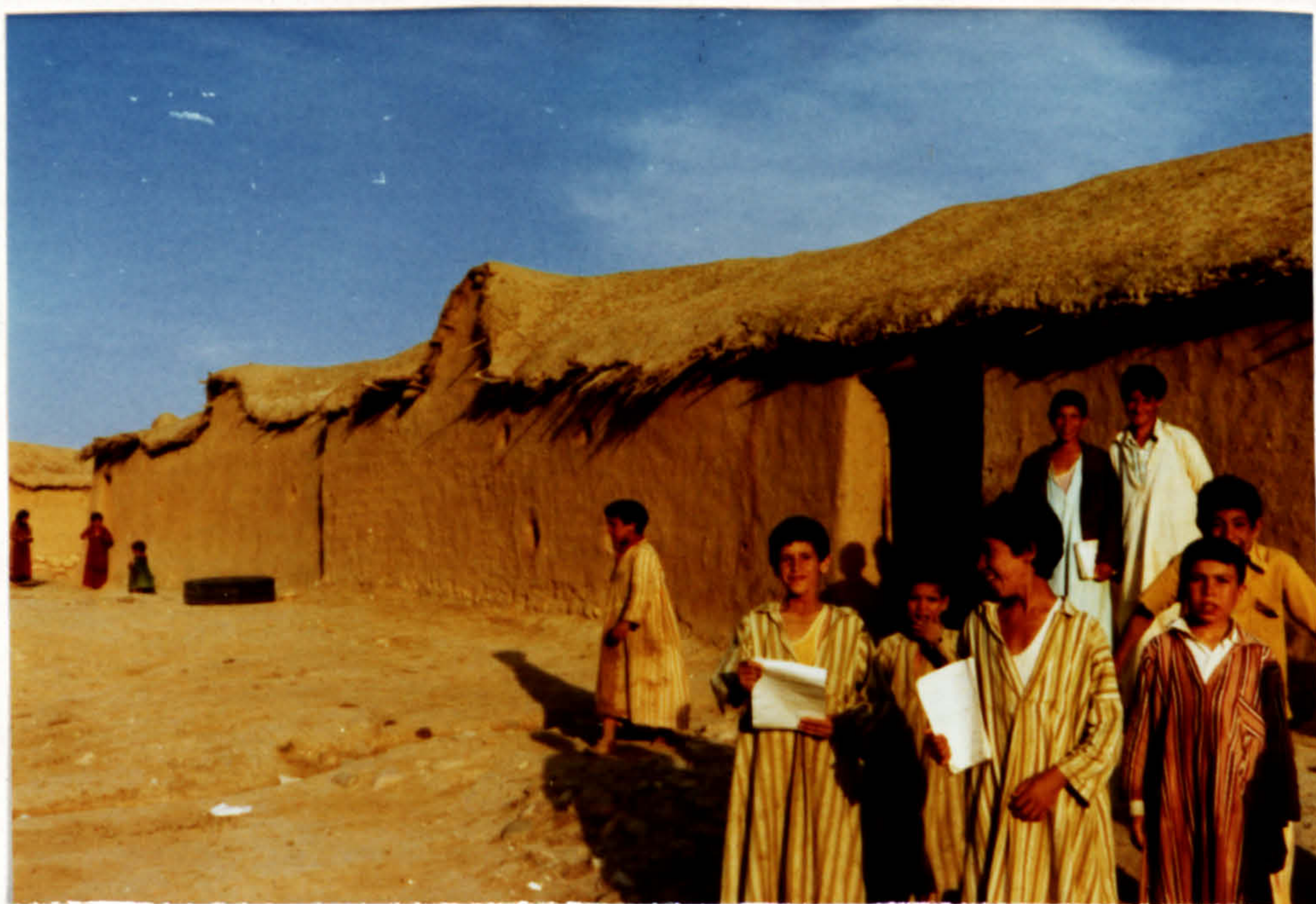


PHOTOGRAPH 3

A comparatively prosperous village with electricity, better houses of the khaban type, wells for drinking water and large numbers of livestock.

PHOTOGRAPH 4

A comparatively less prosperous village. It has no electricity and the houses are of the cheaper jamalón type. Children in poorer villages seem to be even more enthusiastic about attending school.





PHOTOGRAPH 5

A village household, composed of two families, visited by a third migrant family which, prior to migration, was part of the household. The migrants - adults and children - are better dressed than the village residents, which reflects better economic conditions.

cutting the mud bricks and the construction are done by members of the family. This would reduce the cost of the khaban hut to about ID.45, and that of the jamalon hut to about ID.27, which represents about 11.4 per cent and 6.8 per cent respectively of the average annual expenditure of a family with six members.⁷

Larger families usually have a larger number of huts in their compounds to satisfy their needs, and as long as they have the labour force to build them, their incomes represent no constraint in that respect. A compound may accommodate a group of people who are interdependent economically but are not necessarily family in its strict definition of husband, wife and children. See photographs 1-5.

b. Food

The quality of the food consumed in the three daily meals in general differs markedly from one season to another. During the winter, the breakfast, reyoog, which starts at sunrise, includes tea, bread which is baked daily before sunrise, clarified butter, dihn hur, and crushed sesame, tahinia. Only better-off families can afford the last two items for all the members. Poorer families usually reserve the last two items for the head of the family. The lunch, ghada, includes wheat products like burghul and reshta, rice and onion. The dinner, asha, includes tomato sauce, onions, potatoes, beans, Swiss

7. The family income is taken from Government of Iraq, Ministry of Planning, Central Statistical Organization, Annual Abstract of Statistics, (CSO, Baghdad, 1973), p.561.

chard, broad beans, turnip and beetroot. During the spring, the breakfast includes tea, bread and yoghurt; and some families can also afford to have eggs which alternatively can be profitably sold in the city. The lunch includes tea, bread, dates yoghurt and butter, when the stored burghul is almost finished. The dinner includes meat more than it does in any other season, and various sorts of vegetables produced in the village are also consumed. The villages that do not cultivate vegetables can afford to buy them from the city or from nearby villages at the relatively cheaper spring prices. During the summer the breakfast includes tea, bread, yoghurt and, sometimes, eggs. The lunch includes bread, grapes, melon, water melon, and tomatoes. The dinner includes bread, okra, eggplant, squash and meat only occasionally.

c. Stored Food

The villagers store various kinds of food in the summer in order to eat them during the winter season. Wheat is at the top of the list of stored food. It is stored skillfully and consumed in various ways. The type of wheat suitable for this purpose is the Turkiya. The villagers who are not growing this type of wheat would either exchange other products for it with fellow-villagers, or buy it from the city market during the harvest season when its price is low. The wheat is washed, boiled and left to dry. Then, usually, the wheat of all the families in the village is taken together to the mill, either in the same village if there is one, or to a nearby village or

Nahia centre, where it is crushed and milled at various degrees. Back in the village it is winnowed and then sieved to produce three different sizes of crushed wheat, large size - habbia; medium size - burghul, and a small size - naama. The chaff that is produced when the crushed wheat is winnowed is used as fodder, and sometimes as stuffing for pillows. The wheat, other than the Turkiya type, may also be crushed without being boiled first, to produce jareesh, which as a food is used as a substitute for burghul, or it may be milled to produce flour for the daily baked bread, and noodles, rishta, which are made of dough. The chaff of the flour is also used as fodder. All the wheat products mentioned above are then stored in the huts in special stores built of mud; kwara, if it is small, or enbar, if it is large. After it is filled the store is closed from the top, and the only exit is a small hole in the bottom near the floor. The hole is kept closed with a piece of cloth and daubed with mud. The wheat may also be stored underground in the village yards. The store, jafra, is levelled with the ground, and each family marks their own store. Meat is also stored in the summer and consumed during the winter. A heifer is usually looked after and fed well during the summer, and slaughtered in the autumn. The fat is separated, cooked and stored in a pitcher. The meat and the bones are also separated, laid in a small pool and covered with salt. Later they are put into a pitcher filled with water, and the top is covered with nylon and a cloth, and then daubed

with mud and left for about a month. After that the bones and the meat are used in cooking whenever needed. Butter and clarified butter, ghee, are stored in the spring when the production of milk is at its peak.

d. Sources of Income

The majority of the villagers depend for their living on income from agriculture and livestock. Those who have no land to cultivate or livestock to graze are engaged in other jobs in their village, or in a nearby village. These jobs include the following:

- i) Cutting mud bricks and building huts. This job is usually available early in the summer and is done by men as well as women, but women tend to participate mainly in building huts that belong to their family or relatives.
- ii) Sieving the harvested wheat to separate the whole ears, kozara, left by the harvester from the thrashed grain.
- iii) After the harvest collecting the chaff from the field which is sold as fodder.
- iv) Driving tractors and harvesters during the ploughing and harvesting seasons.
- v) Getting water from the well for all families in need in the village, for drinking, washing and for the livestock during the summer and autumn seasons when the pools that gather the rainwater which is used for these purposes during the winter and spring, is dry. In some villages special large wells, dayar, are built

for this purpose, and the water is extracted in a large bucket made of the hide of a camel's neck, and hauled up and down by a horse.

- vi) Sheep shearing at the end of the spring season.
- vii) Working as a shepherd for people in the village who own livestock, usually sheep and cows. The shepherd gets either seasonal or annual wages as well as his daily food, and when he works for several owners each one contributes to his meals. The shepherd may also work for owners living in the city who keep their livestock in the village in the care of a village resident, who then assigns a shepherd to it.
- viii) Women may work as tailors, making shirts and caftans, dashdasha, in particular, and they usually receive a piece of cloth from the customer, and get paid in cash.
- ix) In some of the villages one or more of the residents may work as shopkeepers supplying basic goods like tea, sugar, soap, cloth, etc. In larger villages some residents work as butchers, drivers, or may keep tea-shops. In some of the larger villages the inhabitants may devote a hut to religious practices, in the manner of a mosque, and take upon themselves the responsibility of looking after it and providing the necessary religious services. Mendicants who make charms and amulets, particularly for women, may also be found in some village mosques, but their number has very much declined in recent years.

e. Grazing

Grazing and caring for livestock is the job that takes most of the villager's time throughout the year, but the amount of work required for this purpose varies from one season to another. All members of the family who are over 6 to 7 years of age participate in this job irrespective of their sex or age. The peak season for this job is the spring when large areas covered with wild plants and grass may be used as natural pastures. Round about 8 to 9 in the morning the shepherds, who are usually adults, take the herd to a grazing area not more than a few miles away from the village, while the newly-born lambs will be taken by children to a place near the village. At about 4 in the afternoon, the herds are returned to the outskirts of the village, and mixed with the lambs for suckling. After about an hour the lambs are separated, alazla, which if the number of lambs is large, may turn out to be a spectacular and energy-consuming job, as the lambs try constantly to break away to join the flock. The lambs are then taken to the village to be kept in a fold built of mud, koza, and later in the evening to a separate hut. The flock is taken back to the grazing area for the rest of the evening, maasha. At about 9.00 pm, the flocks are brought back to the village, and in this season (spring) proper fodder of barley may be given to them. Alternatively, the flocks may be given grass collected for them from various grazing places by children, and carried back to the village on donkeys. The flocks are kept in their huts until about 3 in the morning, when they are taken again for grazing, minshar. At about 9.00 am they are brought to

the village for the morning suckling session, and an hour later they are separated and taken back to grazing. This routine continues during the first 3-4 weeks of spring. The milking starts in March as lambs become less dependent on milk. The flocks are then milked twice a day, at 9.00 am and at 4.00 pm, leaving only a little milk for the suckling lambs.. In April and May some of the lambs will be sold in the city market, or may be slaughtered for food. The milking continues throughout the summer, and stops in September when the grazing is confined to the straw left in the fields after the harvest, fraz. Throughout the summer and the first half of the autumn season, the herds are left out in the fields during the night because of the high temperatures. The accumulated manure in the places where the herds have spent the nights, aldawar, is used by the villagers as fuel, and is collected in the morning by a village housewife who may have to book her turn for the collection the night before. During the winter season the fraz is finished, and the grazing plants disappear. The herds in this season depend for their food almost entirely on the fodder provided for them. Fodder during the winter may be taken to the herds in the grazing area before noon; the herds will be back in their huts in the evening where a sufficient amount of fodder is given to them, and at about 3-4 am they are fed again. This routine continues until the spring.

f. Making and Marketing Dairy Products

After each milking session, the women boil the milk and set the cream on one side. After the milk is cooled it is

curdled to produce yoghurt, khather. Early in the morning the yoghurt from the two milking sessions of the day before are taken to the city in aluminium saucepans, satla, or in a specially tanned and prepared goat hide, shechwa, with other things like eggs and chickens. The journey to the city starts at about 4 in the morning. The housewife may prefer to produce full-fat yoghurt without taking the cream. In this case, the yoghurt would be put in the shechwa early in the morning and shaken for about an hour, and the floating butter isolated. The butter is stored in a pitcher and covered with a thin layer of salt. The low-fat yoghurt, leban, is sold in the city market, or consumed in the village. When a large quantity of butter is accumulated, it is heated to produce clarified butter, dihn hur, which can be sold in the city at a high price.

g. Borrowing

The villagers continually borrow from each other in the village. The borrowing increases markedly at the end of the winter season when most of the income in cash and kind saved from the summer harvest has been spent or consumed. The villagers do not charge interest on the money they lend, and they usually lend money in terms of wheat. If, for example, the amount of money borrowed was the equivalent of 50 kg of wheat in the winter, it will be returned in the summer to the amount of 80 kg, or even more. All the cash incoming to a household is handled by the head, who then allocates it to members according to their needs. He will also borrow and pay back loans on behalf of members of the household.

3. Village Size and Dispersion

The rural population in Iraq live in relatively small and scattered villages. The last population census that provided some information on the villages was that of 1957. It revealed that the rural population (including the Bedouins) were distributed among 14,288 villages where the average village population was about 270 people. The average village population differs markedly from one region to another. Table 3.2 shows that in the northern regions the average village population is considerably less than it is in the south. In the north, unlike the south, most of the land is cultivable and agriculture depends on the rainfall. Drinking water for the villagers as well as their livestock is available, not only by the Tigris river and its tributaries, but also by a very large number of springs and wells, and also ponds where the water from the winter and spring rain gathers. The ponds may last until the middle of the summer season. As a result of the more severe fluctuations in rainfall, and consequently output and income, in the north, the villagers have depended more on their livestock. Thus large villages in the north would be a considerable disadvantage because they would increase competition among the residents on nearby natural pastures on which their livestock depends during, at least, the spring and summer seasons. In the south the cultivable land is concentrated around the banks of the Euphrates and Tigris rivers, and agriculture depends mostly on irrigation. Because of the availability of water during the summer, more summer crops as well as fruit trees and date palms are cultivated in the central and southern parts of the country, which require more labour. The greater need for labour and the lesser dependence on livestock have

Table 3.2 : Villages and Village Residents by Regions

Regions	Villages with less than 300 residents		Villages with more than 300 Residents		Total number of villages	Male Residents	Female Residents	Total Residents
	Number	%	Number	%				
Ninevah & Dhok	2,390	85.4	410	14.6	2,800	243,736	240,140	483,876
Sulaymania	1,162	82.6	245	17.4	1,407	117,035	108,225	225,260
Arbil	1,030	84.4	191	15.6	1,221	98,800	101,526	200,326
Kirkuk	1,252	87.1	186	12.9	1,438	118,578	117,474	236,052
Diala	920	82.5	195	17.5	1,115	128,423	125,186	253,609
Anbar	490	84.2	92	15.8	582	98,714	91,423	190,137
Baghdad	813	82.3	175	17.7	988	228,040	228,950	456,990
Wasit	433	69.3	192	30.7	625	105,599	120,352	225,951
Babylon	485	87.7	68	12.3	553	123,167	126,837	250,004
Karbala	94	68.6	43	31.4	137	21,755	22,110	43,865
Qadisia and Muthanna	1,026	86.1	165	13.9	1,191	194,848	205,973	400,821
Maysan	573	85.5	97	14.5	670	120,076	126,181	246,257
Thi-Qar	1,168	90.3	126	9.7	1,294	170,436	202,808	373,244
Basra	89	33.3	178	66.7	267	131,166	135,959	267,125
Iraq	11,925	83.5	2,363	16.5	14,288	1,900,373	1,953,144	3,853,517

Source: Calculated from Population Census 1957, op.cit.; Al-Ansari, op.cit., p.127; and Government of Iraq, Ministry of Planning, Central Bureau of Statistics, Statistical Abstract 1964 (Government Press, Baghdad, 1965), p.125.

encouraged the rural population in the south to settle in comparatively large villages. The same reasons discussed above have made it easier in the central and southern regions for a number of villages to exist within a shorter distance from each other than in the northern region.. The figures in Tables 3.3 and 3.4 show the rural population density at the Nahia level in Ninevah and Babylon regions, the two regions included in the field-work. In general, the rural population density in Babylon is nearly 4.4 times the density in Ninevah. Rather expectedly the differences in the rural population densities at the Nahia level, are greater in the region of Babylon than in Ninevah and Dhok region.

4. Uncertainty

The villagers in Iraq are suffering from a high degree of uncertainty regarding their income. Fluctuations in the rainfall cause fluctuations in agricultural production in the northern rain-fed zone and also, but to a lesser extent, in the irrigated zone in the south. Soil salinity in the south has also been a major factor of uncertainty where the yield decreases gradually, and sometimes sharply, as salt accumulates. The increased investment in drainage in the last decades is expected to lessen the fluctuations in the south. In terms of the area cultivated, the three major products in Iraq are wheat, barley and rice. The area cultivated with these crops represented 90 per cent, 89 per cent and 87 per cent of the total cultivated area, as reported in the agricultural censuses of 1952-53, 1958-59, and 1971 respectively. (Table 3.5). Diagrams 1 to 6 representing the output of the three major products in the regions of Ninevah and Dhok and Babylon during the period 1949-1974,

Table 3.3 : Area, Population Distribution and Population Density by Sub-Regions in the Region of Ninevah

Sub-Regions	Area km ²	Total population	Urban population	Rural population	Percentage rural population	Rural population density per km ²
Mosul Qadha Centre	134	264,146	264,146	-	-	-
Hamdania	1,174	43,390	7,410	35,980	9.37	30.65
Telkaif Nahia	758	31,031	7,381	23,650	6.16	31.20
Bashiqah Nahia	548	24,773	3,887	20,886	5.44	38.11
Humaidat Nahia	2,188	25,222	948	24,274	6.32	11.09
TOTAL	4,802	388,562	28,377	104,790	27.28	21.82
Shora Qadha Centre	-	2,410	2,410	-	-	-
Shirquat Nahia	3,440	30,911	2,387	28,524	7.53	8.29
Quayara Nahia	2,417	38,588	3,071	35,517	9.25	14.69
Zab Nahia	972	13,518	1,705	11,813	3.08	12.15
TOTAL	6,829	85,427	9,573	75,854	19.75	11.11
Sinjar Qadha Centre.	-	7,984	7,984	-	-	-
Sinjar Nahia	2,472	44,223	-	44,223	11.51	17.89
Shimal Nahia	1,489	28,081	2,334	25,747	6.70	17.29
TOTAL	3,961	80,288	10,318	69,970	18.21	17.66
Shaikhah Qadha Centre	885	23,025	6,629	16,396	4.27	18.53
Alkush Nahia	484	15,817	3,845	11,972	3.12	24.74
TOTAL	1,369	38,842	10,474	28,368	7.38	20.72
Tel-afar Qadha Centre	-	36,998	36,998	-	-	-
Zammar Nahia	1,136	32,318	1,700	30,618	7.97	26.95
Ayadhiya Nahia	1,869	20,480	1,961	18,519	4.82	9.91
Rabia Nahia	1,643	15,453	936	14,517	3.78	8.84
TOTAL	4,648	105,249	41,595	63,654	16.57	13.69
Al-Hadhrah Qadha Centre	-	1,003	1,003	-	-	-
Al-Tal Nahia	8,388	20,826	542	20,284	5.28	2.42
Al-Baaj Nahia	10,958	22,570	1,339	21,231	5.53	1.94
TOTAL	19,346	44,399	2,884	41,515	10.81	2.15
Grand Total	40,955	742,767	358,616	384,151	100.00	9.38

Source: Calculated from Population Census of 1965, op.cit., and Government of Iraq, Ministry of Planning, Central Statistical Organization, Annual Abstract of Statistics 1968 (Al-Zahra Press, Baghdad), pp.26-27.

Table 3.4 : Area, Population Distribution and Population Density by Sub-Regions in the Region of Babylon

Sub-Regions	Area Km ²	Total Population	Urban Population	Rural Population	% Rural Population	Rural Population Density per Km ²
Al-Hilla Qadha Centre	132	111,338	84,104	27,234	9.60	206.32
Al-Mahawil Nahia	787	39,457	3,026	36,431	12.84	46.29
Al-Mashrau Nahia	1,833	18,558	789	17,769	6.26	9.69
TOTAL	2,752	169,353	87,919	81,434	28.71	29.59
Al-Masayab Qadha Centre	-	15,868	15,868	-		
Jurf Al-Sakhar Nahia	447	14,202	5,379	8,823	3.11	19.74
Saddat Al-Hindiya Nahia	337	24,923	8,229	16,694	5.89	49.54
Al-Iskandariya Nahia	399	20,839	6,003	14,836	5.23	37.18
TOTAL	1,183	75,832	35,479	40,353	14.23	34.11
Al-Hindiya Qadha Centre	-	16,277	16,277	-		
Al-Kifil Nahia	527	32,618	3,467	29,151	10.28	55.31
Abu Gharaq Nahia	256	25,333	-	25,333	8.93	98.96
Al-Jadwal Al-Gharbi Nahia	165	20,843	1,234	19,609	6.91	118.84
Al-Khayrat Nahia	124	16,859	-	16,859	5.94	135.96
TOTAL	1,072	111,930	20,978	90,952	32.07	84.84
Al-Hashimiya Qadha Centre	-	4,358	4,358	-		
Al-Madhatiya Nahia	697	29,145	6,455	22,690	8.00	32.55
Al-Qasim Nahia	682	38,637	7,436	31,201	11.00	45.75
Al-Shomaly Nahia	503	18,913	1,908	17,005	5.00	33.81
TOTAL	1,882	91,053	20,157	70,896	25.00	37.67
Grand Total	6,889	448,168	164,533	283,635	100.00	41.17

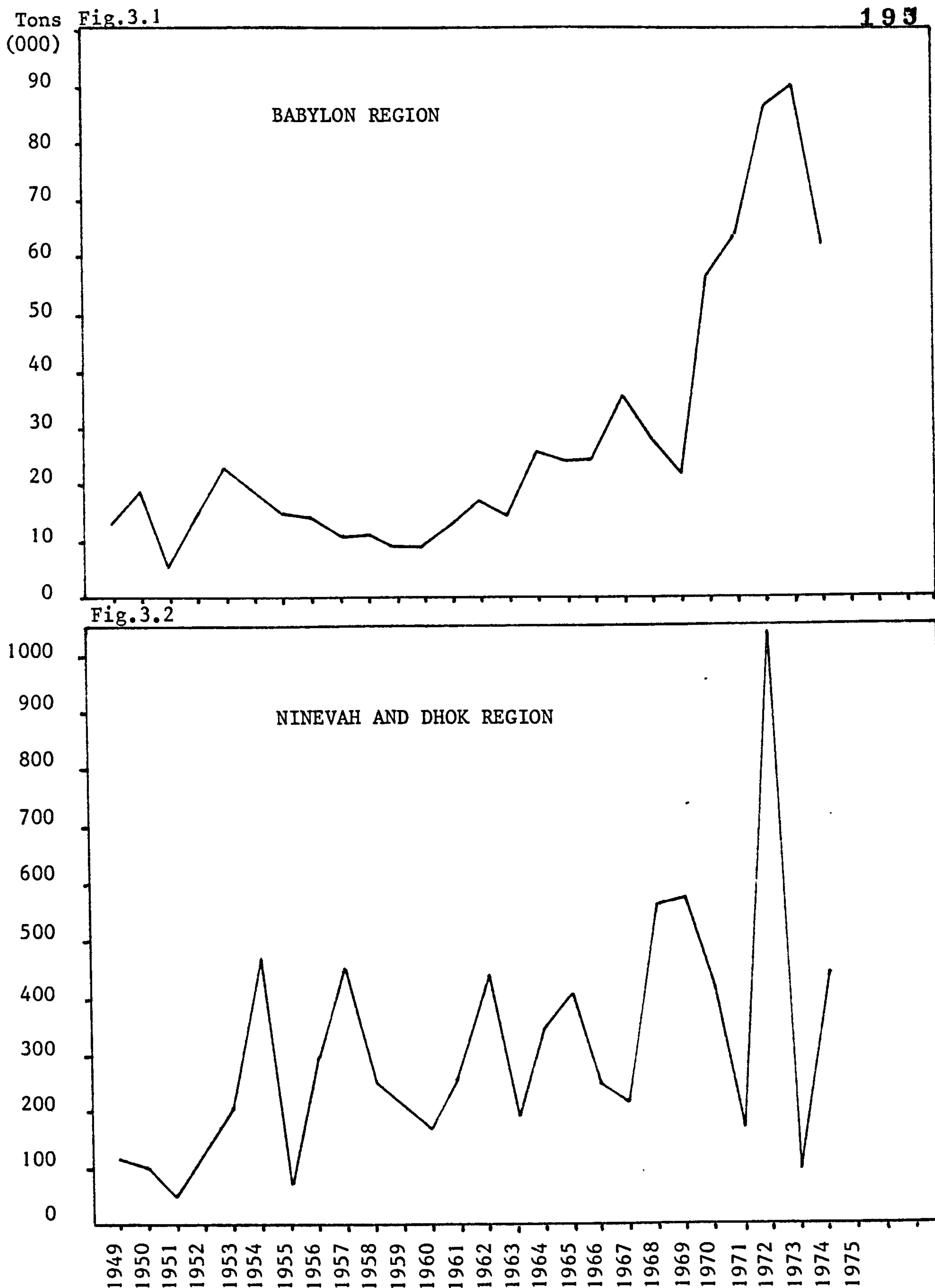
Sources: Calculated from Population Census of 1965, op.cit., and Annual Abstract of Statistics, op.cit., pp.35-6.

Table 3.5 : The Areas cultivated with the Major Crops
as reported in the Three Agricultural Censuses

Crops	1952/53 ¹	1958/59 ²	1971 ³
Wheat	4,182,585	7,676,459	7,375,039
Barley	4,842,130	6,549,327	3,606,499
Paddy	514,722	844,476	429,887
Maize and corn	216,266	104,060	133,178
Cotton	96,492	207,064	143,013
Millet	87,224	36,800	26,840
Sesame	87,022	63,176	86,264
Green gram	84,176	45,121	97,108
Tobacco	40,731	95,434	116,073
Lentils	22,639	20,245	18,955
Chick peas	19,552	18,647	15,105
Broad beans	17,313	-	47,694
Oats	8,868	10,121	2,187
Linseed	3,343	73,683	14,236
TOTAL	10,223,063	15,744,613	12,112,078
Per cent of total cultivated land	96.3	92.9	92.0

Source:

1. Statistical Abstract 1955, op.cit., pp.72-3.
2. Agricultural census 1958/59, op.cit., p.10.
3. Agricultural census 1971, op.cit., Vol.I, pp.44-59.



Figures 3.1 and 3.2 : The Production of Wheat in the Regions of Babylon and Ninevah and Dhok for the period 1949-1974.

Tons Fig.3.3
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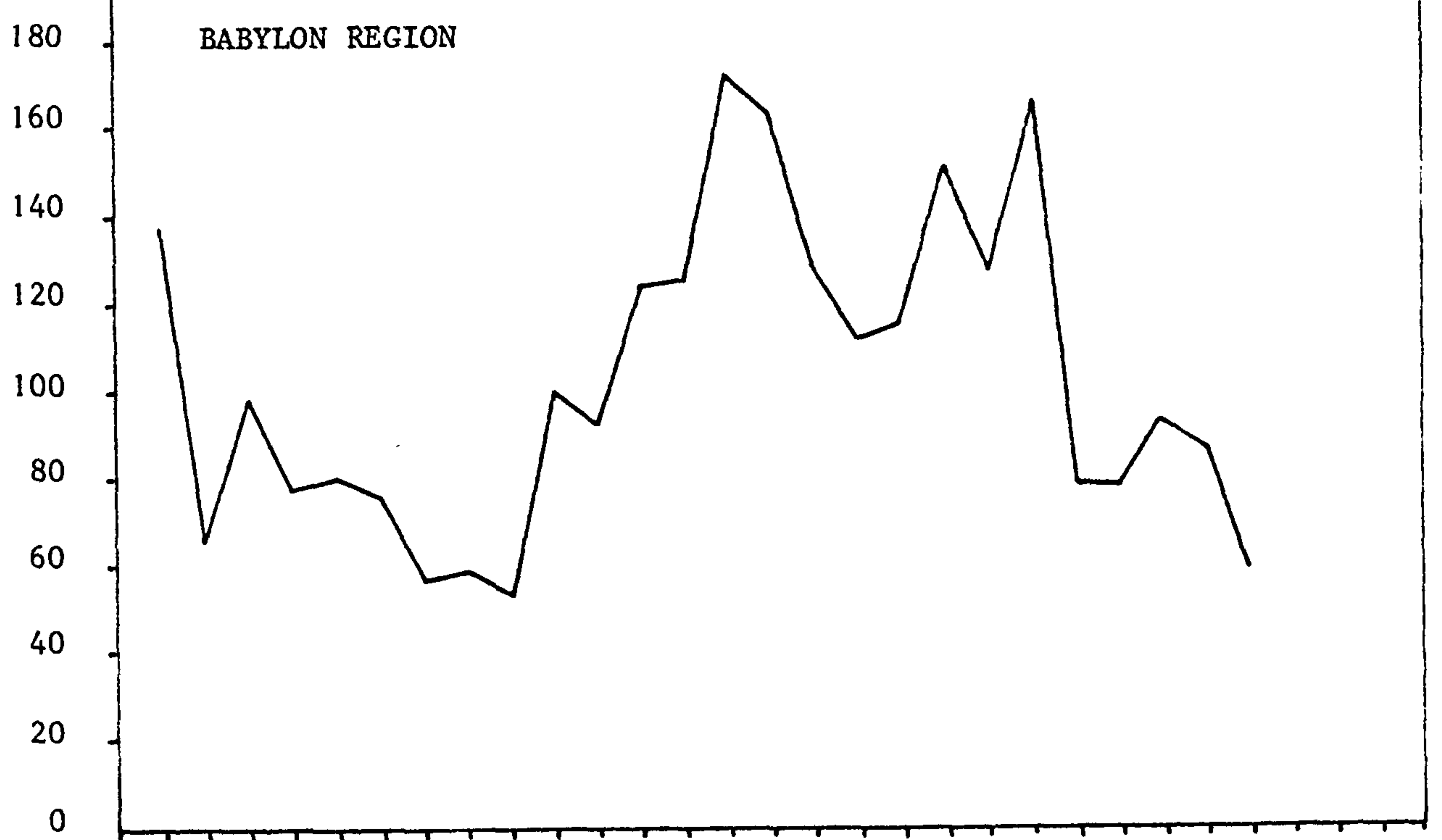
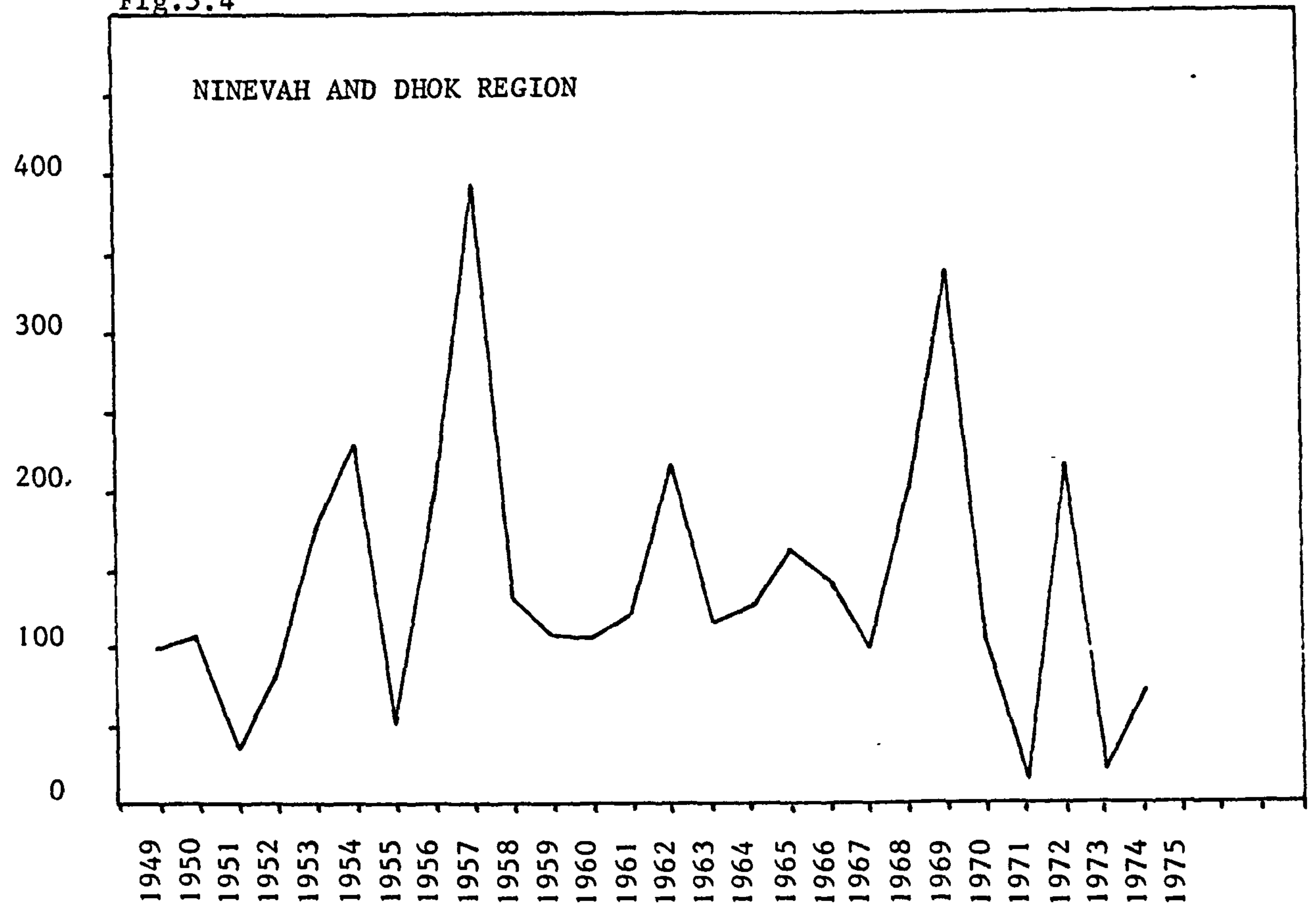
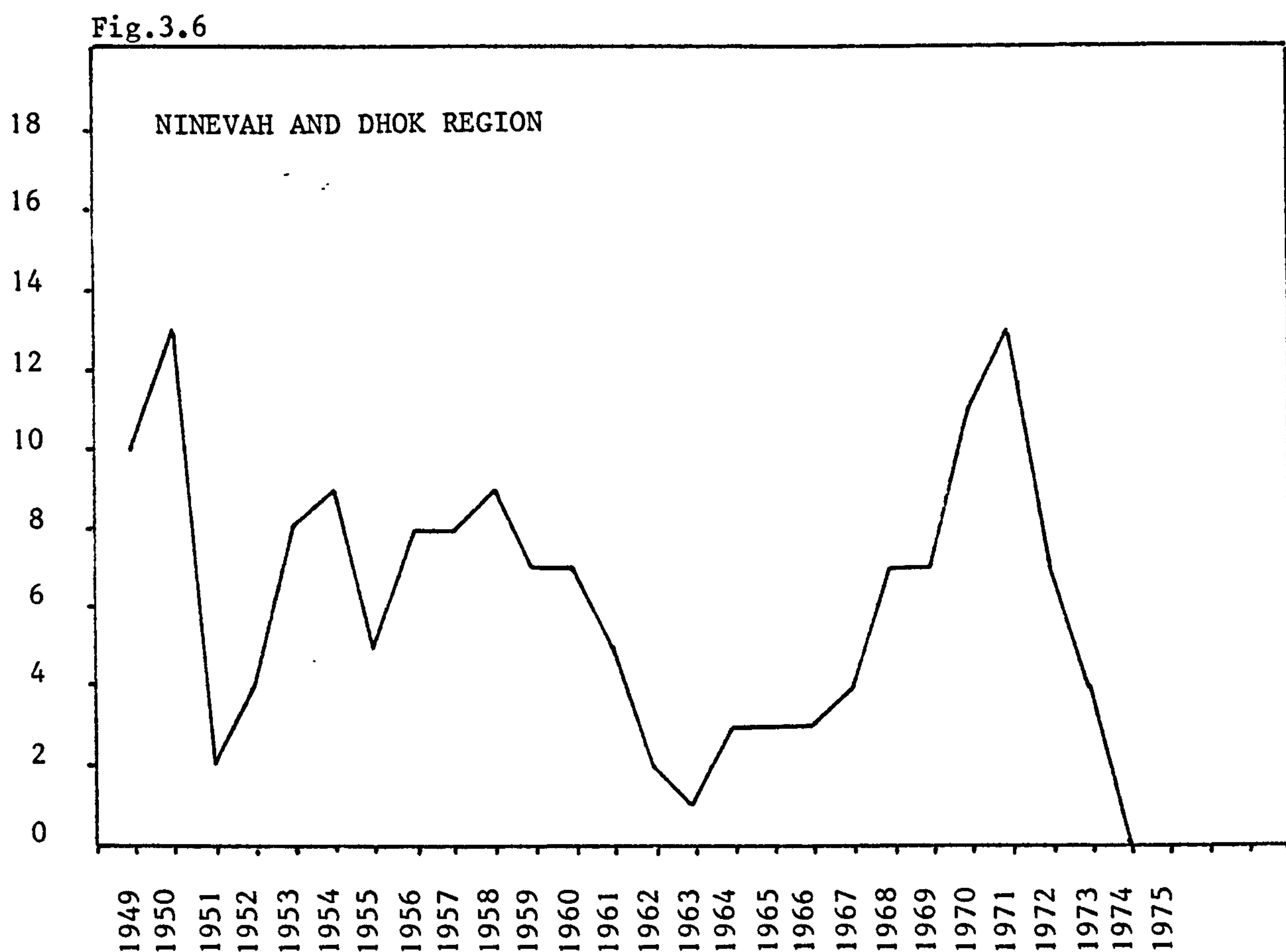
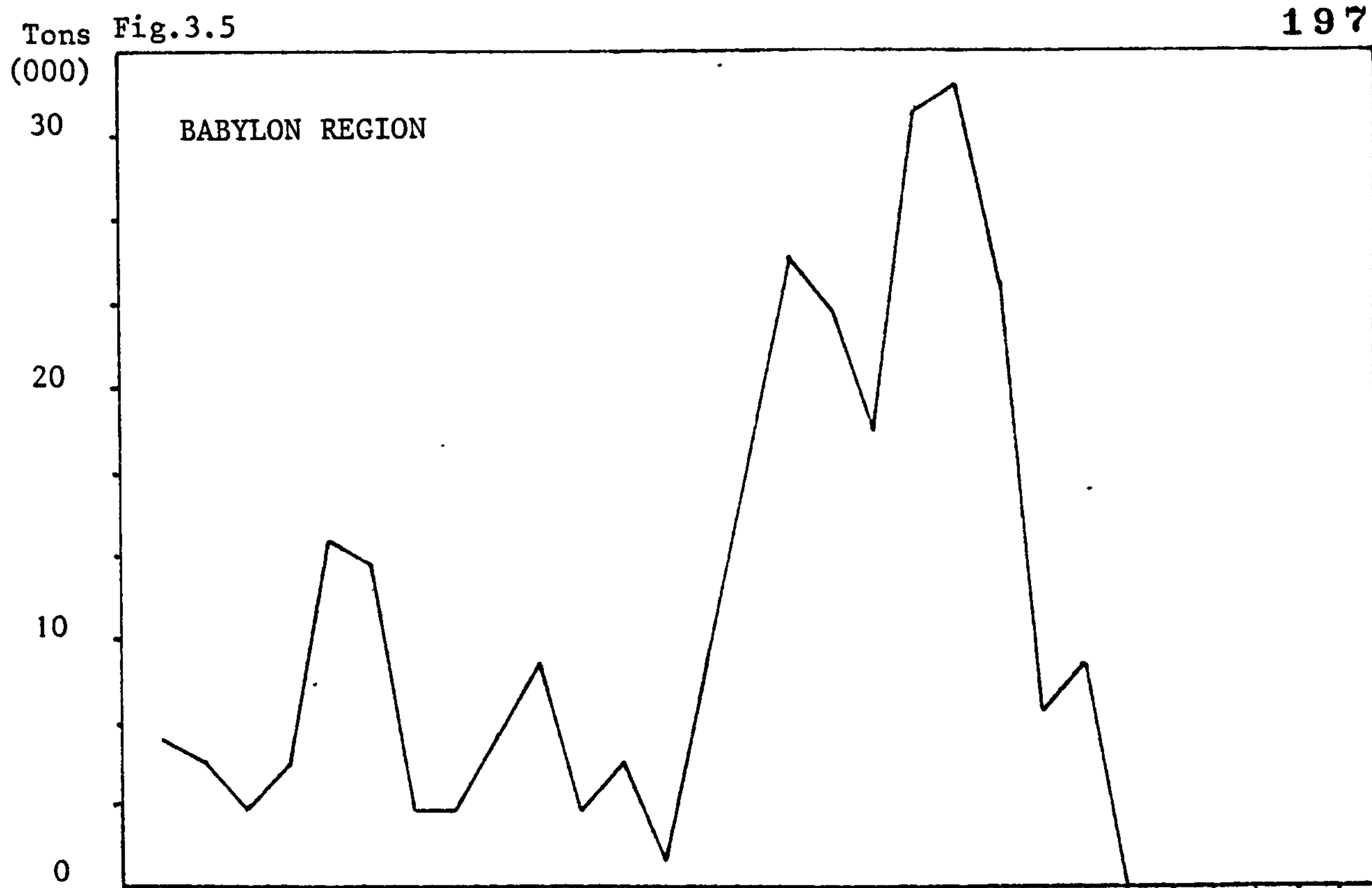


Fig.3.4



Figures 3.3 and 3.4 : The Production of Barley in the Regions of Babylon and Ninevah and Dohk for the period 1949-1974.



Figures 3.5 and 3.6 : The Production of Rice in the Regions of Babylon and Ninevah and Dhok for the period 1949-1974.

reflect the severe fluctuations and uncertainty regarding the villagers' income. The fluctuations are comparatively more severe in the Ninevah region, which, unlike Babylon region, is entirely in the rainfed zone. The uncertainty in agriculture justifies the large degree of economic interdependence within the village, and the large size of the economic household (extended household) which usually includes more than one family. As land was distributed to cultivators after the enactment of the Agrarian Reform Law of 1958, their feeling of uncertainty regarding their income must have increased as their income improved; i.e. the coefficient of variations regarding their income became higher. Although fluctuations in output seem to follow a similar pattern throughout the country, i.e. the peak and slump years are to a large extent the same in all regions, differences in yields from one locality to another within any particular region, and in any one year, may be quite significant. This is explained in Tables 3.6 and 3.7 taking Ninevah and Dhok and Babylon regions as an example. The differences in yields from one locality to another may suggest that the peaks and the slumps of households' income within the village may not be identical, which would result in an increase in the degree of economic interdependence within the village and the benefit that accrues to the villagers from it.

5. Crops and Method of Cultivation

The important crops cultivated in Iraq are presented in Table 3.5. Clearly, wheat, barley and rice are the major products. According to the 1971 agricultural census, wheat was cultivated on nearly 60 per cent of the agricultural holdings; barley on about 54 per cent; and

Table 3.6 : The Yields of the Three Major Products in the Region of Ninevah and Dhok during the Season 1957/1958

<u>Administrative Units</u>	<u>Wheat</u> kg/ donum	<u>Barley</u> kg/ donum	<u>Paddy</u> kg/ donum
Hamdania Nahia	105.8	117.4	-
Tal Kaif Nahia	89.7	95.9	-
Bashiqah Nahia	121.9	114.6	-
Imadia Qadha Centre	106.0	188.0	402.0
Sarsing Nahia	69.1	71.6	147.6
Nirorikan Nahia	104.1	113.9	167.8
Barwari Bala Nahia	72.4	75.6	175.8
Slivani Nahia	105.2	98.5	173.2
Sindi Nahia	89.7	76.4	389.0
Gali Nahia	158.7	141.8	313.4
Summail Nahia	105.2	114.3	290.8
Dosky Nahia	86.1	83.6	340.6
Nahla Nahia	156.4	167.3	448.5
Sorchia Nahia	94.7	88.0	390.5
Ashair Sabaa Nahia	164.8	174.1	182.5
Sinjar Qadha Centre	85.6	91.5	-
Shimal Nahia	73.3	84.1	-
Shaikhan Qadha Centre	78.0	88.9	246.1
Alquosh Nahia	93.0	106.6	259.5
Mazoory Nahia	89.0	71.0	187.1
Zimmer Nahia	111.8	169.7	-
Iadhia Nahia	118.4	148.3	284.4
Quayara Nahia	53.8	55.2	-
Shirquat Nahia	60.7	69.4	102.3
Hmaidat Nahia	48.0	57.3	-

Source: Agricultural Census 1958/59, op.cit., pp.49 and 51.

Table 3.7 : The Yields of the Three Major Products in the Region of Babylon during the Season 1957/1958

<u>Administrative Units</u>	<u>Wheat</u> kg/ donum	<u>Barley</u> kg/ donum	<u>Paddy</u> kg/ donum
Region Centre Nahia	241.7	164.1	158.9
Mahaweel Nahia	166.6	239.7	237.6
Musayab Project	246.2	258.2	-
Quasim Nahia	144.4	121.2	158.7
Madhatia Nahia	150.9	166.2	162.9
Abi Gharaq Nahia	103.8	115.1	125.6
Kifil Nahia	210.3	192.1	155.0
Jadual Al-gharbi Nahia	216.7	149.6	189.1
Jarf Al-Sakhar Nahia	109.1	96.0	125.0
Saddat Al-hindia Nahia	166.9	144.9	178.2
Iskandaria	180.5	213.3	233.4

Source: Agricultural Census 1958/59, op.cit., p.270.

paddy on about 13 per cent. Different methods of cultivation may be applied to these crops depending on whether they are cultivated in the rainfed zone or the irrigated zone. This study does not attempt to investigate in detail the degree of labour utilization in agriculture where such a study would require a detailed account throughout the year of the man-hours spent on the production processes of the various products, taking particularly into consideration the degree of mechanization used, and the method of irrigation applied. However, the fluctuations in the size of the cultivated area indicate not only fluctuations in income, but also in labour-force utilization. It is mostly during the years where underemployment is high that village residents try desperately to obtain temporary employment in the cities, and as a result obtain some valuable information which may lead later on to their permanent migration. The temporary employment in the city is a widely reported phenomenon, but its impact on migration has not received sufficient attention. However, that is not the concern of this particular study.

6. Livestock

The fluctuations in both income and labour force utilization have encouraged the keeping of livestock by the villagers. In years of severe drought and low income livestock become the main source of security against further deterioration in the stand of living, or even starvation. During the prosperous years the villagers invest in livestock which is looked after either by people who become specialists in that job in the village, or, when the labour-force is abandoned, households may choose to look after their own livestock, employing men, women and children for that purpose.

Cattle and buffaloes are more popular in the southern part of the country where marshes provide a favourable habitat for buffaloes. In the north sheep and goats are more common. The keeping of chickens is equally common all over the country. The figures in Table 3. show that the numbers of sheep and goats have slightly declined, while those of cattle, buffaloes and chickens have increased considerably. The slight decrease in the number of sheep and goats is mostly due to fluctuation in the rural income, but in some regions like Maysan, the sharp decline in the number of sheep from 414,856 in 1958/59 to 288,465 in 1971 is certainly due to other factors, such as rural-urban migration. The increase in the number of buffaloes by 152 per cent during this period reflects the growing demand for dairy products by the increased urban population. The growth in the number of buffaloes was concentrated in the rural area of Baghdad region where their numbers rose from 595 to 26,918, and in the rural area of Basra region where their numbers increased from 2,405 to 15,608 during that period. The keeping of livestock is not confined to a few specialized villagers, but seems to be practised by the majority of the households, a fact which can be realized only from the 1971 agricultural census data. The data indicate that 57 per cent of all the agricultural holdings reported keeping cattle, 3 per cent kept buffaloes, 27 per cent kept goats, 40 per cent kept sheep and 69 per cent kept chickens. The tendency to keep livestock seems to be strong on all sizes of landholdings.

7. Mechanization

As discussed earlier, underemployment in agriculture is quite high. The introduction of machines into agriculture must have increased

Table 3.8 : Rural Population and the Major Kinds of Livestock
kept in the Rural Area

<u>Year</u>	<u>Population</u>	<u>Livestock</u>				
		Sheep	Goats	Cattle	Buffaloes	Chickens
1958/59 ¹	3,020,457	5,598,292	1,733,300	855,583	44,392	3,435,205
1971 ²	3,973,045	4,736,241	1,521,661	1,200,499	111,889	11,860,577

Source: 1. Agricultural Census 1958/59, op.cit., pp.10 and 12.
2. Agricultural Census 1971, op.cit., pp.111, 127 and 136.

the underemployment problem. In 1925, only 2 holdings were using machines in the production processes: twenty years later, in 1945, the number of holdings using machines increased to 232, reaching 14,501 in 1958.⁸ The introduction of machines seems to have accelerated in the late 1950s when more land became cultivable after the major irrigation projects were completed, and landholders were tempted to expand the cultivated area in their holdings and to combat the effect of rural-urban migration which had increased dramatically during that decade. At all events, they started buying and using machines in cultivation on a relatively increased scale. However, in 1958 the number of holdings using machines represented only 5.7 per cent of the total of 253,254 holdings.⁹ After the enactment of the 1958 Agrarian Reform Law the Ministry of Agrarian Reform began to establish agricultural co-operatives, and to supply them with machines and loans for the other production and marketing needs. As explained in Chapter II, the share of the agricultural sector of the total actual investment expenditure declined after 1958 in favour of the industrial sector, and this was also accompanied by a particularly slow process of land distribution and formation of co-operatives. However, attention has been redirected to agriculture since the late sixties. The actual expenditure on agriculture in the 1965/66-1969/70 plan reached about ID.56.3 million,¹⁰ which is slightly higher

8. Agricultural Census 1958/59, op.cit., p.13.

9. Ibid., pp.12-13.

10. Government of Iraq, Ministry of Planning, Central Statistical Organization, Annual Abstract of Statistics 1971 (CSO Press, Baghdad), p.396.

than the amount spent in the seven-years period of 1959-1965.

During the period 1970-1975, the actual investment in agriculture amounted to about ID.308.4 million,¹¹ which was nearly 5.5 times the amount spent in the sector under the previous Plan. The sharp increase in expenditure on agriculture was mainly the result of the sharp increase in the oil revenues, but the share of the agricultural sector of the total actual investment expenditure was less than half the share of the industrial sector. However, the large investment in agriculture yielded a sharp increase in the number of co-operatives, the machines and equipment used in cultivation and the number of farmers benefiting from them. After the passing of the 1958 Agrarian Reform Law and until 1965, there were only 298 agricultural co-operatives with 39,244 members. The number increased to 1,275 co-operatives with 201,490 members by 1973.¹² The agricultural census of 1971 revealed that the number of holdings that used machines in that year was 362,677, which represented 62 per cent of the total number.¹³ This expansion is expected to contribute to the problem of under-employment.

8. The Age Distribution of the Holders

The Agrarian Reform Law of 1958 indicated that the recipients of land should have reached the age of consent,¹⁴ which in Iraq is 18 years. The law of 1970 indicated that the minimum age of a recipient should be 16 years.¹⁵ However, the agricultural holdings seem to be concentrated

11. Annual Abstract of Statistics 1976, op.cit., p.369.

12. Annual Abstract of Statistics 1973, op.cit., p.132.

13. Agricultural Census 1971, op.cit., p.143.

14. Agrarian Reform Law 1958, op.cit., Article 12.

15. Government of Iraq, Agrarian Reform Law, No.117, 1970, Article 18.

in the hands of the older people. According to the 1958 law, the priority for receiving land was given to large families,¹⁶ where the head of the family would become the legal holder. As the young male members of the family grew up and attempted to establish their own families, they faced a financial problem, for the income generated from the land would not be sufficient. One of the grown-up males, usually the elder, would eventually inherit the land and become the legal holder, while the rest, although they would still have a share in the land according to the Islamic law of inheritance, would apply to the Ministry of Agrarian Reform to obtain their own new land holdings. They might well, as an alternative, consider migration. This would be more appealing to the younger and more educated members, whose employment opportunities in the urban area are comparatively greater. The results of the 1971 agricultural census revealed that the holders in the three extended age groups 16-40, 41-64 and 65+ represented 20.9 per cent, 51.7 per cent and 48.2 per cent respectively of the population in these age groups.¹⁷ The holdings are clearly relatively concentrated with people in the 41-84 age group.

9. Age and Sex Distribution of the People Employed

The figures in Table 3.9 indicate that nearly 46 per cent of the holders and members of their families were reported to be employed in agriculture, and 55 per cent of them were males. The participation

16. Agrarian Reform Law 1958, op.cit., Article 12.

17. Agricultural Census 1971, op.cit., pp.19-21.

Table 3.9 : Age Distribution of Population and Employed
Labour Force of Holders and Members of their
Families

Population and Employment	0-6	7-15	16-40	41-64	65+	Total
<hr/>						
<u>Population</u>						
Males	538,394	439,075	567,674	288,507	80,246	1,913,896
Females	541,430	398,455	593,755	240,305	68,063	1,833,008
Total	1,079,824	837,530	1,161,429	528,812	148,309	3,746,904
<u>Employed Labour</u>						
Males	-	196,654	430,291	254,727	61,414	943,086
Females	-	181,745	416,902	145,650	29,422	773,719
Total		378,399	847,193	400,377	90,836	1,716,805

Source: Calculated from Agricultural Census 1971, op.cit., pp.132 and 137.

of females declines markedly in older ages. In the two older age groups of 41-64 and 65+ the employed females represented 36 per cent and 33 per cent respectively of the total employed. The employed males in the two younger age groups of 7-15 and 16-40 represent 45 per cent and 76 per cent of the male population in these age groups respectively, while in the two older age groups of 41-64 and 65+ the employed males represented 88 per cent and 77 per cent of the male population in these age groups respectively. The comparatively lower employment rate in the two younger age groups is due mostly to the increased school enrolment ratio among males in the 7-15 years age group, the low percentage of holders among people in the 16-40 years age group, and the widespread use of machines in agriculture which enables older holders to carry out the production processes with less help from younger members than before, thus encouraging the younger men to migrate.

10. The Regression Analysis

A. The Variables

The study of the general economic conditions and life in the village is essential in order to obtain the selection of powerful explanatory variables for migration. The variables included in the analysis were of an economic demographic and social nature. It was also considered that the variables selected for the analysis are preferably those on which data are comparatively easy to obtain. The following variables were considered.

Dependent (Migration) Variables

Y1(Y) = total migrants as per cent of total population

Y2 = total migrants (absolute numbers)

Independent Variables

i) Income (in ID)

X11(X1) = Income per capita in the village

X12 = Income per household in the village

X13 = Income per capita for adult population
in the village

The three income variables have slightly different implications. The X11 variable implies that the cost of living for any individual is the same whether the individual is male or female, adult or child. The X12 variable implies that the cost of running a household is the major component in the cost of living of the household, regardless of the number of its members. The X13 variable implies that the adult population consume most of the income, and that the cost of living for children is negligible.

ii) Age and Sex

X21 = The ratio of males over 15 years, to the total population

X22 = The ratio of the males over 15 years, to the total male population

X23(X2) = The ratio of the males of 15-35 years, to the total male population

The three age and sex variables have slightly different implications. The X21 variable implies that the males who are over 15 years old have a higher propensity to migrate. The X22 variable considers the same age group for males as in X21, but differs in dividing their number by the male

population instead of the total population. The X23 variable implies that males in the age group 15-35 years have a particularly higher propensity to migrate. The X23 variable was adopted in the analysis because, as explained in Chapter IV, the fieldwork inquiry revealed that the majority of the migrants were males and came from the 15-35 age group.

iii) Marital Status

X31 = The ratio of the married males to the total number of males

X32(X3) = The ratio of the married males in the age group 15-35 years to the total number of males in this age group.

The X31 variable does not emphasize the importance of the age factor, while the X32 variable stresses the comparatively high propensity to migrate for males in the age group 15-35 years.

The X32 variable was adopted in the analysis.

iv) Education

X41 = The ratio of the literate population (male and female) to the total population

X42 = The ratio of the literate males to the total male population

X43(X4) = The ratio of the literate males whose ages are over 15 years to the total male population.

The X41 variable implies that all literate people regardless of their age and sex have an equally high propensity to migrate, and they exercise equal influence as a medium by providing information on the general conditions in the city to other potential migrants. The X42 variable implies that literate males are more relevant in these respects, as males

have a higher propensity to migrate than females, and are better equipped to seek out information and pass it on to the potential migrants. The emphasis in the X43 variable is on males who are over 15 years old. This necessarily excludes young males attending school who represent the majority of the literate males in the villages as a result of the number of schools in the villages increasing sharply since the late sixties. These young males have probably not yet contemplated migration. The X43 has been adopted in the analysis.

v) Household Size

X51(X5) = The average size of the household in the village.

No substitutes were considered for this variable, and therefore it was adopted in the analysis.

vi) Accessibility to the City

X61 = The ratio of the village people who visited a major urban centre in the last 3 months

X62 = The distance between the village and the main road (in kilometres)

X63(X6) = A dummy variable to indicate whether a village is within one kilometre of a main road or not.

The three accessibility variables offer different ways to measure the access that a village has to a city. The X61 variable was particularly unsuccessful in reflecting the village's access to the city, because the period during which the fieldwork was conducted included the significant religious occasions of Ied Al-Adha, the first of Muharram, and Ashoora. On these occasions people usually pay visits

to the shrines and holy places, most of which are to be found in the cities, particularly Baghdad, Najaf and Karbala. As a result, the visits reported by the respondents did not reflect their village's access to the city. The X62 variable was also unsatisfactory, as it was found to be very difficult to measure with any degree of accuracy the distance from the village to the main road, especially as villagers usually take short-cuts across fields, and through valleys and hills. The X63 variable seemed to be most suitable for this study, and was therefore adopted in the analysis. The main road was defined as the place from which the respondents take their means of transport to the city.

The Regression Results

The sample included in the survey comprised (244) households, (148) of them were from the region of Ninevah and (96) from the region of Babylon. These households were spread over 70 villages in Ninevah and 40 villages in Babylon. On average the sample included 2.1 and 2.4 households per village in Ninevah and Babylon respectively, representing usually about 5 to 8 per cent of the village population. Because of the small size of the village samples, the migration rates calculated from the samples are not likely to reflect the villages' migration rates. Each village sample was considered as an observation in the regression analysis. The samples in each of the two regions were divided into three groups - those with high migration rates, medium migration rates and low migration rates. The linear and the

logarithmic forms of the proposed migration function were tested on each of the two regions using the 70 observations in Ninevah and the 40 observations in Babylon. The tests were then carried out on each of three migration groups in each of the two regions. The tests were also carried out after the less satisfactory variable of village accessibility was withdrawn from the migration function.

Discussions and Conclusions

a) The Decision to Migrate

The individual's decision to migrate appears usually to be collectively discussed and taken by the households' adult members. The individual about to migrate would be particularly interested in comparing his economic and general welfare conditions in the village with the anticipated conditions in the city. Other members of the household would be concerned with the effect of migration on the household's labour-force and income, the cost of the move and maintenance until a job is obtained (which is usually paid by the household), and the remittances sent back to the household by the migrant, which may take the form of cash as well as consumption and durable goods. How long it would take for the migrant to find a job, and how much and for how long remittances would be sent back, would be the subject for discussion among the members of the household. The variables considered in the migration function have therefore included variables relevant to the individual, such as the education variables, as well as to the household, like the household size variable.

It was observed that almost all of the migrants from Ninevah's and Babylon's rural areas have settled in Baghdad city and Mosul city respectively. Therefore, the introduction of the urban variables in the regression analysis would not be useful, and the analysis was confined to rural variables.

The rural migration rates in Ninevah and Babylon regions over the six years that preceded the fieldwork (1969-1974) were estimated at 7.4 per cent and 7.8 per cent respectively, and the annual rates at 1.23 per cent and 1.30 per cent. The observations in each of the two regions were divided into three groups. The high migration group (HMG) included the observations of 8 per cent migration rates or higher over the six years; the medium migration group (MMG) included the observations of 6 per cent to less than 8 per cent migration rates; and the low migration group (LMG) included the observations of less than 6 per cent migration rates. The regression results are presented in Tables 3.10 to 3.31.

The income variable (X1) considered in the regression analysis refers to cash income. The cultivators were asked to state their cash income during the two years that preceded the survey, i.e. 1973 and 1974, and the average of the two years was calculated. The village residents who were permanently employed wage earners, whether employed in agriculture or in other sectors, were asked to state their daily, monthly or seasonal wages and from that the annual income was calculated. Those who were employed seasonally and were receiving wages were asked to estimate their

annual cash income; however, their number was very small. The cash income is used in this study to indicate income in general. It was found difficult to calculate the other component of income, i.e. income in kind, satisfactorily without spending extra time and money on the fieldwork, which was not possible. As explained earlier in this chapter, the income in kind retained by the household in the village usually takes the form of stored food which is to be consumed during the year. However, for the greater majority of the village residents the type and quantity of food stored and consumed are similar. The remittances sent back by the migrants to the villages were not included in the cash income for two reasons. First, it proved very difficult to get accurate answers concerning the actual amounts received from the migrants, for remittances quite often took the form of goods like clothes, crockery, radios and also gold or silver jewellery for the women. Secondly, remittances are considered a very private matter among the villagers, and the respondents were reluctant to disclose how much they were receiving.

It is expected, theoretically, that income per capita in the rural areas is negatively correlated with the migration rate. The lower the income per capita is, the greater the differential will be between the rural income and the expected urban income, which leads to a higher migration rate. The income variable had the correct negative sign in the linear and the logarithmic forms of the regression equation in Ninevah and Babylon regions, and

the coefficients of the variable were significant at the 5 per cent level in the linear and the logarithmic form in Ninevah and significant at the 10 per cent level and 5 per cent level in the linear and logarithmic forms respectively in Babylon. In Ninevah region, the income variable had the correct negative sign in each of the three groups in the linear and the logarithmic forms of the function. The coefficient of the income variable was significant at the 5 per cent level in HMG in the linear and the logarithmic form, and insignificant in the other two groups. In the region of Babylon the income variable had a negative sign in the HMG only where the coefficient was significant at the 10 per cent level in the linear and the logarithmic forms. The income coefficients had a positive sign and were significant in the LMG. In the HMG the income per capita is below the average, and it is above the average in the LMG. The results of the income variable indicate that the tendency to migrate decreases as income increases, but as income reaches a relatively higher level, the tendency to migrate becomes positively correlated with income. This may be explained by the argument that as income reaches relatively higher levels, the people's visits and contacts with the city increase and more employment opportunities are realized. People with relatively higher incomes also have more opportunity to enjoy the cities' attractive factors, such as the leisure facilities.

The age and sex variable (X2) is expected to be positively correlated with migration. As the proportion of the 15-35 year-old males increases there would be more males in this age group

whose tendency to migrate has been acknowledged to be high (as discussed in Chapter IV) and who would be needed less in the village to do the agricultural work and therefore encouraged to migrate. The fact that inherited land cannot be divided, as it is forbidden by the Agrarian Reform Law of 1970, would also reinforce the above argument.

The age and sex variable had the expected positive sign in Ninevah and Babylon regions, and its coefficients were significant at the one per cent level in the linear and the logarithmic forms of the function. In the region of Ninevah the variable had the expected positive sign in the HMG and LMG and the coefficients were significant at the one per cent and 10 per cent levels in the HMG and LMG respectively. The results were similar in the linear and the logarithmic forms. In Babylon region the variable had the expected positive sign in the HMG and MMG, but the coefficients were significant only in the HMG at the one per cent level, in the linear and the logarithmic forms.

The marital status variable (X3) is expected to be negatively correlated with the migration dependent variable. Married males are expected to have less tendency to migrate than single men, because the cost of moving and maintenance for a single man is less, and because married men become more tied up socially in the village life. The (X3) variable had the expected negative sign in Ninevah and was significant at the one per cent level and 5 per cent level in the linear and logarithmic forms

of the function respectively. In Babylon region the variable did not have the expected sign, and its coefficients were insignificant. In Ninevah region, the variable had a significant coefficient at the 10 per cent level in the MMG in the linear and the logarithmic forms, and was insignificant in the other two groups. In Babylon region none of the three groups produced a significant coefficient.

The education variable (X4) is expected to be positively correlated with migration. Educated potential migrants would have more employment opportunities open to them in the urban area and rural-urban income differential would be higher for them than it is for the illiterate potential migrants. The literates are also more able to gather information concerning the general welfare conditions in the cities by reading advertisements, newspapers and other published materials. The (X4) variable had the expected positive sign in Ninevah and Babylon region. Its coefficients were significant at the 10 per cent level in Ninevah and Babylon in the linear form of the function, and in Babylon region only in the logarithmic form. In Ninevah region, the variable was insignificant in each of the three groups. In Babylon the variable's coefficient was significant only in the HMG at the five per cent level in the linear and logarithmic forms.

The household size variable (X5) is expected to be positively correlated with migration. Households with a large number of members are more likely to have more under-employed members and lower income per member. Potential migrants in large households are also likely to be encouraged and sometimes pressured to

migrate by other members of the household who realize the immediate improvement that would accrue to them as the burden of the under-employed consumers would be lessened. There would also, of course, be the long-term improvements resulting from the remittances channelled back by the migrants. The (X5) variable had the expected positive sign in Ninevah and Babylon regions, and was only significant at the 5 per cent level in the linear form of the function in Ninevah and in the logarithmic form in Babylon. In Ninevah region the variable had a significant coefficient at the 10 per cent level in the HMG and MMG in the linear form of the function and in the MMG only in the logarithmic form. In Babylon region the coefficient was significant at the 5 per cent level and 10 per cent level in the HMG and LMG respectively in the linear form of the fundtion, and at the 5 per cent level in the MHG and LMG in the logarithmic form.

The Accessibility variable (X6) adopted in the regression is expected to be positively correlated with migration. Villages which are close to a main road are expected to have more contact with the cities and therefore produce more migration. The (X6) variable had the expected positive sign, and was significant at the one per cent level of significance in Ninevah and Babylon regions. In the linear form of the function the variable's coefficient was significant at the 10 per cent level in the HMG in Ninevah and at the 5 per cent level in the MMG and LMG in Babylon region. In the logarithmic form the variable's coefficient

was insignificant in each of the three groups in Ninevah and significant at the 5 per cent level and one per cent level in the MMG and LMG respectively in Babylon region. Because of the dissatisfaction expressed earlier concerning the definition of this variable, the variable was later withdrawn from the migration function. The effect of its withdrawal on the predictive power and the statistical significance of the function was not very significant, except in the MMG and LMG in Babylon region.

Table 3.10 : Linear Regression Results for the High Migration Group in the Region of Ninevah

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.07169	0.0389	1.84**
X2	0.3071	0.0667	4.60***
X3	-0.02048	0.0253	0.81
X4	-	-	-
X5	0.2088	0.1386	1.51*
X6	0.2544	0.1860	1.37*
Constant	-1.5758	3.6722	0.43

$\bar{R}^2 = 0.5806$

F = ***

df = 26

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.4700					
X2	0.6520	-0.2293				
X3	-0.0743	0.1812	0.1262			
X4	-0.4580	-0.3806	0.3794	0.2552		
X5	-0.3989	-0.1254	0.1721	0.1906	0.0897	
X6	0.0895	-0.1894	-0.3919	-0.2443	0.3177	0.3273

Table 3.11 : Logarithmic Regression Results for the High Migration Groups in the Region of Ninevah

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.2625	0.1133	2.32**
X2	0.8994	0.2365	3.80***
X3	-0.04466	0.0845	0.53
X4	-0.0311	0.1238	0.25
X5	0.1942	0.1537	1.26
X6	0.0843	0.0793	1.06
Constant	-0.3123	0.9668	0.32

$\bar{R}^2 = 0.5765$

F = ***

df = 26

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.5357					
X2	0.6541	-0.2672				
X3	-0.0234	0.1510	0.1470			
X4	0.3525	-0.3718	0.2754	-0.2365		
X5	0.3779	-0.1177	0.1496	0.1786	0.0625	
X6	0.0880	-0.2068	-0.3825	-0.2328	-0.3714	0.3810

Table 3.12 : Linear Regression Results for the High Migration Group in the Region of Babylon

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.05145	0.0338	1.52*
X2	0.3247	0.0881	3.69***
X3	0.0297	0.0274	1.08
X4	0.1251	0.0497	2.52**
X5	-0.1967	0.0904	2.18**
X6	-	-	-
Constant	-1.2374	3.9025	0.32

$\bar{R}^2 = 0.6348$

F = ***

df = 13

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.4847					
X2	0.6677	-0.3088				
X3	0.0505	-0.4053	-0.3696			
X4	0.3705	0.1276	0.2983	-0.2950		
X5	0.1194	-0.1530	0.4852	-0.2925	0.4089	
X6	-	-	-	-	-	-

Table 3.13 : Logarithmic Regression Results for the High Migration Group in the Region of Babylon

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.1763	0.1021	1.73*
X2	0.9195	0.2575	3.57***
X3	0.1159	0.1167	0.99
X4	0.3973	0.1561	2.55**
X5	-0.1806	0.0875	2.06**
X6	-	-	-
Constant	-1.6063	1.3891	1.16

$\bar{R}^2 = 0.6724$

F = **

df = 13

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.5384					
X2	0.7041	-0.3381				
X3	0.0003	-0.3877	-0.3829			
X4	0.3997	0.1012	0.3513	-0.3485		
X5	0.1370	-0.1010	0.4641	-0.2947	0.4408	
X6	-	-	-	-	-	-

Table 3.14 : Linear Regression Results for the High Migration Group in the Regions of Ninevah and Babylon
(the Accessibility Variable is removed)

<u>Independent Variables</u>	<u>Ninevah Region</u>			<u>Babylon Region</u>		
	Coefficients	Standard Error	t-Ratio	Coefficients	Standard Error	t-Ratio
X1	-0.0767	0.0401	1.91**	-0.0515	0.0338	1.52*
X2	0.2421	0.0628	3.86***	0.3247	0.0881	3.69***
X3	-0.0243	0.0260	0.93	0.0297	0.0274	1.08
X4	0.0309	0.0405	0.76	0.1251	0.0497	2.52**
X5	0.2938	0.1249	2.35**	-0.1967	0.0904	2.18**
Constant	1.2467	2.8054	0.44	-1.2374	3.9026	0.32
$\bar{R}^2 = 0.5603$						
F = ***						
df = 26						
$\bar{R}^2 = 0.6348$						
F = **						
df = 13						

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Table 3.15 : Logarithmic Regression Results for the High Migration Group in the Regions of Ninevah and Babylon
(the Accessibility Variable is removed)

<u>Independent Variables</u>	<u>Ninevah Region</u>			<u>Babylon Region</u>		
	Coefficients	Standard Error	t-Ratio	Coefficients	Standard Error	t-Ratio
X1	-0.2856	0.1115	2.56**	-0.1763	0.1021	1.73*
X2	0.7356	0.1800	4.09**	0.9195	0.2575	3.57**
X3	-0.0582	0.0838	0.69	0.1159	0.1167	0.99
X4	0.0371	0.1062	0.35	0.3973	0.1561	2.55**
X5	0.2867	0.1270	2.26**	-0.1806	0.0875	2.06**
Constant	0.1041	0.8861	0.12	-1.6063	1.3891	1.16

$\bar{R}^2 = 0.5743$

F = ***

df = 26

$\bar{R}^2 = 0.6724$

F = **

df = 13

* = significant at the 10 per cent level
 ** = significant at the 5 per cent level
 *** = significant at the 1 per cent level

Table 3.16 : Linear Regression Results for the Medium Migration Group in the Region of Ninevah

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.0079	0.0258	0.31
X2	-	-	-
X3	-0.0319	0.0178	1.79*
X4	0.985	0.0800	1.23
X5	0.1457	0.0853	1.70*
X6	0.0271	0.0586	0.46
Constant	4.6066	2.1582	2.13**

$\bar{R}^2 = 0.4291$

F = *

df = 8

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.2965					
X2	0.2351	0.1766				
X3	-0.4567	0.3037	0.0646			
X4	3.4483	-0.0097	0.5560	0.1032		
X5	0.6001	0.0410	0.2667	-0.0896	0.4167	
X6	0.3670	-0.6489	-0.0400	-0.0477	0.1947	0.2165

Table 3.17 : Logarithmic Regression Results for the Medium Migration Group in the Region of Ninevah

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.0843	0.1373	0.61
X2	-	-	-
X3	-0.1578	0.1015	1.55*
X4	-0.3553	0.3202	1.11
X5	0.2367	0.1273	1.86**
X6	0.0077	0.0322	0.24
Constant	1.1459	1.070	1.07

$\bar{R}^2 = 0.4097$

F = *

df = 8

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.2966					
X2	0.2270	0.1414				
X3	-0.4273	0.2573	0.0439			
X4	0.4506	-0.0441	0.5665	0.0857		
X5	0.6125	0.0714	0.2402	-0.0933	0.4160	
X6	0.3649	-0.6234	-0.0471	-0.0736	0.1945	0.2197

Table 3.18 : Linear Regression Results for the Medium Migration Group in the Region of Babylon

Independent Variables	Coefficients	Standard Error	t-Ratio
X1	-	-	-
X2	0.0947	0.0950	1.00
X3	0.0169	0.0165	1.02
X4	0.0545	0.0479	1.14
X5	0.0259	0.0914	0.28
X6	0.0845	0.0294	2.87**
Constant	1.5701	2.2371	0.70

$\bar{R}^2 = 0.8322$

F = *

df = 3

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.5641					
X2	0.4286	-0.0654				
X3	0.0689	0.1982	-0.2686			
X4	0.4197	-0.4588	-0.2806	0.0548		
X5	0.4591	-0.5321	-0.4753	0.4266	0.7859	
X6	0.8235	-0.4767	0.5488	-0.2321	0.0069	0.0866

Table 3.19 : Logarithmic Regression Results for the Medium Migration Group in the Region of Babylon

Independent Variables	Coefficient	Standard of Error	t-Ratio
X1	-	-	-
X2	0.3356	0.3378	0.99
X3	0.0995	0.1038	0.96
X4	0.2448	0.2466	0.99
X5	-0.0372	0.1636	0.24
X6	0.0452	0.0167	2.71**
Constant	-0.4729	1.0332	0.46

$\bar{R}^2 = 0.821$
F = *
df = 3

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.5436					
X2	0.4208	-0.0260				
X3	0.0636	0.1568	-0.2454			
X4	0.4578	-0.4666	-0.2762	0.0103		
X5	0.4914	-0.5324	-0.4474	0.3780	0.8259	
X6	0.8194	-0.4620	0.5424	-0.2190	0.0513	0.1116

Table 3.20 : Linear Regression Results for the Medium Migration Group in the Regions of Ninevah and Babylon
(the Accessibility Variable is removed)

<u>Independent Variables</u>	<u>Ninevah Region</u>			<u>Babylon Region</u>		
	Coefficients	Standard Error	t-Ratio	Coefficients	Standard Error	t-Ratio
X1	-0.0162	0.0177	0.92	0.0003	0.0546	0.01
X2	-	-	-	0.3055	0.1381	2.21*
X3	-0.0300	0.0165	1.82*	-0.0103	0.0349	0.30
X4	0.1019	0.0761	1.34	-0.0222	0.0838	0.26
X5	0.1570	0.0781	2.01**	0.2119	0.1850	1.15
Constant	4.8373	2.0058	2.41**	-1.8082	4.8510	0.37
$\bar{R}^2 = 0.4790$						
F = *						
df = 9						
$\bar{R}^2 = 0.3704$						
F = * insignificant						
df = 3						

* = significant at the 10 per cent level
 ** = significant at the 5 per cent level
 *** = significant at the 1 per cent level

Table 3.21 : Logarithmic Regression Results for the Medium Migration Group in the Regions of Ninevah and Babylon
(the Accessibility Variable is removed)

<u>Independent Variables</u>	<u>Ninevah Region</u>			<u>Babylon Region</u>		
	Coefficients	Standard Error	t-Ratio	Coefficients	Standard Error	t-Ratio
X1	-0.1062	0.9735	0.12	-0.0271	0.2309	0.12
X2	-	-	-	1.0154	0.4431	2.29*
X3	-0.1541	0.9493	0.16	-0.0497	0.1904	0.26
X4	0.3598	0.3025	1.19	-0.1138	0.4068	0.28
X5	0.2460	0.1147	2.14**	0.3228	0.2870	1.12
Constant	1.1885	0.9987	1.19	-1.4130	2.0039	0.71

$\bar{R}^2 = 0.4715$

F = **

df = 9

$\bar{R}^2 = 0.3848$

F = insignificant

df = 3

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Table 3.22 : Linear Regression Results for the Low Migration Group in the Region of Ninevah

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	-0.01550	0.0202	0.77
X2	0.1477	0.0869	1.70*
X3	-0.0179	0.0169	1.06
X4	0.0407	0.0357	1.15
X5	-0.0850	0.1152	0.74
X6	0.0469	0.0624	0.75
Constant	2.4516	2.5293	0.97

$\bar{R}^2 = 0.0243$
F = insignificant
df = 17

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.2157					
X2	0.3317	-0.0675				
X3	-0.1985	0.1439	0.1835			
X4	0.2193	0.0944	0.1349	0.0426		
X5	-0.0549	-0.0862	-0.0200	-0.0407	0.1789	
X6	0.0667	0.1780	-0.2787	-0.1953	-0.1270	0.2768

Table 3.23 : Logarithmic Regression Results for the Low Migration Group in the Region of Ninevah

Independent Variables	Coefficients	Standard Error	t-Ratio
X1	-0.1137	0.1862	0.61
X2	0.7261	0.4388	1.65*
X3	-0.1424	0.1863	0.76
X4	0.1834	0.1746	1.05
X5	-0.1520	0.2328	0.65
X6	0.0408	0.0529	0.77
Constant	-0.0486	1.6887	0.03

$\bar{R}^2 = -0.0284$
F = insignificant
df = 17

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	-0.1849					
X2	0.3306	0.0378				
X3	-0.1400	0.1576	0.1608			
X4	0.2247	0.0472	0.1513	0.0596		
X5	0.0339	-0.0596	0.0315	-0.0098	0.1981	
X6	0.0597	-0.1698	-0.2942	-0.1533	-0.0976	0.2543

Table 3.24 : Linear Regression Results for the Low Migration Group in the Region of Babylon

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	0.0556	0.0180	3.09**
X2	-0.0060	0.0630	0.10
X3	-0.0337	0.0396	0.85
X4	-0.0122	0.0290	0.42
X5	0.04718	0.0310	1.52*
X6	0.1420	0.0585	2.42**
Constant	3.2496	2.9011	1.12

$\bar{R}^2 = 0.6263$

F = *

df = 5

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	0.4173					
X2	0.4500	0.0841				
X3	-0.3068	-0.5087	-0.4893			
X4	-0.2241	0.2235	0.0400	-0.0400		
X5	0.3917	-0.1438	0.2990	-0.1322	0.0213	
X6	0.3940	-0.4846	0.2344	0.4766	-0.3880	0.2021

Table 3.25 : Logarithmic Regression Results for the Low Migration Group in the Region of Babylon

Independent Variables	Coefficient	Standard Error	t-Ratio
X1	0.4750	0.1538	3.09**
X2	-	-	-
X3	-0.2416	0.2338	1.03
X4	-0.1140	0.1567	0.73
X5	0.1718	0.0873	1.97**
X6	0.1124	0.0354	3.18***
Constant	0.5761	1.2698	0.45

$\bar{R}^2 = 0.6691$

F = **

df = 6

- * = significant at the 10 per cent level
- ** = significant at the 5 per cent level
- *** = significant at the 1 per cent level

Simple Correlation Coefficients

	Y	X1	X2	X3	X4	X5
X1	0.3521					
X2	0.4050	0.0154				
X3	-0.2966	-0.4863	-0.4735			
X4	-0.2078	0.2806	0.0479	-0.0801		
X5	0.4855	-0.0390	0.2613	-0.2509	0.0890	
X6	0.3989	-0.5071	0.2491	0.4691	-0.4062	0.1152

Table 3.26 : Linear Regression Results for the Low Migration Group in the Regions of Ninevah and Babylon
(the Accessibility Variable is removed)

<u>Independent Variables</u>	<u>Ninevah Region</u>			<u>Babylon Region</u>		
	Coefficients	Standard Error	t-Ratio	Coefficients	Standard Error	t-Ratio
X1	-0.0178	0.0197	0.90	0.0518	0.0242	2.14**
X2	0.1309	0.0829	1.58*	0.0920	0.0651	1.41
X3	-0.0195	0.0166	1.17	0.0319	0.0390	0.82
X4	0.0371	0.0349	1.06	0.0500	0.0331	1.51*
X5	-0.0599	0.1089	0.55	0.0625	0.0409	1.53*
Constant	2.9851	2.3977	1.24	-0.2524	3.3881	0.07

$\bar{R}^2 = 0.0480$

F = insignificant

df = 18

$\bar{R}^2 = 0.3224$

F = insignificant

df = 6

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Table 3.27 : Logarithmic Regression Results for the Low Migration Group in the Regions of Ninevah and Babylon
(the Accessibility Variable is removed)

<u>Independent Variables</u>	<u>Ninevah Region</u>			<u>Babylon Region</u>		
	Coefficients	Standard Error	t-Ratio	Coefficients	Standard Error	t-Ratio
X1	-0.1366	0.1817	0.75	0.4503	0.2183	2.06**
X2	0.6271	0.4148	1.51*	0.3985	0.2707	1.47*
X3	-0.1542	0.1835	0.84	0.3157	0.3452	0.91
X4	0.1693	0.1717	0.99	-0.3365	0.2025	1.66*
X5	-0.1007	0.2205	0.46	0.2333	0.1180	1.98**
Constant	0.3395	1.5936	0.21	-1.9974	2.4052	0.83

$\bar{R}^2 = 0.0052$

F = insignificant

df = 18

$\bar{R}^2 = 0.3476$

F = insignificant

df = 6

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Table 3.28 : Linear Regression Results for the Region of Ninevah

Independent Variables	Accessibility Variable (X6) Removed					
	Coefficient	Standard Error	t-Ratio	Coefficient	Standard Error	t-Ratio
X1	-0.0372	0.0194	1.92**	-0.0578	0.0187	3.09***
X2	0.2997	0.0388	7.72***	0.2987	0.0406	7.36***
X3	-0.0333	0.0133	2.50***	-0.0408	0.0134	3.19***
X4	0.0396	0.0266	1.49*	0.0490	0.0276	1.78**
X5	0.1741	0.0741	2.35**	0.2249	0.0751	2.99***
X6	0.1200	0.0445	2.70***			
Constant	-1.57	1.2160	1.29	-0.3422	1.6089	0.21

$\bar{R}^2 = 0.8646$

F = ***

df = 63

$\bar{R}^2 = 0.8372$

F = ***

df = 64

* = significant at the 10 per cent level

** = significant at the 5 per cent level

*** = significant at the 1 per cent level

Table 3.29 : Logarithmic Regression Results for the Region of Ninevah

Independent Variables	Accessibility Variable (X6) Removed			
	Coefficient	Standard Error	t-Ratio	t-Ratio
X1	-0.1920	0.0970	1.98**	0.34
X2	1.1462	0.1493	7.68***	6.86***
X3	-0.1607	0.0741	2.17**	2.83***
X4	0.1019	0.0969	1.05	1.56*
X5	0.1177	0.1047	1.12	2.03**
X6	0.1006	0.0234	4.30***	
Constant	-1.3094	1.0635	1.23	1.04
$\bar{R}^2 = 0.8672$				
$F = ***$				
$df = 63$				
$\bar{R}^2 = 0.8150$				
$F = ***$				
$df = 64$				

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Table 3.30 : Linear Regression Results for the Region of Babylon

Independent Variables	Accessibility Variable (X6) Removed			
	Coefficient	Standard Error	t-Ratio	t-Ratio
X1	-0.0346	0.0218	1.59*	2.47***
X2	0.2805	0.0628	-4.47***	5.42***
X3	0.0243	0.0259	0.94	0.77
X4	0.0604	0.0372	1.62*	1.79**
X5	0.0869	0.0724	1.20	1.00
X6	0.1624	0.0485	3.35***	
Constant	-3.222	2.6403	1.22	0.62

$\bar{R}^2 = 0.8320$
 $F = ***$
 $df = 33$

$\bar{R}^2 = 0.7441$
 $F = ***$
 $df = 34$

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

Table 3.31 : Logarithmic Regression Results for the Region of Babylon

Independent Variables	Accessibility Variable (X6) Removed			
	Coefficient	Standard Error	t-Ratio	t-Ratio
X1	-0.2090	0.1166	1.79**	2.69***
X2	0.7949	0.2076	3.83***	4.50***
X3	0.0737	0.1570	0.47	0.22
X4	0.2090	0.1574	1.33*	1.60**
X5	0.2089	0.1114	1.88**	-
X6	0.0998	0.0270	3.70***	-
Constant	-1.4647	1.1471	1.28	0.76

$\bar{R}^2 = 0.8290$

F = ***

df = 33

$\bar{R}^2 = 0.7145$

F = ***

df = 35

* = significant at the 10 per cent level
** = significant at the 5 per cent level
*** = significant at the 1 per cent level

CHAPTER IV

CHARACTERISTICS OF THE MIGRANTS

Introduction

The aim of this chapter is to analyse the major characteristics of the migrants and some aspects of their background at the time of migration, and to compare them with those of the village residents at the time of the Survey. The migrants themselves were not interviewed, because the sample was confined to the rural areas, but adult members of their households in the rural area were asked to provide this information. However, there is not strong reason to believe that the information collected in this way would be less accurate than that collected directly from the migrants. The large degree of interdependence of the people inside the village in general, and within the household in particular, makes the indirect way of collecting the information almost equally satisfactory. On the other hand, it is more likely that the village residents can provide more accurate information than the migrants, particularly concerning the income of the household at the time of migration. Some households keep some form of primitive record of their cash income, which is usually kept by the head of the household, and since the majority of the migrants are not heads of households, the records are therefore more likely to be found in the rural area. The comparison would help to test some hypotheses concerning who migrates to the city and who remains in the rural area. The analysis is based mainly on information on 2,537 adults, of whom 7 per cent are migrants. The surveys which are conducted in the urban areas can easily include a large number of migrants, whose residential areas are usually known in the city.

Larger numbers of migrants would make the study of their characteristics easier and the hypotheses tests more significant. On the other hand, in order to get larger numbers of migrants in the rural survey, the sample would have to be increased, and this would increase the costs considerably.

The following characteristics will be discussed:

1. Income (cash income per capita in the household)
2. Age (in complete years)
3. Sex
4. Marital status
5. Educational attainment (number of years spent in schools)
6. Household size (number of members)
7. Accessibility to the city (number of visits)

1. Income

Various studies have attempted to explain rural-urban migration in less-developed countries by employing variables related to the economic conditions in the rural area, such as man-land ratio, land productivity, and cash cropping variables, in the form of regression and correlation analysis.¹ The merits and demerits of employing each of these variables are discussed in Chapter 3. Only a few studies have classified the individual migrants by their income groups at the time of migration. Caldwell noticed that the percentage of respondents planning seasonal or long-term migration to the towns, was higher

1. J. Connell, B. Dasgupta, R. Laishley and M. Lipton, Migration from Rural Areas: The Evidence from Village Studies: Institute of Development Studies (Oxford University Press, Delhi, 1976), pp.6-14.

among the respondents who lived in economically above-average households than among those who lived in economically average or below-average households. Caldwell offered two indirect explanations as to why economically above-average households produced a higher per cent of prospective migrants. First, that economically above-average households are more likely to be able to keep children at school, and education is positively associated with migration. Secondly, that economically above-average households may owe their condition partly to the absence of some of their members in the towns, which is likely to encourage chain migration and improve the cash and non-cash income of the rural household through the remittances channeled back by the migrants.² These two explanations are not equally valid in this study. First, because education at all levels, including university level, is free in Iraq, and pupils and students from economically below-average households can obtain subsidies from the educational authorities and get all their school books and equipment free. As to the second explanation, the cash remittances have been excluded when cash income of village residents was calculated, mainly because it was found that the village residents are so reluctant to reveal the remittance, and sometimes even to talk about it. However, capital equipment sent back by the migrants instead of cash remittances are expected to increase the cash and non-cash income of the village residents, but detailed discussions with few rural respondents revealed that remittances usually take either the form of cash, or goods like

2. J. Caldwell, African Rural-Urban Migration: The Movement to Ghana's Towns (Hurst, London, 1969), p.83.

among the respondents who lived in economically above-average households than among those who lived in economically average or below-average households. Caldwell offered two indirect explanations as to why economically above-average households produced a higher per cent of prospective migrants. First, that economically above-average households are more likely to be able to keep children at school, and education is positively associated with migration. Secondly, that economically above-average households may owe their condition partly to the absence of some of their members in the towns, which is likely to encourage chain migration and improve the cash and non-cash income of the rural household through the remittances channeled back by the migrants.² These two explanations are not equally valid in this study. First, because education at all levels, including university level, is free in Iraq, and pupils and students from economically below-average households can obtain subsidies from the educational authorities and get all their school books and equipment free. As to the second explanation, the cash remittances have been excluded when cash income of village residents was calculated, mainly because it was found that the village residents are so reluctant to reveal the remittance, and sometimes even to talk about it. However, capital equipment sent back by the migrants instead of cash remittances are expected to increase the cash and non-cash income of the village residents, but detailed discussions with few rural respondents revealed that remittances usually take either the form of cash, or goods like

2. J. Caldwell, African Rural-Urban Migration: The Movement to Ghana's Towns (Hurst, London, 1969), p.83.

clothes, shoes, radios, recorders, etc. An important point which should be mentioned in respect to the relationship between rural income and migration, is that the cost of movement to the town and the maintenance costs required until the migrant finds an urban job, which is paid in cash, are relatively high considering the low level of cash income in the villages.

The results in Table 4.1 indicate that in the region of Ninevah about 69 per cent of the village residents are concentrated in the I.D.(26-45) extended income group. Village residents in the high extended income group I.D.(46+) represented 13 per cent, and those in the low income group I.D.(-25) represented 17.8 per cent of the village residents. About 59.2 per cent of the migrants seem to be concentrated in the extended income group I.D.(26-45), while migrants from the high income group I.D.(46+) represented 18.4 per cent, and those from the low income group represented 22.3 per cent of the total migrants. The tendency of the adult males to migrate seems to be higher among those whose income is slightly above the average.³ The tendency to migrate seems to be the lowest among those in the highest income group I.D.(56+).

The results in Table 4.2 indicate that in the region of Babylon, nearly 62 per cent of the village residents fall into the I.D.(26-45) extended income group. Village residents in the high extended income group I.D.(46+), represented 22.2 per cent, and those in the low income group I.D.(-25) represented 15.4 per cent. About 69.3 per cent of the migrants are concentrated in

3. The cash income per capita in Ninevah region is I.D.34.9.

Table 4.1 : Distribution of Adult Village Residents
and Migrants by Income Groups*

Income Groups						(1) Total
NINEVAH REGION						
Village Residents						
Respondents:						
Numbers	248	626	339	109	72	1394
Percentages	17.8	44.9	24.3	7.8	5.2	100.0
Migrants						
Respondents:						
Numbers	23	34	27	16	3	103
Percentages	22.3	33.0	26.2	15.5	2.9	100.0
Males:						
Numbers	13	25	22	13	1	74
Percentages	17.6	33.8	29.7	17.6	1.4	100.0
Females:						
Numbers	10	9	5	3	2	29
Percentages	34.5	31.0	17.2	10.3	6.9	100.0

* The data in Table 4.1-4.37 are calculated from
Questionnaire Forms 1 and 2
(1) The total number of respondents is 1497

Table 4.2 : Distribution of Adult Village Residents
and Migrants by Income Groups

BABYLON REGION	Income Groups					(1) Total
	0-25	26-35	36-45	46-55	56+	
<u>Village Residents</u>						
Respondents:						
Numbers	149	467	134	123	92	965
Percentages	15.4	48.4	13.9	12.7	9.5	100.0
<u>Migrants</u>						
Respondents:						
Numbers	12	24	28	8	3	75
Percentages	16.0	32.0	37.3	10.7	4.0	100.0
<u>Males:</u>						
Numbers	4	21	20	9	3	55
Percentages	7.3	38.2	36.4	16.4	5.5	100.0
<u>Females:</u>						
Numbers	8	3	8	1	0	20
Percentages	40.0	15.0	40.0	5.0	0.0	100.0

(1) The total number of respondents is 1040

the extended income group I.D.(26-45), while migrants from the high income group I.D.(46+) represented 14.7 per cent, and those from the low income group represented 16 per cent of the total migrants. The tendency of the adult males to migrate seems to be higher among those whose income is slightly above the average.⁴

The results in Table 4.3 show that the Chi-square tests indicate significant difference at the 5 per cent level of significance between the distribution of migrants and non-migrants by income groups in the region of Babylon, but the two distributions are not significantly different in the Ninevah region. The distribution of migrants and of village residents in the two regions are not significantly different.

The conclusion drawn from these results is that adult migrants, and particularly the males, tend to come from households whose income per capita is near the average. Households with low income per capita produce relatively less migrants where it may be difficult for them to cover the costs of movement and maintenance. On the other hand, households in the highest income per capita group produce relatively less migrants, for they may be more content with their standard of living than the others.

2. Age

It has been indicated in various studies on less-developed countries, that rural-urban migration is age-selective. Caldwell (1969), explained that the chief planners for long term moves to the towns in Ghana are the 15-19 year-olds, and that the high mobility rate of this age group applies to boys as well as girls.

4. The cash income per capita in Babylon region is I.D.35.7.

Table 4.3 : Chi-square Test for the Distribution of Village Residents and Migrants by Income Groups

Distribution	χ^2	Level of Significance	Degrees of Freedom	(1) Number of Respondents
Village residents and migrants in the region of Ninevah	6.4	Insignificant	4	1497
Village residents and migrants in the region of Babylon	12.8	5%	4	1040
Village residents in Ninevah and Babylon regions	4.2	Insignificant	4	2359
Migrants in Ninevah and Babylon regions	4.0	Insignificant	4	178

(1) The total number of respondents is 2537

The respondents in this age group who are planning their first long-term migration to urban areas, amounted to 11 per cent of the male respondents, and 10 per cent of the female respondents in this age group, and the percentage share of the migration planners in an age group decreased as the age of the respondents increased.⁵ Rempel (1971), found that the age distribution of the rural-urban migrants in eight urban centres in Kenya was consistent with the hypothesis that younger men have a high tendency to migrate. His results show that 82.1 per cent of the migrants were less than thirty years of age.⁶ The IDS study of the north Indian villages found that within the adult migration group, 60 per cent were in the 15-24 age cohort.⁷

One of the problems encountered when this survey was conducted in Ninevah and Babylon regions, was to obtain accurate information concerning the age of the respondents. It was found that nearly 75 per cent of the respondents declared that they do not have birth certificates, and this ratio was particularly high among the females. The high ratio is thought to have been exaggerated, particularly for the males. Those who had birth certificates, were usually school pupils or literate adults employed in non-agricultural jobs where birth certificates had to be produced. The other problem is that age information was sometimes given indirectly. When a household was picked in the sample for interview, the major respondent would normally be the head of the

5. Caldwell, op.cit., p.59.

6. H. Rempel, Labour Migration into Urban Centres and Urban Unemployment in Kenya: University of Wisconsin, PhD thesis (unpublished), 1970, p.27.

7. IDS, op.cit., p.39.

household, and in his absence a senior male member. The major respondents provided information on the ages of their household members, many of whom were usually absent at the time of the survey, either in the fields, at school, visiting friends in the same village or in a nearby village, or visiting the town. The major respondents also gave the interviewer less access to female members for direct interview, and answered on their behalf. Thus, in the absence of documents showing the respondent's age, the age information as given by the major respondents may not be very accurate.

This study has adopted an economic definition of a household, rather than a demographic definition. As was explained earlier, the high landless ratio among the young adults would induce them, with the help of the tribal background of the rural society, to merge either with their young relatives and form united households, or to remain attached to the father's household until they become economically independent. Since households with more adult members had more huts in the village, their chance of being selected in the sample was higher, so not surprisingly, the sample included a higher proportion of young adults than their proportion in the rural population in general.

The results in Table 4.4 indicate that the migrants in the region of Ninevah are concentrated in the first three age groups, where nearly 87.5 per cent of the migrants are less than 31 years old, and they represented about 22.7 per cent of the adult village respondents in these age groups. The age pattern of the female migrants is consistent with that of the male migrants. The

Table 4.4 : Distribution of Adult Village Residents
and Migrants by Age Groups

NINEVAH REGION	Age Groups						(1) Number of Respondents
	15-20	21-25	26-30	31-35	36-40	41+	
<u>Adult Village Residents</u>							
Respondents:							
Numbers	185	111	101	73	76	220	766
Percentages	24.2	14.5	13.2	9.5	9.9	28.7	100.0
Males:							
Numbers	93	35	49	45	41	122	385
Percentages	24.2	9.1	12.7	11.7	10.6	31.7	100.0
Females:							
Numbers	92	76	52	28	35	98	381
Percentages	24.1	19.9	13.6	7.3	9.2	25.7	100.0
<u>Migrants</u>							
Respondents:							
Numbers	53	19	18	5	3	5	103
Percentages	51.5	18.5	17.5	4.9	2.0	4.9	100.0
Males:							
Numbers	38	15	13	3	2	2	74
Percentages	51.4	20.3	17.6	4.1	2.7	2.7	100.0
Females:							
Numbers	15	4	6	2	0	2	29
Percentages	51.7	13.8	20.7	6.9	0.0	6.9	100.0

(1) The total number of respondents is 869

results in Table 4.5 indicate that the migrants in the region of Babylon are also concentrated in the first three age groups. Nearly 82.8 per cent of the migrants are less than 31 years old, and they represented 22.9 per cent of the adult village respondents in these age groups. Nearly 38.2 per cent of the male migrants fall into the 15-20 years age cohort, together with 65 per cent of the female migrants.

The migration ratio in the two regions seems to be considerably lower than that of the country as a whole, as derived by the Census Survival ratio method for the period 1957-1965, and the age pattern has also changed where the tendency to migrate among the young adults seems to have increased, while that of the older adults has decreased. This indicates a change from the family type rural-urban migration which was dominant in the country in the fifties and early sixties, as explained in the first chapter, to the individual type of migration which is more common in the less-developed countries.

When a household discusses despatching a migrant to the urban area, it is more likely that they will select young adults whose economically active life is long, whose integration into the village social system is limited, and who are usually landless. A young adult would benefit more from migration in general than an old adult, because the present discounted value of the difference between his income in the village and his expected income in the urban area is higher. The respondents certainly did not calculate mathematically the present discounted value, but old respondents often made the remark that it is not worth it for them to migrate.

Table 4.5 : Distribution of Adult Village Residents
and Migrants by Age Groups

BABYLON REGION	Age Groups						(1) Number of Respondents
	15-20	21-25	26-30	31-35	36-40	41+	
<u>Adult Village Residents</u>							
Respondents:							
Numbers	133	74	64	53	49	178	551
Percentages	24.1	13.4	11.6	9.6	8.9	32.3	100.0
Males:							
Numbers	63	30	31	26	30	103	283
Percentages	22.3	10.6	10.9	9.2	10.6	36.4	100.0
Females:							
Numbers	70	44	33	27	19	75	268
Percentages	26.1	16.4	12.3	10.1	7.1	28.0	100.0
<u>Migrants</u>							
Respondents:							
Numbers	34	19	9	4	3	6	75
Percentages	45.3	25.3	12.0	5.3	4.0	8.0	100.0
Males:							
Numbers	21	16	8	2	3	5	55
Percentages	38.2	29.1	14.5	3.6	5.5	9.1	100.0
Females:							
Numbers	13	3	1	2	0	1	20
Percentages	65.0	15.0	5.0	10.0	0.0	5.0	100.0

(1) The total number of respondents is 626

The results in Table 4.6 show that the Chi-square that produced significant differences between the age distributions of the migrants and the village residents at the one per cent level of significance in each of the two regions. The age distribution of the village residents were not significantly different between the two regions, neither were the age distributions of the migrants.

3. Sex

Various studies have shown that rural-urban migration is sex-selective. The IDS study indicated that in the studied sixteen north Indian villages, females aged 15-19 never represented more than 21 per cent of total migrants and averaged 12 per cent of total migrants.⁸ Caldwell (1969), found that in four regions in Ghana, males had a higher propensity to migrate than females, even after age, education and region have been standardized.⁹

In Iraq, the religious tradition and the social customs which are particularly strong in the rural areas, advocate female subordination to males, and work against the migration of single females. Most of the female migrants have either migrated in the company of their households or husbands, or to join households or husbands settled in the urban area.

The results shown in Table 4.7 indicate that the 71.8 per cent of the adult migrants who left the villages in the region of

8. IDS, op.cit., p.42.

9. Caldwell, op.cit., pp.65-7.

Table 4.6 : Chi-square Test for Age Distribution of
Adult Village Respondents and Migrants

Distribution	χ^2	Level of Significance	Degrees of Freedom	(1) Number of Respondents
Adult village respondents and migrants in the region of Ninevah	34.4	1%	5	869
Adult village respondents and migrants in the region of Babylon	27.6	1%	5	626
Adult village respondents in Ninevah and Babylon regions	0.4	Insignificant	5	1317
Migrants in Ninevah and Babylon regions ²	3.6	Insignificant	4	178

(1) The total number of respondents is 1495.

(2) Two cells were grouped together to increase the number of observations and improve the validity of the test.

Table 4.7 : Distribution of Adult Village Residents
and Migrants by Sex

NINEVAH REGION	Males	Females	(1) Total
<hr/>			
<u>Village Residents</u>			
Respondents: Numbers	385	381	766
Percentages	50.3	49.7	100.0
<u>Migrants</u>			
Respondents: Numbers	74	29	103
Percentages	71.8	28.2	100.0

(1) The total number of respondents is 869

Ninevah during the six years that preceded the survey were males and the females represented only 28.2 per cent. The male migrants represent 19.2 per cent of the adult male residents in the villages, while the female migrants represent 7.6 per cent of the adult female residents in the village.

The pattern of sex-selectivity of rural-urban migration in the region of Babylon seems similar to that in the Ninevah region. The results in Table 4.8 indicate that 73.3 per cent of the adult migrants who left the villages in the region of Babylon during the six years that preceded the survey were males. The female migrants represented only 26.7 per cent of the total adult migrants. The male migrants represent 19.4 per cent of the adult male residents in the villages and the female migrants represent 7.5 per cent of the adult female residents in the villages.

The undisturbed sex balance in the villages of Ninevah and Babylon despite the sex-selectivity of rural-urban migration, may be explained by the fact that sex-selectivity is a recent trend in rural-urban migration which was dominated until the early sixties by household migration.¹⁰ It may also be argued that villages which lose adult single males more than females through rural-urban migration, tend to lose a greater number of females on balance through inter-village marriages. It is also worth remembering that, as discussed earlier, the sample is not representative of a village population due to the large

10. This is explained in Chapter 1.

Table 4.8 : Distribution of Adult Village Residents
and Migrants by Sex

BABYLON REGION	Males	Females	(1) Total
<hr/>			
<u>Villages Residents</u>			
Respondents: Numbers	283	268	551
Percentages	51.4	48.6	100.0
<u>Migrants</u>			
Respondents: Numbers	55	20	75
Percentages	73.3	26.7	100.00

(1) The total number of respondents is 626

proportion of the young adults in the sample which occurred as a result of the economic definition of the household. The results of the Chi-square tests shown in Table 4.9 indicate that the distribution of migrants and adult village residents by sex are significantly different at the one per cent level in each of the two regions. The distribution of adult village residents and of migrants in the two regions are not significantly different.

The conclusion is that since males are by tradition the decision-makers in the rural society in Iraq, and their migration to and work in the urban areas are socially acceptable and female migration for reasons other than marriage is socially resented, the households tend to dispatch males to the urban areas who in any case stand a better chance of getting a job there and of channelling remittances back home.

4. Marital Status

It has been reported in various studies that single people have higher propensity to migrate than married people. Caldwell (1969), found that, in Ghana, amongst males of the 15-29 age group, 20 per cent of those planning long-term migration were married compared with 26 per cent of those expecting to remain at home. He also found that whilst only 6 per cent of the married planned to migrate for a long period, 9 per cent of the single did so, and when the examination was confined to maturer males, the 30-59 age range for instance, it was found

Table 4.9 : Chi-square Tests for the Distribution of Adult
Village Residents and Migrants by Sex

Distribution	(1) χ^2	Level of Significance	Degrees of Freedom	Number of Respondents
Village residents and migrants of Ninevah region	8.8	1%	1	869
Village residents and migrants of Babylon region	9.4	1%	1	626
Village residents in Ninevah region and village residents in Babylon region	0.0	Insignificant	1	1,317
Migrants of Ninevah region and migrants of Babylon region	0.0	Insignificant	1	178

(1) In the one-degree-of-freedom situation, a correction for continuity was made to obtain a closer approximation of the obtained χ^2 values to the theoretical distribution.

that the singles were 1.5 times as likely to be planning a first rural-urban migration as were the married males.¹¹ Rempel (1971) found, in Kenya, that the distribution of the marital status of the men in the sample, which was collected from eight urban centres, was not significantly different from the distribution of the comparable group of men in Kenya's population. The results of his survey indicated that 52.5 per cent of the men in the sample were single, while the census results showed that 41.5 per cent of the African men in the 15-49 age category were reported to be single.¹² As Rempel argued, a higher percentage of single men in the sample was expected since the sample had proportionately a larger number of younger men. However, it cannot be deduced from Rempel's findings that single adult men do not have higher propensity to migrate than married men since the marital status of the respondent considered in his survey was that at the time of the survey and not that at the time of migration.

The results in Table 4.10 show that in Ninevah region 67.6 per cent of the adult village residents were married, either with children or without children, while the married migrants represent 24.3 per cent of the total migrants. The results thus show that the propensity to migrate of the single adults was higher than that of the married adults. While the single migrants

11. C. Caldwell, op.cit., p.76.

12. H. Rempel, op.cit., pp.27 and 29.

Table 4.10 : Distribution of Adult Village Residents
and Migrants by Marital Status

NINEVAH REGION		Married	Singles	(1) Total
<u>Village Residents</u>				
Respondents:	Numbers	581	248	766
	Percentages	67.6	32.4	100.0
Males:	Numbers	249	136	385
	Percentages	64.7	35.3	100.0
Females:	Numbers	269	112	381
	Percentages	70.6	29.4	100.0
<u>Migrants</u>				
Respondents:	Numbers	25	78	103
	Percentages:	24.3	75.7	100.0
Males:	Numbers	18	56	74
	Percentages	24.3	75.7	100.0
Females:	Numbers	7	22	29
	Percentages	24.1	75.9	100.0

(1) The total number of respondents is 869

represented 31.5 per cent of the single adults respondents in the villages the married migrants represent only 4.8 per cent of the married adult respondents in the villages.

The results in Table 4.11 show that in the region of Babylon, 67.2 per cent of the adult respondents in the villages were married, either with or without children, and the single adults represented 32.8 per cent. The married migrants represent 25.3 per cent of the total migrants. The propensity to migrate of the single adults is higher than that of the married adults. While the single migrants represented 30.9 per cent of the single adults in the village, the married migrants represented 5.1 per cent of the married adults in the village.

The results of the Chi-square tests presented in Table 4.12 indicate significant difference between the distribution by marital status of the migrants and the village residents, at the one per cent level of significance in each of the two regions. The distributions by marital status of both the village residents and the migrants in the two regions were not significantly different.

The single adults seem to have higher propensity to migrate from the village to the urban centres in Ninevah and Babylon regions. The household in its decision on migration is more likely to dispatch a single adult than a married adult for various reasons. The cost of the movement of a single migrant and the cost of his maintenance until he gets a job in the urban areas is considerably less than that of a whole family.

Table 4.11 : Distribution of Adult Village Residents
and Migrants by Marital Status

BABYLON REGION		Married	Singles	(1) Total
<hr/>				
<u>Village Residents</u>				
Respondents:	Numbers	370	181	551
	Percentages	67.2	32.8	100.0
Males:	Numbers	186	97	283
	Percentages	65.7	34.3	100.0
Females:	Numbers	184	84	268
	Percentages	68.7	31.3	100.0
<u>Migrants</u>				
Respondents:	Numbers	19	56	75
	Percentages	25.3	74.7	100.0
Males:	Numbers	14	41	55
	Percentages	25.5	74.5	100.0
Females:	Numbers	5	15	20
	Percentages	25.0	75.0	100.0

(1) The total number of respondents is 626

Table 4.12 : Chi-square Tests for Distribution of Adult
Village Respondents and Migrants by Marital Status

Distribution	x^2 ⁽¹⁾	Level of Significance	Degrees of Freedom	Number of ⁽²⁾ Respondents
Adult village respondents and migrants in the region of Ninevah	36.0	1%	1	869
Adult village respondents and migrants in the region of Babylon	33.6	1%	1	626
Adult village respondents in Ninevah and Babylon regions	0.0	Insignificant	1	1,317
Migrants in Ninevah and and Babylon regions	0.0	Insignificant	1	178

(1) The total number of respondents is 1,495.

(2) The correction for continuity has been made to obtain a closer approximation of the obtained x^2 values to the theoretical distribution.

The household may expect a higher proportion of the single migrant's urban income to be channelled back home than they would expect from the married migrant with family responsibilities. Single adults are usually less integrated in the social life of the village and may be more able to detach themselves from the traditions of the rural community than the married adult.

5. Education

In the regression analysis, the literacy variables, namely crude literacy ratio, literacy ratio for males and literacy ratio for males whose age is 15 years and over, were considered and the second variable was selected. Educational variables such as the number of completed years of formal education per capita or disaggregated literacy ratios for different levels of education, like the primary, intermediate and secondary level, were found unsuitable due to the very high rate of illiteracy in general. However, and partly for the same reason mentioned above, the literacy variable did not give satisfactory results. It would be appropriate here to analyze the educational attainment of the village adult respondents and the migrants, and make a comparison between the two groups. Evidence on the educational selectivity in migration have been established in various studies on less-developed countries. Caldwell (1969) found that the percentage of rural men in Ghana who never migrated and had no plans to do so, declined linearly from 65 per cent among those with no formal education at all, to 59 per cent among those with limited primary schooling,

Table 4.13 : Distribution of Adult Village Residents and Migrants by years of Educational Attainment

NINEVAH REGION		Years of Educational Attainment (1)				Number of Respondents
		0	1-3	4-6	7+	
<u>Village Residents</u>						
Respondents:	Numbers	606	17	37	92	752
	Percentages	80.6	2.3	4.9	12.2	100.0
Males:	Numbers	275	5	21	78	379
	Percentages	72.6	1.3	5.5	20.6	100.0
Females:	Numbers	331	12	16	14	373
	Percentages:	88.7	3.2	4.3	3.8	100.0
<u>Migrants</u>						
Respondents:	Numbers	32	10	25	36	103
	Percentages	31.1	9.7	24.3	35.0	100.0
Males:	Numbers	21	8	18	27	74
	Percentages	28.4	10.8	24.3	36.5	100.0
Females:	Numbers	11	2	7	9	29
	Percentages	37.9	6.9	24.1	31.0	100.0

(1) The total number of respondents is 855. Fourteen adults were excluded.

Table 4.14 : Distribution of Adult Village Residents and Migrants by years of Educational Attainment

BABYLON REGION		Years of Educational Attainment (1)				Number of Respondents
		0	1-3	4-6	7+	
<u>Village Residents</u>						
Respondents:	Numbers	400	9	41	101	551
	Percentages	72.6	1.6	7.4	18.3	100.0
Males:	Numbers	193	3	24	64	284
	Percentages	68.0	1.1	8.5	22.5	100.0
Females:	Numbers:	207	6	17	37	267
	Percentages	77.5	2.2	6.4	13.9	100.0
<u>Migrants</u>						
Respondents:	Numbers	33	3	15	24	75
	Percentages	44.0	4.0	20.0	32.0	100.0
Males:	Numbers	24	2	12	17	55
	Percentages:	43.6	3.6	22.8	30.9	100.0
Females:	Numbers	9	1	3	7	20
	Percentages:	45.0	5.0	15.0	35.0	100.0

(1) The total number of respondents is 626

38 per cent among those with extended primary and middle schooling, and 17 per cent among those with secondary schooling and over, while the percentage of those planning to migrate increased directly with the level of education. This pattern was also clear in the females' responses.¹³ Rempel (1971) found that the propensity of males to migrate to an urban area in Kenya increases with education.¹⁴ The migrants who had no formal education represented 12.7 per cent of the total migrants while those with five to eight completed years of educational attainment represented 47.1 per cent of the total migrants.¹⁵ The IDS (1976) explained that their study of sixteen north Indian villages had showed a greater propensity for the educated to migrate:

"Among the adults of the villages 80 per cent were illiterate and only 14 per cent had any formal education. In contrast, among adult migrants from the villages 49 per cent had received some education, and only 42 per cent were illiterate".¹⁶

The results displayed in Tables 4.13 and 4.14 illustrate the educational selectivity of migration in the regions of Ninevah and Babylon. The figures in Table 4.13 show that the illiterate adult respondents in the region of Ninevah represent 80.6 per cent of the total number of adult respondents. The illiteracy ratio for the males is 72.6 percent and 88.7 per cent for the females. On the other hand, the illiteracy ratio

13. J. Caldwell, op.cit., Table 3.3, p.62.

14. H. Rempel included only males in his survey.

15. H. Rempel, op.cit., Table 3.6, p.31.

16. IDS (1976), op.cit., p.60, also Table 8.14, pp.184 and 181-5.

for the migrants is 31.1 per cent, which is considerably lower than that for the non-migrants. The illiteracy ratio for the male migrants is 28.4 per cent and 37.9 per cent for the female migrants. In each of the three educational categories considered, the migrants' ratio exceeded the non-migrants' ratio, and this pattern applied also to the males' and females' ratios when they are taken separately. The pattern of migration seems to change at different levels of education. The ratio of the migrants to the non-migrants in the first and second educational category is 0.65, while the ratio in the third category is 0.39.¹⁷ In spite of the higher propensity to migrate of the adults falling in the first two categories, the migrants falling into these categories represented 49.3 per cent of the educated migrants, while those falling into the third category represented 50.7 per cent.

The figures in Table 4.14 show that the illiterate adult respondents in the region of Babylon represent 72.6 per cent of the total number of respondents. The illiteracy ratio for the males is 68 per cent and 77.5 per cent for the females. On the other hand, the illiteracy ratio for the migrants is 44 per cent, which is considerably lower than that for the non-migrants. The illiteracy ratio for the male migrants is 43.6 per cent and 45 per cent for the female migrants. In each of the three educational categories considered, the migrants' ratio exceeded the non-migrants' ratio, and this pattern applied also to the

17. The two categories are added together because of the limited number of observations.

Table 4.15 : Chi-square Tests for the Distribution of Respondents
according to Years of Educational Attainment in
Ninevah and Babylon Regions

Distribution	χ^2	Level of Significance	Degrees of Freedom	Number of ⁽¹⁾ Respondents
Village residents and migrants of Ninevah region	50.2	1%	3	855
Village residents and migrants of Babylon region	17.6	1%	2	626
Village residents in Ninevah and Babylon regions	1.8	Insignificant	2	1,303
Migrants in Ninevah and Babylon regions	5.0	Insignificant	3	178

(1) The total number of respondents is 1,481.

males' and females' ratios when they were taken separately. The pattern of migration seems to differ at different levels of education. The ratio of the migrants to the non-migrants in the first and second educational categories is 0.36, while the ratio in the third category is 0.24, which indicates that adults falling into the first two categories have higher propensity to migrate. However, the migrants falling into these categories represent 42.9 per cent of the educated migrants, while those falling into the third category represent 57.1 per cent.

Chi-square tests were carried out to compare the educational distribution of the migrants and the village residents in the two regions. The results in Table 4.15 indicate that the null hypothesis of no significant difference between the educational distribution of the village residents and the migrants in each of the two regions has been rejected, and the distribution is shown to be different at the one per cent level of significance. On the other hand, the null hypothesis of no significant difference between educational distribution of migrants and of village residents in the two regions has been accepted.

Educated adults have a higher propensity to migrate than the uneducated for many reasons. When a household induces one of the members to migrate, they prefer the one who stands a better chance of getting a good job in the urban sector, so that the migrant can channel substantial remittances back home.

The educated member in this case became the potential candidate, for educational qualifications are often used as a selection device for urban employment. Education also helps the migrant to conceive the idea of removing himself from the environment in which he is familiar, of extracting himself from the web of traditional supportive relationships and obligations, and reduces the psychic cost of migration. He is also expected to be more discontented with the style of life in the village and the poor welfare conditions there, and may tend to seek information concerning job opportunities and other factors relevant to living in the urban centre. The different propensities to migrate at different levels of education may be explained by the fact that adults who have limited primary schooling represent a small proportion of the village-educated adults, and at the age of adolescence they become school-leavers, which increases their propensity to migrate. The majority of the educated adults are those who were chosen and encouraged by their household members to go to school and to continue for as long as possible, mainly as a preparation for future migration. The propensity to migrate among illiterate adults in Babylon region is shown to be higher than that in Ninevah. This may be explained by the proximity of the region to the capital city of Baghdad, where job opportunities are open to unskilled and illiterate migrants, particularly in the service and construction sectors.

The general conclusion is that migration is positively correlated with education, and the lack of job opportunities in the rural areas for the educated adults will make their

migration inevitable, and the increased educational services in the rural areas will not improve the educational standard among the rural people, but produce migrants for the urban centres.

6. The Household Size

Many studies on rural-urban migration in less-developed countries have suggested that migrants tend to come from relatively large families, where need and earning capacity have expanded relative to local earning capacity. In large families where several members contribute to the household's income, a member who is making a relatively smaller contribution, or no contribution at all, may be induced to migrate in order to reduce the family's dependence on risky income from farming, and diversify the portfolio of human capital.¹⁸ Large households may also induce some of the adult members to migrate when it is realized that there is not sufficient land to be inherited and farmed by each of them without excessive and uneconomic fragmentation.¹⁹ Larger households are more likely to have siblings living in urban centres who would facilitate the migration of other members by giving information, shelter and some financial help. In larger households, there is less pressure on the potential migrants to stay with their old parents.²⁰

18. IDS (1976), op.cit., p.45.

19. Ibid.

20. J. Caldwell, op.cit., p.72.

The results in Table 4.16 show that in Ninevah region, the households with less than seven members represent only 15.5 per cent of the total households in the sample, and the proportion in the sample increases as the size of the household increases where the size group of nine to ten members represent 32.4 per cent of the households in the sample. Households with more than ten members represent a smaller proportion in the sample, as the size of the household increases. The size group of eleven to twelve members represents 17.6 per cent of the households in the sample, while households with more than thirteen members represent only 12.8 per cent. The migrants seem to come from relatively large families. Only 2.9 per cent of the migrants in the sample have come from households with less than seven members at the time of migration, and the percentage of migrants increases to 11.7 per cent and 36.9 per cent in the seven to eight members and the nine to ten members size groups respectively. The size groups of eleven to twelve members and thirteen members and over, have produced 27.2 and 21.4 per cent of the migrants respectively. Each of the two largest size groups has produced less migrants than the nine to ten members size group, and the reason is the relatively smaller number of the two largest size groups in the sample. The migration patterns of males and females seem to resemble each other. Nearly 64 per cent of the male migrants and 66 per cent of the female migrants came from the nine to twelve members extended size groups.

Table 4.16 : Distribution of Households of Adult Village Residents
and Migrants by Household Size Groups

NINEVAH REGION	Number of Household Members					(1) Total
	-6	7-8	9-10	11-12	13+	
<u>Households of Respondents in the Villages</u>						
Numbers	23	32	48	26	19	148
Percentages	15.5	21.6	32.4	17.6	12.8	100.0
<u>Households of Migrants</u>						
Numbers	3	12	38	28	22	103
Percentages	2.9	11.7	36.9	27.2	21.4	100.0
Males:						
Numbers	1	9	29	18	17	74
Percentages	1.4	12.2	39.2	24.3	23.0	100.0
Females:						
Numbers	2	3	9	10	5	29
Percentages	6.9	10.3	31.0	34.5	17.2	100.0

(1) The total number of households is 251

The results in Table 4.17 show that in Babylon region, the households with less than seven members represent only 8.3 per cent of total households in the sample, and the proportion in the sample increases as the size of the household increases where the size group of nine to ten members represent 32.3 per cent of the households in the sample. Households in each of the two largest size groups represented 16.7 and 18.8 per cent of the households in the sample respectively, which is considerably less than those in the nine to ten members size group. As in the region of Ninevah, the migrants seem to come from relatively large households. About 4 per cent of the migrants have been dispatched from households with less than seven members at the time of migration, and the percentage of migrants increases to 14.7 per cent and 25.3 per cent in the seven to eight members and the nine to ten members size groups respectively. The size groups of eleven to twelve members and Thirteen members and over have each produced 28 per cent of the migrants. The male migrants and the female migrants are concentrated in the nine to ten members extended size group, which has produced 51 per cent and 60 per cent respectively of the female and the male migrants.

The results of the Chi-square tests shown in Table 4.18 indicate that the distribution of migrants and adult village residents by household size groups, are significantly different at the one per cent level, but not significant in the region of Babylon. The distribution of each village's residents and migrants in the two regions are not significantly different.

Table 4.17 : Distribution of Households of Adult Village Residents and Migrants by Household Size Groups

BABYLON REGION		Number of Household Members					(i) Total
		-6	7-8	9-10	11-12	13+	
<u>Households of Respondents in the Villages</u>							
	Numbers	8	23	31	16	18	96
	Percentages	8.3	24.0	32.3	16.7	18.8	100.0
<u>Households of Migrants</u>							
	Numbers	3	11	19	21	21	75
	Percentages	4.0	14.7	25.3	28.0	28.0	100.0
Males:	Numbers	3	7	16	12	17	55
	Percentages	5.5	12.7	29.1	21.8	30.9	100.0
Females:	Numbers	0	4	3	9	4	20
	Percentages	0.0	20.0	15.0	45.0	20.0	100.0

(1) The total number of households is 171

Table 4.18 : Chi-square Tests for the Distribution of Village Residents and Migrants by Household-Size Groups

Distribution	χ^2	Level of Significance	Degrees of Freedom	Number of Respondents ⁽¹⁾
Households of village residents and migrants in Ninevah region	16.2	1%	4	251
Households of village residents and migrants in Babylon region	9.2	Insignificant	4	171
Households of village residents in Ninevah and Babylon regions	3.6	Insignificant	4	244
Households of migrants in Ninevah and Babylon regions	3.6	Insignificant	4	178

(1) The total number of households is 422.

The conclusion is that migrants tend to emerge from relatively larger households. However, it is worth mentioning here that household migration which is expected to exist more among smaller households, has not been recorded in this study.²¹

7. Accessibility to the City

In the regression analysis, we considered the "village accessibility to the city" variable showing whether a village is situated within one kilometre from a main road or further than that.²² This was thought to be a suitable way of avoiding the simultaneity problem that migration itself increases the village access to the city, which may arise if a variable, like the number of visits made to the city is adopted instead. The variable gave satisfactory results, indicating that migrants tend to come from villages with access to the city. However, the simultaneity problem was not solved, as explained in Chapter 3, and the variable was withdrawn from the regression. In the region of Ninevah, 65.7 per cent of the seventy villages included in the survey were situated within one kilometre of a main road, and 62.5 per cent of the village population included in the same came from these villages, while the percentage of migrants originating in these villages amounted to 76.7 per cent. In the region of Babylon, the case was not very different. 65 per cent of the 40 villages included in the survey were situated within one kilometre of a main road, and 65.2 per cent of the village population included in the same came from these villages, while the percentage of migrants originating in these

21. One of the deficiencies of the survey method of studying migration is that household migration cannot be recorded because no respondent would be there to report it.

22. The main roads are normally considered to be those that connect the Nahia and Qadha centres with the region's capital or other urban centres inside or outside the region, but in this research the villagers' definition of a main road, from which they get the lift to the city, is adopted.

villages amounted to 74.7 per cent. Proximity to the main road reduces the cost of the journey to the city, facilitates and speeds up the movement, and encourages more frequent visits. More information, therefore, will be channelled from the urban centres to the village.

The hypothesis to be examined here is that there exists a significant relationship between rural-urban migration and the actual rural contact with urban centres. This test, however, does not answer the question of the relative importance of migration and of rural contacts with urban centres, and their contribution to the relationship. Relevant studies on some of the less-developed countries have examined this relationship. Caldwell (1969) in his research on Ghana found that:

"Visits to the towns from families without relatives already living there are practically unknown. Only 39 per cent of the respondents who had not migrated at the time of the survey came from households where any member was living in the towns at that time, but they provided 98 per cent of the current visitors to the towns. The same holds true, although to a less marked extent, in the planning of first migration to the towns".²³

Caldwell gave these findings the interpretation that migration encourages rural-urban visits, and leads thereafter to chain migration. Rempel (1971) in his research on Kenya, was more direct in establishing evidence concerning chain migration.

He explained that:

"The men were asked to rank the three most important sources of information about their migration destination. As indicated in Table .10, 65.6 per cent of the men ranked either family members or friends as their most important source of information".²⁴

23. J. Caldwell, op.cit., p.81.

24. H. Rempel, op.cit., p.95.

Table 4.19 : Distribution of Adult Village Residents and Migrants
according to the Number of Their Visits to an Urban Centre

NINEVAH REGION		Number of Visits						(1) Number of res- pondents
		0	1	2	3	4	5	
<u>Adults with no Migrant Relatives</u>								
Respondents:	Numbers	199	83	24	19	14	6	345
	Percentages	57.7	24.1	7.0	5.5	4.1	1.7	100.0
Males:	Numbers	108	37	12	14	13	5	189
	Percentages	57.1	19.6	6.3	7.4	6.9	2.6	100.0
Females:	Numbers	91	46	12	5	1	1	156
	Percentages	58.4	29.5	7.7	3.2	0.6	0.6	100.0
 <u>Adults with Migrant Relatives</u>								
Respondents:	Numbers	114	116	45	44	11	7	337
	Percentages	33.8	34.4	13.4	13.1	3.3	2.1	100.0
Males:	Numbers	50	69	24	32	9	5	189
	Percentages:	26.5	36.5	12.7	16.9	4.8	2.6	100.0
Females:	Numbers	64	47	21	12	2	2	148
	Percentages	43.2	31.8	14.2	8.1	1.4	1.4	100.0

(1) The total number of respondents is 682

He also found out that 37.6 per cent of the migrants had depended on their friends and relatives in the urban area to obtain their first job there.²⁵

Adult respondents in the regions of Ninevah and Babylon were asked to state the number of visits they made to an urban centre during the month preceding the survey.²⁶ The sample included 682 adult respondents, of whom 304 were females from the region of Ninevah, and 494 respondents, of whom 235 were females from the region of Babylon. The respondents in each of the two regions were classified into two categories. The first category included those who did not have one of their relatives living in an urban centre, and the second category included those who had one or more migrant relatives. In the region of Ninevah, Table 4.19 shows that 57.7 per cent of the respondents in the first category had made no visit to an urban centre during the month preceding the survey, and 42.3 per cent of the respondents did visit an urban centre. Nearly 56.8 per cent of the respondents who visited an urban centre, had made one visit only. On the other hand, 33.8 per cent of the respondents in the second category did not visit an urban centre. About 52 per cent of the respondents who visited an urban centre made only one visit. Table 4.21 shows that female respondents in each of the two categories showed less tendency to visit an urban centre than the males, but their tendency to

25. H. Rempel, *op.cit.*, p.99.

26. It is worth mentioning that the period in which this survey was conducted coincided with some religious occasions, including Eid Al-Fatr and Ashura where religious people make traditional visits to certain holy shrines which are located in urban centres. This is expected to have increased the number of visits, particularly in the region of Babylon.

Table 4.20 : Distribution of Adult Village Residents and Migrants according to the Number of their Visits to an Urban Centre

BABYLON REGION	Number of Visits						(1) Number of res- pondents
	0	1	2	3	4	5	
<u>Adults with no Migrant Relatives</u>							
Respondents: Numbers	136	62	28	15	9	3	253
Percentages	53.8	24.5	11.1	5.9	3.6	1.2	100.0
Males: Numbers	58	31	19	12	8	3	131
Percentages	44.3	23.7	14.5	9.2	6.1	2.3	100.0
Females: Numbers	78	31	9	3	1	0	122
Percentages	63.9	25.4	7.4	2.5	0.8	0	100.0
 <u>Adults with Migrant Relatives</u>							
Respondents: Numbers	77	61	47	27	19	10	241
Percentages	32.0	25.3	19.5	11.2	7.9	4.2	100.0
Males: Numbers	30	26	39	16	12	5	128
Percentages	23.4	20.3	30.5	12.5	9.4	3.9	100.0
Females: Numbers	47	35	8	11	7	5	113
Percentages	41.6	31.0	7.1	9.7	6.2	4.4	100.0

(1) The total number of respondents is 494

Table 4.21 : Percentage Distribution of Adult Respondents according to the Number of Their Visits to an Urban Centre

NINEVAH REGION	Number of Visits					(1) Total
	1	2	3	4	5	
<u>Adults with no Migrant Relatives</u>	56.8	16.4	13.0	9.6	4.1	100.0
Males	45.7	14.8	17.3	16.0	6.2	100.0
Females	70.8	18.5	7.7	1.5	1.5	100.0
 <u>Adults with Migrant Relatives</u>	 52.0	 20.2	 19.7	 4.9	 3.1	 100.0
Males	49.6	17.3	23.0	6.5	3.6	100.0
Females	56.0	25.0	14.3	2.4	2.4	100.0

(1) The total number of respondents is 369

Table 4.22 : Percentage distribution of Adult Respondents according
the Number of Their Visits to an Urban Centre

BABYLON REGION	Number of Visits					(1) Total
	1	2	3	4	5	
<u>Adults with no</u> <u>Migrant Relatives</u>	53.0	23.9	12.8	7.7	2.6	100.0
Males	42.5	26.0	16.4	11.0	4.1	100.0
Females	70.1	20.5	6.8	2.3	0	100.0
 <u>Adults with</u> <u>Migrant Relatives</u>	 37.2	 28.7	 16.5	 11.6	 6.1	 100.0
Males	26.5	39.8	16.3	12.2	5.1	100.0
Females	53.0	12.1	16.7	10.6	7.6	100.0

(1) The total number of respondents is 281

make at least one visit, is higher than that of the males.

As the number of visits increases, the proportion of males making the visits decreases at a rate slower than that of the females.

In the region of Babylon, Table 4.20 shows that 53.8 per cent of the respondents in the first category had made no visit to an urban centre during the month preceding the survey. Nearly 53 per cent of the respondents who visited an urban centre have made one visit only. On the other hand, 32 per cent of the respondents in the second category did not visit an urban centre. About 37.2 per cent of the respondents who visited an urban centre made only one visit. Table 4.22 shows that female respondents in each of the two categories showed less tendency to visit an urban centre than the males, but their tendency to make at least one visit is, as it is in Ninevah region, higher than that of the males. There is also the tendency that as the number of visits increases the proportion of males making the visits decreases at a rate slower than that of the females.

A Chi-square test was carried out to compare the distribution of the respondents in the two categories in each of the two regions. The results in Table 4.23 indicate that the null hypothesis of no difference between the distribution of the two categories has been rejected at the 5 per cent level of significance in each of the two regions. The null hypothesis has been accepted when applied to the two first categories and the two second categories.

Table 4.23 : Chi-square Tests for the Distribution of Adult Respondents according to the Number of Visits

Distribution	χ^2	Level of Significance	Degrees of Freedom ⁽¹⁾	Number of Respondents ⁽²⁾
Adults with no migrant relatives and adults with migrant relatives in Ninevah region	13.2	5%	4	682
Adults with no migrant relatives and adults with migrant relatives in Babylon region	12.8	5%	5	494
Adults with no migrant relatives in Ninevah and Babylon regions	1.0	Insignificant	4	598
Adults with migrant relatives in Ninevah and Babylon regions	5.0	Insignificant	4	578

(1) The degrees of freedom varies because some cells with less than five observations were grouped with others to increase the statistical significance of the test.

(2) The total number of respondents is 1,176.

The respondents were asked to explain the problems encountered in a trip to the city. The answers emphasized mainly the physical difficulties of the trip, rather than its costs. Not unexpectedly, the stress on this point is even more in the villages situated far from a main road. As one respondent explained: "A rural visitor may have to walk two to three hours before he reaches a main road, and then he will have to stand on the side of the road for a few hours before he is picked up by a lorry". Respondents from remote villages in Ninevah and Babylon regions agreed almost unanimously that they start their journey at dawn, for the exact time it takes to reach the city is difficult to predict. The visits include those made for business reasons, which increase considerably at the harvest season, the regular visits made for shopping, visits to the holy shrines, visits made specifically to look for urban jobs and visits for leisure. The female visits are basically of the second and third types, which are considered necessary, regular and limited, and this may be the reason why female visits are less sensitive than male visits to the existence of relatives in urban centres. Female visits are seen to be less frequent than male visits. This may be due to the difficulties of the journey and the cost of the movement, especially as the females in their visits are usually accompanied by some of their children, and very often by a male member of their household for protection. For the males whose visits' aim is to find an urban job, the

existence of relatives and friends in the urban centre is of great help, because they can provide cheap or free accommodation, as well as information. The characteristics of the migrant's relatives and friends, in terms of age, income, etc., who can be most helpful and to what extent, can only be investigated by survey in the urban areas. It is also noticeable that the rural contacts with urban centres in the Babylon region are higher and more frequent in each of the two categories than in the region of Ninevah. This may be explained by the fact that the average distance between a village and the nearest urban centre is considerably greater in the region of Ninevah due to the larger size of the region, and the strong attraction of Baghdad city which is closer to the villages of Babylon.

The survey's results have shown that there is a significant association between migration and the rural-urban visits, and that adults from rural households with migrant members visit urban centres more than those with no migrant members. But the extent to which migration and proximity to a city on the one hand, and rural-urban visits on the other, initiate each other, is beyond the scope of this work.

Conclusion

The results of the analysis have indicated that migrants tend to have certain characteristics which distinguish them from non-migrants and favour migration. The migrants tend to be younger and more educated than the non-migrants, they tend to be single and to come from relatively large households, whose

income per capita is near the average. The migrants also tend to come from households which have more access to and maintain more links with the city - links which have been established through previous migration of relatives. These characteristics are not entirely independent, and some of them are strongly interrelated. It was found that nearly 87 and 83 per cent of the migrants from villages in Ninevah and Babylon regions respectively, were between 15 and 30 years old at the time of migration. The analysis also revealed that about 69 per cent and 56 per cent of the migrants in Ninevah and Babylon regions respectively, have had some formal education. The figures in Table 4.24 and Table 4.25 indicate that education is correlated with age. The results in Table 4.24 show that the illiteracy ratio increases from 55.7 per cent among village residents in the 15-20 age group, to 99.1 per cent in the 41+ age group. Table 4.25 reveals a similar pattern in the region of Babylon, where the illiteracy ratio increases from 45.1 per cent to 94.4 per cent. Comparing the migrants and the non-migrants by their educational attainment in each of the three youngest age groups we found that in Ninevah region migrants and non-migrants were different at the one per cent level of significance in each of the three age groups. In the region of Babylon, migrants and non-migrants were different at the 5 per cent level of significance in the age group of 15-20 years, and different at the one per cent level of significance in the age group 21-25 years, and the difference is insignificant in the age group 26-30 years.

The figures in Table 4.26 and Table 4.27 indicate that the percentage of single adults in the villages decreases from 61.6 per cent in 15-20 years age group to 0.9 per cent in the 41+ years age group in the Ninevah region, and from 57.9 per cent in the 15-20 years age group to 9 per cent in the Babylon region. Comparing the migrants and the non-migrants by their marital status in each of the three youngest age groups, we found that migrants and non-migrants are different at the one per cent level of significance in each of the three age groups in Ninevah and Babylon regions.

Comparing the migrants and the non-migrants by their income groups in each of the three youngest age groups, Tables 4.28 and 4.29, it was found that they are not significantly different in the first two age groups, and different at the one per cent level of significance in the third age group in the region of Ninevah. In the region of Babylon, the migrants and the non-migrants are significantly different at the 5 per cent level in the first age group, and different at the one per cent level of significance in the second and third age group.

Comparing the migrants and the non-migrants by their household size groups in each of the three youngest age groups, Tables 4.30 and 4.31, it was found that they are different at the one per cent level of significance in each of the three age groups in the region of Ninevah. In the region of Babylon, the migrants and non-migrants are significantly different at the 5 per cent level in the first age group, and different at the one per cent

level in the third age group, but they are not significantly different in the second age group of 21-25 years.

It may be concluded from the analysis above that some of the migrants' characteristics are clearly interrelated like the relationship between age and education, and age and marriage, but, in general, when these characteristics are considered in each of the three important age groups (important as far as migration is concerned), they can significantly distinguish the migrants from the non-migrants.

Table 4.24 : Percentage Distribution of Non-Migrants by Age Groups and Education Groups in the Region of Ninevah

Age Groups	Education Groups				Total
	0	1-3	4-6	7+	
15-20	55.7	4.3	11.4	28.6	100.0
21-25	77.5	3.6	1.8	17.1	100.0
26-30	68.3	2.0	9.9	19.8	100.0
31-35	90.4.	2.7	4.1	2.7	100.0
36-40	96.1	1.3	1.3	1.3	100.0
41+	99.1	0.0	0.9	0.0	100.0

Table 4.25 : Percentage Distribution of Migrants by Age Groups
and Education Groups in the Region of Ninevah

Age Groups	Education Groups				Total
	0	1-3	4-6	7+	
15-20	24.5	9.4	32.1	34.0	100.0
21-25	26.3	15.8	31.6	26.3	100.0
26-30	44.4	0.0	5.6	50.0	100.0
31-35	40.0	0.0	20.0	40.0	100.0
36-40	33.3	33.3	0.0	33.3	100.0
41+	60.0	20.0	0.0	20.0	100.0

Table 4.26 : Percentage Distribution of Non-Migrants by Age Groups and Education Groups in the Region of Babylon

Age Groups	Education Groups				Total
	0	1-3	4-6	7+	
15-20	45.1	5.3	10.5	39.1	100.0
21-25	60.8	0.0	10.8	28.4	100.0
26-30	65.6	1.6	12.5	20.3	100.0
31-35	81.1	0.0	5.7	13.2	100.0
36-40	85.7	0.0	10.2	4.1	100.0
41+	94.4	0.6	1.7	3.4	100.0

Table 4.27 : Percentage Distribution of Migrants by Age Groups
and Education Groups in the Region of Babylon

Age Groups	Education Groups				Total
	0	1-3	4-6	7+	
15-20	26.5	2.9	20.6	50.0	100.0
21-25	47.4	5.3	26.3	21.1	100.0
26-30	55.6	11.1	11.1	22.2	100.0
31-35	50.0	0.0	25.0	25.0	100.0
36-40	100.0	0.0	0.0	0.0	100.0
41+	83.3	0.0	16.7	0.0	100.0

Table 4.28 : Percentage Distribution of Migrants and Non-Migrants
by Age Groups and Marital Status in the Region of Ninevah

Age Groups	Migrants			Non-Migrants		
	Single	Married	Total	Single	Married	Total
15-20	83.0	17.0	100.0	61.6	38.4	100.0
21-25	73.7	26.3	100.0	45.0	55.0	100.0
26-30	77.8	22.2	100.0	47.5	52.5	100.0
31-35	40.0	60.0	100.0	30.1	69.9	100.0
36-40	66.7	33.3	100.0	15.8	84.2	100.0
41+	40.0	60.0	100.0	0.9	99.1	100.0

Table 4.29 : Percentage Distribution of Migrants and Non-Migrants
by Age Groups and Marital Status in the Region of Babylon

Age Groups	Migrants			Non-Migrants		
	Single	Married	Total	Single	Married	Total
15-20	79.4	20.6	100.0	57.9	42.1	100.0
21-25	63.2	36.8	100.0	32.4	67.6	100.0
26-30	77.8	22.2	100.0	42.2	57.8	100.0
31-35	75.0	25.0	100.0	41.5	58.5	100.0
36-40	66.7	33.3	100.0	30.6	69.4	100.0
41+	83.3	16.7	100.0	9.0	91.0	100.0

Table 4.30 : Percentage Distribution of Non-Migrants by Age Groups and Income Groups in the Region of Ninevah

Age Groups	Income Groups					Total
	-25	26-35	36-45	46-55	56+	
15-20	21.1	47.6	20.0	8.6	2.7	100.0
21-25	13.5	36.9	30.6	9.9	9.0	100.0
26-30	23.8	49.5	16.8	4.0	5.9	100.0
31-35	16.4	35.6	35.6	9.6	2.7	100.0
36-40	21.1	40.8	23.7	10.5	3.9	100.0
41+	13.6	47.3	27.3	7.3	4.5	100.0

Table 4.31 : Percentage Distribution of Migrants by Age Groups and Income Groups in the Region of Ninevah

Age Groups	Income Groups					Total
	-25	26-35	36-45	46-55	56+	
15-20	24.5	39.6	22.6	11.3	1.9	100.0
21-25	21.1	31.6	36.8	10.5	0.0	100.0
26-30	22.2	16.7	22.2	33.3	5.6	100.0
31-35	40.0	20.0	20.0	20.0	0.0	100.0
36-40	0.0	33.3	66.7	0.0	0.0	100.0
41+	0.0	60.0	0.0	20.0	20.0	100.0

Table 4.32 : Percentage Distribution of Non-Migrants by Age Groups
and Income Groups in the Region of Babylon

Age Groups	Income Groups					Total
	-25	26-35	36-45	46-55	56+	
15-20	17.3	45.9	18.0	10.5	8.3	100.0
21-25	24.3	43.2	5.4	20.3	6.8	100.0
26-30	14.1	45.3	12.5	9.4	18.8	100.0
31-35	11.3	60.4	5.7	17.0	5.7	100.0
36-40	10.2	36.7	14.3	26.5	12.2	100.0
41+	19.7	43.3	14.6	13.5	9.0	100.0

Table 4.33 : Percentage Distribution of Migrants by Age Groups
and Income Groups in the Region of Babylon

Age Groups	Income Groups					Total
	-25	26-35	36-45	46-55	56+	
15-20	17.6	32.4	38.2	11.8	0.0	100.0
21-25	15.8	21.1	42.1	15.8	5.3	100.0
26-30	22.2	11.1	55.6	0.0	11.1	100.0
31-35	0.0	75.0	25.0	0.0	0.0	100.0
36-40	33.0	66.0	0.0	0.0	0.0	100.0
41+	16.7	50.0	16.7	0.0	16.7	100.0

Table 4.34 : Percentage Distribution of Non-Migrants by Age Groups and Household Size Groups in the Region of Ninevah

Age Groups	Household Size Groups					Total
	-6	7-8	9-10	11-12	13+	
15-20	0.5	29.2	23.8	27.0	19.5	100.0
21-25	2.7	35.1	26.1	27.0	9.0	100.0
26-30	4.0	23.8	29.7	30.7	11.9	100.0
31-35	1.4	38.4	24.7	21.9	13.7	100.0
36-40	1.3	27.6	36.8	19.7	14.5	100.0
41+	0.9	32.7	27.7	26.8	11.8	100.0

Table 4.35 : Percentage Distribution of Migrants by Age Groups
and Household Size Groups in the Region of Ninevah

Age Groups	Household Size Groups					Total
	-6	7-8	9-10	11-12	13+	
15-20	0.0	7.5	39.6	28.3	24.5	100.0
21-25	0.0	10.5	57.9	15.8	15.8	100.0
26-30	11.1	11.1	16.7	38.9	22.2	100.0
31-35	0.0	20.0	20.0	60.0	0.0	100.0
36-40	0.0	33.3	33.3	0.0	33.3	100.0
41+	20.0	40.0	20.0	0.0	20.0	100.0

Table 4.36 : Percentage Distribution of Non-Migrants by Age Groups and Household Size Groups in the Region of Babylon

Age Groups	Household Size Groups					Total
	-6	7-8	9-10	11-12	13+	
15-20	1.5	20.3	32.3	16.5	29.3	100.0
21-25	1.4	12.2	39.2	18.9	28.4	100.0
26-30	0.0	14.1	31.3	20.3	34.4	100.0
31-35	0.0	5.7	39.6	15.1	39.6	100.0
36-40	2.0	18.4	49.0	12.2	18.4	100.0
41+	1.1	19.1	31.5	18.0	30.3	100.0

Table 4.37 : Percentage Distribution of Migrants by Age Groups
and Household Size Groups in the Region of Babylon

Age Groups	Household Size Groups					Total
	-6	7-8	9-10	11-12	13+	
15-20	2.9	8.8	29.4	32.4	26.5	100.0
21-25	0.0	10.5	36.8	26.3	26.3	100.0
26-30	0.0	22.2	11.1	11.1	55.6	100.0
31-35	0.0	25.0	0.0	75.0	0.0	100.0
36-40	33.3	0.0	33.3	0.0	33.3	100.0
41+	16.7	50.0	0.0	16.7	16.7	100.0

CHAPTER V

PUSH AND PULL FACTORS

Introduction

Since the two pioneering articles by Ravenstein were published in the nineteenth century, entitled "The Laws of Migration",¹ the factors that influence migration were often classified as push factors (those that induce emigration) and pull factors (those that induce immigration).

More detailed classification and analysis of the migration factors were offered by the sociologist Lee (1966).² He divided these factors into four categories. First, factors associated with the area of origin. Second, factors associated with the area of destination. Third, intervening obstacles, and fourth, personal factors. Accordingly, every area was assumed to have pull factors (+), push factors (-) and neutral factors (o). The intervening obstacles, such as the distance moved and the cost of movement would usually act as impediments to migration. The personal factors, like age, education, income, etc., are significant in the sense that the assessment of the push or pull nature of any migration factor and its strength as well as the strength of the intervening obstacles, depends to a large extent on the personal factors. Lee, in his analysis, however, did not discuss the differential effect on the migration factors. Oteiza (1968) discussing international migration, argued that the "push and pull" analytical approach is not

1. E.G. Ravenstein, "The Laws of Migration", Journal of the Royal Statistical Society, June 1885, pp.167-227: and E.G. Ravenstein, "The Laws of Migration", Journal of the Royal Statistical Society, June 1889, pp.241-301.
2. E.S. Lee, "A Theory of Migration", Demography, 1966, pp.47-57.

adequate:

"This type of approach is, in my opinion, weak from an analytical viewpoint, as it does not properly take into account the comparative aspects which are crucial in this phenomenon. From a motivational point of view the decision to migrate has always been affected by comparative considerations. It is the comparison of the potential migrant's situation in his country of origin with the situation of persons with similar qualifications in the country of destination that enters into his decision".³

This criticism is equally valid where interregional migration is discussed. However, the following compromise may be offered between the two approaches.

The migration factor will not be classified, by the potential migrant, as a push or a pull factor until it is compared with its equivalent in potential destinations. The educational service factor in region (A), for example, may be classified as a pull factor if it is superior to the service available in the considered potential destination region (B), and at the same time it may be classified as a push factor if it is inferior to the service available in the considered potential destination region (C). If one potential destination only is considered, then the factors that will be classified in the push (-) category in the region of residence will be, by the same potential migrant, classified in the pull (+) category in the potential destination. Therefore, the diagram presented by Lee may be represented in Table 5.1. The classification of a factor depends, therefore, on its differential value in the two regions considered and the personal characteristics of the potential migrant.

3. E. Oteiza, "A Differential Push-Pull Approach", in W. Adams (ed.), The Brain Drain, 1968, USA, pp.120-134.

Table 5.1 : Push (-) and Pull (+) Classification
of Migration Factors

<u>Factor</u>	<u>Region of Residence</u>	<u>Region of Destination</u>
Income	(-)	(+)
Educational Services	(+)	(-)
Health Services	(-)	(+)
Entertainment	(+)	(-)

The aims of this chapter are first, to investigate the repellent and attractive factors in the village and the city, and to classify them according to the importance given to them by the respondents. Second, is to identify the major factors that influence rural-urban migration in the rural and urban areas. Third, is to compare between the results in the two regions of Ninevah and Babylon. This analysis would make up for the deficiencies existing in the regression analysis in Chapter III, because of the lack of data. The comparison between the results in this chapter and those in other chapters will be made wherever possible.

Six questions were posed to the respondents. The first two questions inquired about the advantages and disadvantages of living in the village, each offering a set of optional answers. These two questions were expected to bring out, in order of importance, the pull (+) and push (-) factors as determined by the respondents. The factors that have not got equivalents in the urban area to be compared with would also be mentioned by the respondents, while those that would be considered neutral (o) would be ignored. The third and fourth questions inquired about the advantages and disadvantages of living in the city, each offering a set of optional answers. They were expected to bring out, in order of importance, the pull (+) and push (-) factors as determined by the rural respondents. The factors with no equivalents in the rural area to be compared with would also be mentioned by the respondents, while those that would be considered neutral (o) would be ignored. These four questions with the four sets of options they offer have covered most of the factors that were expected by the respondents to influence migration. The fifth and sixth questions inquired about the major factors that cause and impede migration, each with a set of optional answers to be classified in order of importance.

The answers for the fifth question would be taken from the disadvantages in the rural area and the advantages in the urban area, and those for the sixth question would be taken from the advantages in the rural area and the disadvantages in the urban area. The answers to the six questions would also cover the intervening obstacles. Regarding the personal factors, the respondents to the six questions were selected at random and entirely from the males attending school whose ages were 15-20 years. The results in Chapter IV show that this section of the rural population had the highest propensity to migrate, and also indicated that school attendance is very much higher in the younger age groups. The educational service has increased sharply in recent years, particularly in the rural areas: therefore, the selection of the 15-20 year old males attending school served two important purposes; the first is that the majority of the future migrants are expected to come from this group, second, that it would be easier to ask literate people to mark the optional answers according to their importance, something which requires skills and understanding not possessed by illiterate village residents.

1. The Advantages of Living in the Village

The respondents in Ninevah and Babylon, 840 and 357 respondents respectively, were asked to state six factors which they considered to be the main advantages of living in the village, and to put these factors in order according to their importance. These factors were:

A. Economic factors:

1. Low cost of living
2. Cheap and available accommodation
3. Working in agriculture is profitable and enjoyable.

B. Social and other factors:

4. The tribal ties and disciplines
5. The existence of friends and relatives and the close relationships with them
6. Food is healthy and tasty.

About 13.7 per cent of the respondents in Ninevah region gave the first economic factor the first or the second priority, while nearly 64 per cent gave it the fifth or sixth priority. On the other hand, this factor was given the first or the second priority by about 47 per cent of the respondents in Babylon region, and about 26 per cent only gave it the fifth or the sixth priority (Table 5.2). The cost of living referred mainly to the cost of food items and clothes. The prices of these goods are not considerably different in Babylon's rural area from those in Ninevah's rural area but their prices in Baghdad city are expected to be considerably higher than those in Mosul city: therefore, the respondents' different assessment of the importance of this factor in the two regions must have been influenced by the comparison made between the relevant rural and urban prices.

About 17 per cent of the respondents in Ninevah gave the second economic factor either the first or the second priority, and about 59 per cent gave it the fifth or the sixth priority. In Babylon the response to this factor was similar, about 14 per cent gave it first or second priority and about 54 per cent gave it fifth or sixth priority (Table 5.3). The cost of building or extending a house is equally low in the rural areas of the two regions, where the labour force required is usually provided by members of the household, as explained in Chapter III.

Table 5.2 : Percentage Distribution of the First Rural Advantage Factor*

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	74	41	40	151	326	208	840
	Percentage	8.8	4.9	4.8	18.0	38.8	24.8	100
<hr/>								
Babylon	Number	52	115	55	43	43	49	357
	Percentage	14.6	32.2	15.4	12.0	12.0	13.7	100

*The data in Tables 5.2-5.47 are calculated from Questionnaire Form 4.

Table 5.3 : Percentage Distribution of the Second Rural Advantage Factor

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	38	104	112	92	146	348	840
	Percentage	4.5	12.4	13.3	11.0	17.4	41.4	100
Babylon	Number	19	31	61	52	64	130	357
	Percentage	5.3	8.7	17.1	14.6	17.9	36.4	100

About 27 per cent of the respondents in Ninevah gave the third factor the first or the second priority, and nearly 54 per cent gave it the third or the fourth priority. In Babylon about 32 per cent gave it the first or the second priority, and nearly 45 per cent gave it the fourth or fifth priority (Table 5.4). This factor seemed to be more important to the respondents than the other two economic factors. About 45 per cent of the respondents in Ninevah, who gave any of the economic factors a first priority, have actually given it to the third factor, and 41 per cent of them gave it to this factor in Babylon. However, the low level of income in the two regions, the low productivity of labour and the high uncertainty due to the severe fluctuations in the output have comparatively reduced the importance of all the economic factors. About 25 per cent and 34 per cent only of the respondents in Ninevah and Babylon respectively, gave the first priority to the economic factors.

About 46 per cent of the respondents in Ninevah gave the fourth factor the first or the second priority, and about 29 per cent gave it the fifth or the sixth priority. The response to this factor in the region of Babylon was clearly different, where about 17 per cent of the respondents only gave the factor the first or the second priority, and 64 per cent gave it the fifth or sixth priority (Table 5.5). It may be argued that rural emigration, which started earlier in Babylon region, and Babylon's rural area's proximity to the capital have weakened the tribal rural ties.

Table 5.4 : Percentage Distribution of the Third
Rural Advantage Factor

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	96	127	352	101	120	44	840
	Percentage	11.4	15.1	41.9	12.0	14.3	5.2	100
Babylon	Number	49	64	124	37	49	34	357
	Percentage	13.7	17.9	34.7	10.4	13.7	9.5	100

Table 5.5 : Percentage Distribution of the Fourth Rural Advantage Factor

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	141	247	121	84	95	152	840
	Percentage	16.8	29.4	14.4	10.0	11.3	18.1	100
Babylon	Number	31	28	22	49	127	100	357
	Percentage	8.7	7.8	6.2	13.7	35.6	28.0	100

The fifth factor was clearly the most important to the respondents in the two regions. In Ninevah, about 93 per cent of the respondents gave this factor the first or the second priority, and only 3 per cent gave it the fifth or the sixth priority. In Babylon, about 82 per cent of the respondents gave it the first or second priority, and only 7 per cent gave it the fifth or the sixth priority (Table 5.6). Nearly 75 per cent of the respondents in Ninevah who gave any of the social factors a first priority, have actually given it to the fifth factor, and 80 per cent gave it to this factor in Babylon. The warm and supportive relationships that are enjoyed between friends and relatives in the rural area form most of the social life. The regular evening gatherings (Taaleel) and social occasions like marriages, feasts and others, which rural people celebrate in large groups, are something the migrant misses in the urban area. These relationships have economic benefits too. Loans in cash and kind, usually free of interest, as well as help in doing the work in the field, building houses, etc., are always expected from friends and relatives on a reciprocal basis, which can be particularly useful because fluctuations in income and uncertainty are high.

The sixth factor was the least important to the respondents. About 3 per cent and 9 per cent of the respondents gave it the first or second priority in Ninevah and Babylon respectively (Table 5.7). The respondents seemed to realize the poor quality of their food, but they agreed that it was not in short supply.

Table 5.6 : Percentage Distribution of the Fifth Rural Advantage Factor

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	471	313	27	4	25	0	840
	Percentage	56.1	37.3	3.2	0.5	3.0	0	100
Babylon	Number	190	103	25	16	16	7	357
	Percentage	53.2	28.9	7.0	4.5	4.5	2.0	100

Table 5.7 : Percentage Distribution of the Sixth Rural Advantage Factor

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	20	8	188	408	128	88	840
	Percentage	2.4	1.0	22.4	48.6	15.2	10.5	100
Babylon	Number	16	16	70	160	58	37	357
	Percentage	4.5	4.5	19.6	44.8	16.2	10.4	100

The Chi-square test was applied to compare the distributions of the rural advantages by ranks of importance in Ninevah and Babylon (Table 5.8). It was found that only the first and the fourth factors are significantly different. The distributions of the fifth factor, which was stressed as the most important advantage, are not significantly different.

2. Repellent Factors in the Village

The respondents in Ninevah and Babylon were asked to state twelve factors which they considered as the main repellent factors in the village, and to classify them in order of importance. Since the repellent factors were found to be numerous and their relevance varied from one locality to another, some of the respondents, therefore, tended to mention less than twelve factors. The repellent factors were as follows:

A. Economic factors:

1. Income is low and working in agriculture is not profitable
2. Low productivity and underemployment
3. Fluctuations in income and uncertainty
4. The need for ownership of land.

B. Social and other factors:

5. The lack of entertainment facilities
6. The lack of educational services
7. Consumption goods are not available
8. Transport to the city is difficult
9. The lack of health services
10. The dull social life
11. The tribal conflicts
12. The lack of electricity and purified water.

About 53 per cent of the respondents gave the first factor the first or the second priority, and 15 per cent gave it the sixth or a lower priority. In Babylon 61 per cent of the respondents gave this factor the first or the second priority, and only 7 per cent

Table 5.8 : Chi-Square Tests for Responses on Rural Advantage Factors in Ninevah and Babylon Regions

Rural Advantage Factors	<u>Ninevah and Babylon Regions</u>		
	χ^2	Level of Significance	Degrees of Freedom
First	45.6	1%	5
Second	2.0	insignificant	5
Third	2.5	insignificant	5
Fourth	33.7	1%	5
Fifth	6.5	insignificant	3
Sixth	3.0	insignificant	3

gave the sixth or a lower priority (Table 5.9). The low level of income seemed to be the main repellent factor among the twelve factors listed above.

The low productivity and underemployment, although chronic and apparent, was less important as a repellent factor than other economic factors. About 28 per cent and 52 per cent of the respondents in Ninevah and Babylon respectively, gave it the first or second priority, and about 26 per cent and 10 per cent respectively, gave it the sixth or a lower priority (Table 5.10). More importance was given to this factor in Babylon than in Ninevah. Cultivation in Babylon depends almost entirely on irrigation, which requires a bigger labour-force than in Ninevah, where it depends on the rainfall. In Babylon, summer crops are also cultivated on a larger scale, which should reduce the problem of seasonal employment, while in Ninevah, cultivation is mostly confined to winter crops. Mechanization has been almost equally introduced in the two regions, and this has increased the underemployment. However, the considerably higher population density in Babylon and the job opportunities available in the nearby capital city of Baghdad, have increased the importance of this factor in Babylon.

The fluctuations in income, due mainly to frequent droughts as a result of shortage in the rainfall, are more severe in Ninevah where cultivation depends mostly on the rainfall. About 57 per cent and 37 per cent gave this factor the first or second priority, and nearly 12 per cent and 28 per cent gave it sixth or a lower priority in Ninevah and Babylon respectively (Table 5.11).

Table 5.9 : Percentage Distribution of the First Rural Repellent Factor

Regions	Priority in Ranks												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	268	181	101	106	59	115	5	3	2	0	0	0	840
	Percentage	31.9	21.5	12.0	12.6	7.0	13.7	0.6	0.4	0.2	0	0	.100
Babylon	144	74	43	32	41	14	9	0	0	0	0	0	357
	Percentage	40.3	20.7	12.0	9.0	11.5	3.9	2.5	0	0	0	0	100

Table 5.10 : Percentage Distribution of the Second Rural Repellent Factor

Regions	Priority in Ranks													
	1	2	3	4	5	6	7	8	9	10	11	12	Total	
Ninevah	Number	122	115	167	132	85	89	58	37	21	14	0	0	840
	Percentage	14.5	13.7	19.9	15.7	10.1	10.6	6.9	4.4	2.5	1.7	0	0	100
Babylon	Number	104	80	55	62	19	32	3	1	1	0	0	0	357
	Percentage	29.1	22.4	15.4	17.4	5.3	9.0	0.8	0.3	0.3	0	0	0	100

Table 5.11 : Percentage Distribution of the Third Rural Repellent Factor

<u>Regions</u>	<u>Priority in Ranks</u>												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	339	139	77	85	98	79	10	8	0	5	0	0	840
	Percentage	40.4	16.5	9.2	10.1	11.7	9.4	1.2	1.0	0	0.6	0	100
Babylon	70	62	58	36	32	34	34	16	8	7	0	0	357
	Percentage	19.6	17.4	16.2	10.1	9.0	9.5	9.5	4.5	2.2	2.0	0	100

The actual ownership of land (Tapu, Lazma and lands redistributed by the Ministry of Agrarian Reform since the enactment of the first Agrarian Reform Law in 1958) was considered the least important economic factor by the respondents. The large areas redistributed and leased as holdings by the Ministry of Agrarian Reform, particularly after the enactment of the second Agrarian Reform Law of 1970, has reduced the significance of this factor. About 20 per cent and 12 per cent gave this factor the first or second priority, and 35 per cent and 48 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.12).

The entertainment facilities the respondents had in mind when they discussed this factor, included tea and coffee shops, cinemas and nightclubs. Apart from the primitive tea shops in some of the comparatively larger and more prosperous villages, these facilities do not exist at all in the rural areas. The recently increased contact of the rural people with the urban areas, as transport facilities improved and through the maintained links with the rural-urban migrants, has increased their awareness of the lack of entertainment facilities. The relatively young respondents who were selected to answer these questions seemed to be giving more importance to this factor than older respondents who would be expected to be more conservative in their attitudes, traditions and religious beliefs. About 14 per cent and 10 per cent gave this factor the first or second priority, and 42 per cent and 68 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.13). The greater importance given to this factor in Babylon

Table 5.12 : Percentage Distribution of the Fourth Rural Repellent Factor

Regions	Priority in Ranks												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	37	103	57	132	128	85	53	25	56	17	9	4	706
	Percentage	5.2	14.6	8.1	18.7	18.1	12.0	7.5	3.5	7.9	2.4	1.3	0.6
Babylon	15	20	38	32	44	68	32	24	8	1	1	3	286
	Percentage	5.2	7.0	13.3	11.2	15.4	23.8	11.2	8.4	2.8	0.3	0.3	1.0

Table 5.13 : Percentage Distribution of the Fifth Rural Repellent Factor

Regions	Priority in Ranks												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	21	91	127	100	109	127	71	53	34	29	12	3	777
	Percentage	2.7	11.7	16.3	12.9	14.0	16.3	9.1	6.8	4.4	3.7	1.5	0.4
Babylon	14	17	32	20	14	44	48	55	29	14	9	2	298
	Percentage	4.7	5.7	10.7	6.7	4.7	14.8	16.1	18.5	9.7	4.7	3.0	0.7

was expected because of its proximity to Baghdad and the more frequent visits made to the urban centres than in Ninevah, where the average distance between a village and an urban centre is greater.

The insufficient number of schools in the rural areas of the two regions was considered the most repellent social factor. The respondents seemed quite aware of the fact that education does not increase their productivity and income as farmers, and it was usually looked on as a means of getting a more rewarding job in the urban area. About 17 per cent and 10 per cent gave this factor the first or second priority, and 53 per cent and 45 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.14).

Apart from the food stuffs which are produced in the village, the consumption goods needed by the village residents are all bought from the urban centres. Regular visits to the cities are made for this purpose. The costs and the difficulties of these journeys are certainly a problem to the village resident. The small size of the average village in general has made it uneconomic to establish shops in most of the villages with regular supplies of basic consumption goods. About 14 per cent and 13 per cent gave this factor the first or second priority, and 48 per cent and 57 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.15).

The transport facilities available for the village residents are very limited. Except in a few large villages where a resident may own a car, usually a lorry, a pick-up truck or a mini-bus, and provides regular trips to the city for other residents, the villagers will have to walk to the nearest road where they expect

Table 5.14 : Percentage Distribution of the Sixth Rural Repellent Factor

<u>Regions</u>	<u>Priority in Ranks</u>												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	49	55	115	61	49	79	67	72	41	23	11	6	628
	Percentage	7.8	8.8	18.3	9.7	7.8	17.6	10.7	11.5	6.5	3.7	1.8	1.0
Babylon	8	26	33	63	51	32	26	11	63	13	1	1	328
	Percentage	2.4	7.9	10.1	19.2	15.5	9.8	7.9	3.4	19.2	4.0	0.3	0.3

Table 5.15 : Percentage Distribution of the Seventh Rural Repellent Factor

Regions	Priority in Ranks													
	1	2	3	4	5	6	7	8	9	10	11	12	Total	
Ninevah	Number	0	64	46	74	58	72	38	43	28	20	13	7	463
	Percentage	0	13.8	9.9	16.0	12.5	15.6	8.2	9.3	6.0	4.3	2.8	1.5	100
Babylon	Number	1	32	23	37	19	36	27	39	26	14	3	2	259
	Percentage	0.4	12.4	8.9	14.3	7.3	13.9	10.4	15.1	10.0	5.4	1.2	0.8	100

to get a lift to the urban centre. The distance walked, the time spent waiting on the side of the road, and the uncomfortable journey in the back of a lorry, for example, in the rainy and cold weather, in the winter, or the burning heat of the summer, would certainly create a problem. About 2 per cent and 11 per cent gave this factor the first or second priority, and 23 per cent and 36 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.16).

Medical services are not available in the villages. Second class dispensaries have been made available in recent years in most of the Nahias centres, where villagers can attend free of charge. Treatment prescribed by unqualified medicine men in the villages is still very often accepted by sick people. About 2 per cent and 8 per cent gave this factor the first or second priority, and 41 per cent and 36 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.17).

The number of respondents who considered the social life as dull and boring, represented nearly 42 per cent and 30 per cent of the total number of respondents in Ninevah and Babylon respectively, and none of the respondents in the two regions has given this factor the first priority, and 51 per cent and 19 per cent gave it the sixth or a lower priority in Ninevah and Babylon respectively (Table 5.18).

The tribal conflicts as a repellent factor were only mentioned by 23 per cent of the respondents in Ninevah, and 18 per cent in Babylon, and none of the respondents in the two regions gave this factor the first priority (Table 5.19). The loosening tribal ties

Table 5.16 : Percentage Distribution of Eighth Rural Repellent Factor

<u>Regions</u>	<u>Priority in Ranks</u>													
	1	2	3	4	5	6	7	8	9	10	11	12	Total	
Ninevah	Number	2	22	37	40	69	36	6	5	3	1	0	0	221
	Percentage	0.9	1.0	16.7	18.1	31.2	16.3	2.7	2.3	1.4	0.5	0	0	100
Babylon	Number	1	16	21	24	42	30	12	5	4	7	0	0	162
	Percentage	0.6	9.9	13.0	14.8	25.9	18.5	7.4	3.1	2.5	4.3	0	0	100

Table 5.17 : Percentage Distribution of the Ninth Rural Repellent Factor

<u>Regions</u>	<u>Priority in Ranks</u>												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	2	33	61	48	64	85	25	16	9	6	0	0	349
	Percentage	0.6	9.5	17.5	13.8	18.3	24.4	7.2	4.6	2.6	1.7	0	0
Babylon	0	11	29	20	24	38	0	3	0	6	0	0	131
	Percentage	0	8.4	22.1	15.3	18.3	29.0	0	2.3	0	4.6	0	0

Table 5.18 : Percentage Distribution of the Tenth Rural Repellent Factor

<u>Regions</u>	<u>Priority in Ranks</u>												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Ninevah	0	35	27	38	74	49	25	36	31	24	13	0	352
	Percentage	9.9	7.7	10.8	21.0	13.9	7.1	10.2	8.8	6.8	3.7	0	100
Babylon	0	18	13	19	37	17	4	0	0	0	0	0	108
	Percentage	16.7	12.0	17.6	34.3	15.7	3.7	0	0	0	0	0	100

Table 5.19 : Percentage Distribution of the Eleventh Rural Repellent Factor

Regions	Priority in Ranks													
	1	2	3	4	5	6	7	8	9	10	11	12	Total	
Ninevah	Number	0	2	21	24	35	24	26	23	20	11	8	2	196
	Percentage	0	1.0	10.7	12.2	17.9	12.2	13.3	11.7	10.2	5.6	4.1	1.1	100
Babylon	Number	0	1	10	12	28	12	0	0	0	0	0	0	63
	Percentage	0	1.6	15.9	19.0	44.4	19.0	0	0	0	0	0	0	100

in the rural area in general, particularly after the enactment of the agrarian reform laws, has reduced the significance of this factor.

Few villages have got electricity, and even fewer have got purified water. However, this factor was not considered important by the respondents. Only 3 per cent and 2 per cent of the respondents in Ninevah and Babylon respectively have mentioned this factor, and none of the respondents has given it the first or the second priority (Table 5.20).

The Chi-square was applied to compare the distributions of the of the rural repellent factors by ranks of importance in Ninevah and Babylon (Table 5.21). It was found that the difference was insignificant in four factors and only slightly significant at the 10 per cent level in another two factors. The significant differences in the second and the third factor support the argument that under employment and uncertainty regarding the level of income are more severe in Ninevah region.

Table 5.20 : Percentage Distribution of the Twelfth Rural Repellent Factor

<u>Regions</u>	<u>Priority in Ranks</u>													
	1	2	3	4	5	6	7	8	9	10	11	12	Total	
Ninevah	Number	0	0	4	0	12	0	3	6	2	1	0	1	29
	Percentage	0.0	0.0	13.8	0.0	41.4	0.0	10.3	20.7	6.9	3.4	0.0	3.4	100
Babylon	Number	0	0	2	0	6	0	0	0	0	0	0	0	8
	Percentage	0.0	0.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100

Table 5.21 : Chi-Square Tests for Responses on Repellent Factors in Ninevah and Babylon Regions

Rural Repellent Factors	χ^2	<u>Ninevah and Babylon Regions</u>	
		Level of Significance	Degrees of Freedom
First	8.62	insignificant	6
Second	21.04	1%	6
Third	20.82	1%	6
Fourth	9.94	insignificant	6
Fifth	19.56	1%	6
Sixth	13.14	5%	6
Seventh	3.24	insignificant	6
Eighth	11.84	10%	6
Ninth	4.86	insignificant	5
Tenth	34.40	1%	5
Eleventh	49.04	1%	3
Twelfth	3.32	10%	1

3. The Advantages of Living in the City

The 840 and 357 respondents in Ninevah and Babylon regions respectively were asked to state six factors which they considered as the main advantages they would gain if they lived in the city, and to give these advantages ranks according to their importance. The main expected advantage as given by them may be summarized as follows:

1. Jobs are available and income is higher
2. Better health care; and accessibility to hospitals and dispensaries is available
3. Electricity and purified drinking water
4. Schools at all stages are available
5. Leisure facilities, like cinemas and tea-shops
6. Other advantages

The availability of jobs and the higher income expected in the city is considered the most important advantage. About 47.7 per cent and 50.1 per cent of the respondents in Ninevah and Babylon regions respectively gave this advantage the first importance. Taking the first three ranks of importance together, we find that about 84 per cent and 87 per cent of the respondents in Ninevah and Babylon regions respectively have referred to this advantage (Table 5.22). The emphasis on this factor is far stronger than on any other factor mentioned by the respondents.

The second advantage concerns health care, and accessibility to hospitals and dispensaries in the city. About 7 per cent and 13 per cent of the respondents in Ninevah and Babylon regions respectively gave this factor the first importance (Table 5.23). The disregard of this factor by the villagers in their responses should not give the impression that the health conditions in the villages are equal

Table 5.22 : Percentage Distribution of the First Urban Advantage Factor by Ranks

<u>Regions</u>		<u>Importance in Ranks</u>						
		1	2	3	4	5	6	Total
Ninevah	Number	401	206	99	73	24	37	840
	Percentage	47.74	24.52	11.79	8.69	2.87	4.40	100
<hr/>								
Babylon	Number	179	91	39	26	14	8	357
	Percentage	50.14	25.49	10.92	7.28	3.92	2.24	100

or even close to those in the cities. Hospitals, dispensaries and doctors' services are practically non-existent in the rural areas, and the free medical services provided in the urban centres cannot, for various reasons such as the inadequacy of the transport system and the lack of information, be extended to the rural areas. It is more likely that the great majority of the respondents are not aware of the available medical services in the city.

The third advantage concerns the supply of electricity and purified drinking water. About 10 per cent and 2 per cent of the respondents in Ninevah and Babylon regions respectively gave this factor the first importance (Table 5.24). The considerable difference in the emphasis on this factor between the two regions can be explained by the fact that the Euphrates River and the large number of canals derived from it in the region of Babylon, have made agriculture in the region dependent upon irrigation, where 99.5 per cent of the cultivated land relies on flow-irrigation, pump-irrigation or other means of irrigation. Obtaining water, therefore, for agricultural as well as daily uses represents no problem in the region, unlike the region of Ninevah where about 98 per cent of the cultivated land depends on the rainfall and only 2 per cent on irrigation. Water for drinking and other daily uses is obtained from wells which could be as far as one to two hours walk from the village; in some villages the well-water is salty or bitter, and may also become insufficient, particularly during the summer season.

The fourth advantage concerns the availability of schools at all stages in the city. About 13 per cent and 4.2 per cent of the respondents in Ninevah and Babylon regions respectively gave this factor the first importance (Table 5.25). When this factor was

discussed, the respondents talked about the better future for the young members of the household if schools were available. The gap between urban and rural school enrolment ratios is large: about 19 per cent and 23 per cent of the rural people who are less than 15 years old in Ninevah and Babylon regions respectively, have attended schools, while the corresponding ratios in the urban areas are 52 per cent and 35 per cent respectively, and 54 per cent in the capital city of Baghdad.⁴ Contrary to the evidence in Table 5.25, it was expected that the higher enrolment ratio in the urban area of Babylon and the neighbouring region of Baghdad compared with that in the urban area of Ninevah region, would place more emphasis on the advantages of the educational facilities by the respondents in Babylon region.

The fifth advantage concerns the leisure and entertainment facilities, of which the villages are totally deprived. Apart from primitive tea-shops in only some of the larger villages located near a main road, where most of the attendants are passengers or regular taxi and truck drivers, the village has almost nothing to offer in the way of entertainment. About 18 per cent and 29 per cent of the respondents in Ninevah and Babylon regions respectively have given this factor the first importance, and it comes second in terms of importance after job availability and income factor in each of the two regions (Table 5.26). The relatively greater importance of this factor in Babylon region may be explained by the large entertainment and leisure facilities in the nearby capital city of Baghdad.

The sixth advantage included numerous factors which could not be included under any of the previous advantages. These constitute the feeling of independence, the ability to get away from family

⁴ Population Census of 1965 -- p. 11

ties and tribal traditions, the availability of consumption goods, the urban style of life, etc. These factors were given the first importance by 1.4 per cent and 3.7 per cent in Ninevah and Babylon regions respectively (Table 5.27).

The Chi-Square test was carried out to compare the distribution of the urban advantages by ranks of importance according to the respondents' classification in Ninevah and Babylon regions. It was found that only the distribution of the second factor (the medical facilities) and the fourth factor (the educational facilities) were found to be significantly different in the two regions (Table 5.28). It is worth noting that the first and the fifth urban advantages are considered the most important, and 66.2 per cent and 79.3 per cent of the respondents in Ninevah and Babylon regions respectively have chosen one of these two factors as the most important factor.

4. Repellent Factors in the City

The 840 members of households in Ninevah region and 357 members in Babylon region were asked to state five factors which they considered to be the main sources of the problems which the migrants face in the city. The members of the households were asked to put these factors in order according to their importance. The problem factors in the city may be summarized as follows:

A. Economic factors:

1. The unemployment problem and the difficulty of finding a satisfactory job
2. The high cost of living in the city
3. The difficulty of finding cheap accommodation

B. Social factors:

4. The problem of severe loneliness as compared with the warm family and tribal ties enjoyed in the village
5. Other various social problems.

Table 5.28 : Chi-Square Tests for Responses on Advantage Factors in Ninevah and Babylon Regions

<u>Urban Advantage Factors</u>	<u>Ninevah and Babylon Regions</u>		
	χ^2	Level of Significance	Degrees of Freedom
First	0.5	insignificant	4
Second	47.26	1%	5
Third	7.86	insignificant	5
Fourth	60.8	1%	5
Fifth	7.9	insignificant	5
Sixth	2.5	insignificant	4

The economic factors in general were given the first importance by 63.9 per cent of the respondents in the region of Ninevah, and by 61.9 per cent of the respondents in the region of Babylon, and they were given the second importance by 55.8 per cent and 84.3 per cent in Ninevah and Babylon regions respectively. The emphasis on the economic factors is not even. The first economic factor (unemployment and job availability) was given the first importance by only 6.19 per cent and 2.8 per cent of the respondents in Ninevah and Babylon regions respectively (Table 5.29). The respondents argued that finding a job in the urban area is not a serious problem to the migrant, and this factor was discarded even more in the region of Babylon, where the employment opportunities in the service sector are enormous, particularly in the nearby capital city of Baghdad. The respondents in Babylon region explained that the majority of the migrants secure their jobs in the city before they finally depart from the village. The proximity of Babylon's villages to the major urban centre of Baghdad means low cost of movement, and also more frequent visits to the city which help the migrant to find his way into a satisfactory job. The second economic factor (the high cost of living) seems to be the most important one. When the respondents were talking about the cost of living, they were referring mainly to the cost of foodstuffs. Food prices are believed by the respondents to be much lower in the village than in the city, where, in fact, most of the food items are produced in the village. Food items that are not produced in the village are usually bought in large quantities by each household

Table 5.29 : Percentage Distribution of the First Urban Repellent Factor by Priority Ranks

<u>Regions</u>		<u>Priority in Ranks</u>					
		1	2	3	4	5	Total
Ninevah	Number	41	235	71	220	273	840
	Percentage	6.19	9.4	13.21	37.5	33.81	100
<hr/>							
Babylon	Number	10	107	25	189	26	357
	Percentage	2.8	29.97	7.0	52.94	7.28	100

to last for the whole season, and the unstorable items, like vegetables are usually bought weekly and paid for in cash, as are other food items such as wheat and barley. Living in the city involves other costs, like that of daily transportation to and from the place of work, which are totally unknown in the village. Clothes are also more expensive in the city; because in the village clothes are usually home-made - either by the housewives or the village tailor - and consequently cost less. As shown in Table 5.30, 51.9 per cent and 55.2 per cent of the respondents in Ninevah and Babylon regions respectively considered this factor as the most important.

The third economic problem (finding suitable accommodation) seems to be of little importance in the two regions. In the region of Ninevah 5.83 per cent of the respondents only gave this problem the first importance, and only 3.92 per cent of the respondents in Babylon region gave it the first importance (Table 5.31). Finding accommodation suitable in terms of its rent is considered the problem by the respondents, and the quality of the accommodation seemed irrelevant. The migrant who lived in the village in a mud hut with no electricity, piped water or any of the basic amenities, would accept any form of accommodation in the city.

The social problem that was mentioned most by the respondents is the feeling of loneliness experienced in the city. Family and tribal ties in the village are much missed by the migrant, particularly in his early days in the city - which could extend for a year or even more. Except for those who are driven out of the village by family and tribal conflicts, the migrants in the city

Table 5.31 : Percentage Distribution of the Third Urban Repellent Factor by Priority Ranks

<u>Regions</u>		<u>Priority in Ranks</u>					Total
		1	2	3	4	5	
Ninevah	Number	49	131	309	185	166	840
	Percentage	5.83	15.6	36.79	22.02	19.76	100
<hr/>							
Babylon	Number	14	75	159	62	47	357
	Percentage	3.92	21.01	44.54	17.37	13.17	100

keep their ties with their village of origin. Penetration into urban society is very difficult for the migrants, who therefore tend to form their own community. The stress on this factor seems to be almost the same in the two regions. Nearly 31.2 per cent and 33.9 per cent of the respondents in Ninevah and Babylon regions respectively considered this factor as the most serious one (Table 5.32).

The other various factors which were mentioned by the respondents were of a social nature. Lack of discipline in the urban society, non-observance of religious norms and traditions, drinking of alcohol, prostitution and noise were mentioned by the respondents as sources of problems which face the migrant. About 4.9 per cent and 4.2 per cent of the respondents in Ninevah and Babylon regions respectively gave these factors the highest importance (Table 5.33). The difference between the two regions in the reaction to these factors is more clear in the second rank of importance. Nearly 28 per cent of the respondents in Ninevah region considered these "other factors" as the second most important problem facing the migrant, while only 2.5 per cent of the respondents in Babylon considered them of secondary importance. Clearly the respondents in Ninevah region seem to have a more conservative attitude, which was preserved and strengthened by their isolation from large urban centres, unlike Babylon's villages, whose proximity and easy access to Baghdad have loosened their strict traditional attitude, and moderated their rejection of the urban way of life.

Table 5.32 : Percentage Distribution of the Fourth Urban Repellent Factor by Priority Ranks

<u>Regions</u>		<u>Priority in Ranks</u>					Total
		1	2	3	4	5	
Ninevah	Number	262	137	281	77	83	840
	Percentage	31.19	16.13	33.45	9.17	9.88	100
<hr/>							
Babylon	Number	121	47	105	28	56	357
	Percentage	33.89	13.17	29.41	7.84	15.69	100

Table 5.33 : Percentage Distribution of the Fifth Urban Repellent Factor by Priority Ranks

<u>Regions</u>		<u>Priority in Ranks</u>					Total
		1	2	3	4	5	
Ninevah	Number	52	78	111	315	284	840
	Percentage	4.88	27.98	8.45	26.19	32.5	100
<hr/>							
Babylon	Number	15	9	45	67	221	357
	Percentage	4.2	2.52	12.61	18.77	61.9	100

The Chi-Square test was carried out to compare the reaction of the potential migrants in the two regions toward the problems they expect to encounter in the cities. The results in Table 5.34 show that the distribution of the first and the fifth factor in terms of their importance is significantly different in the two regions. The difference for the other three factors is insignificant, and it is worth noticing here that the second and the fourth factors are considered the most important, and 83.1 per cent and 89.1 per cent of the respondents in Ninevah and Babylon regions respectively have chosen one of these two factors as the most important.

It may be concluded from the above analysis that the economic factors together are ranked the most important by the potential migrants when considering the drawbacks of the city in their decision to migrate. It may also be concluded that the potential migrant's attachment to his family and the way of life in the village is quite strong, to the extent that the feeling of being away and of being lonely in the city comes second in his ranking of the repellent factors of urban life. It has also been established that the respondents in the two regions agree to a large extent in their identification of the city's repellent factors.

5. Factors encouraging Migration

The respondents in Ninevah and Babylon regions were asked to state five factors in the urban and the rural areas which encourage rural-urban migration, and to rank them according to their importance. These factors are drawn from the repellent factors in the village and the advantage factors in the city which were

Table 5.34 : Chi-Square Tests for Responses on Repellent Factors in Ninevah and Babylon Regions

<u>Urban Repellent Factors</u>	χ^2	<u>Ninevah and Babylon Regions</u>	
		Level of Significance	Degrees of Freedom
First	33.6	1%	4
Second	1.8	insignificant	3
Third	4.0	insignificant	4
Fourth	2.2	insignificant	4
Fifth	28.5	1%	3

discussed separately earlier. The factors stated are as follows:

1. The expected income in the city is high
2. Income in agriculture is low and uncertain
3. The availability of educational and other services in the city
4. To follow their relatives
5. Other reasons.

About 68 per cent and 77 per cent gave the first factor the first or second priority, and 15 per cent and 12 per cent gave it the fourth or fifth priority in Ninevah and Babylon regions respectively (Table 5.35). The respondents seemed to be sure that they could easily obtain a job in the urban area. Irrespective of their income level in the rural area, the respondents were generally in agreement that their expected income in the urban area was considerably higher.

About 52 per cent and 59 per cent gave the second factor the first or second priority, and 23 per cent and 15 per cent gave it the fourth or fifth priority in Ninevah and Babylon regions respectively (5.36). No cases of starvation were reported at all in the two regions. It was reported quite often that young adult villagers were finding it increasingly difficult to earn sufficient income early enough in the rural area to get married and establish families. Early marriage is a long-established tradition in the rural areas: therefore, young adult males may be induced to migrate to earn sufficient income to establish their own families, who would in that case most probably settle in the urban area.

About 36 per cent and 24 per cent of the respondents gave the third factor the first or second priority, and 43 per cent and 56 per cent gave it the fourth or fifth priority in Ninevah and Babylon regions respectively (Table 5.37).

Table 5.35 : Percentage Distribution of the First
Factor that encourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>					Total
		1	2	3	4	5	
Ninevah	Number	380	191	139	75	55	840
	Percentage	45.2	22.7	16.5	8.9	6.5	100
Babylon	Number	189	85	39	27	17	357
	Percentage	52.9	23.8	10.9	7.6	4.8	100

Table 5.36 : Percentage Distribution of the Second
Factor that encourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>					Total
		1	2	3	4	5	
Ninevah	Number	171	266	208	63	132	840
	Percentage	20.4	31.7	24.8	7.5	15.7	100
Babylon	Number	75	137	93	21	31	357
	Percentage	21.0	38.4	26.1	5.9	8.7	100

Table 5.37 : Percentage Distribution of the Third Factor that encourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>					Total
		1	2	3	4	5	
Ninevah	Number	143	156	176	232	133	840
	Percentage	17.0	18.6	21.0	27.6	15.8	100
<hr/>							
Babylon	Number	19	65	75	147	51	357
	Percentage	5.3	18.2	21.0	41.2	14.3	100

Education and health services and entertainment facilities were not considered very important by the respondents compared with the first and second economic factors. Schools are important to the people in the young age groups. Although a large proportion of the migrants came from these age groups, it seems that the recent sharp increase in the number of schools in the rural areas has reduced the gap between the rural and urban educational services, so that now a larger proportion of the young adults in the rural areas can attend school. About 36 per cent and 24 per cent gave this factor the first or second priority, and 43 per cent and 56 per cent gave it the fourth and fifth priority. The lack of health facilities in the rural area was rarely mentioned as a factor that produces migration in spite of the great gap between the rural and urban health services. The lack of leisure facilities in the rural area was an important component of this factor.

Chain migration is not as significant as it used to be in the 1950s and early 1960s when the migrants moved as households, and wives and children used to follow the heads of households as soon as the latter had established themselves in the urban area. As more land was allocated to the rural heads of households in the late 1960s and early 1970s, and landholding was made conditional on the holder's residence in the rural area, fewer households began to migrate, while migration of landless young adults increased proportionally. These young migrants have fewer dependents who would have to follow them. About 27 per cent and 24 per cent gave this factor the first or second priority, and 50 per cent and

52 per cent gave it the fourth or fifth priority in Ninevah and Babylon regions respectively (Table 5.38).

The fifth factor, which included all the rest of the repellent factors in the rural area and the advantage factors in the urban area, was the least important. About 18 per cent and 17 per cent gave this factor the first or second priority, and 68 per cent and 66 per cent gave it the fourth or fifth priority in Ninevah and Babylon regions respectively (Table 5.39).

The Chi-Square test was applied to compare the distribution of the major factors that produce migration in the two regions. The distribution of the first three factors, which were shown to be the most important, were not significantly different (Table 5.40).

6. Factors discouraging Migration

The respondents in Ninevah and Babylon regions were asked to state the factors that discourage migration. The factors were to be drawn from the rural advantage factors and the urban repellent factors. These factors are as follows:

1. The ownership of land
2. The preference of the rural way of life
3. The strong tribal ties
4. The high cost of moving
5. The low cost of living in the village
6. Other factor

About 78 per cent and 86 per cent of the respondents gave the first factor the first or second priority, and 9 per cent and 5 per cent gave it the fifth or sixth in Ninevah and Babylon regions respectively (Table 5.41). The ownership of land or the lack of it

Table 5.38 : Percentage Distribution of the Fourth Factor that encourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>					<u>Total</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
Ninevah	Number	87	136	197	84	336	840
	Percentage	10.4	16.2	23.5	10.0	40.0	100
<hr/>							
Babylon	Number	41	43	87	105	81	357
	Percentage	11.5	12.0	24.4	29.4	22.7	100

Table 5.39 : Percentage Distribution of the Fifth Factor that encourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>					<u>Total</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
Ninevah	Number	59	91	120	386	184	840
	Percentage	7.0	10.8	14.3	46.0	21.9	100
<hr/>							
Babylon	Number	33	27	63	57	177	357
	Percentage	9.2	7.6	17.6	16.0	49.6	100

Table 5.40 : Chi-Square Tests for Responses on Factors that encourage Migration in Ninevah and Babylon Regions

<u>Factors which encourage Migration</u>	χ^2	<u>Regions of Ninevah and Babylon</u> Level of Significance	Degrees of Freedom
First	2.1	insignificant	4
Second	2.9	insignificant	4
Third	8.9	insignificant	4
Fourth	15.0	1%	4
Fifth	26.4	1%	4

Table 5.41 : Percentage Distribution of the First Factor that discourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>						
		1	2	3	4	5	6	Total
Ninevah	Number	437	215	59	53	41	35	840
	Percentage	52.0	25.6	7.0	6.3	4.9	4.2	100
<hr/>								
Babylon	Number	208	97	19	16	10	7	357
	Percentage	58.3	27.2	5.3	4.5	2.8	2.0	100

was not counted among the important advantage factors or the repellent factors in the village. The reference to this factor as having a significant discouraging influence on migrants may be explained by the argument that the loss of the right to the land, as a consequence of migration, has a strong psychological effect on the potential migrants.

About 21 per cent and 13 per cent gave the second factor the first or second priority and 28 per cent and 33 per cent gave it the fifth or sixth priority in Ninevah and Babylon regions respectively (Table 5.42). This factor was counted as the most important advantage factor in the village in the two regions.

About 19 per cent and 16 per cent gave the third factor the first or second priority, and 52 per cent and 57 per cent gave it the fifth or sixth priority in Ninevah and Babylon regions respectively (Table 5.43). The difference in the emphasis on this factor between the two regions is less than that noted when the village advantage factors were discussed. Ninevah region has shown, consistently, more emphasis on this factor than Babylon.

About 24 per cent and 29 per cent gave the fourth factor the first or second priority, and 13 per cent and 10 per cent gave it the fifth or sixth priority in Ninevah and Babylon regions respectively (Table 5.44). The cost of moving did not seem particularly important to the respondents. The emphasis on this factor in Babylon was slightly higher than that in Ninevah, which was rather unexpected because of the smaller size of Babylon region, the proximity of the region to the major destination Baghdad, and the heavy road traffic which connects the capital with the holy city of Najaf, and so passes through Babylon region. The fifth factor

Table 5.42 : Percentage Distribution of the Second
Factor that discourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	112	65	167	259	174	63	840
	Percentage	13.3	7.7	19.9	30.8	20.7	7.5	100
Babylon	Number	25	22	73	119	97	21	357
	Percentage	7.0	6.2	20.4	33.3	27.2	5.9	100

Table 5.43 : Percentage Distribution of the Third Factor that discourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>						
		1	2	3	4	5	6	Total
Ninevah	Number	67	89	71	180	325	108	840
	Percentage	8.0	10.6	8.5	21.4	38.7	12.9	100
<hr/>								
Babylon	Number	22	34	25	73	177	26	357
	Percentage	6.2	9.5	7.0	20.4	49.6	7.3	100

Table 5.44 : Percentage Distribution of the Fourth
Factor that discourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	89	111	327	207	59	47	840
	Percentage	10.6	13.2	38.9	24.6	7.0	5.6	100
Babylon	Number	34	70	150	68	19	16	357
	Percentage	9.5	19.6	42.0	19.0	5.3	4.5	100

came second in terms of importance. About 51.8 percent and 53.8 per cent gave it the first or second priority, and about 14.4 per cent and 5.3 per cent gave it the fifth or sixth priority in Ninevah and Babylon regions respectively (Table 5.45).

About 7 per cent and 3 per cent gave the other factors the first or second priority, and 84 per cent and 90 per cent gave them the fifth or sixth priority in Ninevah and Babylon regions respectively (Table 5.46).

The Chi-Square test was applied to compare the distribution of the factors that discourage migration in the two regions. All the factors were found to be insignificantly different in their distribution (Table 5.47).

Conclusion

The discussion of the six questions in this chapter have covered most of the factors involved in the decision to migrate from the rural to the urban areas in Ninevah and Babylon regions. It has also shed some light on the importance of each factor. The analysis revealed that when the advantages of living in the village were discussed, the respondents' emphasis was placed mainly on rather non-economic factors, such as "the existence of friends and relatives", and "the tribal ties and disciplines". This emphasis on the non-economic factors suggests their superiority - from the respondents' point of view - to similar factors in the urban area, and also the inferiority of the economic factors in the village to similar factors in the urban area. The rest of the results showed a considerable degree of consistency. The most

Table 5.45 : Percentage Distribution of the Fifth
Factor that discourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>						Total
		1	2	3	4	5	6	
Ninevah	Number	108	327	179	105	74	47	840
	Percentage	12.9	38.9	21.3	12.5	8.8	5.6	100
Babylon	Number	64	128	79	67	6	13	357
	Percentage	17.9	35.9	22.1	18.8	1.7	3.6	100

Table 5.46 : Percentage Distribution of the Sixth Factor that discourages Migration

<u>Regions</u>		<u>Priority in Ranks</u>						
		1	2	3	4	5	6	Total
Ninevah	Number	27	33	37	36	167	540	840
	Percentage	3.2	3.9	4.4	4.3	19.9	64.3	100
<hr/>								
Babylon	Number	4	6	11	14	48	274	357
	Percentage	1.1	1.7	3.1	3.9	13.4	76.8	100

Table 5.47 : Chi-Square Tests for Responses on Factors that discourage Migration in Ninevah and Babylon Regions

<u>Factors which discourage Migration</u>	χ^2	<u>Regions of Ninevah and Babylon</u> Level of Significance	Degrees of Freedom
First	2.3	insignificant	4
Second	3.3	insignificant	5
Third	3.3	insignificant	5
Fourth	6.64	insignificant	5
Fifth	7.5	insignificant	5
Sixth	2.8	insignificant	5

important repellent factors in the village were economic factors like "income is low and working in agriculture is not profitable", and "fluctuations in income and uncertainty". On the other hand, the important advantages of living in the city were mostly economic, like "jobs are available and income is higher", while the important repellent factors in the city were of an economic as well as a non-economic nature, such as "the high cost of living in the city", and "the severe loneliness". When the respondents were asked to state the factors that encourage and discourage migration, the encouraging factors were mostly economic, while the discouraging factors were mostly of a social nature. The Chi-Square tests carried out on the distribution of the factors by ranks of importance revealed that in most of the cases, the respondents in the two regions did not differ significantly in their identification of the factors that influence migration, and the importance they attached to them

CONCLUSION

This thesis has embarked on investigating the internal migration in Iraq within the context of economic development during the period 1947-1975, by utilizing the official data and the fieldwork information collected by the author in 1974/1975. It is concluded that internal migration went through three phases during this period. The first phase is between 1947 and 1958; the second between 1958 and the middle sixties; and the third started during the late sixties and early seventies. These phases are distinguishable in terms of the volume of migration, its causes and the characteristics of the migrants.

In Chapter I, the official published data as far back as 1867, were assessed, and it was concluded that the estimates made before 1947 provided no direct information on internal migration, and in that respect they could only be useful by indicating the nomadic-rural-urban shift of the population, which can only be observed at the national level and at the level of the three extended regions of Mosul, Baghdad and Basra. The population balancing equation is not useful to estimate internal migration in Iraq, because births and deaths are under-recorded and data on them are inadequate to estimate the number of migrants. Changes of address are severely under-reported, and cannot therefore be used for this purpose. The only direct information on migration is provided in the last three censuses of 1947, 1957 and 1965. In the 1947 census data, people are classified by their places of birth and residence. The place of birth classification was given at the regional level without a reference to the residential status, whether rural or urban. The place of residence classification was given at the Nahia level, and the residential status

was stated. In the 1957 census data, the places of birth and residence were given at the regional level, and further details concerning the place of residence were given as to whether a person was residing at the regional capital or not. The data on the places of birth and residence which were collected in the 1965 census are still not published, and the data that have been made available for this study have the individuals classified by their place of residence and place of birth at the regional level, with no further details.

The migration data in the three censuses included no information on the characteristics of the migrants at the time of migration, i.e., their age, sex, educational attainment, marital status, income, etc. Due to these limitations, only interregional migration regardless of the residential status of the migrants can be measured directly, and therefore the rural-urban and urban-urban components of the interregional migrants would be inseparable. The segregation of the migrants by their demographic, social and economic characteristics, where migration of people of different characteristics may be interpreted differently, would not be possible. The discussion in Chapter 1 has also revealed clearly that the study of internal migration by using the official data can only be made for the period 1947-1965, during which the last three censuses of 1947, 1957 and 1965 were conducted. Due to the limitations of the data, the Census Survival Ratio method was applied to estimate rural-urban migration. The application was confined to the period 1957-1965, only due to further limitations regarding the age data in the 1947 census. The results revealed that the concentration of the country's urban population in the region of Baghdad was increasing. As shown in Table 1.11, 50.4 per cent of the country's net migrants to urban centres were going to Baghdad's urban centres. This was due to a high rate of nomad settlement near

Baghdad, and the fast migration from the rural area of Baghdad region as well as other regions, particularly from the southern part of the country, to Baghdad's urban centre. The constructed data for the three urban definitions suggested in Chapter 1 revealed that the urban population annual growth rate during the first period was nearly 5 per cent, which is about three times the rural population growth rate. During the second period the urban rate was about 7 per cent, and nearly 17 times the rural growth rate. The application of the CSR method revealed that rural-urban migration, unlike the case in many less-developed countries, was neither age selective, nor sex selective. Indeed, the age pattern and the sex composition of the rural-urban migrants, as illustrated in Table 1.13 and Figures 2 and 3, indicate that migrants moved as families and not as young males individually. This pattern was repeated when net migration to urban centres was calculated, see Table 1.14 and Figure 4. As to inter-regional migration, the three censuses of 1947, 1957 and 1965 revealed that Baghdad region is the most attractive destination to migrants, and accordingly it attracted 42 per cent, 52 per cent, and 59 per cent respectively of the country's lifetime migrants. The net gain of Baghdad's region from interregional migration represented 72 per cent, 80 per cent and 87 per cent of the total net gain in the three censuses respectively. Baghdad also attracted 64 per cent and 72 per cent of the total migrants in the first and second intercensal periods respectively. Baghdad region's share of the total population increased from 17 per cent in 1947 to 20.8 per cent in 1957, and 25.4 per cent in 1965.

Cultivators and their families from the rural areas where economic and welfare conditions were particularly bad, represented the majority of the migrants to Baghdad and other major urban centres. Early attempts in

the nineteenth century to allocate the land to the cultivators by establishing the Tapu type of tenure had failed, and land was concentrated in a few hands. An attempt was made in 1930 to establish the lazma type of tenure, but this had also failed and tribal shaikhs and local magnates managed to grab the land, thus increasing its concentration in only a few hands. The actual cultivators became tenants whose share of the output was only enough to keep them and their families at subsistence level. On the pump-irrigated lands, which are mostly in the southern part of the country, the cultivator was receiving about two-sevenths of the crops, and this could fall as low as one-eighth on date and fruit groves. With this low level of income the cultivators were often forced to borrow from the only source, the landholders, and were therefore tied to the land according to the law of 1933. Whenever the conditions for some of them became intolerable and their very existence was threatened, they would leave the land and take their families with them, fearing reprisal by their landlords. The agricultural wealth of the country in terms of cultivable land was stressed by many experts like Dawson, the Haigh Commission, the KTAM, the IBRD, Salter and the FAO. Different estimates were made concerning the size of the cultivable land, but they all indicated that the agricultural sector must receive priority. Realizing the poor welfare conditions of the cultivators, it was suggested that their bargaining power against the landlords must be improved. As to the means by which this improvement could be achieved, it was suggested that the Miri Sirf land should be distributed in small holdings to cultivators who would occupy settlements organized and managed by co-operatives. As a result, the Dujaila law of 1945 and the Miri Sirf Lands Development law of 1951 were enacted. Large sections of the lands initially put by for settlements were taken by the landlords, who were powerful in the

parliament and able to defuse any policy which might impinge on their interests. The good which soon resulted in the settlements almost equally quickly disappeared as soil salinity increased and co-operatives ran short of cash and equipment, and the settlers migrated to the cities joining the rest of the migrants in the shanty towns. Other suggestions put forward by the IBRD mission to reduce the dependence of the cultivators on the landlords, like making credit and equipment available to them through co-operatives did not materialize, and did not seem applicable when considering the socio-economic situation prevailing in the agricultural sector at that time. One of the policies that could have been effective in increasing the bargaining power of the cultivators was to absorb the migrants productively in industry. This policy, however, was promptly ruled out, partly for economic, but chiefly for political reasons: and in any case, it was expected that the influential landlords would block any attempt in that direction. The result was that the cultivators were kept at the subsistence level and under very poor welfare conditions. Although the migrants' standard of living in the shanty towns was desperate, they still considered themselves to be better off. They were mostly employed in the tertiary sector, and their unemployment rate was high. In their sarifas they had neither electricity nor purified water; their furniture was extremely limited, and the quality and quantity of their food were poor and hardly sufficient. Heavy investment in agriculture, particularly in the 1950s, which was mainly in dams and canals, benefited the landlords mostly, and the introduction of mechanization in agriculture nullified to a large extent the adverse effect on output caused by migration. After the revolution of 1958, the Agrarian Reform Law was

enacted, and land exceeding the maximum limit of the holdings specified in the law were expropriated. But the distribution of the expropriated as well as Miri Sirf lands to the cultivators went very slowly. Eight years after the enactment of the law, only 17 per cent of the land subject to expropriation was distributed to the cultivators, and the rest was leased to them by the Ministry of Agrarian Reform on a temporary basis. The number of co-operatives established until 1965 was very small, and insufficient to replace the production and marketing links of the old system. The delay in the application of the law, the political instability in the country, and the bad harvest during the four years that followed the enactment of the law, have increased the scepticism and the uncertainty in the rural area. As a result, rural-urban migration has accelerated and during the period 1957-1965 nearly 24 per cent of the rural population left for the cities. The emphasis on the industrial sector, clearly expressed in the investment allocation of the provisional and detailed economic plans, did not proportionally increase the labour force employed in the industrial sector.

Chapter 2 distinguishes between two phases of internal migration - before and after 1958. During the first phase the causes of migration were mostly the low level of cultivators' income due to their small share of the crop, and their poor welfare conditions. In this phase the migrants were restrained by the law that prevented them from leaving the land, and the danger of being forcibly sent back to their villages. During the second phase the migrants were freed from the legal barriers, and the managerial failure in agriculture has led to accelerated migration. The regression analysis in Chapter 2 employed intercensal migration data, unlike the case in various migration studies applied to less-developed countries where lifetime migration data were used. The use of intercensal

data was necessary to introduce the structural variables, relevant to each of the two phases in the migration models. The analysis showed that for both periods income and expected income differentials were insignificant in explaining migration. On the other hand, the urbanization variable which reflects the job opportunities in the tertiary sector, was significant with the correct sign in both periods. Other variables that showed statistical significance and correct signs were Gini Index (G), Cultivated Land/Labour ratio (C), and Land Distribution rate (T). The (G) variable was relevant during the first phase, and as more lands were expropriated and redistributed during the second phase, the variable's relevance decreased and that of the (C) variable increased. The Contiguity variable which reflects the adverse impact of distance on migration and the Migration Stock variable were significant in both phases.

During the late 1960s and early 1970s, particularly after the enactment of the Agrarian Reform Law of 1970, vast areas of agricultural land were distributed to the cultivators, and a large number of co-operatives was formed. Since then, the co-operatives have received increasing amounts of credit and agricultural equipment from the Agricultural Bank and the Ministry of Agrarian Reform. Twelve years after the enactment of the first law of agrarian reform, a new system of management began to crystallize. The cultivators were adjusting to the new production, marketing and financial links, and the exodus of rural families experienced during the 1950s and early 1960s seems to have ceased. As a result of the application of the Agrarian Reform Law and the redistribution of land, the cultivators' share included most of the crop, and income per capita in agriculture therefore increased. Output, however, did not increase, and fluctuated as severely as ever. As explained in Chapter 3, the high degree

of uncertainty caused by fluctuations in income in the villages is - as before - considerably lessened by the co-operation and harmony practised by the villagers in most of the villages. This harmony is expressed in activities such as cultivation, grazing, housebuilding, and loans in cash and kind. Income per capita in the rural area is about half the income per capita in the country, and considerably less than income per capita in the urban area. The average income received by the adult villager is substantially lower than that received by the industrial worker. Although data on earnings in the tertiary sector are not available, it does seem that they are higher than those in agriculture. In the third phase of migration the households seem to dispatch some of their members as migrants. Family migration, which dominated the first and second phases, seems to have stopped. Land recipients, who are mostly heads of households or senior males, tend to stay in the village so that they do not lose their right to the land, as it is strictly stated in the Agrarian Reform Law. The regression analysis in Chapter 3, based on the fieldwork information, indicated that the Income, the Household Size and the Age and Sex variables were the most consistent in explaining rural-urban migration. The decision to migrate is usually considered collectively within the household, where the benefits and the costs of migration to the individual concerned and the other members would be discussed. The analysis in Chapter 3 showed clearly that the rural-urban migration rate has declined sharply during the third phase to nearly one third of the rate that prevailed during the second phase. The analysis in Chapter 4 indicated that the migrants may be distinguished by certain characteristics from the non-migrants. The migrants tend to be young, unmarried males from relatively large households whose income per capita is near the average. While in most cases the migrants seemed to be significantly different from the non-

migrants, the migrants from the two regions did not seem to differ significantly with regard to the characteristics mentioned above.

In Chapter 5 the push and pull forces of rural-urban migration were studied by analysing the answers of village residents to six sets of priorities. The analysis showed that the attractive factors in the villages were mostly of a social nature, while the repellent factors in the village were clearly of an economic nature, like "income is low and working in agriculture is not profitable", and "fluctuations in income and uncertainty". The attractive factors in the city, on the other hand, were of an economic nature, such as "jobs are available and income is higher", while the repellent factors were both economic and social, like "the high cost of living in the city", and "the severe loneliness".

The economic and general welfare conditions in the rural areas are very poor when compared with those in the urban area. The distribution of land and the formation of co-operatives are not enough to reduce rural-urban migration. Migration will increase as the rural population grows, and although the migration rate seems to have declined sharply during the third phase, the migrants are now young, educated individuals whose departure severely deprives the rural area of a potentially productive labour force, and considerably increases the underemployed labour force in the urban area. As the development strategy does not seem to be aiming at increasing the proportion of the labour force employed in the industrial sector to any great degree, and as the country's imports of agricultural goods are increasing, the recommended policy therefore to control rural-urban migration is to improve the economic and welfare conditions in the rural areas; to embark on a job creation programme in the villages, and to establish technical and agricultural schools there to provide the required skills.

APPENDIX

QUESTIONNAIRE FORM (2)

MIGRANTS

VILLAGE:.....
REGION:.....
ESTIMATED
VILLAGE
POPULATION:.....

NUMBER	YEAR OF BIRTH	SEX	MARITAL STATUS IN THE VILLAGE	EDUCATIONAL ATTAINMENT AT THE TIME OF MIGRATION	EDUCATIONAL ATTAINMENT NOW	RELATIVES AND FRIENDS IN THE CITY?	YEAR OF DEPARTURE	REGION	ANNUAL INCOME BEFORE MIGRATION	ANNUAL INCOME NOW
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QUESTIONNAIRE FORM (3)

TO BE FILLED IN BY PEOPLE WHO MIGRATED FROM THE VILLAGE AND LIVE IN THE CITY.

1. What is your name?
2. When did you move to the city?
3. How old are you?
4. Where were you born?
Name of village?
Name of city?
Name of region?
5. In what kind of work are you now involved in the city?
Have you worked in other jobs in the city before you
got your present job?
If Yes, how many?

Tick (✓) where appropriate

6. What is the highest level of education you have reached?
Are you illiterate?
Do you read and write?
Have you completed elementary school?
Preparatory school?
Secondary school?
University?
In case you have not completed a certain level of education,
mention the last form you have reached.
7. If you were married, does your wife live with you in the city?
Or is she still in the village?
If you wife was in the village, will she be coming to live
with you in the city?
Or will she stay in the village?
- 8a. When you were living in the village were you visiting the city?
Yes. No.
If the answer is Yes, how many times have you visited the city
before you migrated?
Once. Twice. Three times. Or more.
- 8b. What were the most important reasons for your visits to the city?
Reasons dealing with agriculture and business.
For buying some necessities, etc.
For entertainment and sightseeing.

9. When you migrated from your village, did you come directly to this city?
Yes. No.
If the answer is No, mention the number of places you have been to before you settled in this city.
One place. Two. More.
10. When you were living in the village, did you have any relatives or friends living in the city?
Yes. No.
11. When you came to live in the city where did you stay?
With friends or relatives. Lived on your own.
- 12a. Did you stay a long time unemployed when you first came to live in the city?
Yes. No.
- 12b. If the answer is Yes, have you stayed unemployed for one month?
Two months. One year. More.
- 13a. Did you have land to plough when you were living in the village?
Yes. No.
- 13b. If the answer is Yes, did the land belong to you?
Or were you renting it?
14. Is there any intention of living in this city for good?
Of leaving to live in another city?
Mention its name if possible.
Of returning to your village?

QUESTIONNAIRE FORM (4)

MARK IN NUMBERS (1, 2, 3, 4....) AND IN ORDER OF IMPORTANCE, SO THAT THE MOST IMPORTANT TAKES NUMBER 1 AND THE NEXT TO FOLLOW NUMBER 2 AND SO ON.

1. Some people live in the village all their lives without migrating, what do you think is the reason for that?
 - a) They have business in the village. They may rent land to plough or they may own land.
 - b) They prefer life in the village to life in the city.
 - c) They have family ties in the village from which they cannot detach themselves.
 - d) They cannot leave the village because they are poor and cannot afford migration and travel expenses.
 - e) Living expenses are less in the village.
 - f) Other reasons.

2. Mention some of the qualities that make life desirable in the village.
 - a) Living expenses are low.
 - b) Food and nutrition elements are cheap, fresh and delicious.
 - c) Housing expenses are cheap or free.
 - d) Working in agriculture is interesting.
 - e) The existence of friends and relatives in the village makes life interesting.
 - f) Village and tribal traditions.

3. Mention three or four reasons which make life in the village hard and disturbing.
 - a) Unemployment and the non-existence of work.
 - b) The drought years which cause income to decrease a lot.
 - c) Working in agriculture is not rewarding.
 - d) The lack of schools for children.
 - e) The lack of a hospital, a surgery or a doctor nearby the village.
 - f) Lack of electricity.
 - g) Communications are poor between any two villages, or between the village and the city, i.e. life in the village is isolated.
 - h) The scarcity of the basic consumption goods, such as sugar, tea, clothes, soap and others.
 - i) They do not own agricultural land.
 - j) No entertainment facilities in the village, such as cinemas and playgrounds.
 - k) Life in the village is miserable and dull and has no excitement.
 - l) The existence of tribal and religious disagreements.

4. Some peasants leave their villages and migrate to live in the city. What do you think is the reason for their migration?
 - a) To get a job that may increase their income.
 - b) To enter their children into school.
 - c) To follow their relatives who have previously migrated to the city.
 - d) They do not get enough income from their work in agriculture.
5. Mention three or four qualities that make life desirable in the city.
 - a) Job opportunity and profit in the city are more than those in the village.
 - b) The availability of hospitals, surgeries and doctors in the city, while health services in the village are rare.
 - c) The availability of purified drinking water and electricity in the city.
 - d) The availability of schools.
 - e) While in the city the individual gets rid of the tribal and familial restrictions.
 - f) The availability of entertainment facilities in the city, such as cinemas.
- 6) Mention three or four reasons which you think make life in the city undesirable and disturbing.
 - a) Unemployment and the difficulty of getting a job.
 - b) Rising of living expenses.
 - c) Housing expenses are high: rents, or the difficulty in finding a house.
 - d) The scarcity of friends, and people in the city do not pay much attention to strangers.
 - e) Social freedom from religious and traditional restrictions.

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