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## **Urbanization in Turkey 1935-65**

### **Introduction**

NEXT to the high rate of population growth, a major problem facing most of the countries of the world today is the rapid growth of their urban population. These are of even greater magnitude for the developing countries. Even though most of the developing countries are at a very low level of urbanization, what is startling is the rapidity with which the process is taking place. The reasons for and the consequences of such an unprecedented trend in urbanization have received considerable attention during recent years. However, what is lacking in most countries is the documentation of the historical and contemporary experience. This lack of progress is due to the fact that the rapidity with which the process is taking place is a new phenomenon and a number of problems are associated with its definition and measurement. As the process is taking place at a rapid pace and has a variety of social and economic implications, there is need to know its extent and character. There is even greater need to understand the components of, the factors responsible for, and the consequences of the process.

This paper utilizes the limited data available on Turkey to provide some insights into the recent changes in the level and trends of urbanization. It also illustrates the similarities or differences that exist

\*An earlier version of this paper was submitted to Section 23 of the General Conference of the IUSSP, Liege, August-September 1973.

among major regions. Data for the present study come mainly from the quinquennial censuses of Turkey. As the data from the 1970 census are not yet available, the present study covers a period of thirty years from 1935 to 1965.

### **Problems of Definition and Measurement**

Defining an urban area itself poses a major problem. A recent United Nations publication<sup>1</sup> lists the definitions that have been commonly used in a number of countries. It can be seen that the criteria varies from a simple consideration of the administrative status of the locality to more complicated aspects such as population size, density, economic structure etc.

Similarly the process of urbanization<sup>2</sup> has also been defined in a variety of ways. In what follows urbanization is considered as the process of population concentration. It is not intended, however, to undermine the covariance of a variety of socio-economic and other factors between rural and urban areas nor does it question the usefulness of these factors for classification purposes. In the present study the population criteria is adopted because it is unambiguous, simple to apply and, above all, it rests on the assumption that there would be a strong correlation between population size, concentration and the presence or absence of these socio-economic traits.

In Turkey all municipalities including provincial and district centres are considered as urban. This definition has the disadvantages of including some localities that are not really urban and excluding some localities that are. Therefore, in the present study we take a minimum population size of 10,000 to classify a locality as urban. Thus some localities not officially designated as urban are included as such in the present study. These localities, in general, are the "gecekondü" or squatter areas surrounding the metropolitan areas of Istanbul and Izmir which have very high density and are growing at a very rapid rate.

1. United Nations, *Growth of World's Urban and Rural Population, 1920-2000*, Population Studies, No. 44, United Nations, New York 1969.

2. Eldridge, Hope Tisdale, "The Process of Urbanization", *Social Forces* 20, March 1942.

Data on population of localities above 10,000 are published systematically only recently. They can, however, be reconstructed from the earlier censuses. Moreover, boundary changes that have occurred during the period have influenced the area and population of these localities in some of the censuses. Influence of this is controlled by using the population data adjusted for boundary changes.<sup>3</sup> A comparison of the adjusted and unadjusted data showed the influence of adjustment to be negligible. Thus our data refer to the population of localities with 10,000 or more population in 1965 taken retrospectively. Localities having had 10,000 or more population in an earlier census are not, however, treated as urban in the year of that if their 1965 population was below 10,000. However, upon examination the influence of this procedure is also found to be small.

### Revels and Trends of Urbanization in Turkey

As shown in Table 1, during the thirty year period when the population of Turkey doubled, the urban population—the population living in areas of 10,000 or more population, increased three and a half times. The substantially higher growth of the urban population was achieved through the increase in the number of areas qualifying as urban and through the growth of the existing urban areas. The number of such areas increased from 81 in 1935 to 199 in 1965. This way of measuring the trend for the entire period is misleading because it conceals the timing of the process and thereby understates the rapidity with which the process is taking place. Alternatively the entire period can be divided into two equal parts : 1935-50 and 1950-65. Whereas the first half represents a period of stagnation, the second half can be described as a period of rapid change. The remaining part of this section substantiates this conclusion and demonstrates its several dimensions.

According to the data given in Table 1 it can be seen that the percentage of population living in urban areas was rose from 16.5 in 1935 to nearly 30.0 by 1965. A closer examination of the levels at each of the

3. Such data are published for the census years between 1935 and 1965 in : Bolge Plan-lama Dairesi (Regional Planning Department), 1968. *Ilye Ilcelerinin Nufus Duzeltmeleri: 1935-65* (Province and District Population Adjustments : 1935-65), Ankara : Nuve Matbaasi.

TABLE 1-SELECTED STATISTICS ON URBANIZATION IN TURKEY 1935-65

Turkey		1935	1940	1945	1950	1955	1960	1965		
Population (in millions)										
1.	Total	16.3	17.8	18.8	20.9	24.1	27.8	31.3		
2.	Urban	2.7	3.2	3.5	3.9	5.4	7.2	9.3		
3.	Rural	13.7	14.6	15.3	17.0	18.6	20.6	22.0		
4.	Per cent urban	16.5	18.1	18.5	18.8	22.5	25.9	29.8		
5.	Urban Growth	4.0	1.5	2.6	7.6	6.5	6.0			
6.	Rural Growth	1.3	1.0	2.2	1.9	2.1	1.4			
7.	Ratio of (5)/(6)	2.9	1.5	1.2	4.0	3.2	5.5			
8.	Rate of	1.9	0.4	0.3	4.6	4.3	5.2			
9.	Index of tion	2.9			3.0			3.5		
10.	<i>Distribution of urban areas by size class (in thousands)</i>	<i>Number</i>		<i>Shift across size class</i>						
		<i>1935-50</i>			<i>1950-65</i>					
		<i>1935</i>	<i>1950</i>	<i>1965</i>	<i>Decline</i>	<i>Same</i>	<i>1+</i>	<i>Same</i>	<i>1+</i>	<i>2+</i>
	1,000.0 and over	0	0	1	-	-	-	-	-	-
	500.0 — 999.9	1	1	1	0	1	0	0	1	0
	100.0 - 499.9	2	4	12	0	2	0	3	1	0
	50.0 - 99.9	4	6	18	0	2	2	0	6	0
	20.0 - 49.9	30	30	75	3	23	4	12	15	3
	10.0 - 19.9	44	65	92	2	36	6	13	51	1
	Total	81	106	199	5	64	12	28	74	4
11.	<i>Distribution of urban population by size class (in thousands)</i>	<i>Population (in millions)</i>			<i>Per cent</i>					
		<i>1935</i>	<i>1950</i>	<i>1965</i>	<i>1935</i>	<i>1950</i>	<i>1965</i>			
	1,000 and over	-	-	1.7	-	-	18.6			
	500.0 - 999.9	0.7	1.0	0.9	27.6	25.1	9.7			
	100.0 - 499.9	0.3	0.7	2.1	10.9	18.8	22.0			
	50.0 - 99.9	0.3	0.4	1.2	9.4	10.1	12.2			
	20.0- 49.9	0.8	0.9	2.2	30.6	23.4	23.3			
	10.0- 19.9	0.6	0.9	1.2	21.5	22.6	13.3			
	Total	2.7	3.9	9.3	100	100	100			

census years reveals that until 1950 this percentage was very nearly constant, showing an increase of only two percentage points. The remaining increase of about 12 percentage points has occurred during 1950-65. The rate of urbanization given in Table 1 demonstrates that the process had gained momentum only since 1950.<sup>4</sup>

It is also reflected in the comparison of urban and rural growth rates given in Table 1. It can be seen that even though the urban growth rates have always been higher than the rural growth rates, the difference between the urban and rural growth rates increased significantly since 1950. Whereas the rural growth rates were always low, fluctuating between 1.0 and 2.2 percent per year, the urban growth rate, showing a steadily rising trend, has always been greater than 6.0 percent per year since 1950. The reasons for such an increase in the differential between urban and rural growth rates are : (i) the net effect of reclassification of areas between rural and urban, as a result of population growth and (ii) the combination of natural increase and net migration in the already existing urban areas of the increase of 118 in the number of urban areas during 1935-65, the increase during the first half of the period was only 25, whereas during the second half it was 93. This suggests that the increase in the number of urban areas had played a significant role in the urbanization of Turkey's population.

Table 1 also shows that the upward shift of urban areas was very small during 1935 - 50 and quite large after that. Out of 81 urban areas in 1935 only 11 had experienced a shift to a higher size class and this was partly nullified by a downward shift of 5 urban places. During 1950-65, however, 78 out of 106 places had moved upward by one or more size category and no urban area shifted downward. Thus in general the process was hardly taking place during 1935-50 whereas it has gained considerable momentum since 1950. This can be attributed to the trend towards in-

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4. This index is obtained as follows :  $r_u = \left( \frac{U_t - U_0}{100 - U_0} \right) 100$  where  $U_t$  and  $U_0$  refer to the percentage of urban population at times '0' and 't'. It has been suggested by Eldridge, and used by Vaidyanathan, K. E. *Population Redistribution and Economic Change, 1951-61*, Ph.D. Dissertation, University of Pennsylvania, 1967.

creasing concentration in the already existing urban places and the increase in the number of such concentrations.

Finally, the distribution of urban population by size class and the changes therein gives an idea of the concentration occurring within the urban areas, which is not reflected in 'percent urban' and its change. For example, even though two areas may depict similar levels of concentration as measured by percentage urban, when the size classification of urban population is taken into account their levels of concentration might be found to differ. An analysis of the change in the distribution of urban population by size class given in Table 1 shows that there is a tendency for increasing concentration over time. The percentage of urban population in areas of more than 100,000 population rose from 38.5 in 1935 to 43.9 in 1950 to 50.3 in 1965. Declines of similar magnitude were observed in the two lowest size categories.

An index which takes account of the influence of the concentration in larger size areas is suggested by Davis and Casis<sup>5</sup>. To measure the changes in concentration over time this measure is inadequate because it is to some extent influenced by the level of urbanization. That is even if no change in the distribution of urban population by size class takes place the index would rise if the percent urban increases. This is true even for intercountry comparisons if one is interested in the concentration of population within urban places. However, in making intercountry comparisons we usually need the combined influence of the concentration of population in urban areas as well as within them, and the Davis and Casis index is satisfactory for this purpose.

The index of concentration used in the present study is intended to measure the tendency of concentration taking place within urban places. The index is a ratio of the Davis and Casis index to that of the average percent urban in each size class. Whereas the Davis and Casis index gives more weight to larger size areas the average percent urban gives equal

5. Davis Kingsley and Casis, Anna, "Urbanization in Latin America". *MMEQ* 24, April 1946, 186-207. The index is :  $\frac{1}{k} \sum (U_{k+}/P)$  where  $k$  refers to the number of size categories and  $U_{k+}$  and  $P$  refer to the urban population above the  $k^{\text{th}}$  size limit and total population respectively. The size categories used in this study differ from that used by Davis and Casis.

weight to all areas regardless of size. This index has a minimum value of '1' and a maximum value equal to the number of size groups used to obtain the Davis and Casis index :

$$\text{Index of Concentration} = \left( \frac{\text{Davis and Casis index}}{\text{average percent urban}} \right).$$

As mentioned earlier it can be seen from Table 1 that even though not strong there has been a tendency towards concentration in larger size areas.

### **Regional Variation in the Level and Trend of Urbanization**

For the purpose of analysing the geographical variation, the extent and pattern of urbanization in Turkey we have adopted the classification used in the Turkish Demographic Survey. They are : Central Anatolia, Black Sea Coast, Marmara and Aegean Coast, Mediterranean Coast, and Eastern Anatolia.

According to the data given in Table 2, Marmara and Aegean Coast has always been the most urbanized region in Turkey. In this region the percentage of population living in urban areas rose from 32 in 1935 to 48 in 1965. However, the increase during the first half of the period was only 2 percentage points, and the remaining increase of 14 percentage points occurred since 1950. Both Central Anatolia and Mediterranean Coast had around 30 percent of their population in urban areas in 1965. At the beginning of the period, Mediterranean region with 14.3 percent of its population in urban areas was slightly more urbanized than Central Anatolia. These two regions have depicted similar pattern in the process of urbanization. Eastern Anatolia and Black Sea Coast are the least urbanized regions in Turkey, and had only 17.4 and 14.4 percent of their population respectively in urban areas in 1965.

It can be seen from Table 2 that until 1950 the percentage of population living in urban areas remained nearly constant in all regions and only since 1950 this percentage has increased considerably. These data also reveal that even though in all the regions the percentage of population living in urban areas has increased substantially, the difference between

TABLE 2—SELECTED STATISTICS ON URBANIZATION REGIONS OF  
TURKEY: 1935-1965

		<i>Regions</i>				<i>Eastern Anatolia</i>
		<i>Central Anatolia</i>	<i>Black Sea Coast</i>	<i>Marmara and Aegean Coast</i>	<i>Mediter- ranean Coast</i>	
		(1)	(2)	(3)	(4)	(5)
1. Per Cent Urban	1935	124	5.8	32.1	14.3	9.3
	1950	16.7	7.5	34.2	17.4	10.5
	1965	29.5	14.4	47.9	29.6	17.4
Urban Growth Rate :	1935-40	5.6	1.0	3.1	4.3	7.7
	1940-45	3.6	0.3	0.6	2.9	—
	1945-50	3.6	0.2	2.4	2.5	2.2
	1950-55	8.1	9.9	6.8	8.3	8.2
	1955-60	7.7	7.2	5.3	9.2	5.5
	1960-65	6.8	6.5	5.2	5.8	7.7
Rural Growth Rate :	1935-40	1.1	1.3	1.9	0.7	1.9
	1940-45	1.3	1.2	0.6	1.2	0.5
	1945-50	2.2	2.0	1.5	2.7	3.0
	1950-55	1.8	1.4	1.7	2.2	2.7
	1955-60	1.9	2.4	1.6	1.9	2.0
	1960-65	1.2	1.7	0.6	1.9	2.0
4. Ratio of (2)/(3) :	1935-40	5.3	0.8	1.7	6.1	4.0
	1940-45	2.8	0.2	0.9	2.4	—
	1945-50	1.6	0.1	1.6	0.9	0.7
	1950-55	4.5	7.1	4.1	3.7	3.1
	1955-60	3.9	3.0	3.3	4.7	2.1
	1960-65	4.1	3.9	8.2	3.1	3.9
Rate of Urbanization :	1935-40	2.6	1.1	1.8	2.4	2.3
	1940-45	1.5	0.5	-	1.3	-
	1945-50	1.0	0.2	1.4	-	-
	1950-55	4.6	2.9	7.4	4.5	2.7
	1955-60	5.3	2.1	6.2	6.5	1.6
	1960-65	6.1	2.6	8.7	4.5	3.6

TABLE 2 (Contd.)

		(1)	(2)	(3)	(4)	(5)
6. Index of Concentration :	1935	2.4	1.5	3.7	2.2	1.7
	1950	2.8	1.5	3.7	2.4	1.7
	1965	3.7	2.3	4.0	2.9	2.6
7. Number of Urban Places :	1935	16	13	29	12	11
	1950	23	15	36	16	16
	1965	39	27	72	32	29
8. Shifting to Urban Areas Across Size Class	1935-50					
	Decline Same	1 12	1 12	2 23	0 10	1 8
	1+	3	0	4	2	2
	1950-65					
	Same	5	1	15	3	3
	1+	17	13	21	13	11
	2+	1	0	0	0	2
	9. Percentage of Urban Popu- lation Above 100,000 and Below 20,000	Above 100,000				
1935		29	0	64	0	0
1950		35	0	69	23	0
1965		69	14	59	33	33
Below 20,000						
1935		21	50	16	22	31
1950		24	49	17	17	37
1965		9	19	11	14	21

the levels of urbanization in the two least urbanized regions and the remaining three has increased, whereas the difference among the latter three has remained nearly constant. The widening difference in the level of urbanization between the most urbanized and least urbanized regions indicates that the rate at which the process is taking place is

higher in the former than in the latter. Rates of urbanization given in Table 2 show that, in general, Marmara and Aegean Coast ranked first followed by Central Anatolia and Mediterranean Coast respectively. The rate of urbanization was low in both Eastern and Black Sea Coast. Regarding the trend over time, the rate of urbanization was very low in all the regions before 1950 but increased substantially thereafter in the three most urbanized regions, and only moderately in the least urbanized regions.

Whether or not there is any significant difference among regions in the process of concentration within the urban areas can be seen either by comparing the changes in the distribution of urban population by size class or by comparing the changes in indices of concentration given in Table 2. Judging from the trends in the percentage of urban population above 100,000 and below 20,000 it can be seen that there has been a trend towards concentration in larger size areas in all the regions except the Marmara and Aegean Coast. This could be due to the fact that a number of areas contiguous to the Istanbul or Izmir municipalities are treated as separate localities; they are the rapidly growing "gecekondu" or slum areas and are integrated closely to the respective city. If the effect of this is taken into account by treating these areas as parts of Istanbul or Izmir, then the declining trend reverses itself.

The trend in the index of concentration discussed earlier shows that there has been a tendency of increasing concentration in all the regions over time, and that it has been significantly higher in Central Anatolia. This index shows an increasing trend also in the Marmara and Aegean Coast. Except for Central Anatolia where the increasing trend is observable in both periods, in all other regions this trend of increasing concentration has occurred simultaneously with the overall process of population concentration.

#### Components of Urban Growth

The four components of urban population growth are, annexation, reclassification, natural increase and net migration. As the present study utilizes data that are adjusted for changes in boundary the contribution of the first component is zero. Contribution of reclassification can be

reading made for all the periods, as the population of reclassified areas are available. The problem then is to decompose the remaining part of *total growth into natural increase and net migration*. This can be done by estimating net migration to urban areas and treating the balance as due to natural increase or vice versa. For estimation of net migration to urban areas, required data are not available. Therefore, an attempt is made here to estimate natural increase in urban areas and obtain the contribution of migration as a residual.

This too is difficult because information on natural increase for Turkey as a whole is sketchy even for the most recent period and any assumption on rural-urban and regional differences in natural increase is speculative especially for the earlier periods. Hence attempt is made here only to decompose urban growth into its components for Turkey as a whole. With regard to rural-urban differentials, it is assumed that natural increase in urban areas is the same as for the country as a whole, this assumption provides a minimum estimate of net migration to urban areas.

Utilizing the available information on natural increase<sup>6</sup> and reclassification, urban population growth was decomposed into its components. The resulting estimates along with the distribution are given in Table 3. It can be seen that, in general, natural increase accounted for most of the urban growth in Turkey before 1950, except during 1935-40, when it was shared also by reclassification. The contribution of rural-urban migration to urban population growth has considerably increased since 1950 and it accounts for more than a third of the population growth in urban areas during recent years. Moreover, reclassification which played an insignificant role before 1950, claims an increasing share of urban growth during recent years. However, natural increase still accounts for nearly half of the total growth. Considering the influence of natural increase and migration on reclassification, it seems clear that rural-urban migration has become a more important component of urban growth and is responsible for the high rate of urbanization in Turkey since 1950.

### **Role of Metropolitan Growth**

Another aspect of urban growth that deserves careful attention is the role of metropolitan growth. How much of the total urban growth is due

6. Shorter, Frederick C., "Information on Fertility, Mortality and Population Growth in Turkey", *Population Index*, Vol. 34, No. 1, 1968.

to growth of the metropolitan areas of the country ? For the present purpose, metropolitan areas are defined as localities with a population of 100,000 or more. There were 3 such areas in 1935, 5 in 1950 and 14 in 1965. Examination of pertinent data regarding the contribution of metropolitan growth to urban growth in Turkey during the period 1935-65, shows that in general the contribution of metropolitan growth to total urban growth has been steadily increasing when the effects of reclassification areas are taken into account. It supports our earlier statement regarding the increasing tendency of concentration in metropolitan areas during recent years.

TABLE 3—ESTIMATES OF THE COMPONENTS OF URBAN POPULATION GROWTH IN TURKEY : 1935-1965

<i>Period</i>	<i>Amount (in thousands)</i>			
	<i>Total growth</i>	<i>Reclassification</i>	<i>Natural increase</i>	<i>Net migration</i>
1935-40	533	218	224	91
1940-45	241	33	166	42
1945-50	457	45	392	20
1950-55	1,494	242	561	691
1955-60	1,749	384	821	544
1960-65	2,143	465	1020	658
		<i>Percentage</i>		
1935-40	100	40.9	42.0	17.1
1940-45	100	13.7	68.5	17.8
1945-50	100	9.8	85.5	4.7
1950-55	100	12.6	40.0	47.4
1955-60	100	22.0	47.0	31.0
1960-65	100	21.7	47.5	30.8

NOTE : Natural increase rates for periods 1935-40 to 1960-65 are, 15.7, 10.3, 21.4, 26.5, 27.5, and 26.0 respectively.

The data indicate that nearly 45 percent of the gains due to natural increase and net migration was absorbed in the metropolitan areas, and that no noticeable trend is discernible in the distribution of urban population by size class, suggests that natural increase and net migration were influencing the population growth in metropolitan and non-metropolitan areas fairly uniformly. However, the reclassification arising from the

population increase has been a significant factor in the trend towards increasing concentration in metropolitan areas.

## **Conclusions**

The process of urbanization in Turkey has been very slow during 1935-50, but gained considerable momentum since 1950 and is taking place at a very rapid pace. Both increase in the number of urban areas and the increase in population of the already urban areas have contributed to this process. There is a tendency also of increasing concentration of the urban population.

There are significant regional variations in the level of urbanization. Marmara and Aegean Coast is the most urbanized region. The level of urbanization is the lowest in Black Sea Coast and Eastern Anatolia. The process of urbanization is taking place faster in the most urbanized region and only moderately in the least urbanized regions. This has led to an increasing disparity between the most urbanized and the least urbanized regions. The process was slow in all the regions before 1950 but it became significantly more rapid thereafter. In all the regions increase in the number of concentrations, and increase of population in the existing urban centres have contributed to this trend. There has been a general tendency of concentration of urban population in all regions, but it was the most pronounced in Central Anatolia. In all regions of Central Anatolia where it has been evident from 1935, this trend is of recent origin.

Analysis of the components of urban growth for Turkey as a whole shows that rural-urban migration has become an important component of urban growth since 1950. Reclassification of areas into the urban category has also increased in its importance during the latter half of the period. As a result natural increase accounts for a reduced share of total population growth in urban areas during recent years. When we consider the influence of natural increase and migration on reclassification, it is clear that migration is becoming more important as a component of urban growth and is responsible for the high rate of urbanization in Turkey during recent years.

The data highlights the significant role of metropolitan (places of 100,000 population) growth in urban growth in Turkey. There has been a steady increase over time in the contribution of metropolitan growth to urban growth. It appears that natural increase and net migration have been influencing population growth in urban areas of all size classes fairly uniformly. The concentration of population in metropolitan areas is the result of considerable amount of reclassification of places, namely the movement of localities from non-metropolitan status.

### **Acknowledgement**

This paper was prepared while the author was Visiting Assistant Professor at the Institute of Population Studies, Hacettepe University, Ankara, Turkey. I wish to thank Drs. M. V. George and K. E. Vaidyanathan who read the earlier versions of the paper, and made valuable suggestions. I am also thankful to Mr. Mahir Ulusoy who helped me with the computational work at the initial stages of this study.

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