

URBANIZATION IN NORTH WEST FRONTIER PROVINCE

Tariq Rahim, Aurang Zeb and Shaheen Shaukat

ABSTRACT

Excepting the period 1941-51, the urbanity level NWFP registered continuous rise during the 20th century. Compared with 12.7% in 1901 the corresponding figure for urban population was 17% in 1998 and is estimated to be over 18% currently, in the year 2006, and the level is expected to rise fast in the future due to natural growth of urban population and acceleration in rural-urban migration owing to various push and pull factors operating in the province. While the old urban centres have become more populous, a number of new ones have emerged in the province. The number of town/cities increased from 28 in 1951 to 55 in 1998 and is expected to increase further. Bulk of the urban population is concentrated in ten cities, among which Peshawar city is on top accounting for 33% in 1998. The relatively better developed regions of the province have also a relatively higher proportion of urban population; Peshawar valley region 62.7%, Malakand region 10.5%; Hazara region 10.1%; and Southern region 16.7%. The process of urbanization has on the whole gone on haphazardly and proper urban planning has been conspicuous but by only its absence with the consequence that the urban population is faced with numerous problems in all spheres-housing, health, education, sanitation, transport, security, jobs etc. which would increase with time if proper planning is not done. Alongside rigorous urban development planning so as to control the haphazard urban sprawl, it is imperative to accelerate the pace of development in general and rural development in particular, and ensure a wider and more equitable distribution of development outlays as that would help minimize push factors caused rural-urban migration, reduce rush on the major urban centres, lead to wider spatial distribution of urban population, more urban centres, and render urban development control easier than at present.

INTRODUCTION

Urbanity level of a country/region is indicated by the proportion of its total population living in urban centres; the latter being human settlements which, in Pakistan's context, have population of 5,000 persons or more, superimposed with certain criteria in terms of availability of basic civic services, social and economic infrastructure, the economic base, etc. The urban population normally grows faster than a country's overall population due to a number of factors among which rural-urban migration and acquisition of urban characteristics by an increasing number of rural habitats are the major ones. In Pakistan, the North-West Frontier Province (NWFP) has been experiencing, like the rest of the country a rapid increase in its urban population ever since Independence in 1947. From 11% in 1951 the urbanity level of NWFP rose to 17% in 1998 and is estimated to be 18% for the year 2006, with all indications of a continues rise in the foreseeable future. Although bulk of NWFP's population, as also of the country as a whole, lives still in rural habitats, the rapidity with which its urban population has

been growing for the past few decades has aroused considerable interest as well as concern among social scientists for probing into the nature of urban sprawl, its causes, and socio-economic implications. Their interest in these questions is not just academic, as the resulting knowledge about what's, whys, and how's of the urbanization process can help devise measures to rationalize this process and minimize its negative impacts.

Objective Of The Study

This paper attempts to analysis the urbanization situation in the North West Frontier Province focusing the following aspects:

- i. Growth and distribution of urban population.
- ii. Socio-economic implications of the current urbanization situation.
- iii. Measures for rationalization of the urban sprawls.

MATERIAL AND METHODS

The study is based mainly on secondary data the sources of which are given at appropriate places in the paper. Impressionistic data based on personal observations and informal interviews with informed persons are also resorted to at places, especially in the context of socio-economic problems arising from the urban expansion in recent years, the Afghan refugee factor in major urban centres, etc.

RESULTS AND DISCUSSION

The urban population of the NWFP has been characterized by a persistent upward trend; the exception being the period 1941-51 during which a large scale of exodus of Hindus and Sikhs to India took place owing to partition of the sub-continent. The total population of the Province increased nearly eight folds during 1901-98, while the corresponding figure for urban population is ten folds. The urbanity level maintained upward trend throughout the past century, but, on the whole, it did not register abnormal upswings and, except the decline during 1941-51, the urbanity level ranged mostly between 13-15%, reaching the peak of 17% only in 1998. (Population census 1998) It is interesting to note, as discussed later in this paper, that until 1941 the

NWFP had a higher urbanity level than the overall average of the areas now comprising Pakistan, but in the post 1951 period it lagged behind both in terms of urbanity level and the rate of urban population growth, which is a phenomenon of great interest to social scientists, as also in the context of this paper. Another feature of interest to urban planners and social scientists is the convergence of bulk of the provinces urban population to a few cities; Peshawar City being the principal one among them. With these general observations about the NWFP urbanization situation, in what follows its salient features are taken up for analysis and discussion, starting with urban population growth during 1901-98.

Urban Growth During 1901-98

During 1901-98 the total population of NWFP increased by 769% with corresponding urban and rural figures of 1056% and 727% respectively. At about the end of the century, in 1998, urbanity level was about 17% as compared with 13% in 1901 indicating a higher growth rate as compared with the rural population which has the corresponding figure of 83% (1998) and 87% (1901). (Population census reports of the respective period).

Table I *NWFP Population: Distribution and Growth by Urban/Rural Residence (1901-1998)*

Year	Population (000)			Population (%)			Inter-Censal Variation (%)		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
1901	2042	259	1783	100.00	12.68	87.32	9.90	10.89	9.76
1911	2197	292	1905	100.00	13.28	86.72	7.61	12.66	6.88
1921	2251	336	1961	100.00	14.92	85.08	2.50	15.13	.54
1931	2425	386	2039	100.00	15.92	84.08	7.72	14.99	6.43
1941	3788	547	3241	100.00	14.44	85.56	56.19	41.61	58.95
1951	4557	500	4057	100.00	10.97	89.02	20.29	-8.57	25.16
1961	5731	758	4973	100.00	13.22	86.77	25.77	51.54	22.59
1972	8389	1196	7193	100.00	14.25	85.74	46.37	57.79	44.63
1981	11061	1665	9396	100.00	15.05	84.95	31.85	39.21	30.63
1998	17744	2994	14750	100.00	16.87	83.13	60.42	79.82	56.98
%variation 1901-98	769	1056	727	-	-	-	-	-	-

Source: Based (on) Population Census Reports (1901-1998)

The urbanity level rose continuously throughout the greater part of the last century at a steady pace. The trend was broken, as stated earlier in the paper, during 1941-51 in consequence of mass exodus of a section of NWFP population to India. The post 1951 period, however, witnessed urban growths revival surpassing the previous levels and reaching the peak in 1998 when the urbanity level was 16.87%. (It is important to state at this stage that the census data given in Table-I do not include the Afghan refugees. Technically speaking the latter are not NWFP/Pakistan population, and their inclusion would make the decennial census data incomparable. But when it comes to analysis and discussion of urban problems, their inclusion and mention in the analyses becomes necessary. This aspect is, therefore, included in analysis and discussion of the

problems associated with urban sprawl, especially in the context of Peshawar city in and around which the Afghan refugees live in a large number).

A comparative study of urbanity level of NWFP vis-à-vis Pakistan as a whole during 1901-98 brings out some interesting facts. As early as 1901 the urbanity level in NWFP was 12.7% while for the territories now comprising Pakistan the corresponding figure was 9.8%. The NWFP maintained a higher urbanity level until 1941, but afterwards it lagged behind the country's overall averages in census counts of 1951 and onwards. Towards the end of the 20th century (in 1998 census) the urbanity level of NWFP was 16.9% and of Pakistan as a whole 32.5%.

Table II *Level and Growth of Urbanization in Pakistan & NWFP (1901-1998)*

Years	Urbanity level (%)		Inter-Censal Variation of Urban Population (%)	
	Pakistan	NWFP	Pakistan	NWFP
1901	9.8	12.7	-	-
1911	8.7	13.3	4.3	12.7
1921	9.8	14.9	21.9	15.1
1931	11.8	15.9	34.6	15.0
1941	14.8	14.6	45.0	41.0
1951	17.8	11.0	49.9	-8.6
1961	22.5	13.2	60.4	51.5
1972	25.4	14.3	72.1	57.8
1981	28.3	15.1	43.7	39.2
1998	32.5	16.9	80.5	79.8

Source: Based on Census Report

Laggardness of NWFP in respect of urban growth, as compared with overall national standard in post 1951 period is attributable to a host of socio-economic factors. This is a subject fit for full fledged studies, and some have been done already. Put briefly, the inhospitable socio-economic situation in the province has been responsible for

pushing an increasing number of NWFP people to places-mostly urban, outside NWFP. The pull factor, operating outside NWFP have had out-migration reinforcing effect can this can be called a blessing in disguise as the pull factors outside NWFP slowed down the tempo of urban population growth in NWFP? To an extent "yes" but this must have had

its socio-economic costs as well, searching for which would be a worthwhile preposition for its utility for the province's development planning. Following laggardness of NWFP in urban growth in post -1951 period its share in the country's overall urban population registered a decline from 7.86% in 1961 to 6.96% in 1998. As will be seen in Table-II,

during 1981-98 NWFP's urban population growth (80%) was nearly equal to that of the country as a whole (81%), and that helped raise its urbanity level from 15.1% in 1981 to 16.9% in 1998. But despite this growth its urbanity level (16.9%) was far behind the national average of 32.5% in 1998.

Table III *Urban population share by Provinces in 1961 and 1998*

Locality	Urban Population (000)		% Share in National Total		% Change in share 1961-1998
	1961	1998	1961	1998	
Pakistan	9640	43036	100.00	100.00	-
NWFP	758	2994	7.86	6.96	-0.90
Sind	3169	14840	32.87	34.48	1.61
Punjab	5461	23019	56.64	53.49	-3.15
Baluchistan	229	1569	2.37	3.65	1.28
FATA	25	85	0.26	0.20	-0.06
Islamabad	-	529	-	1.23	1.23

Source: Population Census Reports of Pakistan 1961 and 1998.

Spatial Distribution

Bulk of the NWFP urban population (63%) is concentrated in the Peshawar Valley Region comprising the old administrative divisions of Peshawar and Mardan. The second highest concentration is in the southern region, comprising Kohat, Bannu and D.I. Khan divisions.

On the whole, spatial distributions of urban population is seen to be positively associated with the level of development of non farm sector, the social and economic infrastructure, and location of seats of political power. In these respects the Peshawar Valley Region has long been relatively more advantageously placed.

Table IV *Spatial distribution of urban population of NWFP 1901-1998*

S.No	Locality	Urban Population			
		1961		1998	
		Number	%	Number	%
1	Peshawar Valley Region (Peshawar + Mardan Division)	488,122	64.4	1877,039	62.7
2	Southern region (Kohat, Bannu, D.I.Khan Division)	180,856	23.8	500,125	16.7
3	Malakand Division	159,200	2.1	314,905	10.5
4	Hazara Division	735,280	9.7	302,015	10.1
	Total	758,426	100.0	299,4084	100.0

Source: Based on census reports 1961 and 1998

The number of urban centres has increased overtime; from 28 in 1951 to 55 in 1998 (appendix table-1). However, the dominance of Peshawar as the single biggest centre has remained unaffected. In 1961 it (Peshawar) accounted for about 29% of the

province's urban population, and was the biggest city. In 1998, too, it was the biggest city and its share in total urban population was as high as 33%.

Table V *Share of top ten major urban centres in NWFP total urban population*

Sr. No	Urban Centres	1961			1998		
		Number	%	Rank	Number	%	Rank
1	Peshawar	218,691	28.8	1	982,816	32.8	1
2	Mardan	81,113	10.7	3	295,128	9.9	2
3	Nowshera	83,969	11.6	2	227,030	7.6	3
4	Mingora	15,920	2.1	10	173,868	5.8	6
5	Abbottabad	44,702	5.9	7	157,904	5.3	7
6	Kohat	49,854	6.6	6	151,913	5.1	8
7	Swabi	24,681	3.3	8	179,214	6.0	5
8	D.I.Khan	57,862	7.6	4	125,807	4.2	9
9	Charsadda	57,758	10.0	5	192,851	6.4	4
10	Haripur	19,217	1.3	9	82,735	2.8	10
11	All other urban centres	91,749	12.1		424,818	14.1	
	Total	7,58,516	100.00		299,4084	100.0	

Source: Census report of 1961 and 1998.

The period 1961-98 witnessed some interesting changes in ranking of the top ten cities of the province. Peshawar city maintained its top rank in 1998 as it had in 1961 and Abbottabad city which

was at number seven in 1961 remained at the same rank in 1998. All the other eight cities experienced shift in ranking which was the most prominent in the case of Mingora from 10th place in 1961 to 6th in

1998, while D.I.Khan city slipped from 4th position in 1961 to 9th in 1998. While most of the top ten cities have experienced a change in ranks in terms of share in population, the broad inter-regional distribution of the urban population has not experienced a marked change. The Peshawar valley region continues to house the single large proportion of urban population of NWFP. It was 64% in 1961 and 63% in 1998.

The steep rise in the share of Malakand Division from 2.1% in 1961 to 10.5% in 1998, and the opposite trend experienced by southern regions are notable developments. These trends need to be studied for finding out the causative factors. Prima facie urban growth is tapering off in southern region and also to an extent in the Peshawar Valley region. While in the Malakand region it is on the rise as also

in Hazara region. The dominant position of Peshawar Valley region and southern region is, however, still intact and owes itself mainly to economic as well as political factors.

Urban Centres: Distribution by Population Size

The number of urban centres has increased and also has increased their population overtime in NWFP. In 1951 the province had 28 urban centres, while in 1998 their number was 55. The distribution of urban centres by population size is given in Table IV, from which it emerges that the overwhelming majority of them is concentrated in below 100,000 population category. By the NWFP standard a city having more than 100,000 people may be categorized as big city. Their number was only 3 in 1998.

Table VI *Distribution of urban centres by size of population*

Population size	URBAN CENTRES				
	1951	1961	1972	1981	1998
Below 100,000	27	40	43	41	52
100,000 to 199999	01	01	01	01	01
200,000 to 299999	-	-	01	-	01
300,000 to 399999	-	-	-	-	-
400,000 to 499999	-	-	-	-	-
500,000 and above	-	-	-	01	01
Total	28	41	45	43	55

The process of increase in urban centres is expected to continue and gain momentum with time. More and more dwelling centres are acquiring urban characteristics all over the province in natural course and also as a result of planned spread of social and economic infrastructure, expansion of off-farm sector, growth of service sector, etc.

Afghan Refugees

Well over a million afghan refugees live in different parts of NWFP. A large proportion of them lives in

and around the province's urban centres, prominent among which are Peshawar, Nowshera, Mingora and Haripur. They are not included in the official census count of urban population, but functionally they are very much a part of the province's urban population. Their living in the NWFP has been incremental in augmenting the socio economic problem found in urban area, and there is no hope of their return to Afghanistan in the foreseeable future. Therefore, in the analysis of urban problem and for drawing up places for their solution, the afghan refugee population

have to be considered at par with the local population.

Sources And Socio Economic Impact of Urban Sprawl In NWFP

In the foregoing analysis of urbanization situation in NWFP, it was found that the province experienced continuous expansion of urbanity during 1901-98, except the decline during 1941-51, and that urban population rose faster than the province's rural population. The urbanity level in NWFP is lower than the overall national level, but the tempo of urban growth has increased in recent year as evidenced by the trend recorded in the 1998 census for the period 1981-98, in what follows the main sources and socio economic impacts of the urban sprawl are discussed briefly.

Sources of Urban Expansion

During 1951-98, the post independence period, urban population of NWFP increased almost 5-folds as compared with 2-6 folds increase in the rural population and almost 3-folds increase in the overall population. The sources of urban growth are (1) national growth of urban area's population; (2) rural urban migration from within NWFP; (3) in-migration from other parts of Pakistan; and (4) immigration.

A relatively higher rate of urban population growth is attributable chiefly to rural-urban migration of NWFP origin. In-migration from rest of Pakistan to urban centres in NWFP is more than off-set by out-migration from NWFP urban area to other provinces. Rural urban migration in NWFP as also in-migration to NWFP's urban areas in the outcome of a host of socio economic push and pull factors operating is the migrant sending and receiving areas respectively. The economic factor play the dominant role in pushing the people from rural area to urban areas. Lack of education and health services, oppressive social set up, and insecurity of the poorer section of population in rural area are additional contributing push factor in this respect i.e. they

The urban centre, on the other end offer relatively more job opportunity better access to social services,

relatively better security, and a wider choice of avenues of employment than the rural area. The urban society is more cosmopolitan than the rural, and that reinforces its pulls-attraction to the rural masses. Thus, the rural urban migration stream keeps flowing and expanding with time leading to a continuous and past rise in the urbanity level. The influx of afghan refugees in the late seventies and later year has been the biggest factor contributing to phenomenal rise in NWFP's urban population. The census data do not reflect the impact of afghan refugee influx. No authentic figure is available on this aspect, but it is gathered from general observation and statistic on the number of afghan refugees and their settlement pattern, that the afghan refugee must have boosted NWFP's urban population to the some extent as rural urban migration of people of NWFP origin. The strength of this factor will, however, lessen in future, but no let down is expected in rural-urban migration of NWFP origin. Strengthening of the off-farm sector, and increase in the number of urban centre due to acquisition of urban characteristic, would further add to the urbanity level of the province.

Socio-Economic Impacts of Urban Sprawl

A continuous and rapid rise in urbanity level, such as witnessed in the NWFP during the last three decades, brings in its wake benefit is as well as problems. Normally the benefits should outweigh the negative fall off, but the opposite can, and does, happen if the urban growth is unplanned and the sprawl is uncontrolled. A situation of this kind is being experienced in the NWFP, and threatens to deteriorate further and very fast. All urban centres in the province have population far beyond their carrying capacity in respect of community services, social services, transport, housing, jobs, security, sanitation etc. Planned urban development is conspicuous by its absence resulting and is in emergence of slums and shanty towns in all major urban centres, especially in Peshawar and the other nine big cities shown in Table 5.

The uncontrolled and haphazard expansion of urban centres-especially of the ten cities shown in Table 5

has been resulting into what may be called ruralization of the urban areas. Numerous unplanned settlements have sprung up in and around the main urban centres, with Kacha and semi-pucca houses without basic civic and sanitation services. Insanitary conditions obtain all over the cities, and even the so called push localities are no exception. Most cities are infact becoming large agglomerates of mixed urban-cum-rural character and the overall sanitary and environmental situation is fast deteriorating. There is over crowding in schools heavy rush of patients in hospitals overloading of buses, traffic jams, crowded bazaars, pollution etc. In short the urban population's expansion has outpaced the urban facility and amenities with the above mentioned and other numerous problems.

CONCLUSION AND RECOMMENDATIONS

The last century-except the period 1941-51, witnessed continuous and rapid growth in the urban population of NWFP. Compared with 12.7% in 1901, the urbanity level was 17% in 1998 and is estimated around 18% in 2006. The rate of growth urban population has been higher than rural population growth rate, and is expected to accelerate further in the year to come. This tendency in attributable to a (i) national growth of base population of urban centre; (ii) rural-urban migration within NWFP, transformation of rural habitats into urban centre due to expansion in population and acquisition of urban characteristics and (iii) in-migration from places outside NWFP. To these factor has to be added the influx of Afghan Refugees which is not included in the census data.

Although the number of urban centres has increased from 28 in 1951 to 55 in 1998, bulk (88%) of the total urban population is concentrated in ten urban centres among which the provincial capital city (Peshawar) account for the single largest (29%) share. These ten leading urban centres enjoy distinct advantage over other population centre in term of geographical location, level of development, community services, education and health facility, urban planning etc. which make them greatly attractive to migrants from within and outside the province.

A very harmful consequence of urban expansion has emerged in the form of conversion of large tracts of agricultural land for residential and commercial buildings. This is happening especially in Peshawar and most other major cities in the province.

The damage done to the farm sector by this sprawl has not been yet determined, but it must be very substantial. The alarming thing is that this process is going on unchecked. The list of negative socio economic impacts of the ongoing haphazard urbanization is long. It is likely to get longer and more threatening, if remedial measures are not taken. But on the whole, urbanization process has more beneficial impacts than the negative ones. It will and should continue, but with appropriate safeguards, to minimize negative impacts and keep urban expansion within manageable limits.

Convergences of bulk of the urban population in a few urban centre are by no standard a desirable pattern of urban growth. These and other smaller cities are infested with numerous socio-economic problems which will accentuate further with rise in urban population. The urban growth that has taken place so far in NWFP has been largely haphazard, and devoid of proper planning. This trend has to be arrested and the urban growth process must be rationalized. The long continuing tendency towards concentration of urban population in the existing big cities should be checked. Instead, the vertical urban expansion should be promoted. The push factors operating in rural areas, leading to increase in tempo of rural-urban migrations, need be eliminated or at least minimized. Improvement of security situation, provision of community services, better health facilities, adequate number of schools, housing improvement, provision of job opportunity in rural area, and much other developments which help counter the push factor operating in rural areas, need planned and implemented.

Table VII *Urban settlement of NWFP 1951 and 1998*

S. No	Administrative Unit	POPULATION CENSUS REPORTS OF				
		1951	1961	1972	1981	1998
1	Chitral MC	-	-	13376	-	30622
2	Drosh TC	-	-	6061	-	-
3	Dir TC	-	--	-	-	22901
4	Timargarah MC	-	-	-	-	44335
5	Mangora MC	-	15920	51117	88078	173868
6	Batkheela MC	-	-	14945	-	43179
7	Mansehra MC	6513	11848	19865	27843	49534
8	Baffa TC	5702	6761	8515	9593	11842
9	Abbottabad MC	13446	15955	27963	32188	47609
10	Abbottabad Cantt	14156	15081	18756	33808	58492
11	Havelia MC	-	4671	7803	16305	12016
12	Nawan Shehr TC	5668	8507	13644	14504	19871
13	Havelian Cannt	-	-	-	-	19609
14	Marree Galies Cannt	-	488	403	161	307
15	Haripur MC	7979	10217	25245	31117	48309
16	Khalabat MC	-	-	-	23892	34426
17	Mardan MC	46322	73246	111366	141842	238629
18	Mardan Cantt	2505	4686	3828	6135	7297
19	Takhtbai MC	-	3181	12069	18325	49202
20	Swabi MC	-	17542	37292	46344	80157
21	Topi MC	-	-	14914	-	30458
22	Zaida MC	-	-	-	-	22656
23	Nawan Killi TC	-	7139	9873	11957	18082
24	Tordher TC	-	-	-	-	27861
25	Charsadda MC	27048	37396	45555	62530	87281
26	Utmanzai MC	10272	12610	15857	18931	24848
27	Shubqadar MC	-	11046	25630	30881	55439
28	Tangi MC	12065	14706	18022	19492	25346
29	Peshawar MC	109510	166273	219562	506896	910807
30	Peshawar Univ.TC	-	4687	9661	-	3269
31	Peshawar Cantt	41925	46925	43474	59352	68740
32	Nowshera Kalawn MC	18237	21516	31101	38875	56576
33	Nowshera Cantt	23114	22241	24715	36038	33237
34	Aman Gar Idus. TC	-	11946	8234	9258	21476
35	Pubbi MC	-	7184	10905	13331	31153
36	Akora Khattak MC	-	7954	11191	13788	19530
37	Jehangira MC	-	3501	3564	18076	31115
38	Resalpur Cantt	9981	11291	12136	20386	31416
39	Charat Cantt	1123	2336	989	1239	2527
40	Kohat MC	30467	36016	48096	55832	95863
41	Kohat Cantt	10067	13838	17106	21772	30764
42	Lachi TC	-	-	-	10215	15684
43	Shakardara TC	-	-	-	-	9602
44	Hangu MC	6977	9737	13800	15526	31022
45	Tall MC	5602	11747	14082	18901	25355
46	Doaba TC	-	-	-	-	7840
47	Karak MC	-	-	-	13679	27893
48	Bannu MC	20192	23859	36644	35170	38194
49	Bannu Cantt	7007	7764	7113	8040	9482
50	Lakki Marwat MC	8634	9451	14359	18755	30467
51	Sarai Naurang TC	-	-	-	-	16411
52	D.I.Khan MC	39786	44319	57296	14358	86969
53	D.I.Khan Cantt	1817	1821	1482	3787	5145
54	Pahar Pur TC	-	4532	6841	8665	14580
55	Kulachi TC	6981	7190	9315	14785	19113
56	Tank MC	6894	10582	14306	25003	35741

Source: Census reports of 1951, 1961, 1972, 1981 and 1998

REFERENCES

- Connell, J. 2000. Urbanization and Settlement in the Pacific. In: Resettlement Policy and Practice in Asia and the Pacific, Asian Dev. Bank, Manila. pp. 43.54.
- Govt. of Pakistan. Reports on census of Pakistan 1951, 1961, 1972, 1981 and 1998.
- Govt. of Pakistan. 1998-99. Pakistan Integrated Household Survey (PIHS). Round 3, Federal Bureau of Statistics, Islamabad.
- Govt. of Pakistan. 1995. Multiple Indicators Clusters Survey of Pakistan, Ministry of Health.
- Khan M. A. 1971. A study of urbanization of NWFP. Board of Eco. Enquiry. NWFP Univ. of Peshawar Public. No. 60.
- Khan, A.N. and A. Rahman. 1999/2000. Urbanization: Trends and Prospects in Pakistan, Pakistan. J. Geography. 9 & 10: 1 & 2, pp. 31-44.
- Khan, A. 1996. Urbanization and its impact on rural-urban economic integration in TWCs: The case study of Peshawar, NWFP, Pakistan. J. Rural Dev. & Administ. 28(1): 130-158.
- U.N. 2002. World urbanization prospects: 2001 Revision. United Nation Sec. Population Div. Deptt. of Econ. and Social Affairs.