



Spatio-Temporal Trends of Urban Population in Pakistan

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Abstract

Rapid urbanization has severe socio-economic and environmental consequences. Since last three decades, fast stride of urban population in Pakistan is imposing severe threats to the inhabitants. According to census of 2017, Pakistan the 6th largest country in the World in terms of population after China, India, U.S.A, Indonesia and Brazil, respectively. The objective of this study was to estimate the Spatial-temporal trends of urbanization in Pakistan, and to establish the factors leading to urban growth. The data obtained through Pakistan Census Reports from 1951 to 2017 was analyzed by using statistical techniques for representation of the results. The results show the massive growth of urbanization since 1951 to 2017. In 1951, the urban population was only 17.8% of the whole population which has increased to 36.3% in 2017.

Key words: Urbanization, Pakistan, KPK, urban growth, urban patterns

1. Introduction

Urbanization is the progressive transformation and deliberation of population in urban unit. It refers to the explosive increase in the percentage of total population living in the urban centres Population (Jones, 1991). The process of urbanization starts expanding in the developing countries in the end of 20th century (Timberlake, 1987). Urbanization is generating problems with every passing day and creating an alarming situation in 1900 only 15 percent of world population was urbanite, but in 20th century it changes the map of world by rapid urbanization in 1950 causing industrial revolution. After sixty years approximately 50% of the world population is living in the urban areas (Spence et al., 2009). Urbanization is considered as a key for the development and modernization of a country. Although the urbanized world has grown faster than the less urbanized world, urbanization has now become the major issue for the basic problems such as social and environmental issues which are being faced in mega cities of the world. Due to urbanization, the world is facing severe environmental problems mainly at local scales in form microclimatic changes and is contributing in

global warming directly and indirectly. Urban areas have become the centre of pollution as a result of congested and dense traffic (Liu and Diamond, 2005). Urbanization has caused the alteration of natural landscape into paved surfaces causing to enhance the local area's temperature at local scale (Zhou et al., 2004). Urbanization has their negative impacts on all sorts of life. It may be the environmental, biological, marine (Cui et al., 2012).

According to Ellis and Roberts report (2016) Trend of South- Asian countries of urban population seems, no slow mood. In 2001-2011 in only one decade when urban population was more than total population of Japan having 130 million of urban population. Further it is estimated to grow 250 million in 2030. On the other hand the share of economy is low, comparing to its population (Ellis and Roberts, 2016). Explosive urban land-cover change is becoming a permanent threat for the biodiversity. Population in urban areas are using much fossil fuel and in result it is the main cause of microclimate change, leads to global warming and climate change. Expanding area of industries is devastating greenery. It is estimated that population of world will be five billion in 2030; the land cover change will be the triple of its current ratio (Seto et al., 2012). Pakistan has rapid tempo of urbanization, due to rapid urbanization labor force wants to join the industry and burden on the industry is increasing (Arif and Himid, 2009). Comparing with other countries in the South-Asia, Pakistan has the fastest growing urbanized country (Kedir et al., 2016). Generally, this is the renovation of occupation from agriculture to industry. In result the demand for labor in industrious areas are increasing and this lead to urbanization (Li and Yeh, 2004). Cities are hub of industries, economy, employment opportunities, facilitating educational and health facilities and advancement of science and technology (Kugelman, 2013). The estimates of UN shows that comparing with other SAARC countries 40% of Pakistan, 33% of India, and 34% of Bangladesh's inhabitants are living in urban areas (Kedir et



al.,2016). Due to push and pull factors the stride of urban population is becoming more severe with every passing day (savage, 2006).UN estimates that that in 2020 there is declining trend of urban population, while on the other hand in 2050 70% of population of world is living in urban areas. Urbanization is higher in Australia, Korea, France and Japan, similar in Russia and Chile the emerging economies. China is faster ratio of urbanized population as it is growing three times faster from France and Chile (OECD, 2009). So the current study is to conduct to bird's eye view of spatial-temporal changes in Pakistan since its birth to 2017.

2. Materials and Methods

To accomplish this study systematically, this study based on descriptive technique in which the population data is derived from secondary sources like Pakistan Census reports from 1951 to 2017.

Urban population data was tabulated for description of its trend based on major and its divisional characteristics country wide. Spatial scope of the population in excess of urban and regional scale is shown through maps which are prepared by using Mapviewr 4 and 7.

3. Results and discussion

Table1 and Figure 1 show the rising tendency of urban inhabitant's in Pakistan from the 1st census in 1951 to current census in 2017. The list of census from 1951 to 2017 is elaborating that in start of census in Pakistan the urban inhabitants were 17.8%, in 1961 urban inhabitants were 22.5% and in 1998 the segment of urban inhabitants was to 32.5% which is raised to 36.3% of total population in 2017. The results derived after the birth of 70 years age of Pakistan, concludes that the growth of urban inhabitants increased 103%, with annual increase of 1.3%.

Table 1: Trend and percentage of urban population during 1951 to 2017

Year	Urban population (million)	% of urban population
1951	6.019	17.8
1961	9.654	22.5
1972	17.333	26.5
1981	23.842	28.3
1998	42.146	32.5
2017	75.84	36.3

Source: Population Census Reports.

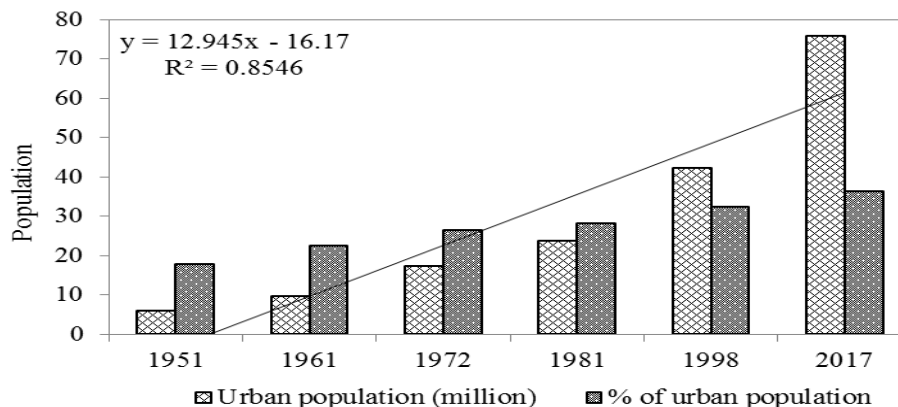


Figure 1:Trends and percentage of urban population during 1951 to 2017.

Figure 2 highlights the scale of urbanization at provincial level. In census report of 2017, the segments of urban inhabitants were measured among the provinces of Pakistan. It was, in increasing position comparatively to the previous census. Punjab is on top with respect to the total number of urban population. The share of Punjab province in urban population is 40.38 million. The

maximum population of Punjab is living in urban centers/cities. Sindh is considered on 2nd number with respect to urban population share with 24.91 million. Khyber Pakhtunkhwa is third major province with 5.29 million inhabitants living in urban areas followed by Baluchistan, Islamabad and Federally Administrative Tribal Areas (FATA)





with urban population of 3.4, 1.01 and 0.14 million, respectively.

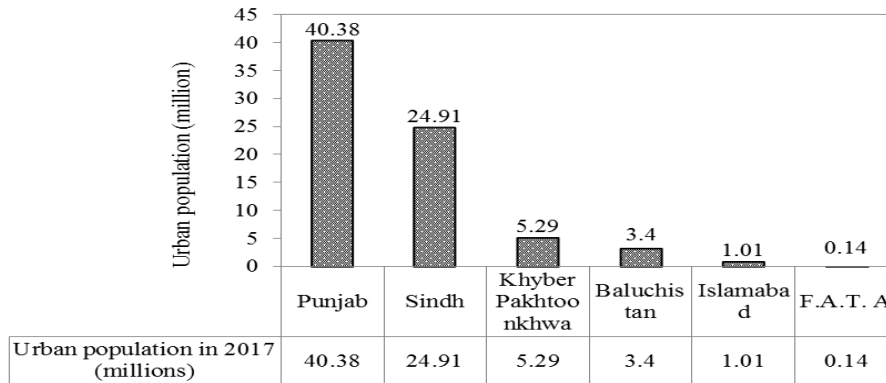


Figure 2: Province wise urban population of Pakistan according to census 2017.

Table 2 and figure 3 draw attentions to the percentage, in urban areas of Pakistan by taking birds eye view of census report 2017, inhabitatns of urban areas at divisional level are in more than sixteen division of Pakistan, having population more than one million. Karachi division in Sindh province ranks first in the country with almost 15 million urbanpopulations.After Karachi division

Lahore, Gujranwala, Faisalabad ranks 2nd, 3rd and 4th with 13.46, 5.9 and 5.2 million, respectively which are located in Punjab Province. Peshawar division ranks at 9th in Pakistan with 2.57 million of urban population. While Quetta division in Baluchistan province ranks at 16th in Pakistan with 1.35 million of urban population.

Table 2: Level of Urbanization in Pakistan at Divisional level in 2017.

Region /division	Total population (millions)	Urban population (millions)	% of urban population of total population
Karachi	16.05	14.91	92.89
Lahore	19.39	13.46	69.41
Gujranwala	16.12	5.9	36.62
Faisalabad	14.17	5.22	36.84
Rawalpindi	10	4	40
Hyderabad	10.59	3.88	36.71
Multan	12.26	3.39	27.67
Bahawalpur	11.46	2.82	24.64
Peshawar	7.4	2.57	34.83
Sargodha	8.18	2.03	24.84
Larkana	6.19	1.95	31.54
D.G. Khan	11.01	1.9	17.26
Sukkur	5.53	1.89	34.29
Sahiwal	7.38	1.63	22.18
Shaheed	5.28	1.45	27.59
Quetta	4.17	1.35	32.49
Malakand	7.51	0.89	11.95
Mirpur Khas	4.22	0.8	18.94
Kalat	2.5	0.76	30.47
Mardan	3.99	0.71	17.89
Hazara	5.32	0.56	10.6
Makran	1.48	0.54	36.53
Kohat	2.21	0.42	19.09
Dera Ismail	2.01	0.4	20.27
Nasirabd	1.59	0.3	19.46
Sibi	1.03	0.22	21.74
Zhob	1.54	0.2	12.98
Bannu	2.04	0.13	6.81

Source: Population Census Report 2017.

The figure 3 also elaborates that out of 16 divisions with more than 1 million urban populations 9 are from Punjab province, Five are from Sindh

province, and only one division is located in the of Khyber Pakhtunkhwa and Baluchistan. It shows that Punjab province is highly urbanized than other





parts of the country. There may be several reasons of high population in this province. Although it is seen that most of the Punjab province has heavily agrarian societies, the rapid urban growth and emergence of mega-cities in the province are the result of industrial development, better job placement and rural-urban migration due to lack of

better living facilities in rural areas. Rapid growth of urban areas is the result of two population growth factors: (1) natural increase in population, and (2) migration to urban areas. Figure 4 summarise the population trend at provincial and divisional level and also explains the population at urban scale.

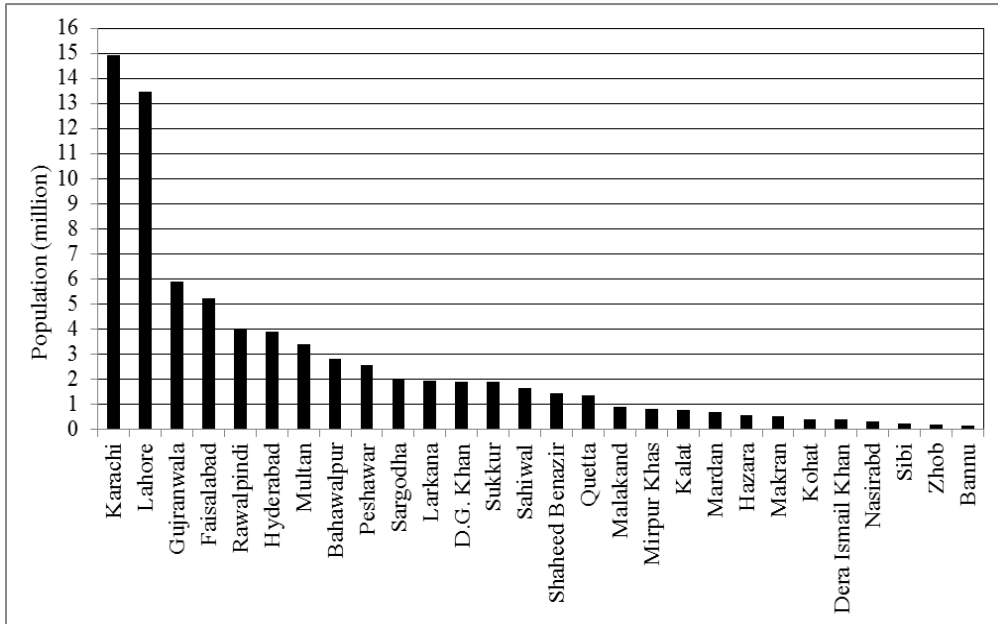


Figure 3: Trends of total urban population of different divisions of Pakistan in 2017.

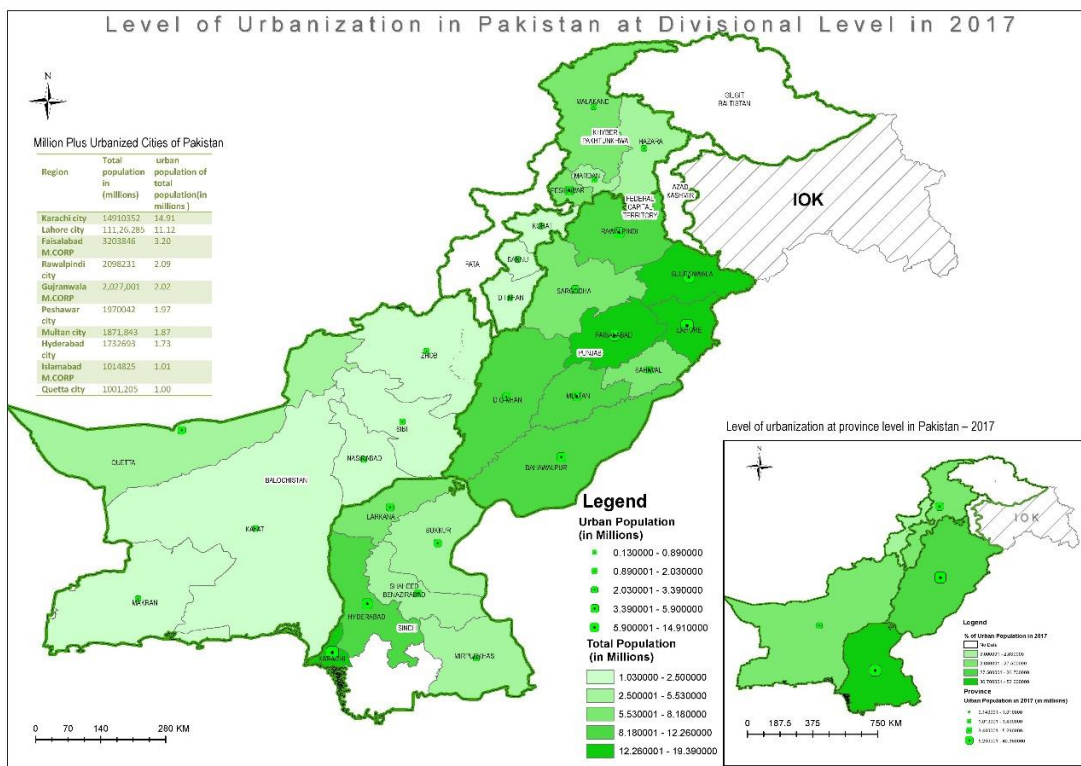




Figure 4: Spatial extent of total urban population of different divisions and cities of Pakistan in 2017 (Source: Population Census Report, 2017).

In census report of 2017, the prime cause of population growth at explosive rate is due to the migration of rural to urban areas. In recently conducted census in 2017, as ever in history Karachi holds the First position in ranking of being the largest city of Pakistan, having an urban population almost 15 million. The 2nd city of Pakistan having largest city after Karachi is Lahore Provincial capital of Punjab Province comprises on 11.2 million inhabitants in urban areas. Faisalabad is an industrial city in Punjab province which is 3rd most populated city with 3.2 million inhabitants. Rawalpindi and Gujranwala located in Punjab province are ranked 4th and 5th with population of 2.09 million and 2.0 million, respectively.

Peshawar is the provincial capital of Khyber Pakhtunkhwa; Peshawar city has population of counted 1.97 million peoples which makes it the 6th largest city of Pakistan. Multan, Hyderabad and the Capital city of Islamabad rank 7th, 8th and 9th, with 1.87, 1.73 and 1.01 million populations and located in Punjab, Sindh and Federal area, respectively. Quetta is the provincial capital of Baluchistan province that comprises on 1 million urban residents and ranked 10th in population census report 2017. Overall it is seen that Punjab province is the most populated part of Pakistan. Out of ten major cities of Pakistan, five are located in Punjab for example Rawalpindi, Lahore, Multan, Faisalabad, Gujranwala, and (Figure 5).

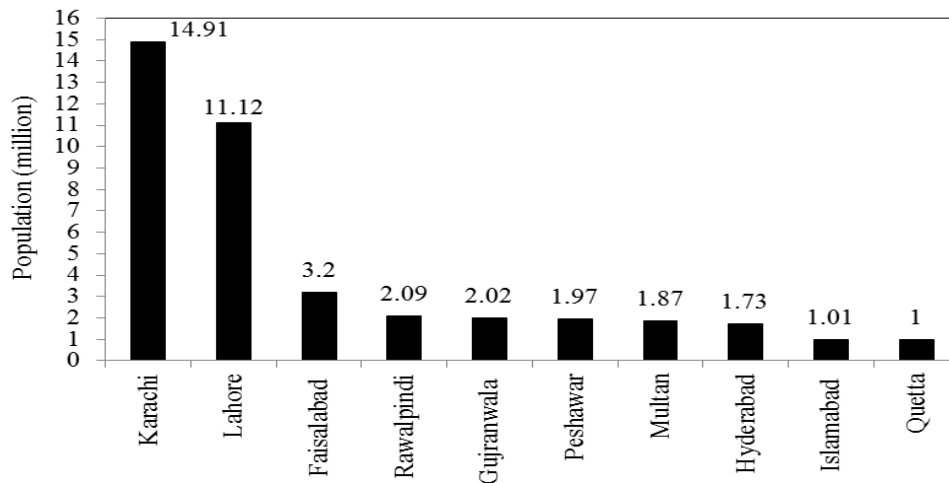


Figure 5: Major cities of Pakistan and their population in 2017.

4. Conclusion

Underdeveloped countries are highly exposed of rapid urbanization as there are several pull factors such as better facilities of health, education, infrastructure, employment opportunities, transport facilities and better standard of life. Urbanization in Pakistan has become one of the major issues in recent years. In recent decades in Pakistan urban growth is due to rural urban internal migration for better life facilities, internally displaces persons (IDPs) due to security threats in areas under terrorism and due to climate related displacement from areas affected by extreme weather actions.

The current study revealed that Pakistan ranks 6th largest country in the world after China, India, USA, Indonesia and Brazil, respectively. It was observed that in first census 1951, after partition peoples living in urban areas were only 17.8

percent which was increased to 36.3 in 2017 with an increase of 83 percent over the period of 68 years. The study revealed that there are 10 cities in Pakistan which overpass the population of 1 million. The extensive urban growth has environmental consequences manly causing the environmental degradation inform of increasing paved surfaces, local climate changes such as urban heat island, urban heat waves, all kind of pollution and solid waste management issues. There are several associated issues with urbanization in Pakistan such as increase in public expenditure, impact on social lives, environment and health issues, traffic congestion and further extortion of the natural urban environment and beauty of natural land conversion into built-up surfaces causing more harm to inhabitants of the existing cities.



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