

MANAGING URBANIZATION FOR SUSTAINABLE DEVELOPMENT OF CITIES: A CASE STUDY OF LAHORE, IN PAKISTAN

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ABSTRACT: Urbanization in Pakistan is very high. The spatial fabric of Pakistan showed that more than fifty percent of urban population lives in eight major cities. The environment of Lahore inundated due to inability of the city to manage urbanization and to get the benefit of it. Unfair clustering of population; due to break down of community and mass exodus of villagers from the rural hinterland to urban centers, consequent rural-urban inequalities, gigantic expansion of city, inappropriate land use changes were common consequences of not taming the pattern of urbanization. Furthermore, urban sprawl and construction of truncated infrastructure misdirected state resources. Distension of environmental degradation cost heavily to the National Exchequer. The paper attempts to highlight qualitative and quantitative effects on urban environment of metropolitan city of Lahore in the wake of poorly managed urbanization. Tools of urban development like land readjustment and their potential to manage urbanization, missing linkages in organizational setup and redundant distribution of work among different public organizations responsible for the development of cities were also discussed. Policy measures to be taken as bases for sustainable development of cities of regions of Pakistan as suggested in the light of finding of research.

Key words: Urbanization, Sustainable Development, Environmental Degradation, Rural-Urban Migration.

INTRODUCTION

Urbanization is ought to happen phenomenon, observable in all parts of the world—although with differential patterns, levels and rates. According to (Satterthwaite, 2002) between 1950 and 2000, the world's urban population increased more than fourfold and now, approximately 50 percent of the world's population lives in urban centers. Many aspects of urban change in the last 50 years are unprecedented—in terms of level of urbanization as well as growing number and size of very large cities in the World. Nevertheless, the world has become more urbanized, the onslaught it carries for the urbanites is not unimaginable if not worked out precisely. According to (Mayo et.al, 2013) the term urbanization is the most celebrated term within modern development discourse yet it is most frequently misunderstood in its form and meaning and more so in ways of managing it. In 1950, 29 percent of the world population lived in cities and surpassed the psychological mark (majority section) of more than 50 percent by the year 2010. Moving in line with the world trends, South Asia is also experiencing hyper urbanization trends. (UNEP 2009) estimates urban population of South Asia is expected to touch one billion mark by the year 2030, i.e. an increase of about 120 percent in three decades beginning with the year 2000. (Robert and Kanaly, 2006) also supported this observable trend, and estimated

around 44 million people being added to the population of South Asian cities every year—requiring construction of more than 200,000 new dwelling units and 250 km of new roads each day.

Pakistan being the second largest country of South Asia is also facing high urbanization. Population concentration is not only the consequence of social process such as accompanying parents, employment and education but also diversity of three key resources, i.e. men, money and material. It is also directly responsible for environmental degradation, particularly within central business areas. Spatial imbalance in terms of resource allocations and consumption patterns also erodes healthy environment of urban centers, especially in big cities like Lahore and Karachi, which are also the largest provider of job opportunities. (Hussain 1998) also warned about these urbanization trends in Pakistan as urban population accounted for 17.8 percent of the total population in 1951, 28.3 percent in 1981, and 32.5 as per 1998 census report. (Kugleman, 2013) also estimated that by the year 2010 the urbanization level was around 37 percent and will rise to nearly 50 percent by 2025. Within spatial urban fabric, Pakistan's 54 percent urbanites reside in eight big cities, while Lahore, Karachi and Faisalabad accommodate 40 percent of the total urban population altogether.

The positive contribution of the urbanization has often been counterweighed due to inability of towns and cities to manage high population growth and its

consequent and haphazard expansion in size and shape. Subsequently, primary and secondary infrastructures of cities lag behind as per qualitative and quantitative requirements of the people. The urbanization trend at work costs heavily to urban environment and fragile national economy of Pakistan. (Asian Development Bank 2000) portrayed this pathetic situation and stated that nearly 50 percent of the urban population is living in squatter settlements and slums. Likewise, (UNEP, 2009) cautioned environmental degradation costs in Pakistan to be at least 6 percent of GDP—amounting to 365 billion rupees per year. (Aziz, et. al. 2013) explained that the foremost source of this environmental degradation is mainly due to motor vehicle emission. Unrelenting emission of motor vehicles is disaster for environment of city as well as for human health.

MATERIALS AND METHODS

Lahore is the second largest city of Pakistan after Karachi with current estimates to more than 8 million people (Mazhar and Jamal 2009). A master plan was prepared for the city of Lahore in the year 2004 to monitor and streamline its development. The document was thoroughly studied to check the effectiveness of policies made to improve the environmental situation in the city. Moreover, air pollution data from Environment Protection Department Punjab was checked at four major road junctions, namely; Yateem Khana, Chairing Cross, Bank Square and Qurtaba Chowk and then the results were compared with the WHO standards so that the environmental degradation could be checked.

Moreover, using Integrated Master Plan (1994-2021) prepared by (NESPAK and LDA 2004) for Lahore was used to check the effects of urbanization on the spatial expansion of Lahore city. This was then correlated with the provision of major infrastructure on ground. Last but not the least, plans for both urban and rural areas were studied and explored the main reason of migration of people from rural to urban areas. Many reasons for poor implementation of such plans were studied in detail and correlated with the research.

RESULTS AND DISCUSSION

Lahore one of the metropolitan cities of Pakistan is growing at a very high pace. It was estimated that population of Lahore becomes double after every twenty years, the average annual urban growth rate of District Lahore was 4.3 percent per annum during 1951 to 61, which declined to 3.32 percent during 1981 to 98—it is still however, one of highest in the world (NESPAK and LDA 2004).

Summary of the master plan for Lahore revealed that main city was confined to an inner core of about 7 km radius where 78 percent of urban population lived. Household size of Lahore (urban) increased from 5.8 persons in 1961 to 7.1 in 1998, which showed a consistent densification process within built-up areas. Despite large developments taking place in outer areas such as in southern side people preferred to live within present built-up areas.

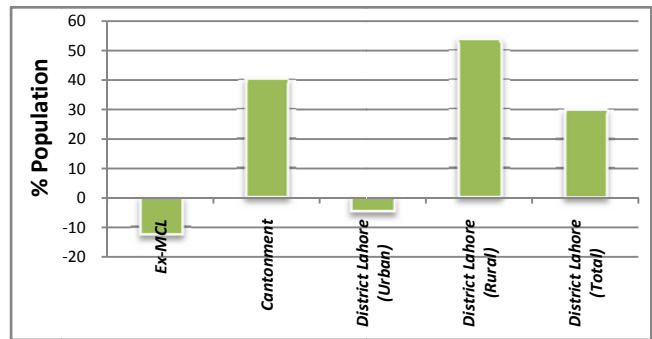


Figure-1 Showing Migratory Trends in Lahore District

Source: NESPAK and LDA, 2004

Figure-1 shows migratory trends in Lahore district. In pre industrial age people concentrated to a specific region for religious, political and military purposes. Now with evolution of industrial era economic and commercial activity has become paramount source of population concentration which if not managed properly may lead towards dilapidation of environments.

Air Pollution and Human Effects: The environment of ‘City of Gardens’ Lahore has undated due to inability of the city to manage urbanization. The air pollution level was increasing remorselessly in urban environment. Unrelenting level of air pollution has put health of urbanites at stake. Air pollution level of only three pollutants when compared with WHO standards indicated how alarming echelon of Lahore was (figure-2).

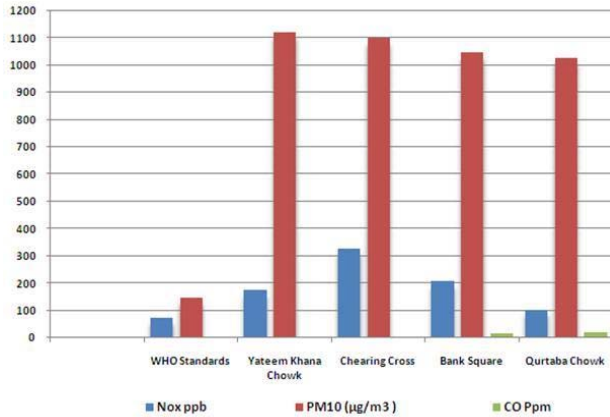


Figure-2 Showing Air Pollution Level in Lahore

Source: Environment Protection Department and City District Government Lahore (EPD and CDGL), 2005

Growing environmental degradation has put lives of urbanites at stake (figure-3). Positive correlation was found between air pollution borne diseases patients (admitted to hospitals) and augmenting adulteration in urban environment.

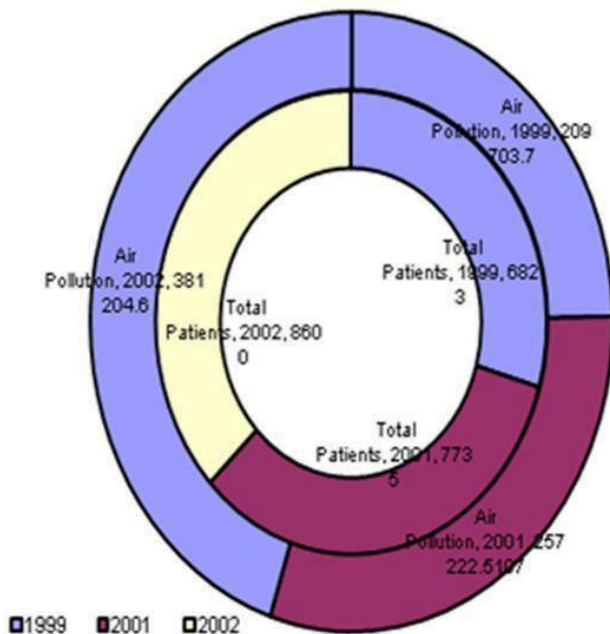


Figure-3 Showing Air Pollution (ppm) and Patients of Air Pollution Borne Diseases in Lahore

Source: EPD and CDGL and Health Department, 2005

Metropolitan area of Lahore is suffering from intolerable congestion. Miseries of local residents have become more flagrant as they are confronted to a continuous process of reconstruction to accommodate more and more commercialization.

Unfair Clustering and Trunk Infrastructure:

Unfair clustering of population; due to break down of community and mass exodus of villagers from the rural hinterland to urban centers, rural-urban inequalities, gigantic expansion of the city, inappropriate land use changes were common consequences of not taming the fact of urbanization. Furthermore urban sprawl and construction of trunk infrastructure misdirect state resources. In housing schemes developed towards south-west of the city most of the plots are lying vacant for speculative purposes. But the development was going beyond it in south by crossing Defence Road/Hudiarra Drain, and was approaching near the *Raiwind* Town. The trend was resulting in piecemeal expansion, costlier services, missing links and trunk infrastructure, low densities and wastage of prime agricultural land, which needed to be curbed.

The Urbanization with low densification has also increased the land demand in Lahore. The incentives or regulations that push developers to build on vacant land within the city rather than misuse the prime agriculture lands are gone astray. (Freire, 2006) rightly pointed out that the planners and economists agree that one of the most needed paradigm shifts in the developing world was the need to halt urban sprawl and to increase urban density. He further referred Angel as urbanization in the last 20 years has occurred with low densification, which has translated into greater demand for land and corresponding infrastructure. He suggested that at the present patterns of urban growth, land demand will increase 150 percent faster than the population. That is, while the urban population is expected to double in the next 30 years, the demand for land will triple. This represented not only a bizarre burden on already limited city budgets but a scary picture for an already overwhelmed environment.

Management of Urbanization and Development Tools During 1970's majority of developing countries including Pakistan rural development became the priority strategy of planners and national/subnational governments to manage urbanization. Several rural development programs were devised and implemented including; Land reforms and irrigation development, adopting labor intensive technologies, off-farm employment, strengthening rural-urban linkages, managing rural urban migration, and replicating Integrated Rural Development (IRD) Program (Richardson 1985). But unfortunately, all such initiatives proved futile as the influx of migrants from rural to urban centers continued in an uninterrupted way.

According to (UN-HABITAT, 2009) master planning was generally taken as a tool for development in most of the cities of Pakistan. The process of preparing a master plan was painstaking and involved high financial

resources. Urban Planning was merely focused on physical planning and civic design. Key economic and social aspects were altogether ignored. It could not facilitate model/creative densification, which was now being adopted in most European and North American Countries. It was learnt that low density lead to continual spread of poor cities and increased the financial burden in the form of trunk infrastructure. A plethora of organizations was responsible for the implementation of these plans in Pakistan. These were Development Authorities, Housing and Physical Planning Departments, District Governments, Cantonment Boards, Directorate of Katchi Abadis, Karachi Building Control Authority, etc. The urban planning organizations carried out their functions independently; egoistically, with minimum coordination and blurred vision. For instance, Master Plan for Greater Lahore due to lack of statutory and legislative measures was put in shelves for long. Consequently, meeting of the Planning Authority constituted therein to address issues relating to the implementation of Master Plan could not be convened. In the Province of Sindh, Karachi-2000 Master Plan took eight years to complete. After completion, it could not be adopted or implemented.

Conclusions: Following are the major conclusions of the study:

- Population of the city is increasing at high pace. Migratory trend indicates more densification towards over dense areas.
- Due to urbanization, air pollution is increasing remorselessly which inundated urban environment and affected human health progressively.
- Unfair clustering, piecemeal expansion of the city and provision of trunk infrastructure, misdirect state resources.
- Urbanization with low densification increased land demand, consequently, devoid the city from the provision of agricultural products in close proximity.
- Isolated Rural Development strategy failed to devolve influx of migrants and urban planning tools were incapable of implementing a creative densification model for the city.
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Recommendations: Based on above mentioned key findings, following recommendations are made:

- Spatial plans of the whole District may be prepared with a focus on compact and consolidated development.
- Haphazard Urban Sprawl may be checked through incentives and enforcement of regulation.
- The concept of cities within city may be followed. In this connection towns of Lahore need to be provided with Business Districts.

- Land readjustment and reforms plan which allows subdivision of private lands and in return provides part of developed land to the owner need to be made to ensure controlled and planned growth.
- District Government of Lahore may initiate public-private ventures to rationalize densification of whole city and introduce low-income housing schemes for urban poor so as to reduce effects of urbanization.

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