

SPATIO-TEMPORAL RESIDENTIAL GROWTH OF LAHORE CITY

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ABSTRACT: Spatio-Temporal residential growth indicates the spatial and temporal proportions of land cover/land use change at the level of the urban landscape. Lahore has undergone various changes over the years. The largest perhaps being the scale in its crowding and the urban growth. Its rural landscape is being swallowed with a great pace due to invasion of urban areas causing urban growth of unprecedented nature and this insertion into the urban arena is without any urban policy both at the provincial and local level. In order to understand the spatial and temporal pattern of residential growth of Lahore, which is necessary for future urban planning and policy management, current study of Lahore is done.

Key words: land use change, temporal, residential growth, urban planning.

INTRODUCTION

Today all the nations are confronting with the problem of housing shortage. As compared with the developed countries, the problem is rather serious in the developing countries. In Pakistan public and private, both housing sectors operate through variety of agencies. This chapter illustrates the increasing tendency for more recent physical growth to be located away from the edge of the continuously built-up area and beyond the administrative areas which bears the name of urban development. Lahore is the populous city of Punjab that is why its housing sector is developing rapidly.

Objectives:

The specific objectives of the study are:

- To understand the radial or linear pattern of residential growth of Lahore city.
- To explain how it is possible to move outwards presenting patterns of spatial variability with 'growth of population' at different time periods in each of the city.
- To describe future growth trends and suggestions for policy makers.

METHODOLOGY

This paper is an attempt to investigate the housing growth pattern of Lahore city. For this purpose temporal growth rate and patterns are discussed with the existing land use pattern. Along with this future direction of expansion is also discussed.

Housing Growth in Lahore: The periphery around metropolitan Lahore is under increasing pressure for development as a result of the centrifugal forces which have characterized the capitalist urbanization process. The continuing growth of Lahore beyond the

administrative boundary of the metropolis is examined in terms of housing schemes and population growth on and around the periphery of urban area.

Lahore is located on the left bank of the River Ravi near the Indian border (Fig. 1). The land use of the city can be divided into central, intermediate and outer zones. The central area has generally poor and middle class residential uses and a concentration of commercial and business land uses. The intermediate area (largely planned) is an uncontrolled mixture of housing (middle and upper income groups) and related activities and services (i.e. education, health, recreation, utilities etc.) while there is considerable dependence on the central zone due to job opportunities.

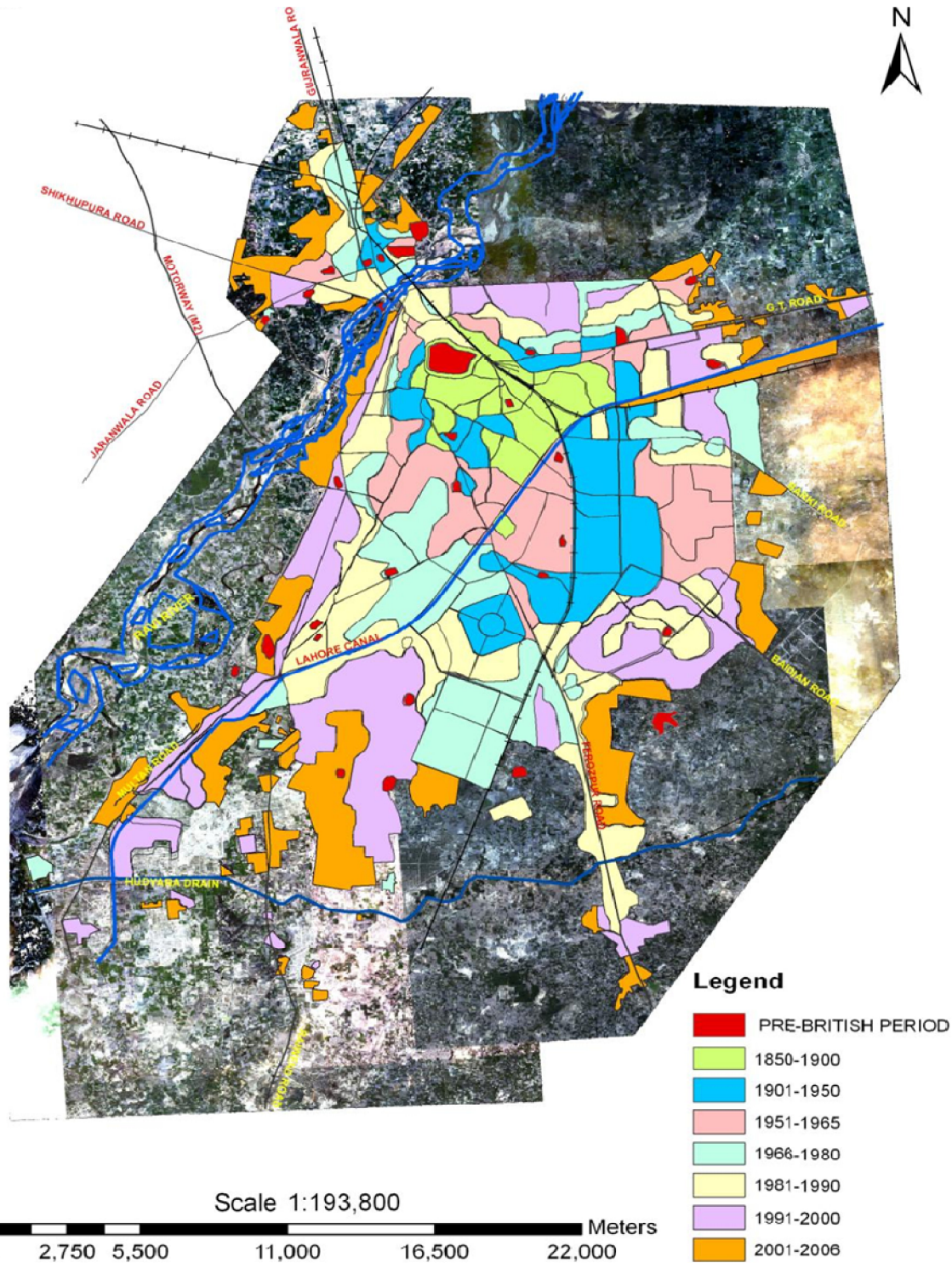
Historical Development of Lahore

Description	Cumulative Developed Area In Sq Km	Average Growth Per Year in Sq Km
PRE British	1.105	-
British Period	23.757	0.453037
1850-1900	68.712	0.899102
1901-1950	71.219884	0.478487
1951-1965	117.156	3.229565
1966-1980	175.689	3.902199
1981-1990	245.568	6.987881
1991-2000	325.985	8.041757
2001-2006	397.753	11.9613

Existing Built-up Areas & on Going Schemes: After combining all the development of different periods in the past City size / geographical extents of the city have been determined on the basis of the actual footprints of the development in the city. It also has been developed with the help of latest satellite imageries of the area which actually shows the built-up area of the city at present and a boundary drawn in the form of a coherent & compact

shape of the city. This depicts the actual development on ground irrespective of following any administrative boundaries or defined physical features of the City. In this regard, boundary earmarked on the basis of the latest

available satellite imagery, covers approximately an area of **398 Sq Km**. And if on-going major housing projects / committed projects and industrial estate development are included in it, it rises to approximately **566 Sq Km**.



Historical Growth of Built-up Area from British Period to 2006:
Source: NESPAK 2009.

Existing Land use of Lahore: A detailed land use survey of the LMA was carried out by NESPAK during the IMPL 2021 project between November 2001 and April 2002. The LMA Study Area, is spread over 2,306 sq.km. (230,670 hectares) although most of it (76.2%) can be classified as vacant or being under agricultural use.

Housing Forecasts: The IMPL carried out estimates for housing stock and demand for the entire LMA. The housing stock in LMA was reported 967, 202 units in 1998 with 77.62% and 22.38% housing units for urban and rural areas respectively. There were 881, 708 housing units in Lahore District in 1998 with 82.9% are in urban areas and the remaining stock in rural areas whereas 536, 724 units in 1980 which included 83.4% of units in urban areas. The increase in population during 1980 and 1998 was 3.46% per annum whereas the increase in the housing stock for the same period was 2.79%. (2008 urban unit)

Housing forecasts have been worked out by considering the backlog till year 2001 and the housing units required for incremental population during the period 2001-2021. The total demand of 1,265,183 housing units is estimated until year 2021, which includes existing shortage of 199,204 units and 1,065,979 units for the incremental population at 6 persons (household size) per housing unit.

The projection of the IMPL implies rapid and continuous increase in population as it assumes that the growth rate will be above 3% during the plan period. Along with this, it also assumes that household size will increase up to 7.2. The table no. 5 illustrates the details of land use patterns and projections for the LMA.

Lahore Metropolitan Area land use patterns and projections (Hectares)			
Land Use Category	Existing 2001	Forecasted 2021	Projected Change 2001-2021
Residential & Villages	26535	35280	8745
Total	230670	230670	-

Source: Assessment of urban land development and management practices in five large cities of the Punjab, Draft final report, (2008). The urban sector policy and management unit planning and development departments, Government of the Punjab, Lahore.

Proposed Housing Planning Framework

An inclusive approach needs to be adopted for the land development and management in Lahore.

- (i) Infill of the gaps between residential areas.
- (ii) Careful planning for future residential development so that we can save our unrecoverable residential loss.
- (iii) Development of planned and cheap residential areas, so that we can reduce the katchiabadis.
- (iv) Ensuring reasonable and balanced development through provision of housing infrastructure and services.
- (v) Developing public-private partnership.
- (vi) Avoid haphazard growth major roads is creating serious traffic and management problems.

Conclusion: Type of sprawl in Lahore is clustered and linear. The south west part of the Lahore is showing high sprawl. The south west extensions along the transport routes have increased and enlarged to occupy large area. Lahore city is spreading in a v shape in southwest of Lahore. Major residential development issues that are being faced by the inhabitants, city planners and policy makers in Lahore are;

- o Population Explosion
- o Rapid Urbanization
- o Urban Sprawl
- o Old rigid planning activities performed under the aegis of outdated master plans
- o Housing Shortage and Urban Poor
- o Concentration of population in some areas of the city
- o Overlapping of functions of different implementing agencies

REFERENCES

Housing forecast of Lahore. Draft report, urban sector and policy management Unit. 2008.

Government of Punjab, Punjab Land Use (Classification, Reclassification and Redevelopment) Rules, the Punjab Gazette, March 12, 2008.

NESPAK Integrated Master Plan for Lahore-2021, Final Report, Lahore Development Authority, Lahore.2004.

Assessment of urban land development and management practices in five large cities of Punjab, Draft final report. (2008). Urban sector policy and management unit planning and development department, Government of Punjab. 2008.

NESPAK report delineating city boundary 2010.