

## **MANAGING COMMERCIAL ZONES FOR SUSTAINABLE DEVELOPMENT; A STUDY ON JOHAR TOWN PHASE-II COMMERCIAL AREA, LAHORE-PAKISTAN**

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**ABSTRACT:** Haphazard commercialization jeopardizes the aim of sustainable development of cities; the repercussions have been severe—restricted not to urban settlers but for the socioeconomic and physical environment of the country at large. Lahore city performs poorly in terms of planned commercial developments in the past and the situation has not improved yet. Working at the micro level, the study selects eight neighborhoods of Johar town phase-II and assesses commercial developments including Expo Centre in terms of planning standards using Global Positioning System (GPS), ArcGIS, and other planning techniques. Results reveal that the contemporary footloose commercialization approach fell short of enforcing parking/setback standards as well as locational standards in the area and impacts heavily in terms traffic congestion and environmental degradation. The paper suggests that the piecemeal planning to regularize commercial development should be revisited by development authorities to check the increased rate of commercialization in the city.

**Key words:** Haphazard Commercialization, Sustainable Development, Piecemeal Planning, Geographic Information System (GIS), Global Positioning System (GPS).

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### **INTRODUCTION**

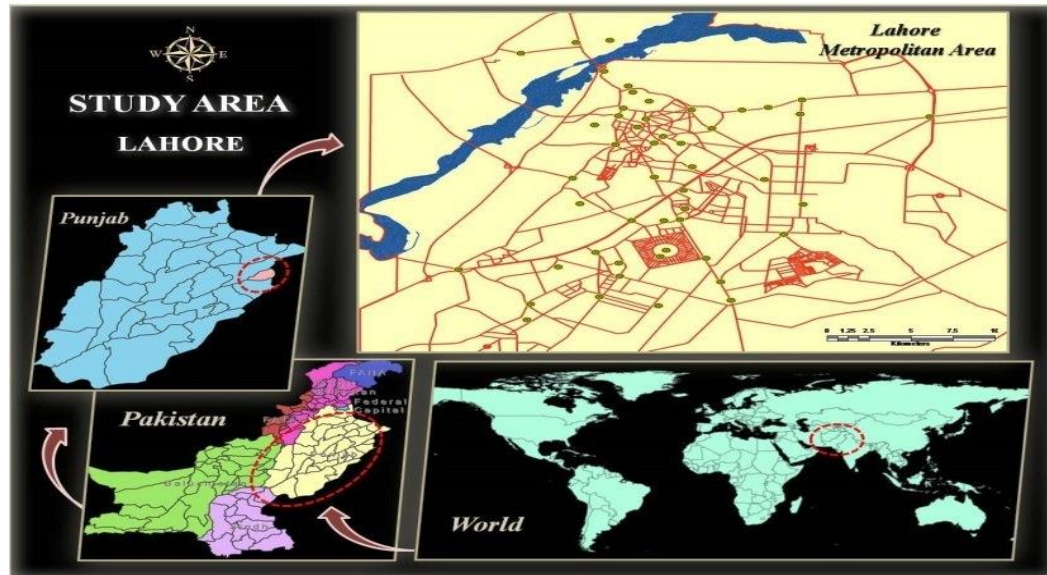
Haphazard growth of cities has compelled not only the urban settlers but also urban planners to holistically and realistically adapt to sustainable development practices. Urbanization in developing countries has given way to footloose planning and resultantly the cities are facing the problems relating to manageability of piecemeal development—inclusive of footloose commercial development. The urbanization in Lahore has brought in anomic conditions for its inhabitants. Share of the people living in urban areas has increased without any check, hence the ultimate result is the eruption of an anthropogenic urbanization crisis in developing countries (Robert, 1989). Consequently, there has been a genuine demand for sustainable form of cities—a relatively less resource burden, least polluted, and more inclusive for its citizens. Strategic planning of urban areas has filled the gap in the field of urban planning for the last two decades as the major challenge lies not only in formulating urban plan but making it a sustainable one (Riffat, 2010). A sustainable architectural design embodies the solutions for unsustainable patterns by constructing and maintaining building so that they induce fewer burdens on cities (Maleki *et.al.* 2012), whereas Deakin (2011) explained that setting out priorities for increasing competence lead to a sustainable propagation of communities. There has been rising concerns within urbanization trends to marginalize

sustainability issues when doing quantification of quality of life of the people living in this global village (Khalil, 2012). Likewise, Cumo (2010) described various transforming trends relating to social, environmental and economic aspects of urban areas along with their huge impacts for sustainability which is ever growing need of this dynamic world.

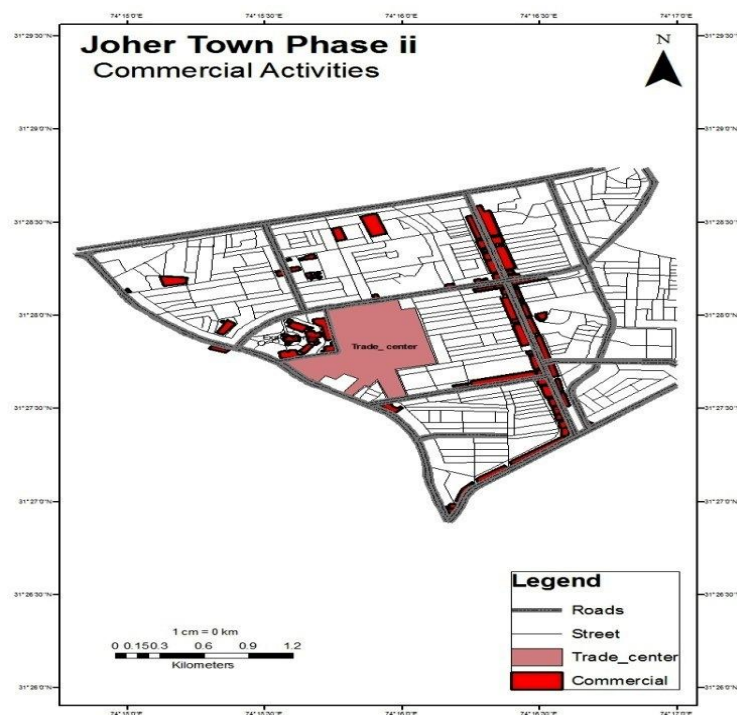
With the advent of PLGO 2001, Lahore City District has been constituted for a population of more than 6 million (Government of Pakistan, 1998) with about 1million migrants making a share of 16% of the entire population. Pakistan is the most urbanized among the South Asian countries while Lahore is the second most urbanized city of Pakistan. It is expected that by 2025 the urban populated area in Pakistan will rise to 54% (Zaman, *et.al.* 2011). United Nations Environment Program also specifies the sustainable development framework for the OECD countries focusing on the concept of green growth in the form of sustainable infrastructure, sustainable farming, renewable energy, sustainable policies of land use, sustainable technologies and efficient use of energy (UNEP, 2011). Focusing on commercialization process within urban areas in general and Lahore in particular may be characterized as piecemeal or footloose planning approach which has a tradeoff with sustainable planning principles. The footloose commercial development approach which started in 1980 is still in practice—as LDA has notified its current commercialization policy in 2014. It was

observed that the haphazard growth of commercial areas could not target the demands of the dwellers and successive policies were not even enforced properly as according to a survey, in the year 2014 around 22,000 commercial establishments were found unregistered within Lahore (The Daily Express Tribune, 2014). The first commercialization policy for the Lahore city was made in 1980 followed by 1982, 1988, 1993, and 2001 and the most recently in 2014 (Nadeem, 2005). According to NESPAK and LDA (2004) acceptance of commercialization as a fragile issue and to stop illegal

and haphazard commercialization is a prerequisite for effective urban planning. Commercial uses along 133 roads of Lahore have been given a green signal. It was proposed to allow mixed commercial cum industrial units along 18 roads out of the 133. Moreover, commercial land use percentages were gradually increased from 2% as per NRM (1985) to 5% as per Punjab Private Housing Scheme and Land Sub-Division Rules (2010) to maximum of 10% as per very recent LDA Private Housing Scheme Rules (2014)—indicating an ever increasing demand for commercial uses.



**Figure-1 showing Location of Lahore Metropolitan Area w.r.t. Pakistan and Punjab Province**



### **Figure-2 Showing the Commercial Areas in Johar Town**

According to LDA (2014) the total area of Johar town was 1872 hectares with a population of 132,222 as recorded in 1998 and density (person/ha) was 71. Recent statistics of Johar town shows an increase in population of the area as the construction of residential buildings is going on. A layout pattern of the scheme can be seen in figure-2. Johar town may be placed in a low to moderate density zone of Lahore Metropolitan Area (LMA). Due to footloose commercialization and piecemeal planning the most affected segment of society have been the low income groups.

## **MATERIALS AND METHODS**

A general site survey was done taking GPS coordinates (latitude, longitude and altitude) of commercial zones in Johar town blocks J, H, G4, L, M, Q, P, R and the Expo Center Lahore were identified. The characteristics of commercial buildings like number of stories along with the types of markets and its position from the residential area were also observed. GPS has been an important tool of attaining information like surveying, managing traffic, and research related to

global changes and location based services. According to Godchild (2007) and Price (2006), the uses of GPS has increased the knowledge regarding spatial activities of humans in different real time locations. In this study, the Google Earth was used to zoom in the study area. An imaginary grid was drawn and the study area in term of patches were downloaded and exported to adobe Photoshop to form a mosaic in attaining a full picture of the selected site. Coordinates were tagged specifying a particular location on the surface of the earth using the ArcGIS 9.3. The GPS reference points collected during the survey were uploaded to mark the real time location and land use of study area.

The ArcGIS was used in mapping of the study area. Particularly shape files were used for drawing different features like roads, houses or railway tracks, main roads, commercial zones of each block and streets. The map of the study area was produced for the evaluation of commercial zones according to the set planning standards. Commercial dwelling units were quantified by selecting six commercial dwelling units in each block of the study area.



**Figure-3a: Encroachment in front of Markets**



**Figure-3b: Residential Flats on Single Dwelling Commercial**



**Figure-4a: Expo Center in Johar Town**



**Figure-4b: Single Dwelling Unit with Four Storied**

**Residential Flats**

**Table-1 Quantification of Commercial Dwellings in Johar Town**

| Sr. No. | Blocks | Out of 6 Commercial Dwelling Units |            |               |  |
|---------|--------|------------------------------------|------------|---------------|--|
|         |        | Single dwelling                    | One storey | Double storey | Residential flats on single dwelling commercial unit |
| 1       | P      | 4                                  | 1          | —             | 1  |
| 2       | L      | 5                                  | 1          | —             | —  |
| 3       | G4     | 1                                  | 3          | 2             | —  |
| 4       | H      | —                                  | 1          | 4             | 1  |
| 5       | M      | 1                                  | 1          | 4             | —  |
| 6       | R      | 2                                  | 2          | 2             | —  |
| 7       | J      | 1                                  | 4          | 1             | —  |
| 8       | Q      | 2                                  | 4          | —             | —  |

Source: Field survey 2014

Majority of commercial dwelling units in Blocks P and L were comprised of single commercial dwelling units whereas in block P out of six, one was a commercial cum residential dwelling unit as shown in figure-3b. In block Q mostly one storey commercial units were observed without any markets or shops. Block G4 has one single dwelling, three one storey and two double storey commercial dwelling units. Block M had four double storey commercial dwelling units out of six whereas block R had equal distribution of various types of dwelling units. Block J had four one storey dwelling units out of six whereas block H had mostly double storey dwelling unit.

## RESULTS AND DISCUSSIONS

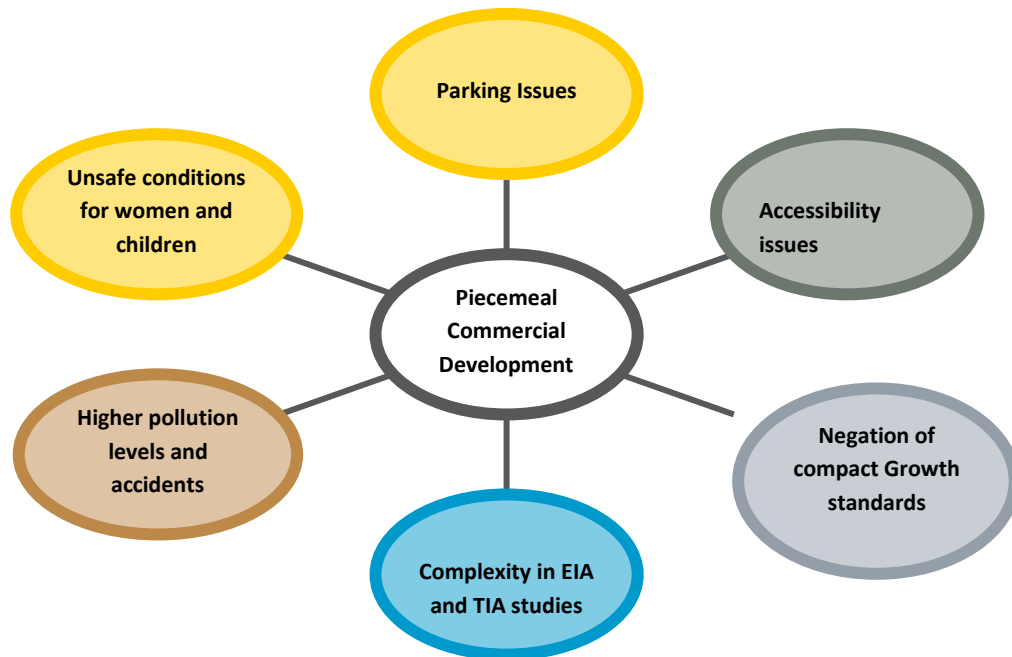
The majority of low income groups were provided plots in blocks P, Q, G4, L and M. Many commercial zones in the study area did not have appropriate amenities. This phenomenon led to more trips generation on secondary roads. And it is due to the extra load of trips on secondary roads to purchase and avail daily use commodities and services. Hence pressure on a commercial zone provided in higher income group areas increased. Block J and H have plots for higher income groups and there were few plots for the lower income group. Thus, the amenities in these blocks are basically to facilitate higher income groups. Further, the small departmental stores and mixed markets in the same area are facing congestion problems due to large influx of lower income groups coming from within or other blocks of Johar Town.

The problem of encroachment was massive in the area (Figures-3a & 4b). The vendors encroached the road intersection in commercial areas and thus reduced sight distance necessary for the visibility of the driver.

The proposal of a single dwelling commercial zone was the way forward as the multi-dwelling commercial areas were increasingly attracting migrants intensifying the burden on these zones. The areas with single dwelling commercial markets were converted to commercial cum-residential buildings. This indicated that the demands were fulfilled by the single dwelling units. The flats on commercial building were four storied which gave rise to another problem of unavailability of parking for the residents of these flats. The blockade of primary roads, reduction in parking space in front of markets increased burden on the commercial zones.

Block M comprised of international large food chain that had made this area very congested—further intensifying parking problems. Block Q did not contain any sort of mixed market and the commercial area could not be fully developed. Few shops present in Q block (mostly for lower income groups) were of marble. These were creating noise and air pollution. The demands of the Q block dwellers were met by the markets of P, M and L commercial markets. With increase in demand for commercial areas the conversion of residential plots to commercial buildings was expected which proved the inferences of Riffat (2010) who stated the non-sustainable development trends as the major urban challenges in developing countries and resulted into successive commercialization policies based on footloose and piecemeal development approaches. Owing to these commercialization trends in Johar Town and conforming to socioeconomic and environmental transformations suggested by Cumo (2010) a proposal for an increase in the percentage of commercial area in lower income schemes was envisaged. But, this could lead to the unchecked growth of commercial areas as envisioned by Robert (1989) resulting into anthropogenic urbanization crises visualized as under:





**Figure-5 Anthropogenic Urbanization Crises due to Piecemeal Commercial Development**

**Conclusions:** The study concludes that for having sustainable commercial zone each block should have its own amenities and as per planning standards easily assessable to all dwellers of that particular block. The dwellers of blocks G4, L, P, M and R were overburdened because all purchased their essential commodities from this zone. So this commercial zone did not fulfill the sustainability criteria although. There is a need to remove encroachments along commercial establishments as the waste generated by them was polluting the roads making it aesthetically unpleasant. LDA needs to become functional in its responsibility to stop encroachments in Johar town commercial areas. Apart from regularization of commercialization in Johar town, the illegal conversion of residential plots to commercial has been found very common and it indicates need for proper legislations and effective enforcement. The regularization of commercialization should not be allowed in Johar town otherwise LDA would not be able to check the increased rate of commercialization in the city. It is to be sensed that conversion fee should also not be used as an entry pass for allowing commercial activity otherwise sustainable development principles would certainly be compromised.

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