Change of Land Use in Gulberg, Lahore: Urban Challenges and Interim Policy Solutions

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ISSN: 3006-6549 (ISSN-L)	Abstract: The rapid change of land use, from residential to
ISSN: 3006-6557 (Online)	retail and allied activities, in Gulberg, Lahore, has transformed
ISSN: 3006-6549 (Print)	its urban landscape, posing significant challenges to mobility, land use, and neighborhood liveability. This study investigates
Vol. 2, No. 3 (2024)	the impact of land-use conversions on four key roads
Pages: 113 – 120	designated as Central Business District (CBD) zones and intended for high-rise development under Lahore's future urbar
Keywords	policies. Adopting a holistic approach, the study evaluates these
Commercialization, Land-Use, Urban Policy, Lahore	roads as integral components of the city's broader urban fabric rather than isolated entities. Parameters such as road position
Corresponding Author: Shariyeh Hosseininasab	within the city's network, traffic volume, choke points, adjacent
	land uses, and socio-economic characteristics were meticulously analyzed. Additionally, the design potential o
Email: <u>sharia@cuilahore.edu.pk</u>	each street was assessed, identifying opportunities to enhance
	the urban public realm through targeted civic design interventions. The findings reveal a complex interplay between
	traffic patterns, land-use dynamics, and urban design,
	highlighting the need for strategic interim policies. These policies focus on optimizing land-use decisions, preserving
	residential character, and creating vibrant public spaces. By
	aligning with the future CBD vision, the research provides
	actionable insights for sustainable commercialization and
	urban growth in Lahore.

Like other urban centers, the Lahore Metropolitan area has historically served multiple functions, including providing shelter, ensuring security, facilitating social interactions, and enabling the exchange of goods and services. The relative importance of each of these functions has changed over time, and such changes have created new demands for land, floor-area space, infrastructure and a provision of range of accompanying facilities. Cities and towns undergo continuous transformation over time, a process that is both inevitable and often perceived as advantageous. It is inevitable because the operation of the political, economic and social systems constantly generates new demands and present fresh opportunities for economic progress and civic improvement (Roche, 2016; Frantzeskaki et al., 2016; Knox, 2005). The very existence of these forces of change creates opportunities to adjust and improve the condition of urban areas (Maassen & Galvin, 2019). Historically, the primary center of commercial activity in Lahore, the Central Business District (CBD), has been located along The Mall Road and its surrounding areas, such as Edgerton Road and McLeod Road (Ali, 2014). These areas have long been the focal points for business and economic transactions in the city, contributing to Lahore's development as a significant urban hub (Khan & Imran, 2018). This area not only had the infrastructure support but was also the terminus of roads from most of the surrounding localities. However, this area was not allowed to reach its full potential due to a multiplicity of reasons, out of which the primary one being the inability of the building regulation to keep pace with the fast and changing growth pattern of city (Nadeem et al, 2021). Additionally, due to the presence of River Ravi and the international border on the North and West; Lahore's growth has been mostly towards the south, which has geographically shifted the center of the city (figure 1) (Ibid, 2021). The eccentric growth towards South has also transferred the commercial focus to number of neighbourhood centers and particularly to Gulberg (Naz & Anjum, 2007). This shift was part of a broader trend of urban sprawl, characterized by the growing dominance of commercial spaces in what were once residential zones. This trend has transformed Lahore's urban landscape, highlighting the need for strategic urban planning to address the challenges posed by this expansion. However, instead of regenerating these commercial centers to absorb the influx of commercial activity, a passive approach was adopted for the development of these areas and as a result unplanned ribbon development has prevalent for the past two decades. The consequences of the aforementioned growth trend were not anticipated by the city planning authorities and as the neighbourhood centers were not equipped to deal with the size and scale of this commercial expansion; the developers capitalized on the situation and bigger, cheaper, more visible plots along the road were commercialised.

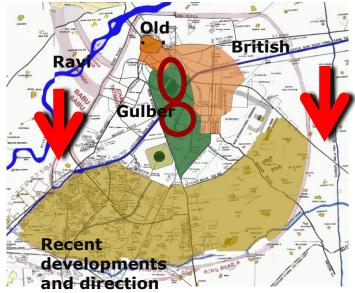


Figure-1: The patter of urban growth in Lahore (source: authors 'own construct)

Commercial activity in urban areas, like other land uses such as residential, industrial, or institutional, must be properly regulated. The current prevalence of ribbon commercial development in Lahore is negatively impacting the city's urban structure. Roads, instead of serving as efficient channels for movement, are becoming congested, and the infrastructure is being overstressed, as it was not designed to accommodate such high levels of commercial activity (Hassan, 2015; Khan & Rizvi, 2018). The present state of chaos in Lahore's built environment can be broadly attributed to following causes, which have been extant for the past two decades:

- Lack of Urban Planning and Design
- Regulation Focus rather than City Design Focus
- Ad-hoc Decisions; no clear long-term planning vision
- Growth is outpacing Management

While addressing Lahore's urban challenges requires extensive studies and a comprehensive long-term strategy, this study focuses on proposing an interim land-use conversion policy to manage the situation in the short term. The proposed interim policy outlines a framework to be implemented over a period of 8 to 12 months, after which it can be reviewed and revised based on its effectiveness and emerging needs.

Methodology

To address the urban challenges associated with land-use conversion in Lahore, this study employs a comprehensive and integrative approach to policymaking. Rather than isolating individual roads for evaluation, the methodology emphasizes analyzing the city as a cohesive whole, ensuring that the interrelationships between roads, neighborhoods, and the broader urban fabric are considered. This holistic perspective is critical for understanding the multidimensional impacts of land-use changes, encompassing transportation networks, spatial dynamics, socio-economic structures, and the urban public realm. By employing a set of systematically defined parameters, the study seeks to establish a robust framework for formulating an interim policy that is not only context-sensitive but also actionable and adaptive to the city's evolving needs. Each one of the declared 4 CBD roads is carefully evaluated on a number of parameters including:

- Its position/ location in the city road-network
- The linkages served by the said road, the beginning and terminus
- Location and frequency of traffic choke points
- The volume of traffic (wherever the data was available)
- Nature and quality of urban spatial, social and economic structure existing on it
- Adjacent land-uses
- Proximity of and condition of any commercial centers
- Transportation and residential patterns and so forth

Along with the aforementioned, one of the basic parameters in formulating this policy was the 'design potential' of each street, that is what kind of urban public realm is possible on the road with proper civic design and what are necessary steps, including the best Land-uses and street character conducive to require to achieve that ideal and make that road a vibrant, attractive public space.

Analysis and Discussion

The primary objective of this policy is to redirect capital investment into designated commercial centers, fostering sustainable economic growth. However, road commercialization is permitted only in cases where it is deemed absolutely essential to meet specific urban demands. The strategy for developing the interim urban policy was to focus on roads with CDB designate as the most vital arteries of Lahore city. They are Commercial Roads that will have maximum development incentives in the permanent policy. These roads eventually will form CBD for the city of Lahore and shall be designated high rise zones. Hence the case study roads for this study include; Jail Road, Main Boulevard Gulberg, M.M Alam Road Gulberg and Hali Road Gulberg. These roads will comprise the hub of the commercial and economic activity in Lahore. A plot by plot strategy for proposed land-use was adopted for the roads falling in this category; which in conjunction with the Urban Regeneration and Transport Policy will help define a high density, commercially viable, compact and green Central Business District for the city. By evaluating key factors such as spatial configuration, traffic patterns, and socio-economic factors, this study provides a comprehensive understanding of the policy's feasibility.

Jail Road: Qurtaba Chowk to Sherpao Bridge

Jail Road in Lahore is one of the significant thoroughfares in the city, running parallel to key commercial and residential areas. The land use along this road is mixed, with a blend of commercial, institutional, and residential properties. Over the years, the road has evolved into a vibrant hub for retail and commercial activities, although its residential character remains prevalent in some sections. The importance of Jail Road in Lahore is evident; it forms the link between the old and new, houses, important civic, education and recreational facilities and it is a central transit route.

The road experiences considerable traffic congestion, particularly during peak hours, due to the high volume of vehicles and narrow lanes in certain parts. Moreover, traffic bottlenecks and poorly coordinated traffic signals further exacerbate the situation, making travel along this stretch more challenging. Despite its strategic location and mixed land-use, Jail Road struggles with infrastructure limitations, which hinder its capacity to accommodate the growing demand for both residential and commercial activities effectively.

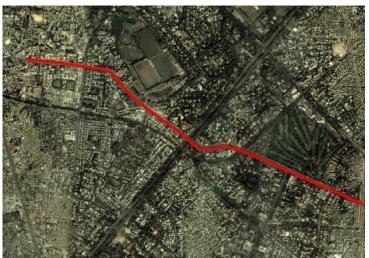


Figure-2: Jail Road study area, Property number 349 Shadman -1 to 6-H Gulberg 2

Based on the current conditions and observations along Jail Road, it is proposed that the road be further developed to accommodate large corporate offices, healthcare facilities, automobile showrooms, and furniture outlets. These land-use changes are intended to align with the road's evolving commercial role and enhance its function as a key urban corridor. This is complementary to the exiting land-use here. Retail activity, especially impulse shopping, is strongly discouraged on this road as is the sale of construction Industry goods. Additionally, a new set of bylaws are required to complement the situation. For every plot that is commercialised, the owner shall cede the right of required setbacks to Lahore Development Authority and no boundary wall or any impediment to free vehicular movement/ parking can be allowed in this zone. The property perimeter can be marked by means of paving or paint or any other prescribed means by the authority. Upon commercialization, the owner is to plant at least eight trees on the property, of the specified height, girth and specie. 5% Additional commercialization fee shall be retained, to be returned to the owner after five years upon certifying the health of the trees. Moreover, all commercial activities are permitted, except for the following:

- Petrol stations and auto related industry shops except large show rooms. Only showrooms, for new and used cars, exceeding 5,000sft are allowed and no display/ parking is allowed on public right of way.
- No auto service stations and auto workshops to have a direct opening onto the road. These activities can only be allowed if fronted by a showroom or an office/ reception area of no less than 500 sft. No service and workshop yards can operate in full view of the road
- Warehouses on Ground Floor. Warehouses are only allowed if an adjacent business outlet of no less than 5000 sft is attached and the area of the warehouse cannot exceed the area of the allied business outlet or office.
- Any kind of butchers and/ or raw meat selling or processing area
- Any kind of manufacturing and or welding areas
- Any retail outlets less than 2,000 sft area, except for pharmacies and laboratory collection centers
- Parking garages on the ground, lower or upper ground floors in full view of the street
- General stores and provision shops, bakery and baked goods store less than 1500 sft
- All kinds of work areas, workshops and work yards related, not limited to, dressmaking, stitching units, metal work, lathe machine, automobile and related industry, wood working, footwear production and any manufacturing units that employ more workforce than 5 individuals
- Showroom and warehousing cater to the construction industry. This excludes showrooms larger than 5000 sft for building finishes, fittings and furnishing. Any warehousing facility, as part of the showroom or separately, is strictly prohibited.
- Marriage Halls and venues that cater to functions of groups larger than 50

- Any kind of retail outlets, including but not limited to shoes stores, dressing material and fashion shops, cloth sellers, stores catering to vape and smoking paraphernalia.
- Beauty salons, spas, massage parlours, barbers, hair styling and bridal studios except as part of an establishment larger than 8,000 sft
- Stationery and bookstores less than 5000 sft except those associated with existing educational institutions
- Shops selling or storing hazardous materials like firecrackers, noxious chemicals

Moreover, added incentives shall be given to developers proposing a major part of the building as multi-unit dwellings; for instance, condominiums, apartments, co-operative housing, student housing and so forth; in the final land use conversion plan. A complete plot by plot strategy for this road shall be issued as a part of the permanent land use conversion policy.

Main Boulevard Gulberg: Jail Road to Ferozepur Road

Main Boulevard Gulberg is an important transit route and commercial center becoming the new face of Lahore CBD. It has undergone significant transformation over recent decades, shifting from a primarily residential area to a bustling commercial hub. This change, fuelled by rapid urbanization and the proliferation of multinational companies, banks, and international food chains, has contributed to the area's vibrant economic growth. However, it has also brought challenges such as increasing traffic congestion, the loss of open spaces, and the mushrooming of shopping plazas. The road is now home to numerous commercial offices and plazas, which have further altered the urban landscape, exacerbating issues such as inadequate parking and encroachments. These developments, although beneficial for the economy, have led to strained infrastructure, with traffic bottlenecks becoming a common sight during peak hours. Efforts by the Lahore Development Authority (LDA) to manage traffic flow and environmental pollution have had limited success, with projects such as the signal-free corridor not fully resolving congestion problems (The News, 2023).

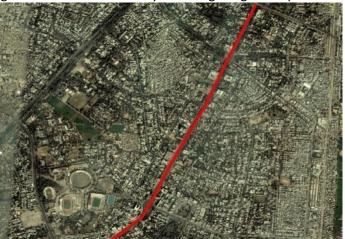


Figure-2: Main Boulevard Gulberg study area, Property number 72, 73 Block H Gulberg 1 and 18I Gulberg 1 to property number 8-A, E3 Gulberg 3 and 12-B, E2 Gulberg 3. (Source: authors' own construct)

Based on the above observations, land use conversion shall be allowed to fully utilize the potential of this area. Careful consideration shall be given to the type and form of development permitted in this area. This road is likely to develop as the main retail center of Lahore. It will be designed as a Grand Promenade with impressive Civic Amenities. Maximum FAR incentives shall be allowed in the final policy with a comprehensive tree plantation and Civic Amenities programme undertaken. Moreover, similar set of additional bylaws may be implemented in this read, which includes; Upon commercialization of a plot, the owner must cede required setbacks to the Lahore Development Authority (LDA), refrain from erecting any boundary walls or obstructions to vehicular movement or parking, mark the perimeter with approved methods, plant at least eight specified trees, and pay a 5% additional commercialization fee, which will be returned to them. Additionally, in order to limit the haphazard growth of land-use, following land-uses may be restricted in the area:

- Any automobile industry related venture, including but not limited to fuel supply pumps and stations, all workshops and work yards, stores dealing in auto spare parts, auto detailing and finishing facilities.
- Grocery stores, fresh produce stores and provision stores less than 10,000 sft
- All kinds of workshops, work yards, manufacturing units, welding shops and warehousing facilities of any size and type
- Produce suppliers, dairy product suppliers, butchers and/ or raw meat selling or processing area, however a hyper-mart of no less than 10,000 can have these areas as part of a larger establishment
- Stitching units, tailor shops and fashion allied workshops can only exist if these are part of retail fashion outlet of no less than 3,000 sft. These workshops and units must no larger than the allied retail outlet and cannot be housed in the ground floor or lower 3 floors of the building.
- Showroom and warehousing cater to the construction industry. This excludes showrooms larger than 5000 sft for building finishes, fittings and furnishing. Any warehousing facility, as part of the showroom or separately, is strictly prohibited. Warehouses, Large storage units, junkyards, car impounds
- Marriage Halls and venues that cater to functions of groups larger than 50
- Car dealing lots and holding sheds for motorcycles or any kind of machinery
- Parking garages can be permitted on the ground, lower or upper ground floors of the building if these are at the rear screened from the street
- Shops selling materials deemed hazardous by city authorities.
- Any activity deemed inappropriate and or disruptive by the city authorities
 Additionally, incentives shall be given to developers proposing a major part of the building as

multi-unit dwellings; for instance, condominiums, apartments, co-operative housing, student housing and so forth; in the final land use conversion plan. A comprehensive plot-by-plot strategy for this road will be developed and included as part of the permanent land-use conversion policy.

M.M Alam Road Gulberg, Main Boulevard to Ali Zeb Road

M.M Alam Road in Lahore, is an important urban venue and it already has a unique standing within the city of Lahore. It is a prominent commercial and residential area, known for its high-end retail spaces, restaurants, and corporate offices. Historically, it was a quieter, residential avenue, but in recent decades, it has seen a significant transformation into a bustling commercial corridor. This transformation has led to a mixed land-use pattern, where commercial activities dominate, alongside upscale residential buildings. Currently this area is mismanaged and chaotic, but has the potential of becoming an excellent public space to rival any in the world; all it needs is good traffic and civic design.



Figure-3: M.M Alam Road study area, Property no 28 K Block Gulberg 2 and 29 K Block Gulberg 2 to Property no 110 Block B3 Gulberg 3 and 29 C 3 Gulberg 3. (Source: authors' own construct)

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The road is a secondary arterial route and faces heavy vehicular traffic, especially during weekends and shopping peak hours, due to its strategic location and designation as the prime shopping destination for Lahore. The road is also has on-street and mismanaged parking, making traffic flow even more problematic. Pedestrian movement is often disrupted due to the density of vehicles and limited civic infrastructure. Moreover, as mentioned parking is a major issue, with both on-street and off-street parking failing to meet the growing demand, which further exacerbates congestion.

The urban design on M.M. Alam Road has struggled to keep pace with its evolving function as a commercial hub, which has placed a strain on the local infrastructure. Efforts to address the road's traffic and land-use challenges are ongoing, with the Lahore Development Authority considering upgrades to accommodate the increasing demand for space and improve traffic flow caused by heavy commercial activity. Prime location coupled with insufficient management, and growing infrastructure demands makes M.M. Alam Road a key area for urban planning interventions in Lahore.

As it was mentioned, M.M Alam Road area is currently associated with restaurants, high end fashion outlets, furniture showrooms and grooming and beauty salons and same trend shall be encouraged. Incentives shall also be offered to developers that propose high density housing. The final road design shall aim for developments with active street level frontages and high number of pedestrians.

To ensure the smooth development of the area, the interim policy for M.M. Alam Road will implement the same set of additional bylaws and land-use restrictions as those applied to the other study areas.

Hali Road, Main Market to Stadium chowk

The land use on this road is changing rapidly and it has become the extension of the commercial zone at the Main Market. Hali road forms a twin with M.M Alam Road in terms of traffic strategy and proposed tram route. Hali Road in Lahore, located within the vibrant Gulberg district, has developed into a significant commercial corridor. This area is now home to numerous retail establishments, showrooms, and office spaces, making it a sought-after location for businesses. Over the years, it has shifted from a primarily residential road to one dominated by commercial land use. The rise in commercial activity has led to increased traffic congestion, particularly during peak hours, as the existing infrastructure struggles to accommodate the growing demand.



Figure-4: Hali Road study area, Property no 108 Block A Gulberg 3 and 88 D1 Gulberg 3 to Property no 64 and 136 Block E1 Gulberg 3 (Source: authors' own construct)

Based on the observations, it is recommended that the area near Gaddafi Stadium be incorporated into the Hali Road zone. Focus of development on this road should be multi-unit residential building with small 'boutique' type speciality outlets. Retail activity shall be discouraged as M.M Alam road will become the primary retail focus.

Conclusion

The commercialization of Gulberg, Lahore, has triggered a complex urban transformation, reshaping the city's social, economic, and spatial dynamics. This study highlights the challenges posed by rapid land-use conversion, particularly on the designated Central Business District (CBD) roads, which have become focal points of both growth and congestion. By adopting a holistic approach, the research underscores the interconnectedness of road networks, land-use patterns, and urban design, demonstrating that these elements cannot be considered in isolation.

The proposed interim policy, informed by a comprehensive analysis of traffic patterns, landuse dynamics, and design potential, provides a roadmap for sustainable urban growth in Lahore. It emphasizes the importance of targeted civic interventions to optimize land-use decisions, alleviate congestion, and create vibrant, pedestrian-friendly public spaces. By aligning with Lahore's broader vision for CBD development, this research offers actionable insights into the management of commercialization, ensuring that it contributes positively to the city's long-term urban sustainability. The study calls for continued adaptation of policies to address the evolving needs of the city, balancing development with livability to foster a resilient urban environment.

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