

DYNAMICS AND GROWTH DICHOTOMY OF URBAN VILLAGES: CASE STUDY DELHI

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ABSTRACT

Researchers refer to it as an oxymoron. However, a stark reality is, Delhi has 135 urban villages as per latest reports. With rapid urbanization, Delhi stood at 17 million (2011), a growth rate of 55% (1991-2011). Earlier, there were scattered settlements ('abadi'-deh) with farmlands (khet-khalihan). These farmlands were acquired for construction of planned colonies. The village settlements were left and its inhabitants were exempted from development control regulations. This unguided freedom led to unplanned construction and haphazard growth. The first part of the paper researches on the genesis of urban villages. The first master plan of Delhi only acquired agricultural land. The 'abadi' areas were left and the rural built forms were protected by a boundary called 'Lal Dora' (Red Chord). Within these boundaries the 'urban villages' emerged over time. These villages were not subject to any developmental control nor were they connected to the urban infrastructure networks resulting in uncontrolled growth. The second part of the paper presents status and major issues of urban villages; viz. high density, inhabited by lower income groups and in-migrants aspiring for a livelihood, unplanned, lacking water supply and sanitation with narrow streets. The study highlights these conditions from urban villages in Hauz Khas, Kotla Mubarakpur, and Mohammadpur.

The third part of the paper highlights the reasons behind the present scenario. It identifies major fallacies from policy makers, the response of the users as well as, the builders. An expert report identifies, the major slip was the way land acquisition and compensation package was worked out. Villagers were deprived of their agricultural land and space for their cattle. Moreover, the compensation at government rates got

over soon. Inhabitants were forced to seek alternative livelihood like small business, shops. The pace of land acquisition outweighed speed of development and authorities could not protect these unused lands. Large scale encroachment, even unauthorised colonies grew, further compounding the problem. The last part of the paper does a comparative analysis of three urban villages, examines some of the development approaches and user preferences and tries to identify different stages of transformation of urban villages. An approach to improve mobility and accessibility in one of the urban villages is proposed.

Key words: Urban Village, Growth Dynamics, Dichotomy.

Introduction

Delhi has 135 urban villages as per latest reports. Population of Delhi is 17 million (2011), with a growth rate of 55% (1991-2011). In pre independence policy, both agricultural (khet-khalihan) and residential (abadi-deh) areas were acquired and rehabilitated, but the first master plan of Delhi (1962) only acquired agricultural land. The 'abadi' areas were not acquired and the rural built forms were protected by a boundary called 'Lal Dora' (Red Chord). Within these boundaries 'Urban Villages' emerged over time. These villages were not subject to any developmental control nor were they connected to the urban infrastructure networks resulting in uncontrolled growth. In 1931, 25 villages were engulfed into urban Delhi. The agricultural land acquired was mainly meant for civil structures like railway station, Delhi University Campus, Vegetable Mandi and the like. During 1931 to 1951, another 22 villages were added, primarily to accommodate industrial estates, rehabilitation colonies and government housing. Figure 1 shows cumulative increase in number of Lal Dora Villages [8].

During 2000, urban village population was 0.88 million, 6.4% of Delhi's population. These settlements have higher tenure security but have very poor amenities [4].

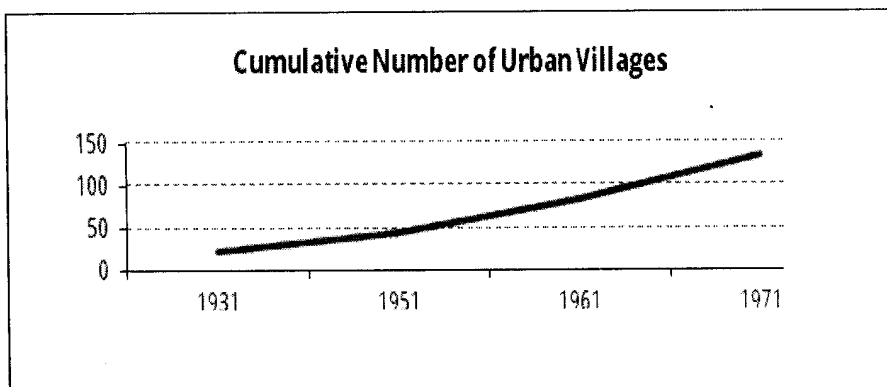


FIG 1. Growth of urban villages.

The adjoining planned colonies developed on agricultural land were benefitted with all services and amenities. This led to a dichotomy resulting in rise in property value both in terms of rentals and ownership. Delhi's primacy has its own effect on urban villages that can be summarized into the following three scenarios:

Urban Impact 1: Villages witnessing impact of urban employment. This is the most commonly witnessed scenario.

Urban Impact 2: Villages near industrial areas attract large migrant population to work as industrial labourers. This creates a demand for housing. Such an impact also has other socio-economic bearings between the native population and the migrant population.

Urban Impact 3: Urban sprawl and growth of the city impacts many nucleated settlements that were originally dependent on agriculture by an urban way of life. As a result, the dependency diverts to urban activities for survival.

Types and Stages of Urban Villages

John F.C. Turner had identified and theorized stages of urban slums in Latin America and stated that they essentially are of the following three types: Bridge headers, Consolidators and Middle income.

Likewise, several researchers have tried to identify different stages of urban villages and classify them into different types. Our study reveals that on a broad level, urban villages have either witnessed or are likely to go through the following stages:

Original farmers sell their land for profit; usually retaining their houses in the old village settlement. Most constructions in Lal Dora areas are in exemption to existing byelaws. These areas eventually become home to construction workers and other service providers.

After about a decade, construction work slows down, construction workers move to other sites for employment opportunities. New migrants, mostly engaged in informal sectors, move in. The migrants become permanent settlers.

In another 10 to 15 years, the surrounding area of urban villages undergoes development. Students, salesmen and small businessmen move in while the old villagers continue to be the dominant owners of the land and improve individual properties while increasing rent.

The final stage in the process is gentrification with growth in mixed land uses. Hauz Khas, an urban village for example, has become a warren of boutique shops, art galleries and trendy restaurants. Similarly, Mahipalpur, near the Delhi international airport, has seen an outburst of cheap hotels in the last decade. Again, Shahpur Jat has become home to a numerous small offices and designer workshops [7].

The following 3 stages of urban villages were identified in a current research [1]:

Stage 1: Villagers face a problem of acquaintance with the new change in occupation and livelihood triggered by acquisition of their agricultural land.

Stage 2: A process of adaptation in terms of alternate livelihoods, new structures, and change in land use.

Stage 3: Renewal and Reconstruction.

Though over time, the villages undergo the above stages of transformation, the pace of transformation is very gradual. There is a mismatch with the pace at which the surrounding area develops. Consequently, the urban villages remain isolated as an island of 'separate identity' within a planned urban fabric. The Delhi master plan of 2001 permits a density of 450 persons/ hectare, but the density in Masoodpur, urban village is as high as 1100 persons/hectare [1]. Since building byelaws prevalent in the rest of the city are not equally applicable to urban villages, much of the new construction come up in violation of the existing regulations [5].

Framework of the Study

The main study area was Kotla Mubarakpur which was compared to two other urban villages witnessing varying degrees of transformation. They were, Mohammedpur and Hauz Khas, the former being at a lower stage of transformation while the latter demonstrating a higher stage of transformation. All the urban villages selected are located in South of Delhi, since South Delhi has a higher concentration of urban villages compared to North Delhi. A brief introduction to the origin and present status of the three case study urban villages is given below.

i) Kotla Mubarakpur. Kotla Mubarakpur originated as a settlement in 15th century and was classified as an urban village by DDA in 1971, area 39 hectares and population 26949 [11], density 710 persons per hectare. It consists of 5 villages Kotla, Pijanji, Khairpur, Aliganj & Jodbagh. Aliganj & Pijanji were formed by families rehabilitated after eviction from areas which were acquired for New Delhi capital project. Khairpur was inhabited by groups of migrants who came to Delhi mainly as labourers during different phases of the capital construction project (1911-47). Jodbagh consists of displaced persons from West Pakistan (after 1947) and hence developed post-partition. Till the 1950s, Kotla Mubarakpur was only a 'fringe village', but since then its interaction with urban Delhi has increased. Presently, this urban village is midway between stage two and stage three of transformation.

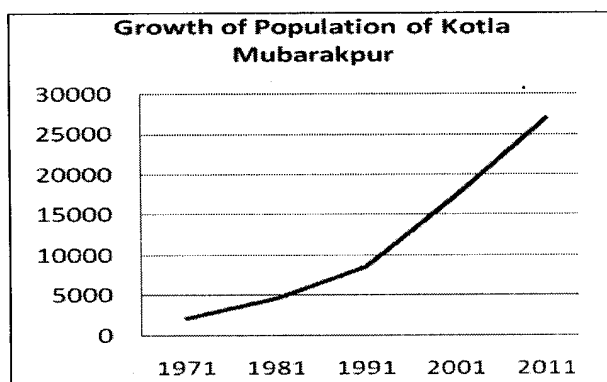


FIG 2. Population growth.

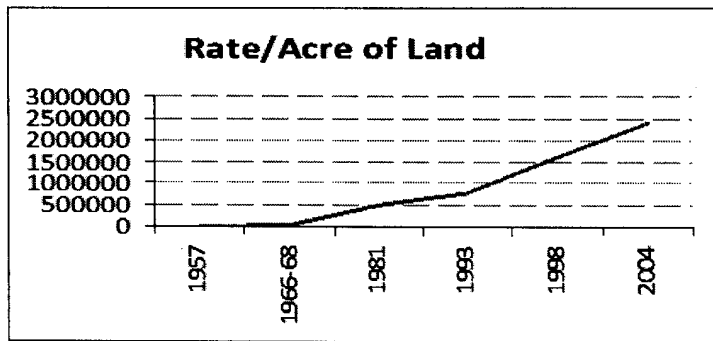


FIG 3. Change in rate of land.

ii) Hauz Khas. A 13th century settlement. Named after a famous Royal Tank, around which several buildings and tombs came up. A 76 hectare medieval village modernized in mid 1980s. It retains its old charm along with modern planning interventions like manicured gardens, parks and walkways around the old tank. The 1980s gentrification converted this village into a sophisticated up-scale residential cum commercial area. The surrounding urban areas have important institutions like Indian Institute of Technology, Delhi, National Institute of Fashion Technology etc. which aided further growth of commercial activity. Land prices sky rocketed and commercial activity grew. Today it is an important tourist destination and referred as one of the fine spots in Delhi. Hauz Khas can be considered to be in the fourth and ultimate stage of transformation.

iii) Mohammadpur. It is a smaller urban village with an area of only 14.5 hectares. Initially it was a larger settlement, but eventually the surrounding areas were engulfed by business districts, offices, hotels etc. Located near the village is a large government housing complex. Bhikaji Cama is a very prominent business district also located nearby. Some of its parts have been converted to authorize housing colonies. Today this village is in its second stage of transformation.

Timeline of Government Policies

Delhi has 362 villages out of which 135 are urban villages and 227 rural villages.

1908. Revenue Settlement was done for the first and only time when the Lal Dora areas were defined.

1948. East Punjab Consolidation and Prevention of Fragmentation Act – to consolidate agricultural holdings.

1951. This Act was extended to Delhi.

1951-1954. 102 Lal Dora villages.

1954. Delhi Land Reforms Act enacted, later amended to allow extension of 'abadi' areas for amenities like health facilities, religious buildings, physical infrastructure, landscaping and open areas. Extended area demarcated by new boundary called 'phirni'.

1970. Extended Lal Dora Act to identify area between Lal Dora and phirni.

1957. Agricultural land was acquired from the villagers at the rate of Rs 3000/acre.

Subsequently the rates were revised over the years. Figure 3 plots the change in rates [5]. In the initial years, the villagers were also given a residential plot of 400 sqm area and one family member was given a government employment. With time the area of the residential plot was reduced to 250 sqm and the practice of giving employment was discontinued. The villagers were then assured that the development of 'urbanized villages' would be integrated with the surrounding urban areas but no such planned developments took place though some isolated efforts were made (Committee, 2007)

1957. Delhi municipal Corporation Act kept Lal Dora areas out of purview of building byelaws.

1963. Delhi Administration Notification stating residents constructing houses within the Lal Dora areas need not avail building permission, subject to certain limitations like only residential use, maximum height two and half stories etc. This order however, debarred the construction of factories; warehouses slaughter houses etc. within Lal Dora.

1983. Delhi Development Authority Building Byelaw stated Construction in Lal Dora areas are not required to obtain completion certificates or fire safety certificates before occupying buildings.

1977. Ministry of Urban Development issued order pertaining to regularization of unauthorized colonies. This order was extended to Lal Dora as well.

1979. A committee was entrusted with the task of formulating perspective plan (1980-2000) for sub-standard areas in Delhi including villages.

2004. A circular stated that as of August 2004 byelaws be applicable to Lal Dora areas and action be taken on those buildings which were constructed after August 23rd, 2004.

2006. MCD reconsidered the same on the basis of Standing committee's resolution dated 27th August 2006 approving an individual's request to not withdraw the 1963 notification [5].

Data Collection

A stratified random sampling was adopted at 95% confidence level and 5% confidence interval to collect data. The questionnaire was designed to collect basic factual data on respondents and also to understand their tenure status and household transformations. In addition, questions were directed towards understanding the transformation in livelihood and alternate sources of income adopted. Respondents were also asked if they would prefer to live within the urban village or shift elsewhere. This gave a good understanding of the present living conditions and the residents' satisfaction levels.

Case Study

Kotla Mubarakpur, was the main case study. An analysis on transformation of land use, occupational structure and livelihood, was done. Kotla Mubarakpur was next

compared to Hauz Khas and Mohammedpur on transformation experienced by them. Land use transformed drastically from 1901 to 1971. A steep increase in the proportion of residential use with a corresponding drop in the agricultural land was noticed (Table 1). The Figure 4 shows how land holdings have transformed in use over a period of 7 decades.

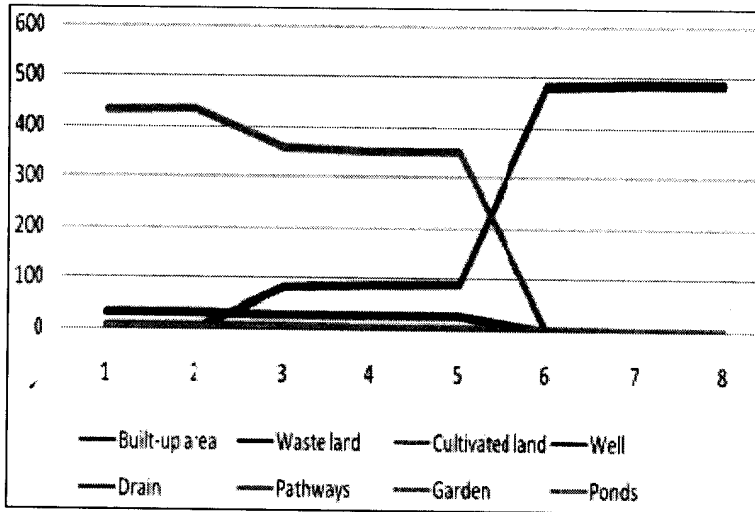


FIG 4. Land use transformation in Kotla Mubarakpur. Source: Sundaram (1977).

TABLE 1. Transformation of Land use in Kotla Mubarakpur.

Land Use	% Dist. in 1971	% Dist. in 2012
Residential	68%	43.3%
Mixed	0%	37.7 %
Non Residential	1%	2.4%
Community Facility	10%	3.4%
Open spaces	12%	10.2%
Circulation	6%	2.3%
Others	3%	0.7%

The transformation slowed down after the 70s. Since then the conversion in land use has been more from residential to mixed use as opposed to agricultural to residential as seen in the preceding decades. In Table 1, it is seen that over 4 decades (1971-2012), residential use has reduced from 68 % to 43.3%, giving way to mixed land use. Today mixed use is 37.7%. Open areas and community spaces have reduced. Circulation area in the 1970s covered 6% only, which clearly indicates the compact nature of the villages. Even then, this area has reduced to a mere 2.3%. Non-

residential use which includes commercial establishments as well as small scale industries has increased from 1% in 70s to 2.4% in 2012. A study of inter and intra-generation mobility of occupations shows that while some occupational groups stagnated, others showed greater mobility. Some occupations have undergone greater number of transformations as compared to others.

	0	1	2	3	4	>5
Farming				4%	8%	2%
Gardening				8%	4%	2%
Trade						
Business						
Customary Service				6%		
Shop				4%		
Weaving				2%		
Labourer				2%		
Washer man	4%					
Barber	4%			4%		
Potter	2%					
Sweeper	2%	2%				
Carpenter	2%					

FIG 5. Inter and intra generation mobility of occupation.

The rows show the different occupations and the columns show the number of times the residents have changed their occupation. The percentage indicated in the cells in the percentage of respondents fulfilling the indicated criteria of occupation change. For e.g. 4% respondents were Farmers who changed their occupation twice (Row 2, Column 4). It is quite evident that occupations like farming and gardening have undergone the maximum number of transformations while occupations related to the service sector, underwent less number of transformations. Even trades and businesses have undergone changes which correspond to the transformations in the nature of commercial activities and services based on market demands of the surrounding urban areas.

Comparative Analysis of Urban Villages

The three urban villages are in different stages of transformation. Hauz Khas has already reached the fourth stage and shows a distinct urban flavour when compared to the other two urban villages, Kotla Mubarakpur and Mohammedpur, which are in their third and second stage of transformation respectively. Figure 6 below shows a comparative analysis of household type in the three urban villages. While Kotla and Mohammedpur have a higher percentage of joint families, Hauz Khas shows a greater percentage of nuclear families as well as unmarried residents. In Kotla Mubarakpur, joint families live in three or four storey houses and have separate kitchens on each

floor, though essentially they continue to function as a joint family. Hauz Khas' inclination towards smaller family size is indicative of the fact that its residents are of higher income groups and the urban village has reached a higher state of urbanization. The average height of the buildings was compared. In Kotla Mubarakpur buildings range from 4 storeys (47%) to 5 storeys (35%) whereas only 2% of the buildings are 2 storeys or lower in height (Figure 7). Renting is an important source of income in these villages, hence the increase in average height of buildings. In Mohammedpur only 8% of buildings are 2 storeys. Hauz Khas went through gentrification in 80s and shows a different scenario. Though the land price is high, it has become an upper class residential area. 70% of houses in Hauz Khas are 2 storey buildings (Figure 7).

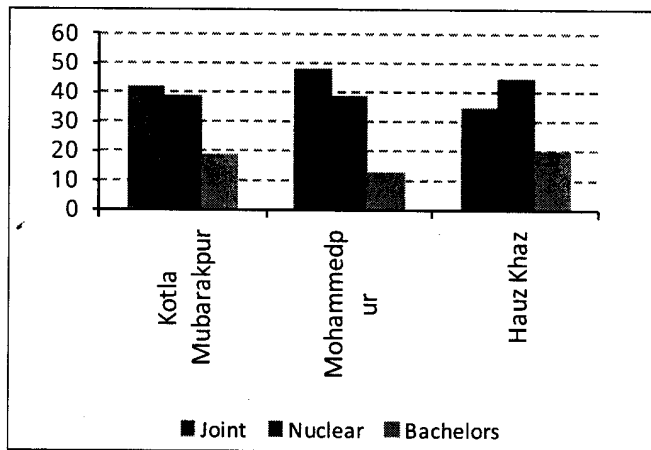


FIG 6. Comparative analysis of household type.

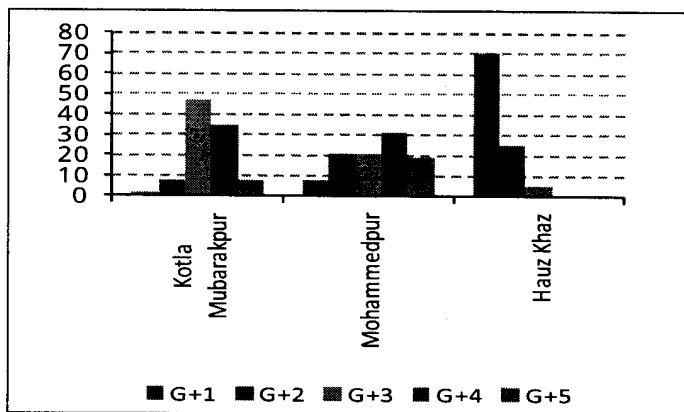


FIG 7. Comparative analysis of building heights.

To triangulate the above observation, a comparative analysis was made on the role of renting as a source of income in the three villages (Figures 8 & 9). It is evident that renting plays a greater role as an alternative source of income in Mohammedpur and Kotla Mubarrakpur; whereas in Hauz Khas it is not such a common occurrence. It is also seen that in Hauz Khas very few residents have undertaken housing transformation to accommodate more space for renting.

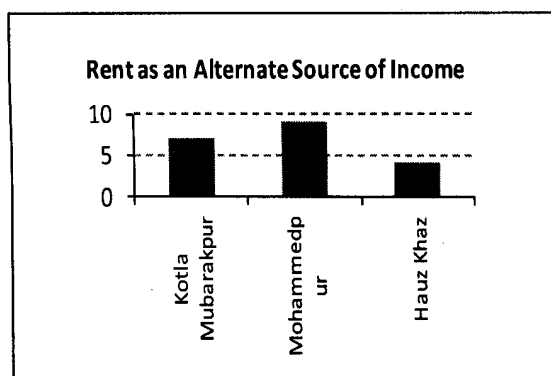


FIG 8. Rent as alternate source of Income.

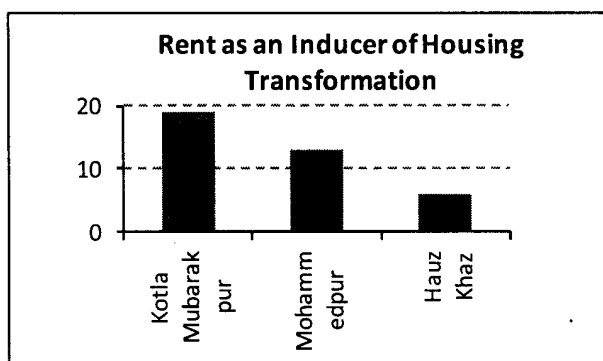


FIG 9. Rent as inducer of housing transformation.

A similar comparison was made on household business. Business is seen to play a greater role in the income of residents in Kotla Mubarrakpur and Mohammedpur, but Hauz Khas has done more housing transformations to accommodate showrooms and shops beneath their residences. Though as per Figure 10 business plays a lesser role as a source of income in Hauz Khas, it should not be interpreted as less commercial activity in this area. Since in this area residents have higher financial security, income from business has a lesser role to play.

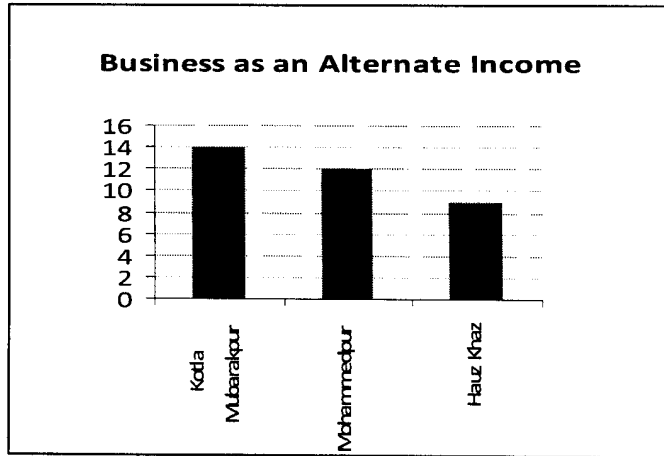


FIG 10. Business as alternative income.

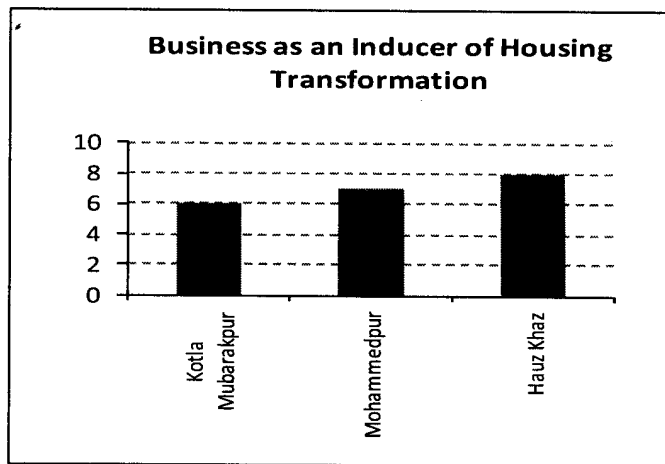


FIG 11. Business as inducer of housing transformation.

To analyse the residents' level of satisfaction with their present residential area, they were questioned if they would prefer to live outside or continue their stay in the urban village. The resident's response was based on a combination of several factors like rent, cost of living, infrastructure available, services available, connectivity etc. In case of Kotla Mubarakpur and Mohammedpur less number of residents wanted to continue their stay in the urban village; whereas in Hauz Khas 80% of the residents were satisfied with their present arrangement (Figure 12). This clearly shows that Hauz Khas is more livable and more suited to the needs of its residents.

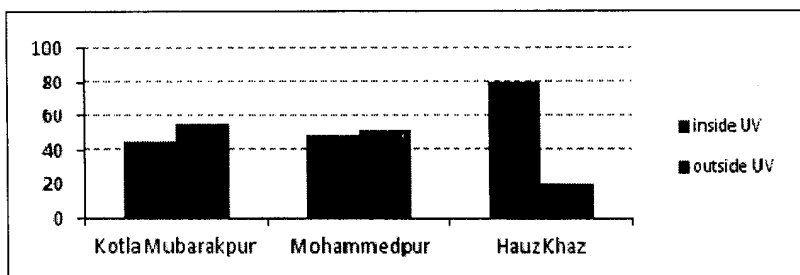


FIG 12. Comparative analysis of residents' satisfaction.

Proposed Approach to Improve Mobility in Kotla Mubarakpur

In Kotla Mubarakpur, the focus would be on the aspect of stability-mobility. Mobility, in terms of social interaction and communication. The village service sector markets are the hub for such interactions and flow of information. The importance of a village service sector for generating local general equilibrium effects will depend on the access to the services from outside the village, as well as on the village size.

Kotla Mubarakpur is uniquely known in the whole of Delhi for its paper/printing press industries and dairies. According to our survey, six such regions have been identified and mapped which govern the major commercial mobility in the village (Figure 13).

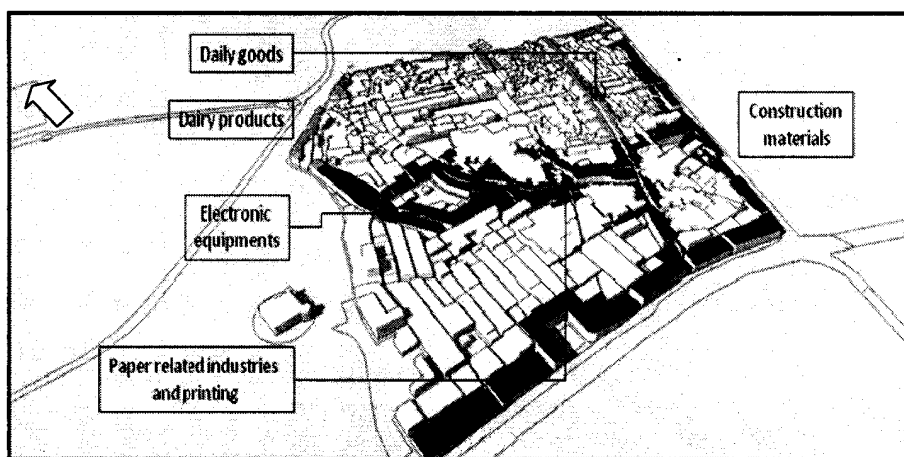


FIG 13. Small scale industries zones.

The major issue in urban villages is vehicular traffic and congestion. The major lanes in this village are Gurudwara Road and the Udai Chand marg which are maximum 9m wide. This creates major traffic stalls, especially during peak hours. Also, many lanes and junctions have been blocked due to illegal encroachments.



FIG 14. Two major lanes in Kotla Mubarakpur.

There is no option of widening the roads, so congestion can only be tackled through traffic calming or traffic diversion. Kotla Mubarakpur is distinctly divided into areas for specific activities. Hence we can develop:

- 1) A set of dedicated corridors. (routes/loops) for each of the specific activities, thereby, diverting the traffic and filtering the number of vehicles.
- 2) Pedestrianization of inner lanes. All the internal lanes are proposed to be pedestrianized to reduce congestion and to re-establish the village identity. Rickshaws and carts can be used for transport of people and goods respectively, inside the village.

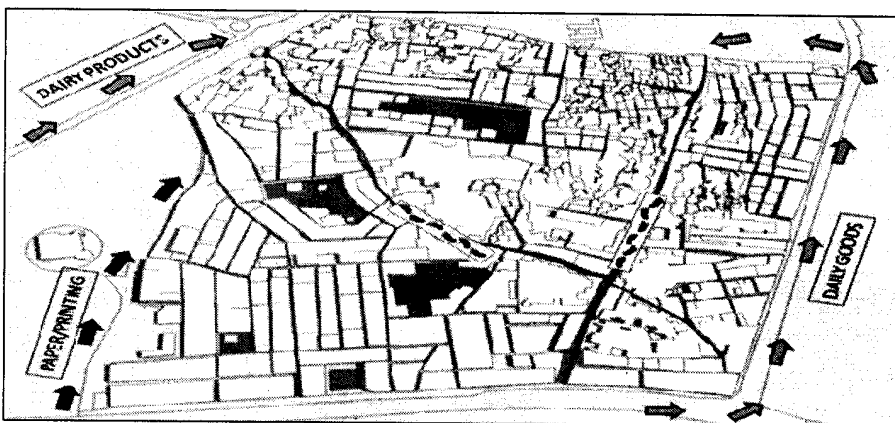


FIG 15. Mobility Plan.

These measures can imbibe a strong sense of community and a safe and sustainable environment in the village. It is essential for these markets to be well integrated to markets outside of the village. If not, then such segregated areas for specific activities or markets would not work as a portal for local residents to the outside market.

Conclusion

The study attempted to focus on a unique phenomenon; the urban villages in Delhi. It identifies different stages of urban villages through a comparative study of three urban villages. The study tries to find the sensitivity of various parameters on residential location, type and ownership preferences of the residents. It can help policy makers and planners identify at what stage of transformation an urban village is and predict the likely future scenarios. It will also provide design inputs which can increase the residents' satisfaction level. The Proposal to improve mobility could improve the access to these areas making it easier for urban development to spread through these developmentally isolated 'abadi' areas.

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