

# Expanding Cities, Contested Land: Role of Actors in the Context of Peri-Urban Interface

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## Abstract

The recent upsurge in urban growth and decentralization of economic activities has made peripheral urban areas, the PUI, a topical issue. However, the issues once visible in the city center have moved to this PUI culminated into land transformation and city expansion. Understanding the process and actors of land use transformation in the rural-urban boundary is crucial because of its dynamic nature. The present study tries to investigate the land transformation and different actors and their role in driving these transformations. The present study was done in Aligarh City, which is relatively a small city, compared to other cities of which literature is available but it is also a fast growing city in India. The issues examined here are certainly not limited to Aligarh City and many of the features can be traced with other cities as well. Like many other cities in north India, Aligarh City is expanding fast; moreover, it is surrounded by a populous rural area with productive and rich agricultural hinterland. Such conditions give rise to many conflicts among rural and urban economies, values, and people. However, they also generate mutually beneficial complementarities in the rural and urban spheres. The net outcome is highly selective for different groups and different locations. The role of actors in PUI is strong, because it is characterized by intermixing of rural and urban activities. The trends and patterns of land transformation at any location are the outcome of certain “alliances” and “conflicts” among these individual actors.

## Keywords

Peri-Urban Interface, Land Transformation, Actors

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## 1. Introduction

Our planet is transforming into a planet of cities. Presently, 50 percent of the world’s population lives in cities, which is expected to increase up to 70 percent or more by 2050 (Angel et al., 2012). Significantly, most of this

increase is expected to take place among developing countries. Cities in developed world will add 160 million to their existing population in the next 40 years. The cities in the developing countries during the same period will need to accommodate 2.6 billion people which will be almost 15 times more than the present urban population in these countries.

India, traditionally a rural country, is also observing this rising trend of urbanization. The 2011 census indicated that the urban population grew to 377 million recording a growth rate of 2.76% per annum during 2001-2011. The level of urbanization in the country as a whole increased from 27.7% in 2001 to 31.1% in 2011 (an increase of 3.3% during 2010-2011, compared to an increase of 2.1% during 1991-2001). Importantly, urban population growth alone cannot speed up urbanization. The urban rural population growth differentials have also showed increases of about 1% per annum during 1991-2001 to 1.61% per annum during 2001-2011 (Bhagat, 2011).

Urban planning as currently practiced in India is essentially concerned with planning the use and development of land in cities. After independence in 1947, the initial plans ignored the urban planning, as the first five-year plan did not visualize the role of cities in raising the “production potential” and urban development was not considered as a sector of economic growth. The perception of haphazard growth of cities was seen as a result of poor enforcement of rules which continued until the sixth five-year plan. However, in the 7th five-year plan, the economic importance of cities was acknowledged and planning for urban development was emphasized. The urban development planning focused on two constituents: the first was the interaction between physical and investment planning and the second was the preparation of regional and sub regional urban development plans. The eighth plan further emphasized small and medium towns as the thrust area, identifying them as important link between rural and urban settlements. The recent perspective for urbanization could be gauged from the eleventh plan document where cities were recognized as the locus and engine of economic growth. Further, the proposals advocated developing new settlements located in the vicinity of the mother city as satellite/counter magnets to reduce and redistribute population influx.

Cities in India are emerging as centers of both hope and despair. These settlements are engines of economic and infrastructural development, but at the same time poor management and destruction to natural resources have raised serious concerns. This lopsided urban development has posed concern also in relation to land resource, its management and planning. The prevailing stress on land resource has its bearing on decreasing pasture lands, open space and above all agricultural lands and its productivity (Fazal, 2000). There is also a growing concern for securing sustainable livelihood based on land resource. This status of land resource is highly dynamic at the urban margins, the peri-urban interface.

The term peri-urban is used by researchers from many disciplines and paradigmatic perspectives to describe contradictory processes and environments (Laquinta & Drescher, 2000). The word “peri-urban” could be used to denote a place, concept or process. As a place, it could refer to rural fringe areas surrounding cities. As a concept, peri-urban could be seen as an interface of rural and urban activities and institutions. As a process, it could be thought of as the interactions between rural and urban areas.

Peri-urban areas are socially dynamic in nature, wherein social forms are constantly created, modified and discarded (Laquinta & Drescher, 2000). They are areas of social compression or intensification where the density of social forms, types and meanings increases, fomenting conflict and resolution (Narain & Nischal, 2007). Significantly, small farmers, informal settlers, industrial entrepreneurs and the urban middle class may all co-exist in the same territory, despite with different and competing interests, practices and perceptions (Fazal, 2013). Similarly and institutionally, the peri-urban interface is complex, since some administrative activities may fall outside the purview of rural and urban governments. Peri-urban dwellers are confronted with both urban and rural laws and institutions, breeding a situation of legal pluralism. Thus, PUI is the transitional setting in which processes of urban growth and development intersect with the pressures for rural preservation (Narain, 2009). There is increasing acknowledgement that rural and urban qualities extend up to the geographic edge of cities and beyond. Associated with this, the planning and policies are based on the recognition of the rural-urban dichotomy.

As Indian cities continue to swell, the challenges of urban development and sustainable management are enormous. The present paper tries to investigate the existing land policy and to assess the ground realities, processes and actors operating in the peri-urban interface.

In the literature, various approaches are taken to ascertain the complex and multidimensional process of urbanization. The paper uses the case study method of research (Yin, 1984). This is an empirical inquiry investigating a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and

context are not clearly evident and where multiple sources of evidence are used. The case study is used to present a portrait of a particular social phenomenon and is often considered to be the most flexible of all research designs, largely because of the ability to draw from a number of data sources (Hakim, 1987).

The present research effort is based on both primary and secondary sources of data. The primary data were collected for assessing land transformation, their reasons for transformations and actors operating in land transformation. The primary data include interviews with the local population (household in-depth survey), emphasizing the empirical orientation of the study. Despite its drawbacks, the household approach is the most workable level to measure land transformation processes in traditional north Indian PUI society. The selected research area encompasses a wide range of villages: from places that have remained relatively rural, deriving an income mainly from cultivation of land, to villages that have been entirely enveloped by urbanization. The distance from city, land-use pattern and the transformation of the occupational structure are the most important criteria for clustering and selecting villages for the study. A basic household survey was conducted to describe the situation in 16 villages located in the Aligarh's PUI. The data collection was based on stratified random sampling method and 372 households were sampled for in-depth analysis.

The secondary data include census data for demographic information as well as satellite and other maps used for land use mapping. The analysis for land transformation was done from three-time period data. It included Aligarh City guide map at 1:20,000 scale, prepared by survey of India in 1980 and IRS satellite imageries in 2000 and 2010. The satellite data were enhanced before classification using histogram equalization for the better interpretation, to achieve better classification accuracy (Rahman et al., 2011). Furthermore, the images including city guide map were rectified to a common Universal Traverse Mercator (UTM) projection/coordinate system. The data sets (LISS III data and guide map) were re-sampled to 5.8 m spatial resolution using nearest neighborhood re-sampling technique in Erdas Imagine software to make it comparable to IRS PAN data 5.8 m cell size. Then "on screen" digitization was performed on these data sets. To prepare land use/land cover (LU/LC) maps in the years 1980, 2000 and 2010 of the study area, Level-II LU/LC classification scheme has been used. To validate results of classified land use/land cover map, 25 sample points were verified which represented all major land use/land cover classes.

## 2. Study Area

Aligarh City is located in the Gangetic plain area where agriculture is the principal economic activity due to the productive nature of the soils. Aligarh City is an old city which is situated in the western part of Uttar Pradesh, between Ganga and Yamuna rivers at 27°53' north latitude and 78°35' east longitudes (Figure 1). Although the urban growth rate is fluctuating in Aligarh city but the city population is gradually increasing (Table 1). The population of Aligarh City is 872,575 which makes it 7th largest populated city in Uttar Pradesh (Census, 2011). Of the total population, it has 25.36 per cent are reported to be main workers (61% tertiary sector, 36.5% secondary sector and 2.5% primary sector). The Aligarh city has the status of class-1 city with 23 % of the district population lives in Aligarh city. Studies suggest that rapid urbanization of Aligarh city has led to large scale land transformations and expansion of urban area (Fazal, 2013). The urban shadow effect is affecting the surrounding rural areas and the land value is increasing rapidly in and around Aligarh city. The population is increasing by natural growth and migration in Aligarh city resulting in expansion of the city encroaching upon the lands from surrounding villages to accommodate these people. The village economy is tied up with the growing city. There is phenomenal increase in linkages with daily movement from the village to the city in order to supply the different commodities. All this indicates towards development and expansion of peri-urban interface.

### 2.1. Status of Land Resource in Indian PUI

The value of land is largely influenced by the prevalent market forces, which in many ways determines the supply and demand for land. As the urban economy grows, its economic structure changes due to which there is increase in the demand and resultant value of land. This increased demand is usually met by acquiring more and more rural/agricultural land. The urban development authorities and other public agencies have pursued the policy of land acquisition development and disposal of land.

The Aligarh Development Authority (ADA) has proposed to acquire 11,470 hectares of land in its 2001 master plan. The example of Aligarh and other cities of Uttar Pradesh is characterized by availability of suitable land

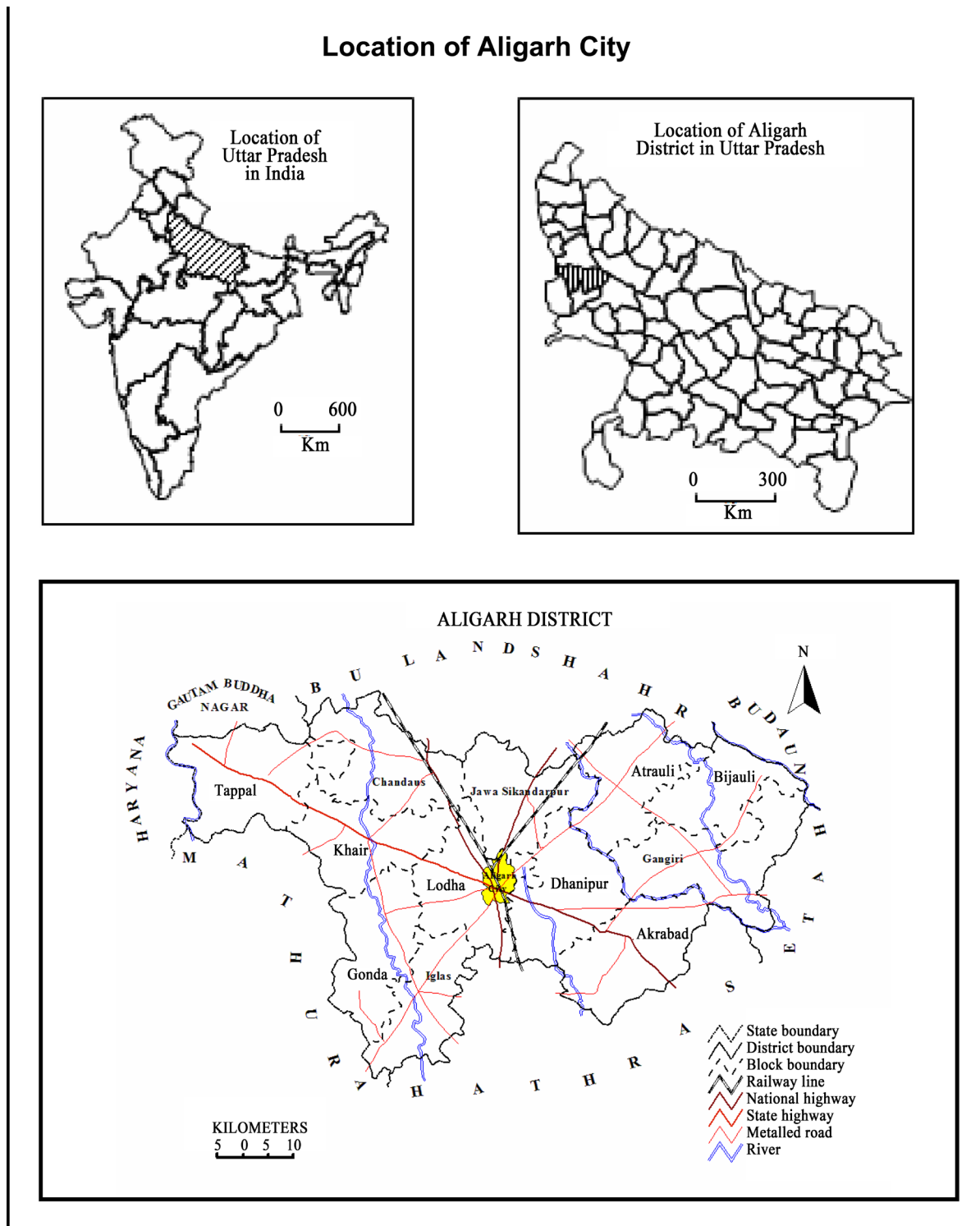


Figure 1. Location of Aligarh City.

for urban expansion but they are constrained by dispersed locational availability. The morphology of city is characterized by a densely populated city centre (CBD), a mostly residential area surrounding the city core and several developed traffic corridors extending into the typically extensive land areas available either for agriculture or lying vacant (Fazal, 2001). Generally, the city development authorities release insufficient amount of

**Table 1.** Aligarh City: decadal growth of population since 1980.

Census Year	Population	Difference of Population from Preceding Census	Difference in Percent
1981	320,861	68,547	27.17
1991	480,520	159,659	49.76
2001	669,087	188,567	39.24
2011	872,575	209,488	31.30

Source: Census of India.

**Table 2.** Land use/cover for Aligarh City and its environs (1980-2000-2010).

Land Use/Year	Area (1980)	Area (2000)	Area (2010)	Change in Area	% Age Change
Total Built up Area	1601.5	3525.5	4679	3077.5	192.2
Total Non Built up Area	13,882	11,925	10,618	-3264	-24.6
Total Urban Area	2257	5019.5	7459	5202	230.4
<b>Total Area</b>	<b>15,640</b>	<b>15,640</b>	<b>15,640</b>	--	--

Note: Area in hectare. Source: Based on Aligarh City-Guide map and IRS 1D Satellite Imageries.

**Table 3.** Loss of cropland in Aligarh City and its environs (1980-2010).

Year	Area under Agriculture (in Hectare)	Loss of Cropland (in Hectare)	Average Annual Loss (in Hectare)
<b>1980</b>	<b>13209</b>	<b>2802</b> (1980-2000)	<b>140.1</b> (1980-2000)
<b>2000</b>	<b>10407</b>	<b>5448</b> (1980-2010)	<b>181.6</b> (1980-2010)
<b>2010</b>	<b>7761</b>	<b>2646</b> (2000-2010)	<b>264.6</b> (2000-2010)

land for development because of overbearing regulatory framework.

## 2.2. Land Transformation in Aligarh's PUI

Understanding the process of land use transformation in the urban core and along the rural-urban boundary is very important to guide the urban growth for future habitation (Shi et al., 2012). The land transformation analysis is greatly influenced by the growth of activities in urban areas and the nature of the peripheral areas (the PUI) which has changed from being a dominantly rural agricultural area to an area with mixed, diverse urban oriented uses. The total study area is spread over 15,640 hectares, which is far further than the designated municipal area (4250 hectares) of Aligarh city. This includes the larger part of the immediate peri urban interface of Aligarh city and embody all the urban expansion that has taken place in different parts of the city during the study period. As shown in Table 2 and Figure 2, it is clear that the city has expanded outwards encroaching upon agricultural land of the PUI. The total urban area is 7459 hectares, which during the study period has recorded an increase of 230 per cent. Significantly, the built up area, is spread over 4679 hectares recording an increase of 3077.5 hectares. It suggests that a significant coverage of urban area is speculative land where city development has not taken place. Most importantly, the city PUI, which is comprised of well developed agricultural environs, is under threat of urban expansion resulting in not only loss of fertile agricultural land but also loss of livelihood option. The study shows that during the study period the city expansion has incurred a loss of 5448 hectares to fertile agricultural lands. Strikingly, the rate of loss of agricultural land is more rapid in recent years (Table 3 and Figure 3).

## 2.3. The Actor's and Their Role in PUI Land Transformation

Many researchers and planners have investigated the drivers of change in land use and land cover. These changes are the result of broad economic, socio-cultural forces bringing in use and changes in land. Identifying the causative factors requires an understanding of human behaviour, their decision making process and interact-

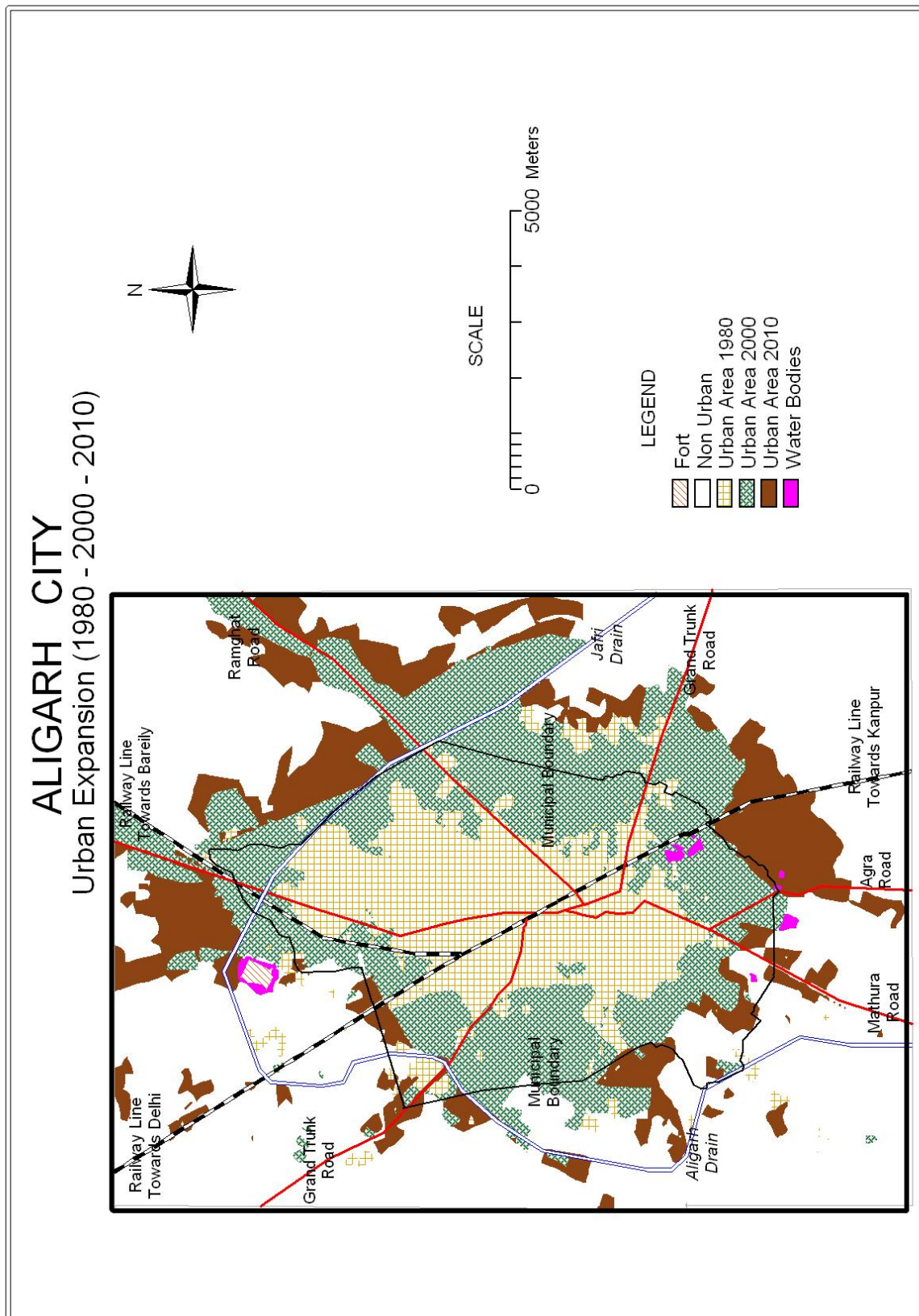


Figure 2. Aligarh City urban expansion (1980-2000-2010).

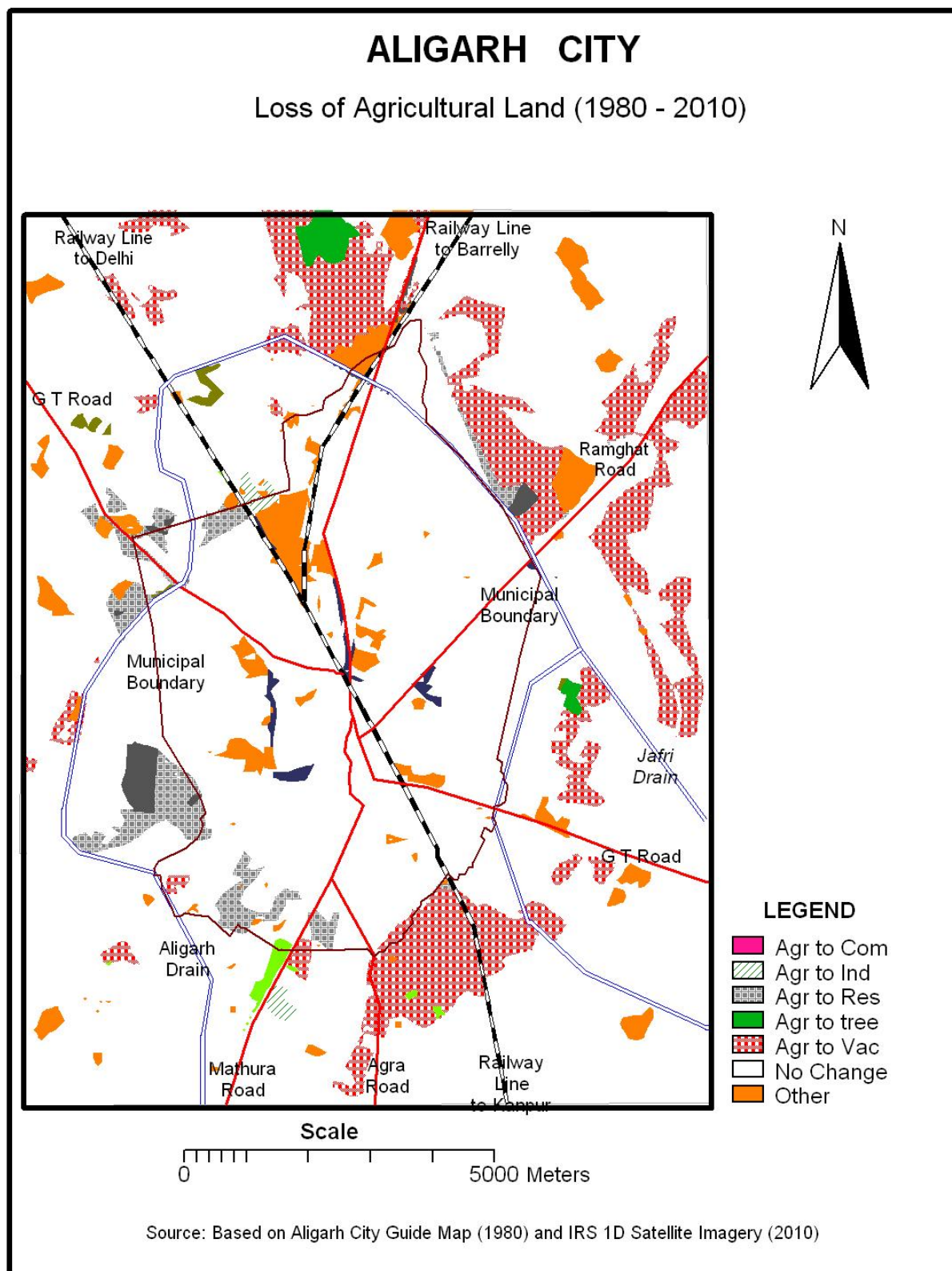


Figure 3. Aligarh City loss of agricultural land (1980-2010).

tion with biophysical settings and changes therein. These forces can be differentiated into driving forces – that are expected to change over time, such as increase in population, land value etc. These are fundamental forces that underpin the direct circumstances for land transformation. The driving forces are the outcome of complex interactions among social, economic, demographic forces. Driving forces operate more diffusively (i.e. from a distance) and often have bearing over stable conditioning forces.

The conditioning forces remains relatively stable over time but may be spatially varied, such as physical setting or even cultural values. The conditioning forces involve physical actions in land transformation, impacting at local levels (such as individual holdings, local residents or society etc.). Both of these forces, driving and conditioning have bearing on spatial and temporal variations in land transformations at different locations. Bryant and Bailey have used the term “actors” for the individual components of driving and conditioning forces (Bryant & Bailey, 1997). The trends and pattern of land transformation at any location are the outcome of certain “alliances” and “conflicts” among these individual actors. The actors in PUI are even stronger because it is characterized by intermixing of rural and urban activities and interests as well as the number of actors are greater than in any other area (Fazal, 2013).

Aligarh, despite a relatively small city, is experiencing an extreme amount of pressure on land. The same mechanisms operate almost everywhere across Indian cities. Many studies have highlighted this trend, like Schenk (1997) and Amitabh (1997) observed unauthorised development in and around the city of Bangalore or Lucknow. The sales prices and rents for dwellings in colonies on these examples are much higher than in Aligarh. Nevertheless, the same mechanism and pattern of urban expansion is witnessed in Aligarh City also although the scale may vary.

The present study also finds that the demand for land is so high that this kind of informal urban development fulfils the requirements of many of the city’s residents. Every piece of land is a tradable commodity, and the pursuit of short-term profits is the predominant ethic. The urban expansion violates statutory norms for urban settlement, resulting in amenities overburdened, access routes are encroached upon leading to conflicts and lengthy legal battles in court. Moreover, the system is corrupt as cheating as well as intimidation to protect the influential people’s interests is very common. This kind of expansions (development) ultimately reflects city more as large village rather than a city (Fazal, 2001). Where the informal sector dominates urban development, hardly any space is reserved for social infrastructure.

Traditionally, the basic objective of master plans for cities in India has been the containment and reduction of population pressure but lately, urbanization has met with increasing approval. The proponents argue that cities create an efficient multi-opportunity environment for the rapidly growing populations in India: “*The...increase in the density of population will reduce the per-capita cost of providing various services to the people. Therefore, the growth of urban centres must be welcomed and the emphasis of policy and public investment must shift towards minimising the unfavourable aspects of urban growth and removing critical bottlenecks*” (Visaria, 1997). Due to the continuing influx into the city and the fact that government institutions do not reach the targets they set for land and housing supply, the privatisation of a large part of the sector seems inevitable.

## 2.4. The Different Actors Operating in Aligarh’s PUI

The study finds that land use and transformation in Aligarh’s PUI are evolved due to the presence of different actors driven changes. There are number of actors active in this process and some of the dominating actors and their role are discussed below.

### 2.4.1. PUI Farmers

Farmers possessing land in the PUI are influential and powerful actors because they own and thus have command over the land. These land-owning farmers are the beneficiaries of agricultural land on the production side. They are the representatives of agricultural interests, although many of them may not be entirely dependent on agriculture. They have diversified their economic activities and thus have multiple interests, both as individuals and within the context of their household, which result in strategies that may or may not give priority to agriculture. The pursuit of multiple objectives influences the farmers attitude on land transactions, but this greatly dependent on the distance from the city. Whether a landowner is eager or reluctant to sell land depends mainly on his ability to find other occupations and targets for investment for the household. Even if the farmer withdraws from agriculture as an occupation, he may keep the land for speculative purposes.



The terms of trade are mainly dictated by powerful property dealers. Nonetheless, the pressure sometimes applied by large property dealers in association with locals does intimidate the local farmers. They can usually count on the backing of the dominant community in the village, which is an important force. Therefore, the predominating interests among the village population are definitely a consideration when a farmer has to decide what to do with his land. In the context of peri urban interface of Aligarh city, age and education have played significant role in land use and land transformations. But more strikingly, these transformations within social classes have led to upliftment of backward and deprived classes in general.

Non-economic factors also play significant role. Some farmers, mostly older people, feel a strong emotional attachment to their land. The cultivating castes have had ownership of ancestral land for centuries. Their tie to the land has determined their life styles, habits, and occupational preferences, whereby social status can be at least as important as economic gain. The farmers often raise the issue of emotional loss and livelihood and thus resist sale of land. But this bounding is strong away from the city and weak close to the city. Most certainly, the youngsters belonging to the original farming community become indifferent to the role of land for social status. As they are increasingly involved in the urban economy, they derive more status from typically urban activities and assets. This process clearly creates an incentive to sell off agricultural land.

#### 2.4.2. PUI Residents

The local population can be divided into two groups: the local land-owning community and the outside settlers. People are mainly concerned about acquiring residential space and improvements in levels of amenities and infrastructure in their locality.

Households among the original population often want to obtain additional land for residence, and there are two reasons to do so. First, families are growing and thereby splitting into separate households, for which additional housing is required. Second, the development of commercial and industrial activities in villages provides an incentive for the villagers to start businesses or other activities in part of their dwelling space. Alternatively, they rent out space to others also for that purpose; this is more likely when their residence is located along the roadside. As a result of these actions, people have to look for alternate place to live. Some original households have trouble acquiring sufficient space for housing; this is especially common among the poor section of the population. The inflating land prices make it difficult to buy additional land from the free market.

Settlers, the great majority of whom are migrants (AMU and other employees who draw livelihood from tertiary sector constitute a large majority of it), go about finding a home differently. They do not originally come from the villagers. Therefore, as individuals, they do not have much influence or powerful connections. Some find rented accommodation in the peri urban interface itself, but most reside in colonies which have been built upon the former agricultural fields. They have other interests also as they want to reside close to university (work place) as well as close to market and other social and cultural amenities and facilities. This way they cut down on their travelling expenses. There is one more important reason, because Aligarh city has history of communal disturbances so the residents settle within their own community and comfort zone. They have other interests also: first, they find relatively cheap accommodation; second, if the colony is unauthorised, they look for official assurance on legal status for the settlement. Third, they pursue for the government to invest in the public amenities for their colonies. Individually, the poorest settlers are not very influential, but their power lies in their large numbers. Political parties and representatives champion their cause to gain their votes during elections. This kind of political patronage is common all over urban India.

#### 2.4.3. Entrepreneurs

Private entrepreneurs have an important role as actor in urban land market. They represent the demand side of the land market, as they require space for commercial and industrial activities. At more peripheral sites in the agricultural area, brick kiln owners, sand excavators etc. are strong actors, initiating changes on the land. They place a strong temporal claim on land as leasing of speculative land is common feature of this activity. Some of these kiln owners and operators are from the original land-owning communities in the villages. The majority of them are specialised entrepreneurs who come from the city and share land resource with local community.

The pressure on the land increases closer to the better-serviced and accessible areas along the roadsides and near the villages. The greater demand leads to conversion of farmland for industrial and commercial purposes. In general, the supply of land by the government for commercial and industrial purposes is too limited. The majority of land in the market is being controlled by informal sector. Owners of industry, cold storages, storehouses,

and other commercial activities on former agricultural land come almost exclusively from outside the village, although many holdings are still owned by original villagers. The latter tend to concentrate on less space consuming activities such as retail businesses and repair shops within the residential areas.

Entrepreneurs tend to work closely with local property dealers, especially in unauthorised operations. The property dealers negotiate the transaction, keep the authorities at bay, and keep an eye on the property if the transfer of title does not result in the intended new use. They also combine some speculative venture with other land uses such as plantations and orchards. In fact, most of the vacant land in the study area is kept for speculative purposes. Local farmers, developers, and even entrepreneurs engage in this practice.

Land is an attractive investment object due to the escalating land prices in the peri-urban interface. The owner is obviously waiting for a more profitable use to come his way or for a buyer who is prepared to pay a higher price. In many cases, speculation is mixed with other intentions. Certain land uses are actually meant to conceal the main goal, which is speculation. For example, while waiting, the owner may build a farmhouse and keep a plantation or construct a marriage hall till it comes within residential limits with higher value. Adjoining land may be used for agriculture despite being sold to speculators, who let the former owner or leaseholders cultivate it until they need the land.

#### **2.4.4. Property Dealers**

Property dealers are also important factors in the land transformation process. They are involved with both the supply and the demand side of the land market. The majority of them are outsiders with greater hold on monetary and political powers while only few belong to the native villagers' community. These property dealers have large stakes in the land market because of enormous monetary benefits connected with the development of land into residential, commercial and industrial premises. The property dealers generally have access to the detailed local information on the legal status, ownership, prices and names of landowners who want to sell land. They have jumped in to fill the gap left by the government in areas where the formal control of development is weak. They have a captive market for the large number of migrants who are looking for a place to stay. This seller's market is good for their business. The demand created by industrialists, speculators, and city dwellers is another important source of earnings, as the property dealers charge commission on the transaction.

Some of the former and current landowners from the indigenous community also act as property dealers. They have an advantage over the outsiders due to the solidarity between the land-owning group in the villages, their knowledge of the land issues, and their ease of movement in the social structures of their village. Even with limited financial means, it is possible for local people to enter the real estate business and do well, taking advantage of their familiarity with the residents and the local setting. Significantly, as the village becomes more and more urbanized and the real estate sector expands, the community loses some of its coherence. This causes the community to lose its grip on the property business. Besides, the press frequently reports conflicts about land and criminal acts in the land business.

#### **2.4.5. Government and Public Institutions**

The government enters the scene in many guises, broadly divided into two categories. First, through active participation where land transaction is done through land acquisition or land banking programmes at government determined prices. The land transformation is controlled by releasing land based on future demands in the form of city development plans. Secondly, through controlling land transactions in the form of land zoning or land ceiling or price control etc. Here the land transformation is controlled by sanctioning specific use in selective zones.

There are several government agencies and they appear in the form of different actors, sometimes even pursuing contradictory goals. The interests and objectives of authorities do not only vary according to the roles they have as an institute, but may sometimes reflect individual or fractional interests, depending on many personal agendas. Consequently, private actors are able to influence and manipulate government administration and policies.

In India, urban development falls under the purview of state governments, which in turn delegate related responsibilities to urban local bodies as envisaged under the constitution's 74th Amendment Act. So the state government is the highest level for politics and policy-making. For most aspects relevant to the study area, it operates through local bureaucratic channels, e.g. the Block Development Office. The government has decentralised many tasks in urban administration, creating many departments. The most important one is the Muni-

pal Corporation and Aligarh Development Authority (ADA). Specific registration of land use and ownership is done by the *Patwari*, who keeps records at the village level. The judiciary plays an important role in land issues. Its hand is visible in land-use policy as well as in civil cases in the event of conflict and litigation. The police perform their obvious task of preventing illegal activity in general, which includes illegal land occupations, conversions and the like. In practice, however, the police are not very active in this respect and can be bribed.

Higher-level interests in the preservation of farmland are mainly a responsibility of the municipal and the state government. The official aspects of land-use policies are formulated in the Aligarh Master Plan. This even aims to protect an agricultural belt around Aligarh just outside the city limits. Much of the administration of rural land in Aligarh formally restricts the conversion of agricultural land to non-agricultural purposes, creating an enormous gap between plans and actual practice. The effectiveness of this administration is poor and allows the illegal conversion of agricultural land. Conversion is encouraged by the shortage of housing that is a result of this situation. Besides, the administrative bodies have compulsory stipulations and financial constraints that make the execution of large-scale and ambitious land-use projects a problematic affair.

The actual influence of the government results from a complicated interaction among the various government agencies and local private actors, rather than from rigid planning. Many government institutions implicitly represent conflicting interests. It is not unusual for individual ADA officials, police officers, and politicians to conspire in the creation of illegal settlements, whereby all get a share of the profits.

### 3. Conclusion

The present study finds prevailing duality in the system of land supply which is characterized by many current urban concerns as well as throws light upon strengths and weaknesses of the actors in PUI:

The study area lies in a fertile agricultural tract, where traditionally agricultural activity has been the dominant activity. However, with time urban oriented activities have gradually displaced agriculture as the preferred livelihood option. This in some way has resulted in land transformation incurring loss of agricultural lands.

In Aligarh, a growing city, the demand for land is increasing and this is manifested in the form of higher prices, intensive use and expansion of urban areas. Thus, both rural and urban uses compete for the use of land in PUI, making the transformation process more complicated. The land transformation of the land in Aligarh's PUI is determined by the revenue yielding capacity of its prospective use. The use with the highest revenue yielding capacity displaces other alternate uses. The value of PUI land is influenced not only by current productivity but also by its expected future productivity. The demand for land in the PUI for urban uses emerges much before the land is "ripe" for urban uses.

There is a chronic shortage in the supply of urban land. Every individual has different interests which lead to conflicts and practices of intimidation and manipulation to defend certain interests of specific individuals or groups. There is excessive inter-mixing of spatial functions, which is the outcome of inflated land values, and unrestricted and uncontrolled expansions, causing adverse environmental conditions. This problem needs to be addressed, but the costs of relocation are high and the legal proceedings are lengthy.

The actor approach provides insight for the conduct of people and institutions involved with land transformation process in the peri-urban interface. The PUI is characterised by a great diversity of actors and a complex mix of conflicting and complementary interests. Evidences from the study area shows that "beneficiaries" and "victims" can be encountered in any group, depending on the local situation. The outcome is also greatly depended on the economic and political strength, the connections, and the alliances among the actors.

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