

## **DEVELOPMENT MECHANISM IN SPATIAL INTEGRATION OF CITIES**

### **INTRODUCTION**

Land and infrastructure development is a priori issue across large metropolitan areas in India in view of their significant role in economic growth and their potentials to compete in the global market to attract investments. Demographically too, metropolises are growing at a much faster pace than other urban areas posing immense challenge of meeting the demands for serviced land, housing and other real estates and utilities and services. Very few cities in India have undergone planned development using modern planning tools and approaches towards integrated spatial planning. Furthermore, spatial planning and urban development have traditionally been in the realm of the governments (especially governments of the respective states or provinces) in India where public agencies are involved in the preparation of city development plans and their implementation in terms regulating urban land uses and space provisions and carrying out land and infrastructure developments. Private institutions or organizations have played a second fiddle, being engaged predominantly in development of individual sites and properties within given frameworks of public plans and regulations. Constitutionally also, urban planning and development have remained top-down until very recently<sup>1</sup> where community-represented local bodies (viz. municipalities) had very little role or autonomy.

However, in recent times, doors of various sectors in urban development are gradually opening for participation of the private entrepreneurship as the financial and organizational capacities of the government appears to be limited to meet the growing demands for urban land, shelter and infrastructure. Besides mobilization of finance, it is envisaged that competition in the market may lead to greater efficiency in the delivery of urban services as well as their pricing to benefit citizens. At the same time, government regulations may be necessary for equitable distribution of resources in the wake of the profit-making motive of private players especially to benefit the poor. Nevertheless, private sector participation is still quite rare in the area of organized large-scale development of serviced land, housing and amenities while it is common in public transport service and being introduced fast in solid waste management and power distribution and being contemplated in the area of water supply (viz. 3i Network, 2002; Suresh, 1999; NIUA, 1997).

This paper introduces two case studies of approaches or institutional arrangements for urban land development examining their performances in terms of efficiency, equity and contribution towards orderly and integrated spatial development of the city. Both these case studies are from a single regional context – the Delhi Metropolitan Area (DMA) – where, the core metropolitan city of Delhi has been traditionally following conventional and rigid mechanisms towards urban planning and delivery of serviced land. Delhi's satellite city of Gurgaon, on the other hand, has pioneered the process of large-scale participation of private entrepreneurs in urban land and housing development in the country. The paper does not aim towards formulating model(s) of urban land development; but it is envisaged that analyses of the advantages and disadvantages of the two contrasting institutional mechanisms within the same market context may be helpful towards such wider objectives.

### **PUBLIC AUTHORITY BASED PLANNING AND LAND DEVELOPMENT AND ITS IMPLICATIONS IN SPATIAL INTEGRITY IN DELHI**

#### ***Delhi and its Institutions of Urban Planning and Development***

Delhi today is almost a city-state covering 1483 square kilometers of urban area nearly 70% of which is urbanized. Administratively, this National Capital Territory (NCT) of Delhi

constitutes a state government which constitutionally has less power than other state governments of the country, lacking in autonomy over land. Urban planning and development of Delhi, therefore, is virtually in the hands of the central or the national government and is carried out through its agency, the Delhi Development Authority (DDA), constituted under a parliamentary legislation in 1957. With the growth of Delhi in the past several decades, the DDA has grown over time as a large and bureaucratic organization. Delhi constitutes also the jurisdictions of three urban local bodies, largest among them being the Municipal Corporation of Delhi (MCD) which more or less resembles politically other elected urban local self governments of the country; while the New Delhi Municipal Corporation (NDMC) with its jurisdiction over the central business district and the core area of central government functions (previously the area of the Imperial Capital or “Lutyen’s Delhi”) and its surroundings is less autonomous. Further, there are contiguous defense lands under the Cantonment Board. The MCD and the NDMC are responsible for operation and maintenance of several basic urban services within their respective jurisdictions. There are also several key functional agencies which are autonomous public bodies for urban services like the Delhi *Jal* (water) Board (DJB) and the Delhi Transport Corporation (DTC); while the functions of the Delhi *Vidyut* (electricity) Board has recently been “unbundled” and privatized.

With a historical legacy of being the capital of many royal dynasties and the famous urban planning and design edifice of New Delhi - the colonial capital of the 20<sup>th</sup> century- Delhi is among the few cities of the country carrying the legacy of so-called planned urban development, inspired primarily by western models and approaches of city planning, since the independence of India,. The very first statutory Master Plan (MPD-62) for a period of 1962 to 1982, was prepared by the DDA in collaboration with the Ford Foundation and also sought British expertise. The plan was revised and the second plan was published in 1990 (with a gap of almost a decade) as the Master Plan – Perspective 2001 (MPD-2001). The third plan for a perspective up to 2021 (MPD-2021) has come out in 2005 but is yet to be made statutory.

Unlike its sister metropolises like Calcutta or Bombay which had also started urban planning after the independence with foreign collaborations, Delhi from the beginning has been using an instrument for inflexible land use planning with detailed development coding for premise - by -premise land and building uses. DDA prepares not only perspective plans of twenty years’ horizon, but also detailed plans for the individual zones of the city outlined in the master plan. It is supposed to monitor all land developments in the city to the satisfaction of the prescribed codes including the task of extending approvals of layouts plans and buildings across individual sites. Further, the DDA is the prime agency for carrying out all public land developments and redevelopment works in accordance with its own master plan. Also, It has a mandate of supplying constructed dwelling units and building commercial complexes and community facilities in different parts of the metropolis.

Population in Delhi has been growing at a very high pace, much faster than many metropolises of similar size in the country and migration to the city from adjacent and remoter regions have been contributing significantly to its growth. After the initial post-independence decades of refugee influx following partitioning of the sub-continent, decadal growth rate has been varying between 51 and 53% (Government of India, 1991). With a modest beginning as a capital with mainly political and administrative functions, the “mega-city” of about 14 million population (Government of India, 2001) displays today a diverse economic base and acts as a large commercial and institutional hub, a large market enjoying tax incentives for many years and a prime locale of political power and intellectual and bureaucratic decision-making, having its attractions for all – from the common job-seeker to the giant multinationals. Undoubtedly, Delhi’s population pressure and the growing economy have steadily increased demands for various urban infrastructures and serviced land for shelter and a variety of other urban uses. The following section elaborates on the responses

of the existing institutional mechanism to the issue, particularly in respect of supply of serviced land for planned urban development.

### ***Policies and Processes of Urban Land Supply in Delhi***

Consecutive spatial plans of Delhi have been myopic in their visions of future growth potential of the metropolis as well as in their approaches to the use and reuse of urban land and conservation of natural lands of ecological significance.

As far back as the early twentieth century, Lutyen's "garden city" of New Delhi initiated a process of urban sprawl if one compares its ludicrously low density with the density that prevailed across the then vernacular capital, Shahjahanabad, lying adjacently (Joardar, 2006; King, 1976). Post-independent plans looked continuously outwards with a policy of low-rise development and horizontal expansion to accommodate future growth. Low density residential areas were planned around the inner city, especially for government employee housing. The realization for efficient land utilization came later, the second plan onwards, when very large greenfield housing developments were made around the fringe at higher densities, contributing towards an "inverted bowl" shaped density distribution across the metropolis (Joardar, 2003). As regards, recycling of urban land and generation of space within the built-up inner city locations, the first plan proposed urban renewal of some old residential areas without any action programme and the second plan proposed increasing "holding capacities" of several inner planning districts without strategies for infilling or redevelopment (Delhi Development Authority, 1962 and 1990). The recent MPD-2021 makes a clarion call for inner city redevelopment, but again without any definite operational guideline or strategies towards this end (Government of India, 2005). With regard to conservation of natural land, especially the Yamuna River-side lands, DDA's policies have been vacillating and contradictory, ranging from removal of encroachments and ecological conservation with green uses to intense high-end residential and commercial developments by channeling the flow. In reality, with the policy of continuous horizontal expansion at the fringe to accommodate urban growth, estimates for land resources for planned urbanization has jumped from plan to plan culminating into almost 70 % of the total available land of the NCT of Delhi.

DDA follows large-scale or *bulk public acquisition* of peripheral agricultural land for planned development, using the Indian Land Acquisition Act of 1894 (Amended significantly in 1984). Compulsory land acquisition for "public purpose" by the government by paying compensation to the land owner, using this law, is the most common method of land assembly across the country, especially for public infrastructure developments like highways, railways, public utilities, development of large-scale public housing, etc. However, Delhi, is unique in terms application of this method for large-scale land assembly for comprehensive urban development. But, the process is long-drawn, bureaucratic and mired with litigations. DDA identifies the required lands and approaches the Delhi Administration (under the Lieutenant Governor who is the representative of the union government for the NCT) which brings out public *notification* for acquisition, inviting also public objections, if any. Compensation based on market price as on the date of notification is paid to the land owners at the time of actual acquisition. The notification is valid for three years beyond which the lands have to be de-notified and notified again, if necessary, at the prevailing market price. This requirement of the amended Act intends to induce efficiency or speed in public land acquisition while at the same time imposing a large financial burden on the government. In reality, however, the acquisition process stalls frequently with litigation over property rights on account of India's poor land records across rural areas as well as over compensations.

From the very inception of the DDA, its mechanism for disposal of developed residential lands has been *long term lease* (99 years) instead of outright sale with the objective of

keeping public control over the urban land resource, in turn to regulate the use and transfer of real estates and market speculation over land. Furthermore, the relative distribution of developed residential land lots across income groups and their pricing mechanism intend to benefit the poorer section of the society by developing and disposing larger amounts of smaller lots<sup>ii</sup> as well as cross-subsidizing them against the administered prices of the high-income group residential lots or the auction-bids of commercial lots.

### ***The Social Objectives get Defeated***

Market forces have made a mockery of the above social ends of the DDA's land disposal mechanism forcing it to change some of its provisions in recent times. The time taken between preparation of draft master plans, their reviews and finalization and the actual freezing of land through the statutory plan and notification for acquisition allows sufficient time for market speculation. Further, the system of leasehold disposal and public subsidies have actually overlooked the realities of the dynamics in the urban land market, where there is significant 'filtering up' of public land and housing stocks targeted to the poorer section, as competitive market prices render these properties financially attractive for their transfer to the richer, defeating entirely the purpose of equitable resource distribution. For instance, across many large-scale public slum rehabilitation housing projects, there is hardly any trace of the targeted poor households after a few years of project completion. Enormous market transfers of land and housing developed and disposed off by the DDA have taken place with the use of alternative legal instruments, like providing general power of attorney for use and other property rights to the buyers circumventing the restrictions on sale of leasehold properties.

Realizing the above situation the DDA has been allowing recently conversion from leasehold to 'free-hold' of the lands and properties developed and disposed off by it. Incidentally, a full legal transfer of free-hold real estates also generates significant earning for the government through levy of charges and duties on the sale deed. Further, a leasehold right and a power of attorney do not provide the psychological satisfaction of complete legal ownership to the genuine middle-class home buyer.

### ***Demand-Supply Gap in Public Land Development***

Besides the delays due to litigation during public land acquisition process, financial and organizational constraints for large-scale land acquisition and poor controls over illegal appropriations or squatting over acquired but undeveloped public land are impediments towards efficient land assembly and land development by the DDA. Encroachments on undeveloped or vacant public land have been occurring in massive scale very often with the clandestine supports of the land mafia, if not, corrupt politicians and officials. Consequently, DDA being the sole vehicle of supply of serviced land in the market across the large metropolis, there has been a perpetual lag between the growing demand and the supply of urban space.

Over consecutive master plan periods, land assembly and development have been continuously lagging behind the planned targets of land requirement. During the MPD-62 implementation, the DDA could acquire only 56.54% of the planned requirement of 27487 Hectares with an average annual rate of 777 hectares as against the targeted 1372 hectares in the plan. New residential land development by the DDA met only 50.53% of its planned target of 14479 Hectares. The average annual rate of land acquisition declined even further to 475 Hectares against a planned target of 1200 Hectares to meet the total additional land requirement of 24000 Hectares during the next plan period, i.e. 1981 to 2001. In other words, it met less than 40% of the planned target of land acquisition. Development and disposal of land was even less – 1120 Hectares less than the acquired land of 9508 Hectares during this period (Association of Urban Development Authority, 2003). The DDA

had proposed to build massive residential areas of total 17.5 thousand hectares across several locations in the fringes of Delhi during the above period to accommodate additional population, but less than 50% of the targeted land development could be achieved.

The actual demand-supply gap in urban space across the metropolis is revealed further when we see the discrepancies between the population growth forecasted by planners upon which the land requirements are based and the census recorded population which always stood higher (Figure 1).

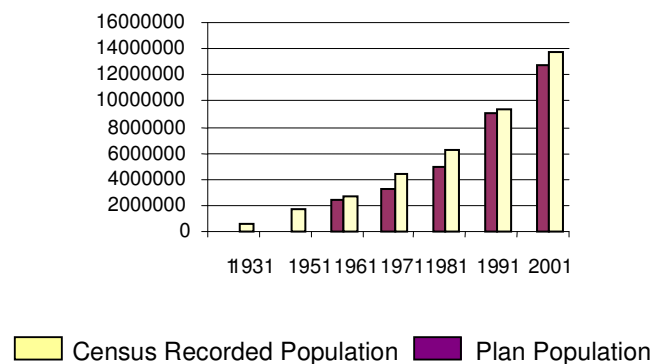


Figure 1: Planned and Actual Total Population Growth in NCT Delhi  
 Source: 1. Government of India: District Census Handbooks, Delhi, 1991 and 2001;  
 2. Delhi Development Authority: Master Plan of Delhi, 1962 and 1990

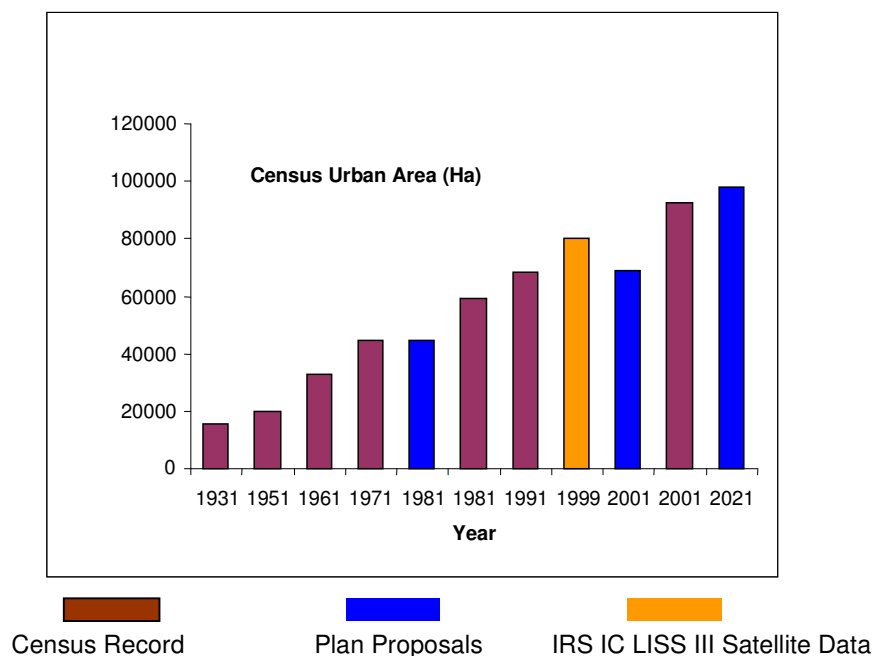


Figure 2: Comparison of Planned and Actual Urban Expansions  
 Source: 1. Government of India: District Census Handbooks, Delhi, 1991;  
 2. National Capital Regional Planning Board, 2004: Base Paper for Preparation of Regional Plan 202

Thus eventually, the forecasted urbanisable areas in consecutive plans fell always short of the urbanized areas as recorded in the corresponding census years (Figure 2). The discrepancy between planned land required and the urbanized metropolis on ground is evident also from a satellite data in 1999. In other words, physical planners had little vision at the time of independence of Delhi's gigantic expansion within a span of half-a-century

### ***Unplanned Private Development Meeting the Demand-Supply Gap – Its Toll on Spatial Integrity***

One of the most evident negative implications of the inefficiency in planned supply of serviced land and urban space is the spurt of uncontrolled growth of illegal encroachments and unauthorized settlements by private developers affecting severely the envisaged spatial integrity and quality of the so-called “planned” capital of the country. The market has found a variety of ways, quite away from the official planning process, to meet the growing demand-supply gap for urban space. Large-scale departures from the official planned development in the forms of unregulated land and building uses and built forms, non-conforming norms or standards of infrastructure or services or unorganized spatial configurations are of the following distinct types which together constitute more than half of today's Delhi.

- A. The so-called *urban villages*, i.e. the original rural settlements which have gradually got entrapped within the surrounding planned urban growth with the physical expansion of the metropolis and have transformed their built forms over time under urban market forces. Traditionally they have been left out of the ambit

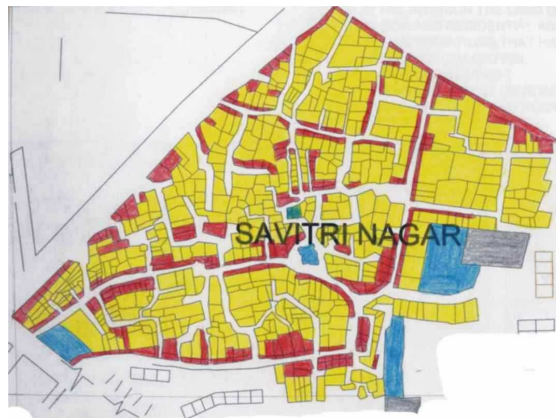


Figure : A Typical Urban Village with Irregular Streets and Land Subdivision

Source: Municipal Corporation of Delhi, 2003

(Figure 3)

of planning regulations and bylaws, a factor which along with their relatively cheaper real estate prices have rendered them havens for non-conforming intense and mixed urban uses, especially home-based enterprises and low-cost rental housing; while they lack severely in open spaces, social facilities, parking and many utilities. Typically organic in growth, they are characterized by narrow, crooked lanes, haphazard land subdivisions (see Figure 3) and building developments and high densities. Well over hundred such “urban villages” are entrapped within the built fabric of the metropolis today.

- B. The so-called *Jhuggi-Jhompris* or slums that have encroached upon vacant public lands exceed 1000 in number, constituting 34% of the population (Government of NCT Delhi, 2002) (see Figure 4). Public land available in bulk in the fringes of the city

provide significant opportunities for squatting, especially for the new in-migrants. According to a 1998 survey of the MCD, DDA's undeveloped lands alone had nearly 1.7 million slum population over 745 Hectares of area (Delhi Development Authority: Web Site). While relocation and rehabilitation projects are miniscule in terms of the scale of the problem; the official slum policy favours *in-situ* improvements rather than relocation. There is also clandestine political supports for their existence with an eye on the vote bank.

- C. The DDA's deficiency in supplying serviced land in the market has been matched almost on regular basis by *unauthorized private colonization* across the undeveloped public lands by private developers meeting the demands for residential space, which has posed perhaps the greatest challenge to Delhi's official spatial planning process. The colonizers typically flout master plan's land use regulations and disregard the process of obtaining planning permission for their land sub-division layouts. The so-called *unauthorized colonies* have mushroomed in different planned phases of city growth as lands had remained undeveloped after acquisition in bulk in the city's fringe. While official records of population there are hard to come by, a 1993 survey identified 1071 unauthorized colonies across the metropolis (Govt of India, 2005).

Urban utilities are generally not extended to these officially unrecognized colonies, Although millions that inhabit these settlements exploit ground water and even tap electricity illegally from surrounding power lines. Unlike, the "urban villages" or the "jhuggi-jhompris", street layouts and land subdivisions here are geometrically regular; although the space norms followed for roads, open spaces and lot subdivisions are minimal. Interestingly, the unauthorized colonies are being "regularized" by the government from time to time under political supports with pressures generating from their large populations, involving extension of urban services to these colonies by the urban local bodies. This implies a tacit political support for illegal land sub-division and development in the metropolis in parallel with official planning.

- D. The master plan norms for permissible land and building uses and built space are unable to meet the growing demands for space for dwelling as well as commercial and other functions across the built –up inner city. Such demands are being met by property owners through illegal conversions of building use and by illegal expansions of their properties which obviously has created tremendous pressures on the planned infrastructure, particularly road and parking spaces, if not on water supply, drainage, etc. To a great extent, such *illegal encroachments* reflect the market for redevelopment of the planned low density developments across the inner city where land is now at premium. The problem is ubiquitous across the planned inner city raising not only academic debates on the lacunae in planning vis-à-vis commercial and political greed, but also intermittent official actions of bull-doing illegal constructions whose scale nevertheless remain incapable of keeping the problem at bay. Interestingly, the present draft master plan is under tremendous market pressure to change land use and built-form norms to which official planners are, no doubt, bound to yield. Even in the recent past, the DDA had abruptly increased the floor area ratios in planned residential areas apparently under political pressure and without any rigorous study on their possible implications on infrastructure or the spatial quality.

In this race between the so-called planned and unplanned developments across the metropolis, it appears that the latter is forging ahead. For instance, a comparison of the urbanized land under DDA's planned development vis-à-vis that under unplanned growth shows that land under the latter category has risen from 41% of the total urbanized land

during the first master plan period to 69% by the next two decades (Figure 4). Another estimate of population distribution across planned areas vis-à-vis the unplanned settlements constituting slums, urban villages and unauthorized colonies indicate that population in the planned area component contain less than a quarter of the total population of NCT Delhi (Figure 5)(Government of NCT Delhi,2002).

In a national capital which supposedly aims towards a future global city, achievement of high spatial quality through planned development should be a priority issue. On the other hand, Delhi today is a mosaic of planned development and piecemeal, sporadic and unorganized growths of entities like *urban villages*, *jhuggi-jhompris*, *unauthorized colonies* and *encroachments on built-forms* jostling ubiquitously with well-laid out planned areas across its entire built mass.

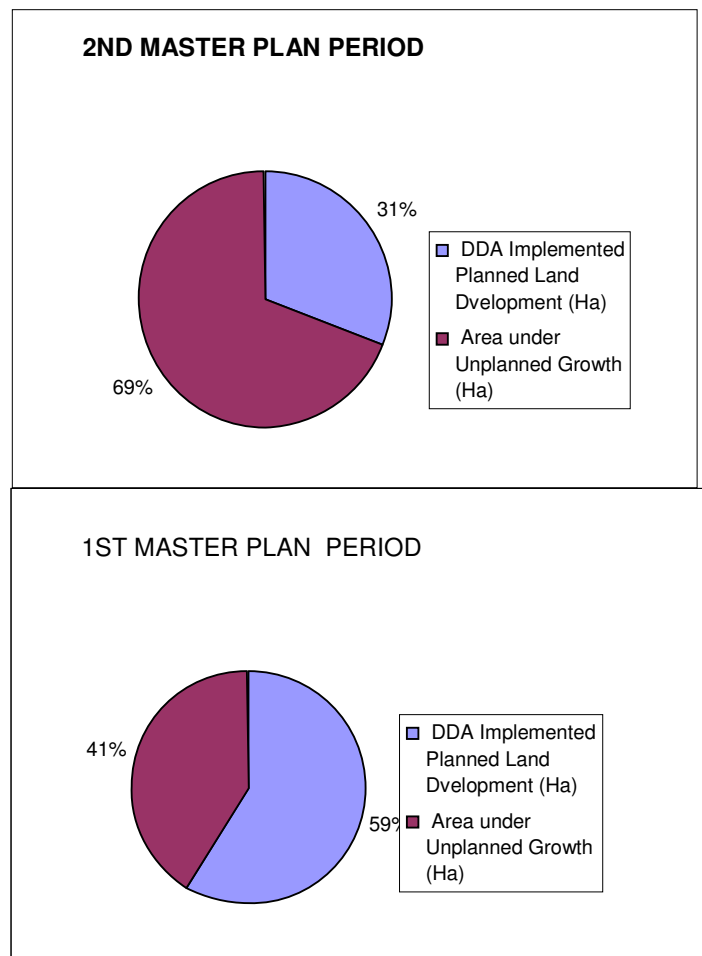


Figure 4: Increase in the Proportion of Unplanned Areas In Delhi Over Time

Source: 1. Census of India: District Handbook, Delhi, 1991  
2. Association of Metropolitan Development Authorities, 2003



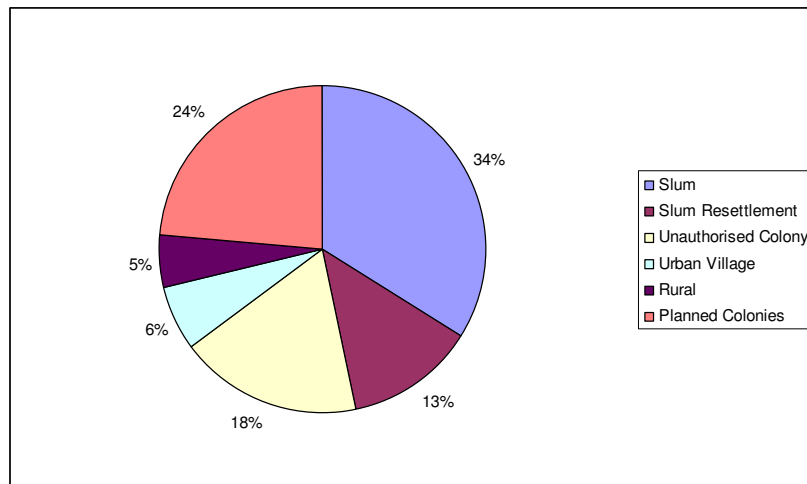


Figure 5: Distribution of Population across Unplanned and Planned Settlements  
Source: Government of NCT Delhi: Economic Survey of Delhi, 2001-2002

## DUAL PUBLIC AND PRIVATE MODE IN GURGAON AND ITS IMPLICATION IN INTEGRATED SPATIAL DEVELOPMENT

### *Gurgaon and its Planning and Development Institutions*

Adjoining the south-west fringe of NCT Delhi, close to Delhi's international airport and very well connected to Delhi by road and rail, Gurgaon is known today as a satellite of Delhi in the Delhi Metropolitan Area (DMA). It was originally a village which grew to the status of a municipal town and a district headquarter. Thus it comprises of a smaller "old town" and a much larger "new Gurgaon", lying beyond the municipal jurisdiction, where massive residential, commercial and industrial developments have taken place over the past two decades. Its economic importance has grown with the establishment of Maruti Udyog Ltd – the Indian automobile giant having a Japanese collaboration, development of two large planned industrial areas by the state government of Haryana and the ongoing establishment of many large Indian and multi-national companies<sup>iii</sup> who are taking advantage of the infrastructure and the proximity of Gurgaon to Delhi's large market and political hub. By 1991, Gurgaon's population had increased almost ten folds since independence. The population doubled between 1971 and 1981 and increased further by 35% between 1981 and 1991.

Like Delhi, Gurgaon has been attempting integrated spatial development through the process of city master plans. The first plan for the town came out in 1971 for a horizon of twenty years and a target population of 0.125 million. The plan was revised in 1982 for a target population of one million by 2001 with an urbanisable area of 9881 Hectares. Now, the National Capital Regional Plan envisages Gurgaon to be a major growth centre forecasting a size of 1.6 million by 2011 (NCRPB, 2005). Unlike Delhi, urban planning here is in the hand of a state level organization – the Directorate of Town Planning (DTP) – which is typical across India. Another state organization, the Haryana Urban Development Authority (HUDA) is in charge of implementation of the master plan through preparation of lower order spatial plans like sector layouts, designs of city centre and other public facilities as well as development of serviced land and city wide infrastructure networks. The HUDA prepares also building byelaws and development controls in consultation with the DTP and implements these across private developments.

Thus plan-making and plan execution are being carried out by separate agencies, unlike in Delhi. More unlike Delhi, Gurgaon has been allowing large-scale land development by private entrepreneurs the mechanism of which has been elaborated below.

### ***Land Assembly, Development and Disposal Mechanism in Gurgaon***

Gurgaon has a clear dual mode of land assembly and development. In the sixties, it was the Haryana State's Urban Estates Department which used to carry out land acquisition for public purpose in Gurgaon. With growth taking off fast in the mid-seventies, the HUDA was set up under the Haryana Urban Development Act of 1977 to carry out bulk land acquisition through the Indian Land Acquisition Act and large-scale land development to meet the demands for serviced land and city-wide infrastructure. The DTP decides on the locations of lands to be acquired on the basis of its master plan and asks the state's Urban Estate Department in Gurgaon to acquire the same through Land Acquisition Act. On the basis of available land records, the lands are demarcated and public notification for their acquisition under the law is brought out by the department. After due public hearing of objections and claims of compensation and the payments thereof, possessions of the lands are taken and then vested in HUDA for their development.

Almost contemporarily, another law, the Haryana Development and Regulation of Urban Areas (HDRUA) came out in 1975 (its detailed Rules came out in 1976) permitting, under grant of license from the DTP, private developers to assemble lands from the market through negotiations and develop these to build residential colonies. Private developers are allowed to negotiate on market price with agricultural and other land owners to buy land. A minimum of 100 acres (45 hectares) of contiguous land has to be assembled for obtaining a license for development of a residential colony. A license is issued initially for two years<sup>x</sup> and may be renewed if necessary. Private colonizers prepare layout plans for integrated development of residential areas, with their internal infrastructure like local roads, shopping areas, parks and playgrounds, local schools, etc., considering the space norms specified in the city's development plan, for approval by the DTP.

A developers is required to reserve 20% of the housing provisions for the "Economically Weaker Section" (EWS) and the "Low Income Group" (LIG); another 25% can be sold in the market on "No Profit No Loss" basis, while the rest 55% can be sold freely in the open market, provided that the overall profit is limited to 15%. Further, the developer is required to pay to the HUDA, in proportion of its development costs for a colony, "External Development charges" (EDC) for getting connected to the HUDA's trunk lines of utilities like water, drainage and sewerage, power, etc., as well as a "Infrastructure Development Charge" or IDC for city-wide infrastructure development. The DTP is the nodal agency for regulating the functions and activities of the licensed private developers including checking their income and expenditure.

### ***Performances of Private Developers and the HUDA in Residential Land Development***

Many large and renowned Delhi based private realtors as well as those from the rest of the country have been grabbing this opportunity provided by Haryana's law and Gurgaon's growing market close to Delhi to develop high-end residential colonies in the city. The private players with their commercial objectives, have been smarter than the public agency, HUDA, in terms of strategies to assemble land from the market as well for marketing their developed real estate products. Their negotiation process with land owners for buying land in the market is usually initiated by engaging as brokers local persons who are influential in their respective villages. One-to-one negotiations between the rich real estate promoters embarking on large-scale development with eye on profit and the individual farmers or landlords sensing speculative bargains through their assets provide 'win-win' situations

leading to faster dealings and land transfer and assembly through the private sector mode. The price paid by the private players is generally three to four times higher than the compensation paid by the public agencies for land acquisition. On the other hand, the public land acquisition process followed by the HUDA in Gurgaon (similar to that of the DDA in Delhi) is riddled with bureaucratic tangles of involvement of many organisations as well as legal squabbles over land records and compensation rates. While systematic comparative data are hard to come by, one study indicates that during the initial years of private sector's involvements in Gurgaon, the DLF Universal Ltd. assembled about 225 Hectares of village lands over a period of five years. In comparison, over a similar time period, the HUDA could acquire only about 150 Hectares through the process of compulsory public land acquisition (Rishika, 1999).

Furthermore, the total time for development, involving preparation of layout plan for the colony and its approval, land development and real estate construction and their marketing and final disposal, is far smaller for the private rather than the public developers. The compulsion of limited time of the license under the HDRUA, the increasing demands in the market and the prospect for quick returns to investments have led the private developers to develop their lands and real estate as fast as possible.

### ***Social Housing suffer with Profit-making Objective***

The housing market developed by the private developers in Gurgaon tend to attract the upper middle income group buyers, especially the young high-salaried executives of the many MNCs and IT based companies operating in the area. While the law (HDRUA) imposes the requirement of providing 20% of their stock as low-income housing for the EWS, it usually requires a close monitoring, and often, reprimands on the part of the authority to the private players to force them to abide by the provision. Further, these provisions are often observed to be built well after their recovery of costs, if not profits, by disposing the upper-end stocks in the market. Needless to say, corrupt nexus between developers and officials looking after the disposal of the EWS land lots or dwelling units sometimes leads these resources away from the target group actually to the richer.

### ***Disjointed Private Colonization and Mis-match with City's Spatial Plan***

The master plan of Gurgaon aims towards spatially integrated development for its entire future urbanisable area using land use zoning, modular spatial pattern with development of residential sectors, hierarchical networks of roads and commercial and institutional nodes and temporal phasing of development. While the same public institutions, the DTP and the HUDA, who are responsible for such integrated development of the entire city, regulate also the functioning of the private developers, there has been an inherent mismatch between the public and the private modes of spatial development. This anomaly is characterized by private colonization occurring disjointedly both in space and time which conflicts also with the phasing of development as well as the spatial configuration or the sector layouts in the master plan. (for instance, see Figure 6).

Private developers have built their respective residential colonies at locations where they could assemble land from the market through negotiations with local landowners and these do not necessarily match with the phases of development of the city according to the master plan. The HUDA usually has been notifying areas (for land assembly) contiguous with the existing built-up areas of the city; whereas, most private developers have assembled the cheaper lands available closer to the fringes, near the limits of the future urbanisable area of the master plan. Thus there has been sharp *leap-frogging* of development with vast patches of undeveloped land lying in-between private colonies and the rest of the developed city whereby the connectivity of many colonies by major arterials carrying also the utility trunk

lines are often delayed. The difference between the pace of private developments and the pace of extension of city infrastructure by the public agencies aggravates the problem of disjointed growth. Also, the disjointed spatial pattern gets multiplied when many private developers assemble and develop lands at different locations at different points of time. Another factor is the relative smallness of the minimum required size of private land assembly under the law (HDRUA) – only 100 acres (45 Hectares), compared to say, the average size of HUDA's residential sectors – which encourages the growth of small colonies at random in different locations. The irregular spatial patterns of private colonies within and across the regular HUDA sectors often lead to irregular road developments and wastage of lands.

One can relate the above anomalies in spatial integrity to the lack of integration in the institutional arrangement for urban development - between the institution of master plan preparation and its implementation and the provisions of the Haryana Development and Regulation of Urban Areas (HDRUA) with the narrow mandate of mere regulation of private land assembly and development. Apparently, the same organizations that executed both of these functions – the DTP and the HUDA - applied merely a tunnel vision to satisfy the respective mandates rather than developing strategies for better spatial integration.



Figure 6

### ***Islands of Excellence amidst Under-developed City-Wide Infrastructure***

While space norms of Gurgaon's master plan in respect of parks and playgrounds, educational and health facilities, shopping centres, roads, etc., guide residential developments of both the HUDA areas and the private developers' colonies, the latter usually have developed better spatial standards, especially in respect of recreational facilities, roads, landscaping and shopping in consonance with the generally better-off clientele (Upper middle income group) in their housing areas. The same may be said in

respect of the stock of dwelling units constructed by private developers in general compared to those developed by public agencies like the Housing Board of the state.

Large private realtors are competing with one another in developing high order facilities such as posh markets and shopping malls, multiplex cinema, clubs, golf course, etc., that attract clientele from far beyond their respective residential colonies, even from Delhi and other DMA cities. On the other hand, after many decades of master plan preparation and building of public institutions like the HUDA, the city of Gurgaon is yet to see the development of a modern central business district (CBD.). Acres of land have been year-marked in the very first master plan for a new city centre which have been acquired for development by the HUDA for many years. Design competitions are only in the offing for development of its conceptual schemes .

Furthermore, the qualities of many basic infrastructure declines drastically beyond the immediate residential milieu of the private colonies. For instance, the local roads across lot subdivisions and multi-family group housing areas of the private colonies are built by the private developers with reasonably good specifications and landscaping, but their connectivity is poor due to poorly built or still undeveloped sector perimeter or sub-arterial roads which are under the responsibility of the HUDA. Similarly, the public transport system, viz. buses are yet to penetrate the vast tracts of private residential colonies that constitute much of today's new Gurgaon. While there is large demand-supply gap in power in Gurgaon, some of the large private developers like the DLF have been fighting in vein with public agencies for taking over local captive power generation and distribution in their colonies. Interestingly, however, the private developers are able to meet complete demand-supply gap in power, and thus in turn in local water supply, through local back-up generators across their multi-family group housing areas which provide the economy of scale for such facilities.

Another major difference between the areas under the private developers and those under the HUDA is the absence of encroachments by slum squatters and unauthorized developments in the former due to the greater control over their acquired lands as well as the faster developments thereon whereas these encroachments have been significant across the undeveloped acquired lands of the HUDA (for instance, Jain, 1991)

## **CONCLUSION**

The study has been confined to only two case studies which pose constraints towards development of a general framework of recommendations towards mechanisms for urban land development for integrated development of the city. Also, the two case studies have similarities as well as differences in their approaches to development and in their spatial implications. For instance, both approaches have led to spatially disintegrated development patterns. In the case of Gurgaon, it is the lack of integration between the two modes of planning – public and private and correspondingly, between the city and the local level spatial plans; whereas in Delhi, over reliance on public development mode and its inefficiency to satisfy market demands for space has led to a chaotic spatial maze of planned and un-planned developments.

For Delhi, one may debate, however, on the possible influences of several contextual factors like its enormous size, very high growth rate, vested interests of political powers concentrated in the capital city as well as the inter-related land mafia in a prime market on the scale of its unplanned growth. While the relative inefficiency of public agencies rather than private developers in supplying serviced land and infrastructure to meet market demands are apparent in both case cities, its effects are felt much more in the much larger Delhi. At the same time, one may ponder if a single public agency based land development

and a top-down planning approach is really called for in such a large metropolis. In other words, should the Gurgaon model of encouraging private sector land assembly and development, albeit with necessary improvements, within an integrated spatial plan framework will be a better answer for Delhi? Simultaneously, however, one may question if much of Delhi's problem bears upon the myopic as well as the rigid model of spatial planning which is unrelated to market realities.

Gurgaon has pioneered the introduction of private sector assembly and development of urban land while the entire country depends on the traditional public land acquisition process and public planning and development in the urban sector. But till date, the Gurgaon experiment represents merely a coexistence of two modes rather than *public-private partnership* in spatially integrated development of the city. The legal instrument (HDRUA) encouraged fast and high-quality planned development by the private sector but was deficient in its scope of integrating the private developments with the official spatial plan of the city as a whole. In this regard, one may explore alternative planning strategies in future. For instance, the locations and timings of private sector land assembly and development may be guided in relation to the phasing in the master plan. Alternatively, the planned sectors may be contracted out to the private colonizers for land acquisition, layout planning and development. Further, private sector participation may be extended to development of many city-wide amenities and utilities if not in the preparation of the development plan for the city. For, while public planning does have its social objectives, the private sector with its sense of market demands and expertise in management and finance may be a guiding force in determining optimal locations and types of development across the city. In the least, the minimum size of planned unit developments of the private realtors should be much larger than what is prescribed today in order to minimize the patchy and incoherent spatial growth observed to date.

## ENDNOTES

<sup>i</sup>The Constitution (74<sup>th</sup> Amendment) Act of 1992 empowered urban municipal bodies with the function of urban planning and development. However, the delegation of such functions has to be made by the individual states or provincial governments through reforms of the relevant Acts and statutes of the respective states.

<sup>ii</sup>The master plan specifies a ratio of 50:30:20 for small, medium and large residential lots meant respectively for the lower, middle and upper income groups of the society.

<sup>iii</sup>To name a few, Hero Honda, Modi Alcatel, Whirlpool India, DCM Benetton, Gillette India, Perfetti India, IBM, GE Capital, HCL, Bharati Telecom, Coca Cola, Pepsico, etc.  
Vi Under Section 3 of the HDRUA

<sup>iv</sup>Such as, DLF Universal Ltd., Ansal Builders, Unitech, etc

## REFERENCES

Association of Urban Development Authority (2003) *Land Policy for Development in the National Capital Territory of Delhi 2021*, New Delhi: AMDA

Delhi Development Authority (1962) *Master Plan for Delhi*, New Delhi: Ministry of Works and Housing

Delhi Development Authority (1990) *Master Plan for Delhi: Perspective 2001*, New Delhi: Ministry of Urban Affairs and Employment

Government of India (2005) *The Gazette of India*, No. 252, March 16, New Delhi: Government of India.

Government of National Capital Territory of Delhi, 2002. *Economic Survey of Delhi: 2001-2002*, Delhi: [www.delhiplanning.nic.in](http://www.delhiplanning.nic.in)

Government of India (2001) *District Census Handbook*, Delhi: Directorate of Census

Government of India (1991) *District Census Handbook*, Delhi: Directorate of Census

Jain, A.K. (1991) "The Role of Private Sector in Urban Development: Case Study of Gurgaon", *Journal of the Institute of Town Planners, India*, v.10, no.1, September.

Joardar, Souro D. (2006) "New Delhi: Imperial Capital to Capital of the World's Largest Democracy" in Gordon, David L.A. (Ed.) *Planning Twentieth Century Capital Cities*, New York: Routledge, pp. 182-195

Joardar, Souro D. (2003) "Urban Space and Ecological Performance of Cities", Paper presented at the Seminar on Ecological Performance of Cities, School of Planning and Architecture, New Delhi

King, A.D. (1976) *Colonial Urban Development: Culture, Social Power and Environment*, London: Routledge and Kegan Paul, pp. 267-268

Morris, Sebastian and Shekhar, Rajiv (Eds.) (2002) *India Infrastructure Report 2002*, New Delhi: Oxford University Press

National Institute of Urban Affairs (1997) *Financing Urban Infrastructure in India*, Research Study Series, No.59, New Delhi: National Institute of Urban Affairs

National Capital Regional Planning Board (2005) *Regional Plan – 2021: National Capital Region*, New Delhi: NCRPB, p.30.

National Capital Regional Planning Board (2004) *Base Paper for Preparation of Regional Plan 2021*, New Delhi: NCRPB

Rishika (1999) *Land Assembly Process for Urban Development: Case Study of Gurgaon*, Unpublished Bachelor of Planning Thesis, New Delhi: School of Planning and Architecture, pp.64-77.

Suresh, V. (1999) "Options for Urban Infrastructure Development in India", in *Proceedings of International Seminar on Financing and Pricing of Urban Infrastructure*, New Delhi: Human Settlements Management Institute, pp. 1-16.