



# PREVENTING URBAN VILLAGES FROM TRANSITIONING INTO SLUMS

Project Progress Report 1/3

Existing Situation Analysis and Issues Identification

June 2019



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### 1. Introduction

This document serves as the Existing Situation Analysis and Issues Identification Report of the larger project 'Preventing Urban Villages from Transitioning into Slums', which is led by WRI India with the support of the Ford Foundation.

The project is contextualized against the current state of the discourse on urban villages in India, with a focus on Delhi and its contiguous urban agglomeration. Village settlements that were once vibrant and self-sustaining, often face a bleak and uncertain future when they transition into urban peripheries, following the loss of traditional occupations and farm lands. WRI India's research seeks to better understand and thereby impact this transition in ways that ensure more equitable and sustainable outcomes.

# 2. Acknowledgments

WRI India is grateful to the Ford Foundation for its generous grant and continued support to make this project a reality. The project commenced on 1 December 2018, and will conclude by 31 May 2020, a period of 18 months.

# 3. Project Team

This report has been prepared by the following team at the WRI India Ross Center for Sustainable Cities:

- · Reject Mathews is Head, Urban Development, WRI India
- · Neha Lal is Research Consultant, WRI India
- Tintu Sebastian is Research Consultant, WRI India
- · Raj Bhagat P is Manager, Data Analytics, WRI India
- · Garima Jain is Graphic Design Consultant, WRI India

Strategic guidance was provided by Madhav Pai, the India Director for WRI Ross Center for Sustainable Cities and O P Agarwal, the CEO of WRI India.



# 4. Understanding Urban Village as a Category

Urban villages as a planning concept are often perceived as a self-contained, sustainable living model in developed contexts such as the United Kingdom and United States of America; however, in developing countries especially in the Asian context, they are the original rural settlement areas that are increasingly transitioning into dense and urbanised forms as a result of city growth and expansion and have different trajectories of development.

In developed nations such as United Kingdom and United States of America, "urban village" as a conceptual planning category is positioned at the intersection of sustainability, localised-neighbourhood level planning, urban design and related forms of developments. The Urban Village Forum, a non-governmental research think tank established in 1992 in the United Kingdom actively promoted the urban village concept that aimed to create mixed use developments on a sustainable scale (Landman 2003). Though the forum originally established by the Prince of Wales was dissolved in 1995, it received endorsement by the UK Government (Biddulph, Franklin and Tait 2002). For instance, the planning policy guidance (1997) of London referenced urban villages characterised by compactness, diverse employment, access to public transport and public open spaces as positive models of mixed-use development (Scanion, et al. n.d.).

In the United States of America, large cities such as Seattle, Phoenix and Arizona adopted a planning scheme based on the concept of urban village which was characterised by mixed forms of land uses that guaranteed a social mix and strong interaction between residents (Homs 2007). Keeping accessibility and place making factors as central tenets, the urban village policy for Arizona in USA looks at urban village as a means to fight against incessant use of motorised private transport" and to cultivate the meaning of place in residents (Homs 2007). Urban villages came to be perceived as a planning and design concept that referred to built forms characterised by compact mixed use developments that are walkable, have medium density buildings and are self-contained.

Contrary to this, in developing countries especially in Asian contexts, urban villages are better understood as having emerged under the influence of a city's economic development and rapid urban expansion. In China, villages within a city are known as 'Cheng ZhongCun' or urban village that were earlier inhabited by farmers and currently provide service rental housing to migrants (Samsurijan, Awang, et al. n.d.). Peripheries and downtown areas of major cities such as Beijing, Guangzhou and Shangai are dotted with such urban villages, whose social life remains relatively intact though the agrarian pasts associated with these places are increasingly being replaced by urbanized forms and economies (Sheth 2017).

In Malaysia, urban villages refer to settlement areas within a town that still possess village values (Samsurijan, Firdaus, et al. 2018). For instance, in Kampung Baru situated near Kuala Lumpur city Hall headquarters in Malaysia, one of the several urban villages in the city, it is observed that familial relations and multi-ethnicity that existed among the urban village population strengthened the implementation of joint activities in the urban villages (Samsurijan, Firdaus, et al. 2018).

In India, rural settlement areas that have become part of the urban limits as a result of urban expansion are commonly referred as urban villages. Datta (2004) defined urban villages as villages that acquired urban character by virtue of reduction in its agricultural base as a result of land acquisition for public purpose or planned development towards creating housing provision or commercial zones (Datta 2004). The history and pace of transition for these villages however, could vary considerably.

Urban villages have developed, been categorised and dealt with in varied ways across different locations within India. Under the British, the capital city of Delhi was created through the transformation of rural villages and their agricultural land. Subsequent expansions also engulfed many rural villages. Existing rural villages that were transitioning into urbanised forms were successively notified under Section 507 of the Delhi Municipal Corporation Act 1957, shifting the settlements into the urban ambit from their rural categorisation and consequently designating them as "urban villages" (also sometimes referred to as "urbanised villages" in policy documents).

The newly developed city of Naya Raipur (renamed as Atal Nagar-Nava Raipur,) in Chhattisgarh State in its development plan defines urban villages as the village *abadi* falling within the proposed use zones (Naya Raipur Development Authority n.d.). Interspersed with the planned layouts and characterized by narrow streets with dense mixed development, the Revised Master Plan for Bengaluru - 2031 (Draft), notes the presence of urban villages within several planning districts. In Mumbai, Goathans and Koliwadas (village settlement areas of Maharashtra) within the planning area limits are identified as urban villages in the development plan (Clara 2017).

The diversity of what 'urban village' means as a category is reflective of different development histories within and planning responses of the cities/ states in question. The following section elaborates the planning and policy responses towards rural and/or urban villages within different locations in India.

### 5. Contextual Background and Locational Differences

Within India, how are various cities dealing with urban villages on policy and planning fronts? How do urban forms and domains of planning and policy speak to each other?

Urban expansion of cities and towns at the expense of agricultural land in villages is a common phenomenon across India. A revenue village, which constitutes the most basic administrative unit of rural areas (Census 2011), traditionally consisted of settlement areas and agricultural lands. While the agricultural lands were acquired for various infrastructural projects or developmental works over time, the remaining settlement areas which get engulfed within the urban limits were often left out in the process of urban expansion. These rural settlements areas are known by different names in different states. In Gujarat, the rural settlements are known as gamtals and in Karnataka they are termed as gramthanas. In states such as Haryana, Delhi, Punjab, Uttar Pradesh and Chhattisgarh they are mostly referred to as abadis or abadi areas (which translates to 'populations or populated areas').

Planning responses towards these settlements were varied across different cities. In case of Mumbai, the planning authorities have consistently failed to recognise the diversity of such settlements in the city and urban villages were marked as slums in the development plan. However, with several protests raised against this classification, the authority had to delete all the urban villages from the slum cluster maps (Clara 2017). In the proposed land use plans of the latest development plan of Mumbai, Gaothans (villages) and Koliwadas (coastal fishing villages) are zoned as either commercial/ residential zone or residential zones. There are demands from the communities in these village areas to have all the gaothans and koliwadas marked separately in the plan and treat them differently (Correspondent 2018).

During the formation of Navi Mumbai New Town Development Authority - Notified Area in Maharashtra, the gaothans were initially excluded in the land acquisition process. The land use changes around the gaothans however, influenced the urban forms in the core gaothan areas. Houses were built on small plots and consisted of one-room or two-room tenements with a small place for cooking and sanitation. Streets with inadequate road widths, high density, dilapidated and sub-standard dwelling units, inadequate physical and social

infrastructure and poor sanitation became the characteristic feature of the gaothans (NIUA 2015). Taking into consideration the unplanned and haphazard growth in the gaothans, Government of Maharashtra notified urban renewal schemes for comprehensive planned development in and around any gaothans within NTDA area.

The development plan of Chhattisgarh's greenfield capital city Naya Raipur recognises urban villages as a contributor to its proposed housing stock (Naya Raipur Development Authority n.d.). The plan anticipates that haphazard growth and illegal development could crop up in urban villages and proposes preparation of layout plan for each urban village. It also proposes that stringent control needs to be followed over activities and developments within the villages and new constructions within the settlement shall be subject to approval from the concerned local body. Yet no specific development control regulations are prescribed for the urban villages nor has the plan proposed any strategies for the smooth transitioning of the urban villages into the urban way of living.

In Ahmedabad, Gamtal and Gamtal extensions (denoted by GM and GME) are delineated as separate zones in the development plan of Ahmedabad (Ahmedabad Urban Development Authority n.d.). The village settlements that fall within the Town Planning Schemes were typically left isolated with a road built around them as buffer areas without proper integration with the new development (Deuskar 2011). In the revised Comprehensive Development Plan 2021 developed by AUDA, Gamtals are recognised as areas with an organic character and compact development whose traditional character needs preservation. In 2011-12 Ahmedabad Municipal Corporation allocated a budget of 20 crores to the newly incorporated gamtals within the Ahmedabad Municipal Corporation limits to provide better services, infrastructure and community facilities to the villages and integrate them with surrounding urban areas (Annez, et al. 2012).

The Revised Master Plan for Bengaluru- 2031 (Draft) proposes upgradation of erstwhile gramthans within the master plan limits to provide necessary infrastructure and facilities (BDA n.d.). However, no further detail is given in the plan to steer the upgradation process within erstwhile gramthanas. The plan has included regulations on floor area ratio, number of floors, setbacks and ground coverage for plots in gramthans and its expansions to allow for the natural growth of villages in the planning district maps.

The new town of Rajarhat was developed outside the Metropolitan area boundary of Kolkata to the north-east of the existing city. The approach adopted for its development was similar to the big city expansion process, where agricultural land was acquired, leaving out the village settlement lands. 16 village settlement pockets along with a buffer strip of land around the settlements to grow vegetables and graze cattles were cordoned off from the rest of the planned areas (R. Kundu 2016). According to Ratoola Kundu, the expropriation of land for developing the new town was by done by erasing the pastoral past of Rajarhat from the official records and thereby claiming that area was specifically chosen for urban development because it was low-lying, marshy, low yielding and sparsely populated (Kundu 2016). This expropriation of land disrupted the daily spatial practices (farming and fishing) and about 1.3 lakh people lost their land and livelihood due to the large scale project (Kundu 2016).

Table 1 lists the regulations specified in the development plans of select cities in India:

Name of City	State	Provisions for urban villages in the master plan/ development plan/ Development Control Regulations
Mumbai	Maharashtra	<ul> <li>Development Control Regulations 2034 provides clause for redevelopment in Gaothan/Koliwadas;</li> <li>Specifies permissible FSI for these areas based on road width</li> </ul>
Navi Mumbai	Maharashtra	<ul> <li>Urban Renewal Schemes launched for comprehensive planned development of gaothans.</li> </ul>
Naya Raipur	Chattisgarh	<ul> <li>Existing village in any use zone shall be considered as residential use/development. For each village, a village development scheme shall be prepared considering its expansion requirements and all uses permitted within the settlement areas shall be as per the provisions of this approved village development scheme.</li> <li>Developments within the villages and new constructions within the settlement shall be subject to approval from the concerned local body.</li> <li>Separate regulations are specified for village settlements in the layer II of the development plan, which are the peripheral rural zones of the planning area.</li> </ul>
Ahmedabad	Gujarat	<ul> <li>Development plan has identified Gamtals and Gamtal extensions as two separate zones and prescribes guidelines and regulations for the same.</li> <li>Development Control Regulationscapiltalize for DCR regulations prescribe types of permissible uses within a building unit according to the road width and permissible FSI for gamtal and gamtal extensions.</li> </ul>
Bengaluru	Karnataka	<ul> <li>Revised Master Plan for Bengaluru 2031 specifies regulations for gramthanas and expansions to allow for natural growth. FSI permissible in this area is 1 and maximum number of floors is ground plus one. No separate setbacks and ground coverage requirements are specified for this area.</li> <li>Conversion, planning permission and building permissions for plots falling in expansion areas to be obtained from the competent authorities.</li> </ul>
Delhi	Delhi	<ul> <li>Considering the mixed functionalities of the villages in Delhi, the master plan 2021 suggests comprehensive scheme for the development of the villages to be done by the local bodies;</li> <li>Development control regulations specifies reduced right of way (9 meters) for the group residential housing and mixed use streets</li> </ul>

Table 1: Provisions for urban villages in the development plans of select cities

While some development plans/ master plans of the cities delineate village settlement areas and prescribe specific regulations, many others do not acknowledge the urban villages as an integral part of the settlement system and cordon them off from development initiatives. In some contexts, these settlements get categorised as slums and grow into dilapidated forms. At other instances, the spatial planning frameworks such as master plans and development plans, the urban villages remain isolated and alienated entities often purposively categorised in ways that can be exploited by property dealers, political power brokers and speculators (Agarwal 2015). Whether it is expansion of an existing city or creation of a new capital city or a new town, it is increasingly apparent that the original village settlement areas that become part of the city or town are confronted with a forced transformation in their economic, social and physical environment. Given the prevalence of this trend across different locations, it is imperative to engage with urban villages as a category not just through top-down and singular planning instruments but consider contextually relevant and community driven approaches that harness existing ecosystems within these areas in the city.

The next section details out the methodological approach undertaken for the Existing Situation Analysis and Issues identification for Urban villages.

# 6. Methodology and Key Objectives of the Study

### **6.1 RESEARCH METHODOLOGY**

This Existing Situation Analysis and Issues Identification study is based on a mixed methodology of secondary and primary research. The existing situation analysis began with a detailed literature review of urban villages as a conceptual category and ethnographic studies focussing on urban villages in India and other parts of the world. Additionally, publicly available policy and planning documents were reviewed such as master plans, economic survey reports and government committee reports to understand the policy landscape with respect to urban villages. A preliminary round of semi structured interviews was conducted with key informants such as government officials, scholars and field experts to identify existing gaps and challenges in institutional frameworks and development approaches towards urban villages.

As a next step, a benchmarking exercise will be conducted to understand the planning concepts and development initiatives adopted for urban villages. Rapid strategic interviews and focussed group discussions will be held with the concerned government officials and communities of the selected sites. This benchmarking exercise will help in framing the research design including data collection tools and sampling techniques.

Fieldwork through participant observation, primary surveys and focussed group discussions will be conducted in two identified villages in Delhi. Collation of information through primary surveys, analysis of findings of the primary surveys and expert group discussions will help in developing the urban village framework in order to suggest recommendations for future intervention.

### **6.2 OBJECTIVES**

Taking into account the diversity that exists between not just terminologies but planning responses towards urban villages across different cities and contexts, this study seeks to examine the factors that have caused transformations in select urban villages in Delhi. The selection of National Capital Region to situate the study is based on its prevalence across domains of policy and academic scholarship. While the capital city has been comparatively advanced in its discourse on urban villages, the case studies can further provide a basis to learn how they can be better provisioned. With three–tiers of governance and administration (centre, state and municipal) in the capital, escalating population levels and pressures of metropolitan development, the case of Delhi can prove to be illustrative for many cities across India and the South Asian context.

Hence this existing situation analysis and issue identification seeks to provide background for understanding the difference in the emergence of and responses to urban villages as a category. Deep diving in the historical expansion and village transformation in Delhi as well as institutional organisation and state led policies and schemes provides a contextual matrix against which key issues and challenges can be framed for a future research focus. This sets the foundations for developing case studies which will:

- Examine two urban villages within NCR that have undergone transition across different time periods and locations within the capital region;
- Look at how interrelated domains of housing, migration and livelihoods shape the socio-economic fabric of urban villages;
- Suggest interventions for a contextually relevant and community based intervention;
- Provide recommendations for preventing their degradation into slums and measures to harness their local ecosystems.

# 7. Zooming into the Case of Delhi

With a current population of 29 million, Delhi is set to overtake Tokyo as the most populous city in the world by 2028 (United Nations 2018). This multifunctional metropolis has attracted a great diversity of migrants both in terms of socio-economic backgrounds and their rural and urban origins. Over the years, the rapid urbanisation and the consequent spatial expansion of the city limits for housing and infrastructural development engulfed several rural settlements lying within and contiguous to the National Capital Territory's boundaries, resulting in dense yet mixed built form in most parts of the city.

Settlement typologies provide for a starting point to understand the nature of built form and the profile of its occupants in Delhi. A broad look at the diversity of settlement typologies/ planning categories provides contextual background to understand the span of settlement forms in Delhi in relation to the administrative and planning imperatives that have steered the course of urban development under Government of National Capital Territory of Delhi (GNCTD).

### 7.1 SETTLEMENTS TYPOLOGIES IN DELHI

The diversity in Delhi's settlement typologies – differing on registers in tenure security, legality and ownership is indicative of the urban transformation and socio-economic growth patterns that have come to characterise the capital city. The Economic Surveys of Delhi (2001-02, 2005-06, 2006-07, 2008-09) use the categorisations provided by the Delhi Urban Environment and Infrastructure Improvement Project (DUEIIP) Report published in 2001. It provides a breakup of the settlement typologies in the NCT and the percentage of estimated population it serves (see Image 1 below).

S.NO	Type of Settlement	Estimated population in lakh in 2000	% of total estimated population
1	JJ Clusters	20.72	14.8
2	Slum Designated Areas	26.64	19.1
3	Unauthorized Colonies	7.40	5.3
4	JJ Resettlement Colonies	17.76	12.7
5	Rural Villages	7.40	5.3
6	Regularized- Unauthorized Colonies	17.76	12.7
7	Urban Villages	8.88	6.4
8	Planned Colonies(Approved)	33.08	23.7
	Total	139.64	100.00

Settlement typologies in National Capital Territory (NCT) Image Source- DUIIEP 2021 The settlement typologies in NCT can be categorised into eight different categories- JJC or jhuggi jhopdi clusters, Slum designated areas or slums, unauthorised colonies, regularised unauthorised colonies, JJ Resettlement Colonies, Planned colonies (or approved colonies), rural villages and urban villages.

**Slum designated areas** constitute the officially notified slums that have been recognised and categorised as such by planning authorities under the Slum Areas Act 1956. Under Section-II of the Slum Area Improvement and Clearance Act, 1956, slums have been defined as mainly "those residential areas where dwellings are in any respect unfit for human habitation by reasons of dilapidation, overcrowding, faulty arrangements and designs of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light, sanitation facilities or any combination of these factors which are detrimental to safety, health and morals" (Slum Act 1956 n.d.). While the Census survey has three types of Slum categories, i.e. Notified, Recognized and Identified, only the notified slums are officially recognised slums which possess the guarantee to be adequately serviced by municipalities and security of a due notification and protocol against eviction (CPR 2015).

Jhuggi Jhopdi Clusters or JJC constitute the non-notified slum or squatter settlements that are located on public land and have the least amount of tenure security. The last wave of notifying slums in NCT was conducted in 1994. With rapid urbanization and incoming migrants, the number of squatter clusters have increased without being officially notified. Jhuggi Jhopdi clusters fall in the bracket of settlements on lands belonging to the government, municipal authorities, railways etc. According to 2014 estimates, the Delhi Urban Shelter Improvement Board (DUSIB) identified "672 JJCs with 304,188 jhuggis, amounting to about 10 per cent of Delhi's population and covering a land area of 8.85 square kilometres, about 0.6 per cent of Delhi's area" (CPR 2015). The JJC cluster as non-notified slums which do not hold the guaranteed entitlements to basic civic provisions represent the most dilapidated and insecure forms of housing in the spectrum of shelter security.

JJ Resettlement Colonies were part of planned schemes for resettling residents of Jhuggi Jhopdi Clusters, which was first formed in 1961 with eligible residents being allotted plots in settlements categorised as JJ Resettlement Colonies that were developed as a planning measure against the crowded areas they were looking to empty, replace and service. While they were planned and then occupied, many of these colonies received basic services much after resettlement. In his work, Gautam Bhan identifies three waves of resettlement in Delhi - first wave being in the 1960s where 18 resettlement colonies were established; second in the early 1970s during Emergency when 26 such colonies were added to the periphery of the city and the third wave was the post millennial evictions ahead of the 2010 Commonwealth Games under the agenda of infrastructural development (Bhan 2016). Currently JJ resettlement colonies provide housing to 12.7% of the estimated population.

**Unauthorised colonies** are those housing settlements that violate the land zoning norms or legal use of the land on which they may be built on. This could include building residential settlements on agricultural land or illegally subdividing land which might have been formalised on paper but holds no legal validity in a court of law due to its contravention of the planned use delineated in Master Plans (Bhan 2016). The density, built up and layouts of authorised colonies can vary across different locations. While estimations of numbers of these authorised colonies go up to 1693 (CPR 2015), these unauthorised colonies successively go through waves of regularisation in order to manage the voids of housing provision which these self-built forms provide to its populations. According to 2012 notification issued by GNCTD, 895 unauthorised colonies (across private and public land) were found eligible for regularisation (Sheikh and Banda 2014).

Regularised unauthorised colonies that contain over 12% of the total estimated population in the capital refer to those settlements that were recognised and authorised in a post facto process by the government bringing them into the fold of planned development. Yet their categorisation signals their emergence as a form of contravention of city planning and housing provisions. Regularised unauthorised colonies are a "recognition of the ways on which cities, especially in the Global south, shift the ideas of urban planning conventions and destabilise the order from plan-build-occupy-operate to a more open and spontaneous urban practice" (Bhan 2016).

Rural villages were areas marked under the rural category in the Master plan and were typically characterised by agricultural land use. Designated as 'Lal dora areas' (marked with red ink) in the revenue surveys carried out in early 20th century, these areas made demarcations for the abadi areas separate from the agricultural lands (CPR 2015). While the agricultural lands were given separate khasra¹ numbers on the revenue maps, land ownership in lal dora or abadi areas was relegated to rights of use and possession rather than being individually held because the entire abadi area was categorised as non-revenue land and given a single khasra number. Residential buildings in abadi villages are exempted from municipal byelaws and planning restrictions applicable in other areas. The boundaries of the village abadi were successively extended to form phirnis or extended into peripheral lal dora lands along the village periphery. The extended lal dora lands were individually marked in land revenue records and constituted freehold residential plots with their ownership recorded in the revenue records.

**Urban Villages:** With successive waves of urbanisation, the form of the city has changed. For rural villages in NCT's territory which were slowly coming under the ambit of urbanisation, this resulted in notifications under Section 507 of the Delhi Municipal Corporation Act 1957, which designated them as "urban villages". This designation takes away the Lal dora exemptions that are applicable to said areas and thereby provisions and regulations of different plans like the Master Plan, Zonal Plan, or relevant Area Development Plan and Building byelaws become applicable. Post its designations as an 'urban' area of Delhi, notifications under Section 22(1) of the Delhi Development Act allow DDA to authorise changes for land development in urban villages. Between 1963 and 1994, 135 villages were designated as urban villages (CPR 2015).

While these categories provide a broad overview of the settlement typologies in the national capital territory, what further complicates the housing practices of NCT's populations across these are the grey zones and complex indications these categories and corresponding statistics open us up to. According to data presented in Table 1, planned colonies (Approved) and JJ Resettlement colonies making up 23.7% and 12.7% of the total housing stock respectively are the only forms of housing that have emerged out of a plan-build-occupy-operate strain aligning with conventional planning paradigms. In reality informal housing provisions which emerge incrementally service the demand gaps for Delhi's population. Over two thirds of housing practice in the capital has been dependent on settlements based on self-building and incrementality, making such forms of housing the predominant domain servicing large parts of the city's urban poor and migrants. With the 69th constitutional amendment that granted Special status to Delhi in 1991 through its designation as the National Capital Territory of Delhi (NCTD), no rural areas or gram panchayats were recognised under its administrative ambit, thereby categorising the territorial jurisdiction under NCT as only urbanised and to be serviced by Municipal Corporation of Delhi. Traditionally occupied village pockets which had been slowly urbanising were hence subsumed under the NCT. However, it was only with the recognition and acknowledgement of such areas as urban villages that brought them under the ambit of the municipal authorities and ended the exemption from building byelaws.

Urban Villages which have been serving an existing demand for low cost rental housing in the city (Naik 2015) are currently being acknowledged by DDA as possible 'development areas' (DDA, Public Notice No F.15(7)2013-MP 2017). Yet their dense nature and organic street pattern often creates challenges for service provisioning and natural expansion. Land development through Land Pooling Policy is being seen a measure to this tackle challenge while also seeking to develop these areas as hubs for affordable housing. DDA has recognised 95 villages across 5 dedicated zones namely ZONE P-II, N, K-I, L, J (DDA, Regulations for Operationalisation of Land Policy 2018 vide S.O.5384(E)) 2018) which are expected to take in close to 17 lakh dwelling units post their redevelopment, based on the Land Pooling Model proposed in MPD 2021. While this is being envisioned as a possible means to address the increasing gap in demand and supply of affordable housing in NCT, to understand the context of contemporary housing challenges and practices of the population in Delhi's urban agglomeration, studying the history of spatial evolution and current trends of expansion of Delhi is necessary. How Delhi's urban form emerged and continues to emerge puts the urban and rural interactions of this process at the centre stage.

<sup>&</sup>lt;sup>1</sup> Khasra refers to the field book or register that documents the details such as names of land owners, cultivators, area of agricultural land, quality of soil, crop types and such details for assessing the land revenue (Sheth 2017).

# 7.2 LOOKING AT VILLAGE TRANSFORMATION THROUGH THE EVOLUTION AND SPATIAL EXPANSION OF DELHI

Multiple invasions, the rise and fall of regimes as well as climate variability influenced the patterns of population dispersion across India's northern belt. Withstanding the emergence and fall of multiple regimes, the city of Delhi rose to prominence in colonial history with the shifting of the capital to Delhi from Calcutta in 1911 (Gupta 1997). With the making of the capital city and administrative compulsions, the villages and its settlements were mapped onto revenue maps of Delhi. According to the early revenue records, Delhi had 365 villages in the early 1900s (Revenue Department 2017). Over the next few decades while some villages and their agricultural lands were acquired for the new capital's infrastructural and civil provisions, most were marked out as lal dora (named so due to the red ink used to demarcate them) on revenue maps. Lal Dora lands were outside the ambit of revenue administration and were denoted on the maps under a single khasra unit (Pati 2015). All the lal dora or abadi areas and agricultural land of the villages were duly demarcated in the land settlement of 1908-09.

About six villages in and around the Raisina (site that was chosen to construct the capital city), were completely acquired for urban use (Delhi Administration 1987). To implement the designs prepared by the colonial architects Edward Lutyens and Herbert Baker, village lands to the south of the old walled city were acquired (Sheth 2017). Imperial Delhi Committee was constituted to control and manage the construction of the new capital city, which was later notified as Raisina Municipal Committee under the Punjab Municipal Act 1911. In the following decades, agricultural land from about 150 villages were acquired by the British for building the presidential residence, parliament building, civil lines, university campus and cantonments in Delhi. Though there were new employment opportunities and ready market for the villages, it marked the initiation of disintegration of the rural way of life (Delhi Administration 1987). The most fundamental change that the rural population experienced was gradual loss of agricultural lands accompanied by changes in economic livelihood patterns. From a traditional agrarian society, they were forced to take up multiple economic activities for employment.

In 1927 the Municipal Committee was re-designated as New Delhi Municipal Committee. Between the two census decades (1912-1931), more villages were added into the ambit of the capital city. By 1937, Nazul office which was the first authority created to regulate the planned development of the city was upgraded to an Improvement Trust (Delhi Development Authority n.d.). Simultaneously, between 1908 and 1947, population within the lal dora also increased due to natural growth giving rise to the need to extend the lal dora limits. During the 1950s the land consolidation officers increased the space allotted for residential purposes by extending the earlier defined lal dora limit. The extended village abadi were enclosed within a new peripheral boundary which was known as the phirni (often a road at the periphery) and the land area between the old lal dora and the new phirni came to be known as the extended lal dora area. Plots in the extended lal dora area were given separate khasra numbers on revenue maps.

With partition, Delhi saw a significant influx of refugees which exerted more pressure on existing boundaries and housing provisions. By 1951, the city limits were extended by 25 kms by adding another 22 villages to the urban area (Sheth 2017). During 1951-61 period, villages in south and west Delhi were urbanised to build houses to accommodate refugees. About half a million took refuge in rehabilitation townships such as Nizamuddin, Lajpat Nagar, Malviya Nagar, Patel Nagar of Delhi. During this period the number of villages that became part of the urban limits was 47. By 1957, Delhi Development Authority (DDA) was constituted under the provisions of the Delhi Development Act to promote planned development in Delhi. During the same year, the Municipal Corporation of Delhi (MCD) was also constituted and assigned with the responsibilities of providing infrastructure services and enforcing compliance with building regulations and fire codes. The first master plan for Delhi (1961-81) published by DDA envisaged development of 44,777 hectares of urbanisable area by 1981 (Planning Department 2000). Subsequently, this area was increased to 48,777 hectares for developing Patparganj, Sarita Vihar and Vasant Kunj (Planning Department 2000). Vasant Vihar and Panscheel had villages which were acquired and redeveloped for cooperative housing at nominal rates by DDA, which left the villagers without without agricultural lands and livelihoods (Jain 2019).

The 1961 Master Plan for Delhi envisaged comprehensive planning for rural and urban areas. It proposed decongestion of city by shifting of non-conforming industries such as pottery, tanning, and metal ware to selected rural areas. For the first time the term 'urban village' was used in the master plan to designate the clusters of villages chosen on the fringes of urban Delhi to relocate small industries that had village-like characters such as pottery, handloom weaving etc. Subsequently, this term was not used by DDA in the specific sense it had defined in the plan and was used to denote all the villages that lost their agricultural land either to DDA or to private developers in the land acquisition process. The proposal to shift industries to the selected villages did not yield the desired results, but to some extent helped the rural settlements to move into non-farming occupations. The implementation of detailed guidelines in respect of development of abadi areas remained partial and unsatisfactory. Through Municipal notification passed in 1963, the lal dora areas were exempted from the requirement to take building permissions before constructions. This triggered construction activities within the lal dora areas and resulted in rampant constructions. Beyond the natural growth, population in the village abadis increased because of incoming migrants in search of cheap, rental and/or seasonal accommodation. As a result, the socio-economic and caste compositions in the urban and rural villages also began to undergo change.

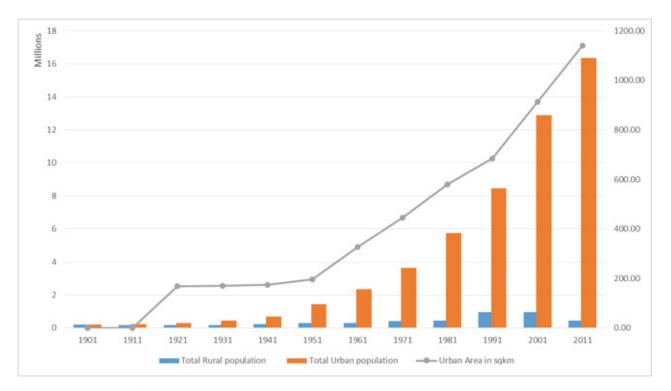


Image: Decadal variation of population and Delhi Urban Agglomeration Area

Source: Delhi Administration, Gazetteer for Rural Delhi 1987

The Gazetteer of Rural Delhi states that with the expansion of the city's economy, the village residents lost their traditional agricultural and allied occupations. As the villagers had limited vocational education or training, they could only find employment as unskilled labourers or get into unskilled jobs in industrial, commercial and service establishments. However, most of them were pushed into the informal sector. There was a disintegration of their well-knit abadis and their social fabric was shattered (Delhi Administration 1987). The internal structure of abadis did not change, but over time it got heavily congested, which further worsened the living conditions within the abadi areas, transforming each of them into a veritable slum within the metropolitan settlement (Delhi Administration 1987).

During the period from 1969 to 1981, most of the rural villages to the south of Wazirabad road were urbanised. With the increase in urbanisation, more and more urban villages got added into the urban areas of Delhi. Though no concerted efforts were taken to focus on the improvement of urban villages, about three crores were spent upto 1975 for the development of all the urban villages in capital city state. During the emergency (1975-77), DDA, MCD and New Delhi Municipal Committee carried out large scale demolition of slums and squatter settlements. Many of the people evicted from these areas were relocated to resettlement colonies on the urban outskirts. It is reported that the public housing programs did not meet the needs of the middle and low income groups, who were often forced to resort to the informal housing sectors, resulting in the proliferation of unauthorized colonies in the rural fringes of Delhi (Bhan 2016).

Other significant drivers of urban transformation for villages came in the form of big infrastructural projects in the capital. An illustration of rapid-urban transformation of rural villages due to the spatial expansion of Delhi's metropolitan area was the shifting of civilian operations of Safdarjung airport to Palam airport in the early 1960s (which was later renamed as Indira Gandhi International Airport). According to Mukta Naik who has studied urban transformations in villages across Gurgaon, the coming up of the international airport triggered growth in the neighbouring regions and its catalytic effect is reflected in huge investments made in Gurgaon and other districts in its close proximity. While such strategic projects triggered growth in the adjoining regions of Delhi, large scale acquisition policy adopted by DDA also played a significant role in the spatial expansion of the capital city. The authority responsible for the execution of the master plans set aside large land reserves through acquisition of agricultural lands for implementing various land development and housing programs. For instance, the Rohini project in the north-western suburbs launched in 1982 and Dwarka-Papankala project in the south-western suburban areas launched in 1988 by DDA were aimed at developing new peripheral zones for residential purposes (Dupont 2000).

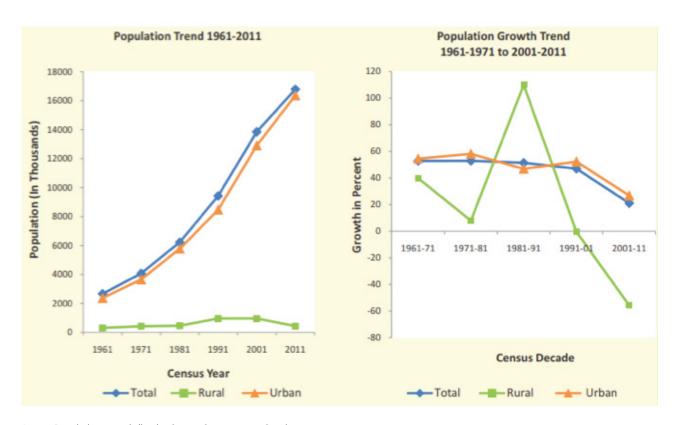


Image. Population growth (in absolute and percentage share) Source- Primary Census Abstract, NCT, 2011

Population implosion and growing urban sprawl resulted in urban expansion beyond the designated boundaries of NCT to engulf the adjacent towns of Ghaziabad and Noida in the state of Uttar Pradesh and Faridabad and Gurgaon's urban areas in the state of Haryana. Industrial estates were established in proximity to the capital city, which triggered the emergence of several census towns within and outside the NCT boundary. For instance, NOIDA (New Okhla Industrial Development Authority) emerged as a Class I census town in 1991, after the establishment of industrial townships which attracted people from within and outside the Delhi –Noida conurbation. Since then the town has been experiencing a spurt in population of the town which grew from 1.46 lakhs in 1991 to 6.37 lakhs in 2011 (Census of India, 2011).

Veronique Dupont (2004) synthesized the main characteristics of the process of metropolization at work in and around Delhi. Dupont notes that "Delhi experienced a centrifugal pattern of population dynamics that is spread beyond its administrative boundaries. Its old city core experienced population de-concentration combined with a process of suburbanisation which is reflected in its fast growing peripheral zones. The large multifunctional metropolis provided ample employment opportunities and has attracted a great diversity of migrants both in terms of socio-economic backgrounds and their rural/urban origin. Yet the catchment area of capital remains dominated by the neighbouring states" (Dupont 2000). However, this suburbanisation impulse also led to an escalation in demand for housing, civic provisions and infrastructure whose pace of growth has been much slower in comparison.

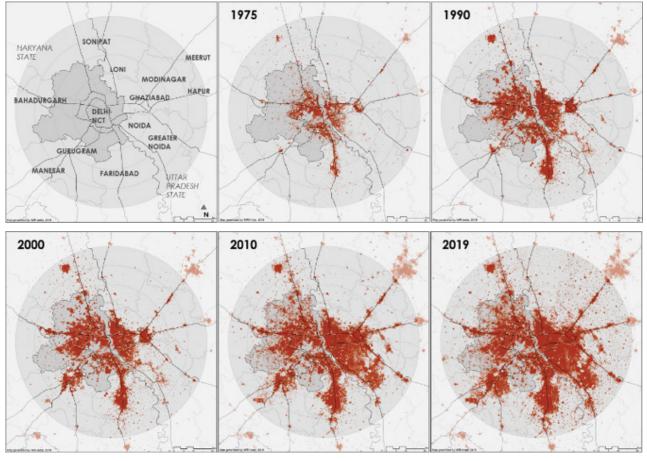


Image: Visualization of in built up areas in and around Delhi NCT

Year	Population (Millions) (within 50 km radius)	Built up area (sqkm)
1975	6.7	305
1990	12.6	1069
2000	19	1290
2010	25.6	1843
2018	29.5	2210

Table 2: Population growth and increase in built up areas in and around NCT

Source: WRI data analysis [Based on Census of India, 2001, 2011; European Commission JRC; LandSAT (USGS/NASA)]

Pattern of population distribution and growth in a city is related to a number of factors: patterns of land use, the availability and price of land or residential property, and the accessibility of employment opportunities and urban services. Studies report that the outward expansion of large metros result in gradual changes in land uses and occupations, creation of planned and unplanned developments that gradually transform the interfaces into semi-urban or peri-urban areas (Dupont 2005), (Shaw 2005). The urban fabric of Delhi too has been altered because of the transformations in peripheral regions where suburbanisation was underway as well as the implosions within what was considered as its centre.

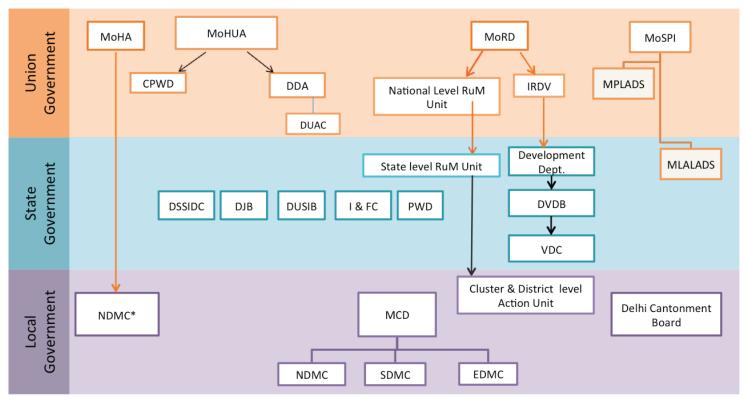
As rapid urbanisation began in earnest in Gurgaon in the early 1980s, the state and private sector purchased agricultural land, leaving pockets of village settlements within urban areas excluded from land acquisition and Haryana Urban Development Authority development and planning regulations. These rural settlement areas are termed as urban villages once engulfed into the urban limits. The urban villages are not merely engulfed by the urban local bodies, they are enclaved by and pushed behind urban fortification in the form of multi-storeyed structures (Mehra 2005). This story is similar to impulses in other locations such as Noida where similar but other "fractal" (Roy 2011: 233) urban forms were being configured via land.

In the process of urbanisation, the peripheries beyond the urban limits of Delhi have undergone significant socio-economical and physical transformations. These peripheries exhibit heterogeneous patterns of development. They are characterised by overcrowding in rural village clusters by the arrival of new migrants, construction of squatter settlements by the poorer people, forced resettlement colonies, development of unauthorised colonies for the low income households and growth in low income rental housing as well as private enclaves (Dupont 2005).

It is reported that the time gap between the official notification of land acquisition, actual procurement of land and the eventual development of khasra areas can take upto 20 years. It is during this ambiguous stage, when land boundaries for acquisition are unclear and administrative responsibilities are vague, that maximum speculative development happened. The acquisition of land for various housing projects by DDA differed from those that were done prior to 1950s (Sheth 2017). During the British rule, they purchased the entire villages including the settlement areas and the traces of their existence were completely removed from official maps. However, after DDA was assigned the task of planned development of NCT, only the village farmlands were acquired leaving behind islands of village abadis with inadequate levels of service infrastructure and breathing space. Dubey contends that, "Neither the state nor the society can be considered solely responsible for fractured peripheries, in which planned and regulated areas lie adjacent to the unauthorised settlements or colonies. In fact, it is the flexible ways in which the planning regime works that make these grey zones or peripheries generative for capital." (Dubey 2018).

Villages and how they were urbanised were imminent in the decisions and ways in which the capital city was founded and developed over the decades. Yet they have remained divorced from development trajectories as state response has largely been ad-hoc and post facto. At the same time, what becomes evident is that rural villages and their location vis-à-vis Delhi's NCT boundaries was a huge factor in how they experienced urbanisation. Being located within what could be considered pockets close to the traditional cores of Delhi's boundaries imposed different intensities of pressure on land and abadi areas as compared to villages which lie around the capital's periphery. The next section briefly details out the institutional structure vis-a-vis governance and administration for urban villages.

### 7.3 INSTITUTIONAL MATRIX VIS-A -VIS GOVERNANCE AND ADMINISTRATION FOR URBAN VILLAGES



Source: Economic Survey Delhi 2017-18, Delhi.gov.in, mohua.gov.in, The intersection of governments in Delhi, CPR

### **Abbreviations:**

MoHA- Ministry of Home Affairs

MoHUA- Ministry of Housing and Urban Affairs

NDMC\*- New Delhi Municipal Corporation

CPWD- Central Public Works Department

DDA- Delhi Development Authority

DUAC-Delhi Urban Arts Commission

DSIIDC- Delhi State Industrial and Infrastructure Development Corporation Ltd.

DJB- Delhi Jal Board

DUSIB- Delhi UrbanShelter and Improvement Board

**I&FC- Irrigation and Flood Control** 

PWD- Public Works Department

MoRD- Ministry of Rural Development

National level RUM Unit- National Level Rural Urban Mission Unit

State level RUM Unit- State Level Rural Urban Mission Unit

IRDV- Integrated Development for Development of Villages Scheme

Development Dept.- Development Department

DVDB- Delhi Village Development Board

**VDC-Village Development Committees** 

MCD- Municipal Corporation of Delhi

SDMC-South Delhi Municipal Corporation

NDMC- North Delhi Municipal Corporation

EDMC- East Delhi Municipal Corporation

MoSPI- Ministry of Statistics and Programme Implementation

MPLADS- Members of Parliament Local Area Development Schemes

MLALADS- Members of the Legislative Assembly Local Area Development Schemes

### 7.4 STATE-LED POLICIES AND PLANNING: A CHRONOLOGICAL TIMELINE

Year/ Period	Administrative/ Planning Imperatives	Focus/ Recommendations
1803	British declare Delhi as province for administrative purpose	Population of Delhi around 1.5 lakhs
1908-09	Revenue maps prepared	Surveys of existing population pockets and preliminary ground surveys for building capital city conducted. Third settlement record was prepared for demarcating all villages and agricultural lands in the revenue maps. 'Lal' Dora areas and village abadis were marked out in red ink. Lands falling within village abadi (Lal Dora) were not assessed to land revenue, but the agricultural fields outside the village abadi were subject to land revenue and were assigned individual ownership via holding numbers (in khasra).
1911	Capital Shifted to Delhi from Calcutta	6 villages were acquired, and its population was relocated to build the new capital centred around Raisaina Hill. With successive waves of acquiring villages and land for building new capital and civic provisions, what began was a slow disintegration of rural pockets. 25 villages from northern and western part of Delhi were successively urbanised.
1948	East Punjab Holding (Consolidation & Prevention of Fragmentation) Act 1948 enacted	1948 Act provides for extension of village abadi while undertaking consolidation of holdings. This became applicable to Union Territory of Delhi in 1951. Among its major objectives were to (a) Enable extension of village abadi, and (b) Provide a source of income for the Village Panchayat and for benefit of the village community.  Under the provisions of this Act, the work of consolidation of holding was initiated in some of the villages from 1951 and completed in 102 villages by the year 1954, after which the Delhi Municipal Reforms Act came into effect.  Further consolidation happened later in the 1970s but was sporadic and did not cover all rural areas. Consolidation operations in 1970 led to extension of Lal Dora and provision for necessary community services (like additional house sites, pathways, Phirni or extended lal dora, School, hospital, community services etc.) were made.
1954	Delhi Land Reforms Act 1954 enacted	The act was passed with the objective of modification of zamindari system to create a uniform body of peasant proprietors without intermediaries as well as for the unification of the Punjab and Agra systems of tenancy laws in force in the State of Delhi.
1957	DDA and MCD established	The Delhi Development Authority was established in 1957 through the DDA Act to promote and secure the planned development of Delhi. The Delhi Municipal Corporation Act, 1957 laid the foundations for Municipal Corporation which came into effect for NCT. According to a 1957 notification under MCD Act provisions, rural areas i.e. Lal Dora areas were exempted from the building byelaws and other regulations of Delhi Municipal Act.
1961-62	First Master Plan for Delhi comes into force	The first Master Plan of Delhi for the period of 1961-81 prescribed principles for development of rural areas in Delhi, but detailed planning remained partial especially with respect to rural villages. Even in the villages included (or proposed to be included) in the urbanisable limits of Delhi, implementation of guidelines for development of abadi areas remained partial and unsatisfactory. Villages in the south and west of Delhi urbanised under planning provisions to accommodate the influx of people displaced by the partition.
1963	Exemption Notification by MCD for Lal Dora	On August 24, 1963, the Municipal Corporation of Delhi (MCD) passed a notification saying no building permission is required for construction in Lal Doras. This went on to trigger haphazard constructions over the next few decades in Lal dora areas including addition of extra floors and building extensions mainly targeted at getting rental incomes.

Year/ Period	Administrative/ Planning Imperatives	Focus/ Recommendations
1977	First wave of regularization of unauthorized colonies in Lal Dora Areas	Significant transformation in socio-economic patterns in the urban villages (with growing non-agricultural workforces) over 1960s and 1970s leads to rampant construction activity. Orders issued by Ministry of Urban Development (vide Order No. J-13037/113/74/UDI/II-B dated 22 Mar 77) attempted to regularise unauthorised colonies and structures including those located within Lal dora areas.
1979	Perspective Plan drafted	Working Group constituted to formulate a Perspective Plan for the Development of Sub-standard Areas of Delhi (1980-2000) which included villages. The plan was not followed up.
1985	Mini Master Plan for Integrated Development of Rural Areas	Mini-Master Plan for Integrated Development of Rural Areas giving details of physical and financial planning of all the essential services was formulated in 1984 but was not implemented. Funds allocation for integrated development of rural villages was sought from central government. and other agencies through their categorization as growth points, growth centres and basic villages depending on their size, service capacity and nature of ongoing commercial and industrial activity in these places.
1990	Second Master Plan (MPD 2001) comes into force	Second Master Plan (MPD-2001) enforced in 1990 laid emphasis on integrated development of rural areas. However zonal plans, area development plans and redevelopment plans prepared by different authorities did not indicate abadis (Lal Dora and extended Lal Dora) on the maps and attempts, if any, to integrate the development of abadis with the surrounding areas remained inadequate.  Bureaucratic delays between notification of rural village as urban villages (at which point the exemption from building byelaws and permission for construction activity lapses) led to unchecked growth. Coming up of Planned colonies prescribed in first and second master plans further led to cramping in abadi areas due to lack of natural expansion areas.
2001	Third Master Plan (MPD 2021) comes into force	MPD 2021 mentioned that differential norms were to be made applicable for Special Areas, Regularized Unauthorized Colonies, Urban Villages and Resettlement Colonies. The plan called for a differentiated approach to a mixed use policy including plot size and street activity in abadi areas of villages in urbanisable area.  MPD 2021 also proposed Land Pooling Model for land assembly & development through private developers; provided guidelines on development controls and T&C of policy implementation. Also mentioned that detailed policy implementation provisions need to be chalked out in a timely manner.
2004	Delhi Rural Development Board formed under Department of Rural Development (later converted to Delhi Village Development Board in 2017)	State government in Delhi constituted a Delhi Rural Development Board in 2004 with over 46 Members including MLAs & PD (RD) as Member Secretary. Key functions included advising the Government on issues connected with the infrastructure development for securing planned growth of rural areas of Delhi and formulation of unified and coordinate area plans; prioritizing projects and schemes of the Rural Area Plan and its implementation etc. With Irrigation and Flood Control (I&FC) unit as the main Executing Agency, Municipal Corporation of Delhi, Delhi Jal Board etc. were also roped in as executive agencies to carry out various development works and create infrastructural facilities in rural areas including the construction of link roads, approach roads, parks, and minor drains.
		According to Rural Development Department's official website, two plan schemes were being handled by Rural Development Unit of Development Department, namely (i) Integrated Development of Rural Villages and (ii) Mini Master Plan for Rural Villages.

2006	Tejendra Khanna Committee constituted	Constituted by Ministry of Urban Development to look into various aspects of unauthorized construction and misuse of premises in Delhi. Apart from looking at construction and building guidelines, it recommended drawing up individual micro-plans (Local Area Plans) for proper development of the villages in consultation with the village community. Highlighted the urgency of the need to look into problems of Lal Dora and Extended Lal Dora areas, with specific reference to their non-integration with the overall planned development of Delhi and prepared the ground for setting up of Expert Committee on Lal Dora and Extended Lal Dora.
2006	Expert Committee on Lal Doras and Extended Lal Doras (Srivastava Committee) constituted	Constituted to look into the issues of application of building regulations and development control norms in Lal Dora and Extended Lal Dora areas and their integration in the overall process of the planned development of Delhi. Undertook ground surveys and public consultations and recommended introducing greater transparency in maintenance of village land records and seeking people's participation in setting development agendas for villages. Proposed pilot projects to demonstrate implementation of recommendations but were not taken up.
2017	Delhi Village Development Board constituted	DVDB was made as a successor to Delhi Rural Development Board for integrated development of urban and rural villages in Delhi. According to the 2011 Census, out of the total area of 1483 sq. kms. of Delhi, 369.35 sq. kms. is categorised as rural with a total rural population of 4.19 lakhs.  The annual budget for DVDB in 2017-18 was 600cr. Stated objective was to facilitate development and upkeep of rural areas on a project basis (which needed to be cleared by executing and financing agency). The organizational structure was based on a system of village development and coordination committees. Political conflicts and multiple tiers of decision making have kept the approvals, budget allocation and pace of implementation of DVDB slow.
2017	89 villages urbanized, declared development areas for hubs of affordable housing	State government declared 89 villages as urban villages and categorises them under 'development areas'. Part of a larger pool of 95 villages being envisioned as future hubs of affordable housing through land pooling and redevelopment measures.
2018	Delhi Land Pooling Policy proposed under MPD 2021 notified and operationalised	Operationalization of the land pooling policy with 5 dedicated zones namely ZONE P-II, N, K-I, L, J. Lands within existing rural villages and urban villages being seen as possible pockets for redevelopment. This redeveloped land is expected to absorb housing demand for close to 17 lakh dwelling units. Facing slow uptake.

### 7.5 PROJECTS/ SCHEMES SHAPING URBAN VILLAGES IN DELHI

While the development of institutions and policies accompanied by growth trajectories in the national capital impacted these areas, various government run schemes and other specialised bodies also initiated projects that came to bear on the fate of rural and urban villages. Some key initiatives have been detailed below:

Development of Urban Villages Scheme: While the Delhi Rural Development Board was constituted in 2004 to carry out development works only in rural villages, this body was subsumed under the Delhi Village Development Board constituted by the NCT in 2017 which was mandated to include not just rural but urban villages as well. The state government that allocates funds to the DVDB allocated a budget of 200 crores in 2018-19. Till August 2018, the board approved project proposals of MPs/MLAs worth Rs. 1346 crore in the rural and urban villages (Planning Department 2019). While there has been improvement in infrastructure facilities to a limited extent in the urban villages, it has not enabled holistic development of rural or urban villages in the city since the scheme works entirely in a project driven manner for the construction of approach roads, link roads, village roads, development of ponds and water bodies, development of cremation grounds, parks and other facilities. The DVDB brings MLAs or local councillors, ministers and zonal municipal officers from various bodies on a common platform. This Board is mandated to be assisted on ground by Village Development Committees (VDCs) to carry out survey of the villages for assessing the available and required facilities identifying priority areas for development works for each village (Indian Express 2017).

Saansad Adharsh Gram Yojana (SAGY): SAGY launched by the government of India in 2014, for the integrated development of the rural villages is yet to make an impact on the rural villages of Delhi. Though 13 villages were adopted by MPs (Ministry of Rural Development 2019), no village development plans were prepared, and no fund allocations were made. Many urban villages initially chosen by the MPs had to be dropped out, as SAGY scheme do not allow adoption of urbanised villages. It is reported that implementation of SAGY scheme has been facing obstacles in the state because many of the rural villages are urbanised and there are no gram panchayats in the city precincts. It has been reported that there is no cooperation from the state government to move forward with the scheme (Chitlangia 2019).

Shyama Prasad Mukerji Rurban Mission (or National Rurban Mission) (NRuM): This mission was launched by the government of India in 2014, with the vision of developing cluster of villages that preserve and nurture the essence of rural community of life with focus on equity and inclusiveness in its approach. With the stated aim of stimulating local economic development, enhancing basic services, and creating planned layouts for identified Rurban clusters of geographically contiguous villages, the National Rurban Mission aimed to upgrade services and leverage existing resources at both household and village level through converging existing schemes at national and state levels. The Mission was funded through a 70-30 % partnership of state mobilised funding mapped to existing schemes and the mission covering the rest through a Critical Gap Fund. The mission was managed at the National level by a National Mission Management Unit (NMMU), Expert Group, Empowered Committee and Mission Directorate that provided guidance and approvals for Integrated Cluster Action Plans. The states were envisioned as the key anchors and implementers with support from district and cluster levels. The State level Rural Urban Mission unit included the State level Empowered Committee, Technical Support Agency, Nodal Agency and Project Monitoring Unit. The central government aims to identify 300 rural clusters by 2019-20 across India and has planned a budget outlay of Rs 5142.08 crore for the same (Ministry of Rural Development 2017). In Delhi, funds for preparing integrated cluster action plan for Najafgarh cluster have been cleared and allocated.

City level Projects by Delhi Urban Arts Commission: Delhi Urban Arts Commission (DUAC), an apex body mandated to keep a check on the capital city's skyline, has undertaken several suo moto urban design studies on dilapidated or dense pockets in the capital city. In line with the master plan concept of redevelopment of unplanned areas, the commission has undertaken site specific urban design studies in several urban villages including Lado Sarai, Jaunti villages, Mohammadpur in the National Capital Territory. Due to its financial dependence on the Delhi Development Authority and lack of any implementation powers, none of the design solutions or local area plans for redevelopment has been implemented.

Government initiated Mini Master Plan for development of rural villages: Prior to the creation of Delhi Village Development Board, work in the rural areas was executed under the Integrated Development of Rural Villages (IDRV) or mini master plan schemes. All listed villages were categorised either as growth points, growth centres or basic villages depending on their density, areas, resources and ongoing industrial activities. For the development of basic villages, several multi-purpose community centres were constructed in the rural villages for socio-cultural functions. Funds were utilised for the land acquisition works for the development of growth centres and growth points as part of the mini master plan proposals which served bigger populations, had a higher grade of industrial activity or civic provisions such as hospitals and dispensaries or shopping complexes. For the salary of staff and up keep of rural development department, a budget provision of Rs 200 lakh has been made for the year 2018-19 by the Government of NCTD.

**Projects undertaken by NGOs in specific sites:** From 1999 GREHA, a Non-Government Organisation has undertaken several efforts for the planned development of Aya Nagar, a rural village on Delhi's south west periphery which grew into a Census Town by 2011. After receiving grants under Delhi Kalyan Samiti for research, the organisation undertook the study for developing the design and implementation methodology for making Aya Nagar village a model village. In 2009, the organisation submitted the development plan and action programs to the Delhi Government.

### 8. FRAMING ISSUES

### **8.1 LITERATURE REVIEW**

Apart from urbanisation and economic transitions determined by regional development, the evolution and transition of the urban villages are significantly influenced by two factors, one being the land acquisition strategies and related political influence and the second one being the planning approaches adopted by the government authorities. The sway of electoral gains and creating vote shares has been crucial in determining urban priorities. According to ex-DDA Commissioner Mr. AK Jain, vote-bank politics and the local political nexus involving real estate lobbies, municipal functionaries and local party leaders play a significant role in the measures authorities such as Delhi Development Authority and the Municipal Corporation of Delhi took and continue to take against demolishing illegal structures or sealing properties engaged in unauthorised land use.

However, the factors shaping rural and urban villages are not merely restricted to vagaries of the local political nexus but part of the larger planning conundrum. Studies on urban villages specifically in the case of Delhi note that the land acquisition process has itself created direction-lessness in the village economy. Datta (2004) argues that although the master plan for Delhi 2021 aims for a better land market process to prevent encroachments and illegal transactions, objectives like participation of villages and village development plan are absent in the draft recommendations of earlier Master Plans (Datta 2004). Planning policies have failed to acknowledge the duality in livelihood patterns that have resulted from the change in livelihood as a consequence of agricultural land acquisition for development purposes apart from limited opportunities for semi skilled and unskilled work (Datta 2004).

Mehra (2005) builds on these failed attempts in integrating the urban villages in the planned development initiatives through the instrument of the Master Plan. His work highlights how the land acquisition policy and planning frameworks failed to consider how the people who only had agriculture related skills would cope with their uncertain future with merely cash compensation in hand (Mehra 2005). Similarly, Sheth (2017) points out that the strategies the government authorities adopted after acquiring the village lands leaving out the abadi areas of the villagers were of pure negligence in the name of preserving the social life within these pockets. It analyses historical transformations in boundary and land use in the 20th century, and shows how local responses to land acquisitions, city planning, and powerful money networks have created a new politics of urban formation (Sheth 2017). Sheth's research argues that the basic civic amenities to urban villages were provided only after promises of securing a vote bank at the municipal level, when enough residents mobilised and voiced their concerns collectively.

Given the loss of agricultural lands and no subsequent employment generation for the villagers, turning to exploiting opportunities through rental economy was an obvious choice. Owing to the strategic location and availability of accommodation at prices lower than the adjoining planned areas, urban villages have become hubs of affordable housing for migrant class of population (Naik 2015).

Sheth (2017) calls urban villages of Delhi as sites of various accumulations including cheap accommodation for migrant labour, relatively low cost yet well located commercial space for politically connected socialite entrepreneurs, and reliable income for village residents. Using the case of Hauz Khaz village of Delhi, the paper highlights how rules as framed by central and municipal authorities and political influences have made the social and physical fabric of India's national capital fragmented and patchy (Sheth 2017). Mehra (2005) in his paper writes about increase in the number of tenants in Munirka urban village and also pointed out the impact of entry of migrant workforce for cheap accommodation on the sex ratio in the urban villages. Migrants seeking low rental housing and /or jobs in commercial/industrial units set up in the villages became part of the urban village inhabitants (Govinda 2013).

The built form and land use within the village are both shaped by and resultant of the socio-economic changes in the urban villages. The earliest signs of transition which the urban villages experienced was change in their occupation pattern after they were engulfed within urban limits. In the absence of agricultural land and cattle rearing fields, which was once the primary source of living for the rural settlement, the villagers are forced to explore alternative sources of income to support their living. This socio-economic transition of the urban

villages is documented in several literature studies. Using case examples of Hauz Khaz, Masjid Moth, Munirka, Jawala Heri, Jia Sarai Chhawala and Kanjhawala urban villages (Datta 2004), (Mehra 2005) and (Choudhary, Abhishek 2014) documented the changes in the economic livelihood patterns and social fabrics of the urban villages. Datta (2004) explores the concept of territoriality in the traditional society, which is a socio-spatial concept that emphasizes human interaction within natural and socio-economic systems on a geographical space. She emphasizes that disassociations within the rural community begin, when the signs of getting urbanised become stronger in the peripheral villages (Datta 2004).

Govinda (2013) looks closely at gender politics in Delhi's urban villages in transition, which has remained underexplored. Taking the case study of Shahpur Jat in South Delhi, the paper demonstrates how shift from peasant subsistence economy to a capitalist urban economy has had specific implications for gender relations and dynamics between different communities, how the intersection of caste and gender norms influences male and female bodies' negotiation of urban village spaces, and how development, marginalization and resistance are far from gender neutral in such spaces (Govinda 2013).

Another focal point for research on urban villages has been about the built form and living conditions. Residential areas where dwelling units are unfit for human habitation due to dilapidation, overcrowding, lack of ventilation and narrowness of streets and such other conditions that are detrimental to the safety and health are grouped under slum category in the census of India. Urban villages in several contexts are categorised as slums, as the built environment and density in urban villages falls close to the criteria designated for slum tenements. A study report on planning violation and urban inclusion, point out those calling erstwhile villages slums as soon as they become part of the urban is a very simplistic response to their built-form and infrastructure availability (Anand and Deb 2017). Mehra (2005) seeks to examine economic, social and policy consequences of the unique urbanization process in Delhi that has reduced most of the villages inducted into metropolitan Delhi into slums. Datta (2004) states that it is the poor intervention of Delhi's planning authority and ineffective control at the transition stages of urbanising villages which leads to an immensely complicated situation where 'urban villages' are categorised as slums of the city. Urbanising villages in the fringes which were ignored during the transition have become intensely commercialised and densified with settlements that stand in blatant violation of the building byelaws (Datta 2004).

Review of the existing literature on urban villages, especially that which focuses on Delhi, points to the fact that most studies conclude with the factors that have caused the evolution and transition of urban villages and consequences of such transition. Only a limited few have proposed recommendations for improving urban villages. Datta (2004) suggests that the planning policies need to aim for alternative livelihood policies for the villages that fall in the urban rural interface and also recommends a separate department for rural development that would look into the structural as well as livelihood changes in the villages at the interface. Independent studies from DUAC use a context driven solution to tackle challenges in urban villages which are devised through community participation. For instance, a pilot study for Mohammadpur urban village in Delhi proposes reduced standards of parking for the area, regulation of illegal parking, need to carve out open spaces for parks, decentralised methods for waste management, pedestrianisation of streets and suggests that building bye-laws must encourage small size houses (Rewal 2014).

### 8.2 UNDERSTANDING INSTITUTIONAL CHALLENGES AND IMPLEMENTATION GAPS

A preliminary round of discussions was held with key officials from various government institutions such as Delhi Village Development Board (DVDB), Delhi Urban Arts Commission (DUAC) and Delhi Development Authority (DDA) as well as field experts from School of Planning and Architecture (SPA), Indian National Trust for Art and Cultural Heritage (INTACH) and Centre for Policy Research (CPR), who have previously worked in urban villages around the National Capital Region. These allowed for highlighting the major bottlenecks or pressure points for policy implementation and/or enabling integrated development for urban villages:

### On Transitions in the urban villages and resulting challenges for planning:

- Urban villages especially those in the heart of the city are not just rental housing hubs but also clusters of economic activities which are quite dense and diversified. Hence it needs a multi-pronged solution across domains of housing, infrastructure, municipal services, mixed use planning among others.
- Organic street pattern and dense development act as a hindrance to the provisioning of infrastructure services, parking and accessibility to emergency services in case of fire or medical urgency. Urban villages are jam-packed with rampant constructions giving rise to higher chances of fire hazards apart from rising issues of ground water depletion, solid waste disposal and lack of sanitation provisions.
- Urban villages sit on a bed of complex transactional elements. Unregulated businesses and commercialization are on the rise in urban villages due to violation of regulations. Yet these very negotiations also provide a means for the village dwellers to hold and deploy their stakes in a fast growing metropolis. Within current waves of urbanisation, affordable housing and cheap commercial spaces for small scale industries, service and employ large parts of the city's population.
- Land acquisition strategies are not merely premise but the very instrument of affecting transitions in villages. While a direct effect may be the loss of livelihoods and breathing spaces/ buffer zones for village abadis, it catalyses a process of change within the nature and form of the village life itself which is long term and needs anticipatory measures.

### On Institutional challenges and policy gaps:

- The presence of multiple agencies with muddled power division makes decision making process slow and mandates unclear. These include situations of overlaps as well as institutional gaps. In Delhi this takes on particular forms due to the presence of three tiers- Centre, State and the Municipality. With the presence of multiple bodies at sub-city/ municipal level, inter and intra departmental coordination is often paralysed and financial provisions remain limiting.
- There is no standardized institutional mechanism for land conversion at the decentralized level. Land conversion is a cumbersome process, as it happens through Delhi Development Authority which is accountable to the Central government according to the 1957 DDA Act.
- Delhi Village Development Board was green signalled by GNCTD in 2017. Technical procedures such as acquiring NOCs, tendering and clearances from any litigations based conflicts caused delay in the implementation of the schemes and hence the allocated budget could not be utilized before the end of the financial year. DVDB's mandate provides a project based approach to development in villages which tries to shy away from both planning and policy levels. No plans have been devised for the village settlement. DVDB's budgetary allocations are exclusively sanctioned towards physical infrastructure facilities such as roads, community centres and parks
- DDA which is mandated with the planning functions, have not brought in the mandates for preparing the local areas plans. The urban local bodies in Delhi do not have a strong planning wing and do not have sufficient urban planners to carry out the planning functions.
- Due to political and administrative hurdles in implementation of plans and significant time lags, the data collected becomes dated and redundant.
- Recently introduced Land pooling policy has had a mixed response from experts and a slow uptake on the target group front. While the policy aims for redevelopment of available land in Phirni areas through a land pooling system, the Abadi areas remain outside the purview of the policy. It remains to be seen how they will be integrated within new development plans.

### Political Influence and its impact on the urban villages:

- Most of the infrastructural development in the urban villages happens based on the requirements put forward by the MPs/ MLAs of a particular constituency.
- Political interests in reaping the benefits from implementation of an economic model which has strategies for monetizing the village land is higher than that of a development models which look at uplifting the quality of living in the villages and preserving the heritage elements in the urban villages.
- Urban villages and unauthorized colonies have been used as a vote bank by politicians. Carrot and stick approaches are used by politicians for infrastructure upgradation and future regularization to gain votes from the urban villages.
- The political nexus that exist at the central and the state level, act as a hindrance in taking forward the projects to the execution stage.

### Way forwards and suggestions:

- Breathing spaces to relieve density pressures, provision of municipal services and access for emergency services are urgently needed in the urban villages and remain key pressure points in these areas from a planning perspective. Regulation of available housing provisions might improve living conditions and aid in devising decentralised service provisions in urban villages
- As several urban villages have heritage structures, conservative surgery is required to not lose the built structures especially if they have a place-making value. Community participation is necessary to address this.
- Need to set controls on the arbitrary rules of fixing the rental rates and electricity bills which are charged at a higher rate than the government rates by the landowners in the urban villages.
- The concept of local area plans introduced in MPD 2021 have to be crystallised and detailed out through community participation against stipulated deadlines and institutional responsibility.

# 9. Mapping High Density- Low Infrastructure Pockets through Machine Learning

### **Objective**

While settlement typologies in Delhi have been studied and categorised, especially those of slums and urban and rural villages, the quantum, spatial spread, density and nature of such settlements across the Central National Capital Region (CNCR) has remained lesser known. This is also largely the case with most metropolitan city- regions across the country, where this phenomenon is less acknowledged or mapped, let alone planned for. Building a machine learning model that maps such low infrastructure-high density settlements will realistically indicate the size and spread of the problem in cities thereby improving the responses to such pockets and more targeted solutions.

### Methodology

To study the spread of high density, low infrastructure settlements across the Central National Capital Region (CNCR), the preliminary stage involved creating sample categories. A combination of plot sizes and types of roof were taken as indicators for the filtering process. Subsequently, using QGIS and Google Earth, three samples for each type of high density low infrastructure settlements were identified for:

- a. Those with non-permanent roofs such as tin, tarpaulin etc.
- b. Those with permanent roofs such as linter and bricks etc.
- c. None of the above (which indicates presence of planned colonies, apartment complexes and low/mid density layouts etc.)

Next, these samples were incorporated in a machine learning system (using Google Earth and Sentinel 2 satellite images) to create 373 samples of classes across the following denotation categories (as defined in the legend on the map):

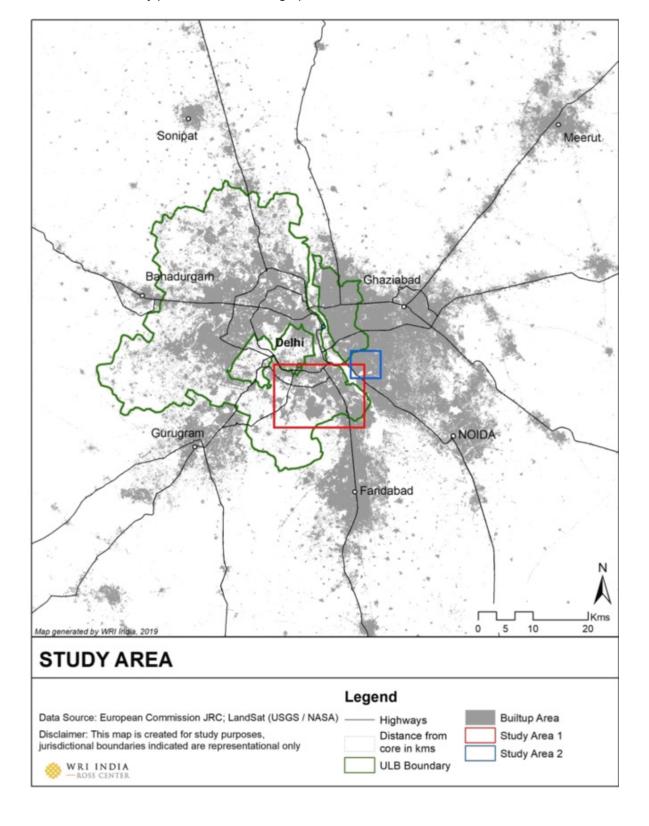
- a. Low infra-high density neighbourhoods
- b. Non- low infra-high density neighbourhoods,
- c. Open areas,
- d. Water bodies
- e. Forest (green spaces)

The Machine learning methodology takes the surface reflectance values of a pixel and also the statistical variations of the surface reflectance values of its immediate neighbourhood with fixed distances of 3 and 5 pixels (30 and 50 meters respectively). This means the surface characteristics of the roof of a particular section and also the surface characteristics of it's immediate neighbourhood are used for arriving at the solution.

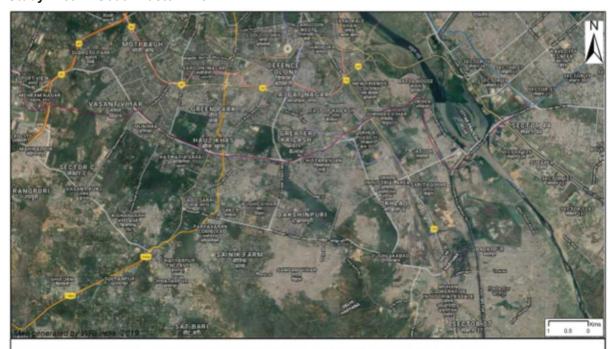
75% of the samples were used to train the dataset and 25% of the samples were used to test the accuracy of the machine learning model. Twelve bands of Sentinel 2 satellite images were used for the exercise. Two more variants of the respective bands were created using the mean of the neighbourhoods at two different window sizes (3 and 5 pixels). The 36 bands of image thus created were used for training the model. A random forest machine learning model was trained using the sample dataset to explain the variances in the processed

satellite image. The forest was created with 15 trees using modules provided in Google Earth Engine. The overall accuracy of the model was 51.1%. The ongoing modelling and mapping exercise is able to identify the low infra high density neighbourhoods, however the demarcation of the extent of these neighbourhoods needs to be further improved.

The initial results are reflected in the maps provided below. While the base map provides contextual information about the location of the study areas (including distance from core of the city and major highways; and location vis-à-vis ULB boundary, the following snapshots of Study Area 1 and 2 provide representational analysis of the spread of high density low infrastructure pockets across 2 particular locations that lie within and contiguous to Delhi's ULB boundaries respectively. Both fall within the CNCR, but their locations impart differences in density pressures and demographic constitution.



Study Area 1: South Eastern Delhi



# LOW INFRA - HIGH DENSITY AREAS IN DELHI

Data Source: Google Maps

Disclaimer: This map is created for study purposes, jurisdictional boundaries indicated are representational only



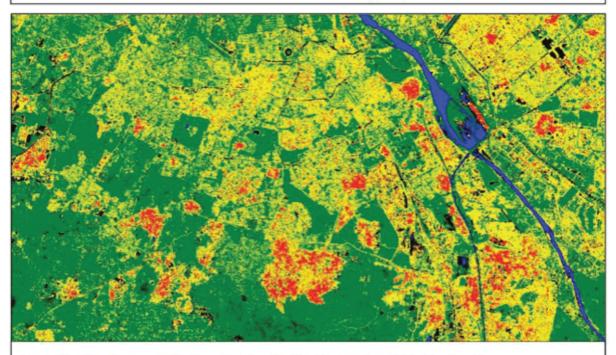
### Legend

Open Areas

Water Bodies

Probable Low Infra - High Density Areas

Other Builtup Areas



# LOW INFRA - HIGH DENSITY AREAS IN DELHI

Data Source:WRI India; contains modified Copernicus Sentinel Data [2019]
Disclaimer: This map is created for study purposes,
jurisdictional boundaries indicated are representational only



### Legend

Open Areas

Water Bodies

Probable Low Infra - High Density Areas

Other Builtup Areas

Study Area 2: Eastern fringe of CNCR along Noida - Greater Noida Expressway

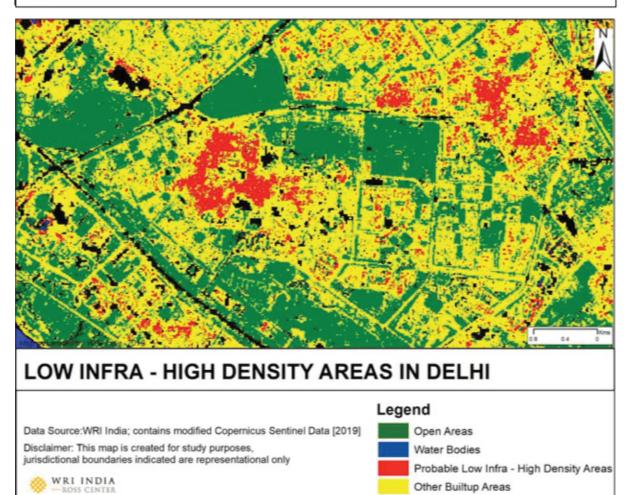


# **LOW INFRA - HIGH DENSITY AREAS IN DELHI**

Data Source: Google Maps

Disclaimer: This map is created for study purposes, jurisdictional boundaries indicated are representational only





# 10. Way Forward: Timeline of Proposed Stages and Future Research Focus

# 10.1 TIMELINES: COMMITMENTS TO NEXT STEPS

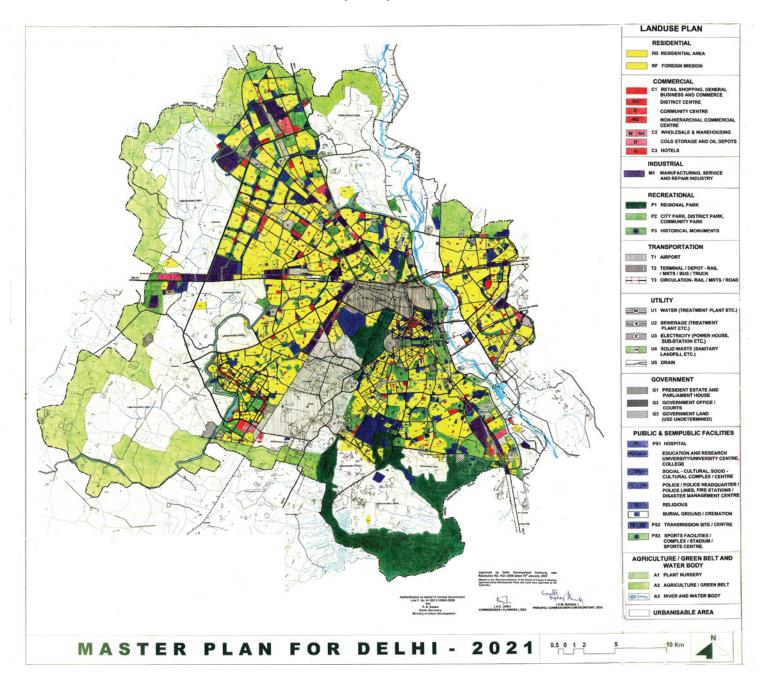
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### 10.2 FUTURE RESEARCH FOCUS

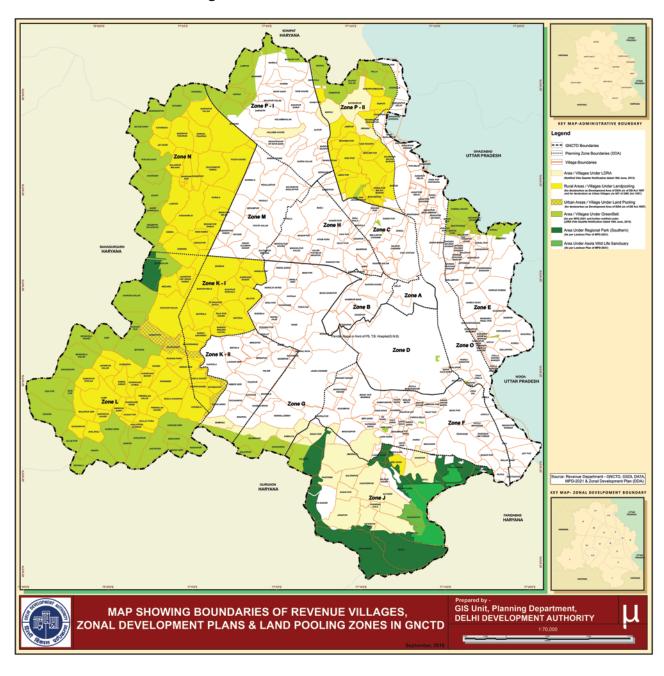
While addressing the gaps in literature and on ground concerns and needs is critical, the intent is to mitigate unfavourable transformations of urbanising villages in Delhi and its extensions. WRI India's research inquiry will broadly explore the following thematic areas and follow a reduction process that entails benchmarking, primary surveys and interviews to arrive at a meaningful and impactful focus area. Exploratory thematic areas are:

- Land Rights and Ownership: Unlike the trajectory followed by slums where there is no security of tenure to begin with, village settlements typically have an allotted revenue number, individual/ community/ panchayat ownership and associated tenure rights, but yet reach the same outcome in terms of liveability. Would unlocking the transformation of rights over time, and introducing a more regulated procedure help decode the solution to a settlement's future?
- Rental Economies: Urban villages are hubs of affordable rental housing especially for the low income migrant, in a case of the poor housing the poor. How can informal rental housing benefit from a mix of planning and policy imperatives to ensure liveable conditions without affecting affordability?
- Redevelopment Vs Upgradation Strategies: Some global cities celebrate their traditional settlements as vibrant destinations and others accept them as legal settlements that require basic services to house lower income groups. Is it time for the Indian discourse that predominantly favours redevelopment, to adopt policies and regulations that favour in situ upgradation instead? What should the nature of resettlement and rehabilitation strategies be?
- **Development Control Regulations:** Unsafe and undesirable house extensions and densification persist in urban villages as there are no regulations for such organic settlements. Would developing context relevant regulations for incrementality while relaxing unit size legality, and ensuring minimum light and ventilation requirements pave the way for a better settlement future?
- Innovations in Service Provision and Self-build Solutions: Fire engines on motorcycles, non-standard vertical stacking of physical infrastructure and self-build solutions for structurally stable informal housing are available innovations. Considering the bulk of affordable homes are self-built, would exploring workable and proven innovations better their future?
- Village Development Plan Framework: Just as cities have master plans to guide growth and development, the left out pockets of urbanised villages too require mini master plans. Would a comprehensive Village Development Plan which sets the process for various aspects from needs assessment, infrastructure provisioning, agency coordination upto participatory planning be the best step forward?

# Annexure 1: Master Plan of Delhi (MPD)- 2021



# Annexure 2: Map Showing Revenue Village Boundaries, Zonal Development Plans and Land Pooling Zones in GNCTD



# Annexure 3:Interview Questionnaire used for Key Informant Interviews (KII)

### On major issues in urban villages:

In what ways have urban villages undergone changes over the last few decades? What according to you are the major causes for these changes?

### On Roles and Responsibilities:

What are your primary roles and responsibilities with respect to governance and administration of urban villages? Are any budgetary allocations made specifically for the urban villages?

Are there any assessments carried out to understand the impacts of expansions of the city limits on the abadi sites?

Is there an estimate on the total population residing in the urban villages of Delhi? Has any department undertaken any surveys for the urban villages?

### On Institutional level organization and challenges:

Which are the nodal agencies for dealing with urban villages? Have there been any specialized initiatives for them? (Probe: INTACH, DUAC)

Could you identify and elaborate on the major challenges that you face in terms of institutional organization when dealing with urban villages? How is the community positioned within this organizational structure? (Probe: participatory governance)

Do you think having dedicated agency (administrative and planning powers) improves efficiency in achieving integrated development for urban villages? If not, what challenges or delays does it produce?

### On Land Ownership:

What are the current challenges emerging with land ownership in urban villages settlements given that the claim to ownership is jointly held by the community? (Probe: rights transfer, ownership)

How do you see this changing in the event of migration and formation of rental economies in these pockets?

### On policy:

Where do you see the major gaps in the current policy landscape towards urbanizing pockets?

What changes have policy imperatives allowed for in urban villages?

Why have successive rounds of policy recommendations and imperatives remained slow in enabling an integrated developmental trajectory for urban villages?

How do you see the new push for land pooling and redevelopment reshape urban villages as places and their urban form? (Probe: Affordable Housing Hubs)

### On planning regimes:

What had been the contribution of Master plans and other planning instruments towards managing expansion of and growth within urban villages?

Do we need a dedicated enforceable plan at local level instead of Master plans for development of urban villages? (Probe: Local Area Plans)

### On on-ground implementation:

Are there any corporate bodies or NGOs working for the upgradation of the urban villages (probe: welfare projects and schemes, adopting urban villages)?

Why has policy implementation remained slow on ground in urban villages?

What are the key challenges that come up in implementing policy provisions and servicing urban villages? (Probe: losing buffer zones and space for natural expansion with rapid urbanization)

### Issue framing:

Could you provide good examples/best practices for dealing with urban villages from other contexts? Identifying real gaps in improving situation- where can WRI focus?

# Annexure 4 - List of Interviewees for Key Informant Interviews (KII)

### Ms. Manisha Saxena

Secretary - Cum -Commissioner (Development), Development Department Delhi Village Development Board, Govt. of NCT of Delhi

### Mr. Kuldeep Singh Gangar

Spl. Development Commissioner, Development Department Delhi Village Development Board, Govt. of NCT of Delhi

### Mr. Nilesh Rajadhyaksha

Project Coordinator MPD 2041, National Institute of Urban Affairs (NIUA)

### Ms. Vanita Verma

Urban Design Consultant, Delhi Urban Arts Commission

### Mr. Manu Bhatnagar

Principal Director Natural Heritage Division
Indian National Trust for Art and Cultural Heritage (INTACH)

### Mr. R. Srinivas

Head, Metropolitan & Union Territories Division, Town &Country Planning Organisation (TCPO), Ministry of Urban Development

### Ms. Mukta Naik

Fellow, Centre for Policy Research (CPR)

### Ms. Sushmita Pati

Asst. Professor , School of Public Policy and Governance Azim Premji University (APU)

### Mr. MN Ashish Ganju

Architect and Urban Planner
Founder TVB School of Habitat Studies & GREHA

### Prof. Sejal Patel

Chair- Housing, Faculty of Planning Centre for Environmental Planning Technology (CEPT)

### Mr. AK Jain

Ex- Commissioner, Delhi Development Authority (DDA)

### Prof. E.F.N.Ribeiro

Former Chief Planner, TCPO & Director, School of Planning and Architecture (SPA)

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### **ENDNOTES**

<sup>1</sup> Nazul office referred to the earliest established office that oversaw Nazul land. According to the Nazul lands (Transfer) Rules, 1956, Nazul land means [(i) The land situated beyond two miles of the Municipal Limits, which has escheated to the State Government and has not already been appropriated by the State Government for any purpose]; (ii) such other land as the State Government may make available for being transferred under the rules of the said act.

<sup>2</sup> This was indicated during the personal interview with a former commissioner of DDA, Mr AK Jain at his residence on 14th May 2019. During the discussion, he pointed out even in instances where DDA had the mandate to plan for integrated development of 50 villages located near Dwarka, implementation of these plans lacked execution. The draft plans for basic services prepared by DDA received approvals, but were not enacted by the concerned municipal authority.

- <sup>3</sup> Personal Interview dated 29th May 2019.
- <sup>4</sup> Personal Interview dated 23rd May 2019.

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