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The International Journal of Housing Policy Outsiders in the periphery: studies of the peripheralisation of low income housing in Ahmedabad and Chennai, India --Manuscript Draft--

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Abstract:	The growing emphasis on affordable housing and the increase in its supply in Indian cities is characterised by two features that diminish the integrative role of affordable urban housing. The first is the move toward constructing new housing stock rather than upgrading existing stock. Second, most of this new housing, increasingly in the form of multi-storied tenement buildings, is located on urban peripheries in isolated or poorly connected sites. In focusing on the peripheralisation of formal low-income housing, this paper adds a new dimension to studies of peripheral urbanisation in India, which have hitherto focused on high-end speculative developments or informal settlements of the poor. Drawing on mixed-method field studies of four formal low-income settlements in Ahmedabad and Chennai, this paper argues that their residents experience a multifaceted dynamic of disconnection from the city and from other peripheral developments, rendering them outsiders in the periphery. Three dynamics of disconnects residents from processes of housing production. Second, spatial dislocation constrains their physical and socioeconomic mobility. Third, these dynamics combined with substandard infrastructural conditions alienate residents from the settlements and curtail their engagement in processes of place-making or the production of neighborhoods.							

Outsiders in the periphery: studies of the peripheralisation of low income housing in Ahmedabad and Chennai

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Abstract

The growing emphasis on affordable housing and the sharp increase in its supply in Indian cities over the past two decades is characterised by two features that diminish the inclusive and integrative role of affordable urban housing. The first is the move toward constructing new housing stock rather than upgrading existing stock. Second, most of this new housing, increasingly in the form of multi-storied tenement buildings, is located on urban peripheries in isolated or poorly connected sites. In focusing on the peripheralisation of formal lowincome housing, this paper adds a new dimension to studies of peripheral urbanisation in India, which have hitherto focused on high-end speculative developments or informal settlements of the poor. Drawing on mixed-method field studies of four formal low-income settlements in Ahmedabad and Chennai, this paper argues that residents of these settlements experience a multifaceted dynamic of disconnection, not only from the city but also from other peripheral developments, rendering them outsiders in the periphery. Three dynamics of disconnection are studied: first, the allocation of fully built housing units disconnects residents from processes of housing production. Second, spatial dislocation constrains their mobility, both physical and socioeconomic. Third, these two dynamics, combined with substandard infrastructure and housing conditions, alienate residents from the new settlements, and curtail their engagement in processes of place-making or the production of neighborhoods.

Keywords: peripheralisation, low-income housing, resettlement, disconnection, Ahmedabad, Chennai.

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Outsiders in the periphery: studies of the peripheralisation of low income housing in Ahmedabad and Chennai, India

Introduction: affordable housing in metropolitan peripheries and the dynamics of disconnection

Since the Millennium, India's nationwide drive to produce 'world class' cities has reinvigorated the building of state-subsidised low-income housing. Centrally-sponsored schemes like the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Rajiv Awas Yojana (RAY) and the ongoing Prime Minister's Awas Yojana (PMAY)-Urban have aimed to deliver 'Slum Free Cities' and 'Housing For All' across India.¹ However, this shift has been characterised by two features that diminish the role that affordable urban housing can play in "regulating the city's productive structure and generating inclusive growth" (Buckley et al, 2016: 124). First, the emphasis on constructing new housing stock, rather than upgrading existing substandard stock, 'dangerously echo[es] past failures of social housing as witnessed in the post-World War II era in European and American cities' (ibid: 120). Second, most of the new housing is produced as multi-storied tenements located on urban peripheries in isolated or poorly connected sites, setting in train a series of disconnections that this paper investigates.²

The literature on peripheral urbanisation in India has remained preoccupied with highend enclave developments (SEZs, industrial estates, and luxury townships) to highlight the role of speculative, frontier, and flexible capital (Raman 2016, Balakrishnan 2018, Gururani 2018, Goldman 2011) in transforming agricultural hinterlands into residential or commercial real estate. Here private developers link with state-sponsored projects, aided by the weak regulatory capacity of local bodies on the metropolitan fringes, fuelling speculative high-end city-edge construction that provides a niche supply of affordable luxury for the commuting urban middle classes (Raman 2016, Vijayabaskar et al 2018, Balakrishnan 2018). This real estate development significantly outpaces infrastructure delivery, forcing companies and residential buildings to self-provision, as seen in Chennai's 'world class' IT corridor (Kennedy et al., 2014) or in high-income gated-communities in Ahmedabad's western periphery (Mahadevia 2013).

The low initial land prices driving this speculative cycle also, however, opens the periphery to land-intensive state projects such as municipal dumpyards, wastewater treatment plants or resettlement colonies. Metropolitan peripheries are thus diverse spaces, continuously transformed through both flows of speculative capital and the dumping of

¹ JNNURM comprised two initiatives: large-scale infrastructure development, and low-income housing through its Basic Services for the Urban Poor (BSUP) component (2005-11). The BSUP covered 65 mission cities while the Integrated Housing and Slum Development Programme (IHSDP) covered the rest. RAY (2011-15) aimed to scale up BSUP's reach, and was in turn replaced by PMAY when Narendra Modi became Prime Minister. 'Awas Yojana' translates as housing programme.

² This trend is not unique to India. Numerous studies over the past decade across Asia, Latin America and South Africa have noted that social housing is increasingly being pushed to urban peripheries, into single-class settlements that are poorly connected and serviced, producing 'islands of poverty' (Borsdorf et al 2016, see also UN Habitat 2011, Libertun de Duren 2017, King et al 2017, Venter et al 2017.)

materials and people categorised as waste – garbage, sewage and urban 'encroachers'. Yet, relatively little work examines low-income housing on urban peripheries, and what exists focuses on slums and informal settlements (Kundu 2016; Desai et al pre-print). Missing in these accounts are the formal low-income housing projects installed in these landscapes by the state, and increasingly, by private builders. Socio-spatially cut off from other peripheral developments, they have also received insufficient attention from researchers.

This paper contributes simultaneously to studies of affordable housing and of peripheral urbanisation in India by examining these settlements' place within the periphery in India's urban geography. The concentration of thousands of low-income households in city-edge housing projects is the flipside, or the condition of possibility, of the world-class city. We argue that these settlements are not simply instances of the paradigmatic patterns of inadequate services, weak connectivity and poor governance that mark peripheral urbanisation. Instead, they are exceptional – even vis-à-vis other peripheral low-income settlements such as slums or urbanizing villages – by virtue of being distinctively disconnected or outcast.³ Drawing on research in Ahmedabad and Chennai, we demonstrate how these settlements experience a multifaceted *dynamic of disconnection*, both from the city and from its peripheral developments, rendering their residents outsiders in the periphery.

This disconnection is achieved through three sets of dynamics. First, the allocation of fully built housing units renders these households consumers of 'housing as a noun' (Turner 1976, cited in Cohen 2015), disconnected from the social relations, negotiations and networks implicated in the incremental auto-construction of housing. We trace these dynamics through histories of low-income housing-provision within both our cities, asking *do current forms of provisioning represent an alienation of low-income residents from processes of housing production?*

Second, residents of these settlements experience disconnection through spatial dislocation. Unlike other low-income populations living in peripheral slums or urbanising villages ⁴, populations resettled here -- by state action or market dynamics -- long remain metropolitan exiles, uprooted and out of place, dependent on the city for work, education, healthcare, and social networks for several years after the move (Mahadevia and Desai 2019). Mobility is thus heavily at stake for them, both in the physical sense of being able to move freely, cheaply and safely across the city, and in the socioeconomic sense of being able to craft a pathway out of poverty. Several studies have analysed the increased distance, travel costs, and safety-related mobility constraints suffered by residents of peripheral settlements, and the resultant productivity impacts (Alberts et al 2015, Coelho 2011, Desai 2018; Desai et al 2019; Mahadevia and Desai 2019, Libertun de Duren 2017, King et al 2017, Venter et al

³ The usage here differs somewhat from Wacqant's "urban outcasts" (2008), which signifies residents of "stigmatised neighbourhoods at the bottom of the hierarchical system of places that compose the metropolis". The formal housing projects we describe here share some features of his "zones of relegation", including their spatial marginalisation, the concatenation of discriminatory systems such as caste, ethnicity, and class to create social marginalisation and stigma, and different degrees of institutional neglect. However, these settlements, precisely owing to their formality, represent for their residents, an advance over the tenurial or ecological precarity of the slums that most had moved from.

⁴ Evidence suggests that dispossessed small-scale farmers and agricultural laborers in city-edge villages either migrate out or take up work, e.g. in security, maintenance or housekeeping, in industrial parks or housing developments nearby (Gupta 2015, Vijayabaskar and Varadarajan 2018, Raman 2016).

2007). In section three of the paper, we move from the city scale to our housing projects to ask *in what ways do residents experience spatial dislocation, and how does it affect their mobility and livelihoods?*

The exclusion of low-income households from processes of housing production, substandard living conditions and spatial dislocation together contribute to a third dynamic: alienation from place or neighbourhood. At stake here is residents' ability to participate in the 'production of locality' (Appadurai 1996) within formalised housing projects. The formation of local subjects, 'actors who properly belong to a situated community of kin, neighbours, friends and enemies' (ibid: 179) involves techniques of localisation and ongoing social and material engagement. Ethnographic studies of urban housing in India (Gorringe 2007, Datta 2012) have emphasised the complex fabric of material conditions and social relations (histories of settlement, political/cultural associations, and governance arrangements) that can create a sense of place, transform a state-built tenement complex into a home, refuge and/or neighbourhood, and counter the stigmatisation that marks urban poor settlements. Housing can thus be conceived as a thick, layered relation that embeds household economies and social relationships in the spatial form of an urban neighbourhood (Coelho 2017). Failures to 'produce locality' in our peripheral low-income settlements often translated into ambivalent or partial acceptance of the housing unit – typically as an asset rather than a home – which was in turn manifested in high rates of rentals or sales of units, and widespread absences or vacancies. Our final question is thus: how do current forms of provisioning curtail lowincome residents' participation in processes of place-making?

This paper examines these dynamics in Ahmedabad and Chennai, key cities in two of India's most urbanised states, drawing on a comparative mixed-methods study of two low-income housing projects in each city, conducted from April-July 2018. The four projects, described further in section 3, included one privately-developed and one state-built settlement in Ahmedabad, and two state-built settlements in Chennai. Data was collected through a structured survey administered to 200 households (50 per settlement) detailing work patterns and travel behaviour of all members aged 6 and above for the previous working day. The survey was supplemented with qualitative interviews with 20 households and 6 focus groups in Chennai, and with all surveyed households in Ahmedabad. In all sites, 17 key informants were interviewed, representing local governments, state housing boards, transport corporations, police, local NGOs, political parties, resident associations, private transport providers, and the private developer in Ahmedabad. Following data analysis, a comparative workshop in August 2018 identified cross-cutting themes emerging from residents' experiences.⁵ Section 3 uses this material to address our questions around spatial dislocation and disconnection from place-making processes.

First, however, we analyse the city-level context of the projects through existing research and city-wide data. Here, we trace convergent trends of peripheralisation of low-income housing since 2000, showing how the scaling-up of formal tenement-construction to resettle project-displaced households or enable low-income households to purchase a home has eclipsed earlier auto-constructive and integrative approaches to housing for the urban poor.

⁵ Our study included a third city, Johannesburg. We report on South Africa-India comparisons elsewhere (Williams et al., 2018).

Peripheral urbanisation and low-income housing in Ahmedabad and Chennai: histories of the present

Ahmedabad

The development of Ahmedabad's periphery has reproduced historical differences between the city's eastern edges, dominated by industry and low-income households, and its western suburbs occupied by middle-class and elite residents. (Mahadevia, 2013). Peripheralisation has always been closely linked to opportunities for land development. Initially, private developers seeking to avoid the constraints of the Urban Land Ceiling and Regularisation Act (ULCRA, 1976) developed parcels of farmlands beyond the 5-km belt around the municipal limits to which the Act applied, particularly on the western periphery. In 1999 Gujarat's liberalisation of land regulation began, including repeal of the ULCRA. Although intended to promote industrialisation, this aided the consolidation of large land parcels by real estate developers, often through informal agreements with farmers. Interestingly, these developments occurred within the jurisdiction of the Ahmedabad Urban Development Authority (AUDA) which stepped in to provide roads and other infrastructure, leading to land price increase and windfall profits for developers. The laying of the Sardar Patel Ring Road in 2002-6 increased land prices and prompted further sprawl, particularly of high-end gated enclaves on the western periphery. The city's most recent Master Plan has created a Residential Affordable Housing (RAH) zone in a 1km band around the ring road (AUDA n.d.), where 'affordable housing' under the PMAY-Urban is slated to be constructed. Both our study sites are located slightly off the major road networks in the eastern periphery but nearer to the city than the RAH zone.

In contrast to Chennai, the formal private sector has historically dominated lowincome housing supply in Ahmedabad. Chawls, rows of one-room units with common facilities, constructed by textile mill-owners in the early 1900s to house industrial workers, were a distinct form: by 1930, they accounted for 90% of the housing stock in eastern Ahmedabad outside the walled city (Mehta and Mehta 1987). This housing eventually degraded due to textile mills' closure and insufficient revenue for its maintenance. Following the establishment of the Gujarat Housing Board (GHB) in 1961, public housing supply briefly rose, reaching 10% of total stock by 1981 (ibid.). The Gujarat Slum Clearance Board was established in 1973, but had little success in creating housing for slum-dwellers and was merged with the GHB in 2001 after running into financial losses. Private developers such as Parshwanath Corporation catered substantially to low-income households in the 1970s and 1980s (Wadhva 1987): the sector produced 34.8% of housing stock outside the walled city and urban villages in 1981, and 50.6-58.1% of the new housing supply from 1971-81 (ibid, Mehta and Mehta 1987). To cater to low-income households, private developers reduced unit sizes and built on cheaper, peripheral land (Wadhva 1987:18). The trend of private developers constructing affordable housing on peripheral lands continues today. Meanwhile, slums and informal chawls continued to grow on vacant public lands (the largest concentration found on the Sabarmati Riverfront) or on private lands marked for acquisition under ULCRA.

Between 1997 and 2005, in-situ slum-upgrading approaches were implemented by the Ahmedabad Municipal Corporation (AMC) under the Slum Networking Programme (SNP)

(Mahadevia et al 2018). This was a participatory project with NGO mediation and, in some cases, private-sector financial contribution. It upgraded about 60 slums until 2005, when the programme ended due to loss of interest from the private sector and the availability of large-scale funding from the BSUP.

Other than slums and *chawls*, a distinct form of low-income housing emerged in the 1970s in large swathes in the eastern and south-eastern peripheries. Called 'informal commercial sub-divisions' (Desai et al pre-print), these involve land developers assembling parcels of agricultural land in collaboration with farmer-landowners and developer-intermediaries, creating plots and layouts, and selling them or inviting developers to construct housing colonies on them (ibid, Mehta and Mehta 1987, Wadhva 1987). These auto-constructed or informal developer-constructed low-income urban extensions secured a range of services over time, but new settlements of this type have not been evident in recent years. This is because all peripheral lands have been brought under the Development Plan (AUDA n.d), and because farmers, recognising the potential of speculative land markets, are no longer providing land for informal layouts.

The first major thrust in the peripheralisation of *formal* low-income housing followed the JNNURM's launch in 2005. Its BSUP component reawakened the trend of publiclyprovided housing that had remained stagnant from 1981, producing 33,000 housing units between 2007 and 2012. Simultaneously, its infrastructure and urban renewal component, which funded projects like road-widening, flyover-construction, riverfront development, and the BRTS, created displacements. An estimated 21,480 households were evicted from the city between 2005 and 2017, with the Sabarmati Riverfront Project alone displacing around 12,000 households (Desai et al, 2018). Over 24,000 resettlement houses, the first state-built resettlement housing in Ahmedabad, were constructed in this period (ibid.). Almost all public housing built under the BSUP and its successor programmes was used for resettlement. 70% of all public housing since 2010, and 92% of PMAY-Urban housing is located on the periphery (Mahadevia, 2019, see Map 1). Of the PMAY-Urban's different delivery mechanisms, In-Situ Slum Redevelopment (ISSR) is being overtaken by two others, the Credit Linked Subsidy Scheme (CLSS) and Affordable Housing in Partnership (AHP), which involve private developers in building low-income housing on land that they purchase. These push future delivery into cheaper city-edge sites (particularly the RAH Zone: Map 2), locking in the peripheralisation of low-income housing.

Figure 1 here.

Figure 2 here.

Chennai

Chennai witnessed spontaneous expansion beyond its southern boundary via plotted residential layouts in the 1950s and 60s (Arabindoo 2005), but more systematic metropolitan expansion was fostered by formal plans and schemes from the 1970s. The 1971 Madras Metropolitan Plan proposed peripheral development of housing (Srivathsan forthcoming) and the Madras Metropolitan Development Authority (MMDA), constituted in 1973, was given far-reaching powers to develop the outskirts of its newly-delineated metropolitan area in 1974. The city's First Master Plan (1976) offered increased FSI in these areas to stimulate the

conversion of farmlands into residential plots and apartment complexes. From the late 1990s, peripheral urbanisation was fuelled by large state-sponsored projects aimed at attracting global investments into the city's two strong growth sectors, IT and automobiles. These sectors are spatially concentrated along two corridors, the IT expressway running southward from the city, and the 'automotive' corridor running westward on National Highway 4. In both cases, parastatal bodies (the Tamil Nadu Road Development Corporation, and the State Industries Promotion Council of Tamil Nadu), and public-private partnerships provided the scaffolding for the spread of private speculative investment (Kennedy 2014, Raman 2016). The IT expressway was constructed in 2001 to connect Chennai to industrial estates and IT firms on the southern peripheries and to attract further investments (Kennedy et al 2014). It soon came to host numerous commercial establishments, including three IT parks and several Special Economic Zones (SEZs). By the mid-2000s, it was the city's real estate hotspot, hosting residential developments from upscale gated enclaves to affordable shared rentals for single workers, alongside malls, showrooms and restaurants (Kennedy et al 2014). However, infrastructure development along the corridor failed to keep pace with construction, and public transport services in particular fall far short of need (Kennedy et al 2014).

Chennai, in contrast to Ahmedabad, has a long history of direct state action in affordable housing and slum clearance (Pugh 1991, Raman 2011, Coelho 2016). Madras/Chennai earned a reputation as a 'city of slums' dating back to rapid migration-led population growth in the 1920s. Its City Improvement Trust (CIT), established in 1946, initially sought to shift slums to the city's edge, but in 1952, following recommendations of a government-appointed Housing Advisory Committee, it began providing layouts and basic amenities to slum dwellers on government-acquired lands within the city. From the 1960s, the emergence of a regional party, the DMK, with a strong base among Chennai's urban poor, led to even greater state investments in public low-income housing (Raman 2011, Venkat et al 2015). It established the Tamil Nadu Slum Clearance Board (TNSCB) in 1971, which promptly embarked on ambitious plans of constructing in-situ tenements to clear all slums in Madras within 7 years (Raman 2011). This programme proved unsustainably expensive, but a shift in the late 1970s to slum upgrading and sites and services schemes under the World Bank-funded Madras Urban Development Projects significantly upscaled the reach of social housing, covering 76,000 slum households between 1978 and 1988 (Pugh 1990).

Thirteen sites and services projects, providing around 57,000 plots, were implemented from 1977-1994, predominantly in the northern peripheries of the city (Owens et al 2016), a region of heavy industry, with congested commercial and working-class residential areas. Although large in scale, these projects differed significantly from recent resettlement projects. First, by providing tenure security and serviced plots, they allowed families to incrementally auto-construct their homes, vastly expanding the supply of affordable housing over time (ibid, Coelho 2016). Second, varying plot sizes (with low-income plots cross-subsidised by selling middle-income plots at market prices), a planned hierarchy of roads and open spaces, and amenities including industrial and commercial spaces, all facilitated the emergence of mixed-class, mixed-use neighbourhoods. Third, despite their peripheral location, the sites were located near existing developments where roads, water lines, and public transport were already available (Owens et al 2016), rendering them well-serviced and integrated into the urban mainstream from their inception. As a result, 20-30 years later, they

emerged as 'thriving and inclusive neighbourhoods', achieving a 'human scale urban fabric that \dots generates a greater sense of ownership and community' (Owens et al 2016: 36)⁶.

However, by the late 1990s, Chennai's approach to slum clearance shifted again, to mass-scale resettlement in state-built tenements outside the city. The availability of large-scale funding from the Tamil Nadu Urban Development Project (TNUDP) and the JNNURM, and increasing pressures on urban land for infrastructure and waterways restoration contributed to this shift (Venkat et al 2015, Coelho 2016). As in Ahmedabad, despite the JNNURM/BSUP's mandate to prioritise in-situ upgradation of slums, nearly 24,000 of the over 25,000 units built in Chennai under this program were peripherally located resettlement tenements (Venkat et al 2015). The TNSCB has constructed over 50,000 low-income housing units since 2000, predominantly in Chennai's southern outskirts, where the designation of much of the Pallikaranai marsh as 'wasteland' eased land acquisition (see map 3). The three largest slum resettlement colonies in Chennai, including our Perumbakkam case, have been built in this area. Our second Chennai case, Gudapakkam, lies outside the metropolitan area's western boundary, in a largely rural area, further emphasising the role of cheap land in siting resettlement housing.

These resettlement tenements are presented as 'integrated townships' equipped with schools, hospitals, crèches and playgrounds. In reality, however, most of these amenities are, at best, installed several years after households are resettled. The projects exhibit a supplydriven impulse, with tens of thousands of tenements constructed and resettled when required for infrastructure or waterbody restoration projects. A large proportion of the almost 24,000 houses built in Perumbakkam are currently empty, awaiting further evictions. In contrast to Ahmedabad, the state remains the predominant supplier of low-income housing in Chennai, with its efforts to mandate or incentivise the private sector to build affordable housing failing to yield results.

Figure 3 here.

Current approaches to housing production in both our cities have thus shifted to the mass production of formal low-income tenement units on urban peripheries by states and/or markets. Previous histories of auto-constructed slums and incremental and/or integrative housing models in both cities are being erased, representing a growing disconnection of low-income households from processes of housing production. The next section presents data from our four sites to describe other forms of disconnection – spatial and social – experienced by residents of these projects.

The dynamics of everyday disconnection in peripheral low-income settlements

Our four case study projects are compared briefly in Table 1. Umang Lambha (henceforth UL) in Ahmedabad is the only privately-built project in our group: it lies 15km south of the city centre just beyond AMC boundary and comprises 10 blocks with 909 apartments of varying sizes. To access clientele, the private developer, DBS Realty, partnered with an NGO, Saath, which had acquired a reputation for eliciting the participation of slum-dwellers in the SNP. Saath helped residents of an upgraded slum (Pravinnagar-Guptanagar),

⁶ In a comparative study of eight slum clearance initiatives in Chennai 20-30 years after their implementation, Coelho (2016) also found a sites and services scheme displaying the most successful outcomes.

who wanted to move into formal housing, to purchase homes in UL^7 . UL is located near National Highway 8, but is 6 km from the nearest BRTS stop, and 1.5 km from the nearest Ahmedabad Municipal Transport Services (AMTS) stop. There are no shops in the site and the nearest market is 2 km away.

SKV Nagar, built in 2010 by the AMC under the BSUP, is located just within the AMC's eastern boundary, off the Sardar Patel Ring Road. It rehouses families displaced from the Sabarmati riverfront, around 15 km away. Situated adjacent to a Gujarat Industrial Development Corporation industrial estate, the site comprises 22 blocks with 704 apartments. Four shops have opened informally in ground-floor flats and several vendors visit the area; the BRTS stop is 1.5 km away and auto-rickshaws, shared or individual, are available from the ring road about a km away.

Table 1 here.

The Gudapakkam resettlement site built by the TNSCB in 2014 is about 35 km from central Chennai, and comprises 1024 units in 32 three-storey blocks. The majority of tenements were allotted to families evicted in 2017 for the Integrated Cooum Restoration Project, and the remainder to Sri Lankan repatriates and to families evicted for the Integrated Storm Water Development (ISWD) project.

The Perumbakkam resettlement site lies off the IT corridor, adjacent to the older resettlement colony of Semmenchery. With nearly 24000 units in 188 eight-storey blocks, it is one of Chennai's two largest resettlement sites. It houses families moved from the Adyar riverbank after the 2015 floods, those moved for the Cooum Restoration project in 2017, and those evicted for the ISWD project. While its distance (of about 25 km) from the city centre is somewhat mitigated by its proximity to the IT corridor and to Semmencheri's relatively good transport services, Perumbakkam's sheer scale provoked issues of safety and crime.

Housing conditions and quality of services varied across our cities. Infrastructure standards and living conditions in both the Ahmedabad sites were markedly inferior to those in Chennai, and indeed to those in many informal settlements. SKV Nagar's proximity to the industrial estate added to its poor living conditions: noise from the factories caused daily nuisance, and severe contamination of water forced residents to purchase drinking water at considerable cost. UL was not connected to the city's sewerage system, and its septic tanks were not regularly cleaned, causing sewage overflows and a chronic problem of mosquitos. Here too, people paid significant sums to purchase drinking water.

The resettlement colonies in Chennai were newer, completed in 2014 and settled from 2015-2017. Flat sizes and internal design in both had been improved following widespread criticism of older resettlement colonies built in the 2000s. Flats were about $32m^2$, with inhouse piped water, toilets and electricity connections, plus elevators in Perumbakkam's G+7 buildings. Buildings were in spacious layouts with wide roads, and the sites were kept relatively clean, but many problems with the quality of construction remained.

Despite these differences, the dynamics of dislocation operated in strikingly similar ways across our settlements. All four sites had a concentration of households from vulnerable castes and/or occupations. Over 80% of families in Gudapakkam and 75% in Perumbakkam

⁷ Prices started at INR 700,000 (a little over US\$10,000).

were from vulnerable caste groups, 56% and 22% respectively from Scheduled Castes, and 24% and 53% respectively from Most Backward Class (MBC) communities. The vast majority of residents in the three state-built sites worked informally: men were daily wage labourers in construction or industry, drivers, or vendors. In UL, however, about 45% of workers worked in formal private establishments nearby. The few women in the labour force were also in informal occupations: domestic work, housekeeping, flower-selling, vending, or home-based piece work.

These economic and social vulnerabilities were compounded by two interwoven dynamics that resulted in the disconnection of residents of all four settlements from both the urban mainstream, and from their own neighbourhoods. First, the distance from their previous habitats, particularly for resettled families, combined with poor connectivity to create dislocation. Second, poor housing and services, fears about personal safety and the stigma associated with these housing projects, created a sense of alienation from the sites, manifested in widespread absences and vacancies.

Dislocation and constrained mobility

Households in our study had moved to these sites between one and eight years earlier, yet livelihoods and access to employment were still precarious in all four cases. As Table 2 shows, substantial proportions of workers continued to work in their former locations. In Ahmedabad, this was more true of SKV Nagar than of UL, which had a cohort of single male migrants who worked in factories nearby and lived here as tenants because of the low rents. In Chennai, 82% of our sample's 165 workers had not shifted their place of work after resettlement. Although all four settlements had industries in the vicinity, this did not bring significant job opportunities for their residents. While SKV Nagar and Perumbakkam were located near large industrial/commercial areas, most of their residents – vendors, flowersellers, daily wage labourers – lacked the skills or contacts to find employment there. Many also mentioned that the stigma associated with the settlements made local employment hard to obtain. In Gudapakkam, a few factories nearby hired younger women, but the vast majority of residents' work opportunities remained in Chennai. All this contributed heavily to their continuing status as outsiders in the periphery.

Table 2 here.

In Perumbakkam and Gudapakkam, this meant travel of 25-35km each way. While in the Ahmedabad cases, absolute distances travelled were much shorter (6-12km), poor connectivity in all settlements meant ruptured or constrained mobility for most residents. Despite the large numbers commuting to the city, transport arrangements were starkly inadequate. In UL, the BRTS stop 6km away had limited routes, forcing commuters to use multiple modes and routes for each journey. The AMTS stop was closer, but these buses were infrequent, unreliable and scarce after 8pm, making it difficult for workers to return late. Similar complaints about AMTS buses were reported in SKV Nagar. About 200 families settled were flower-sellers on Sabarmati River banks, and the majority still continued in this occupation. One said: 'We leave by 3am to queue for space in the shared-autos which leave from here. We pay Rs.30 to reach Jamalpur and set up our shops at 5am.'

Gudapakkam had only 3 bus routes to Chennai, necessitating numerous changes and connections; bus frequency was low, with severe overcrowding during peak times, and no buses after 9pm. In Perumbakkam, problems of connectivity were less severe, yet significant:

the Semmencheri bus terminus was nearby, but routes and frequencies were grossly inadequate for the number of residents and the range of destinations that they travelled to. Here too, problems of peak hours overcrowding, inconveniently located bus-stops and multiple changes of bus were reported. In both Gudapakkam and Perumbakkam, costs of travel were high, especially after the fare hike in early 2018. Bus passes, at Rs.1,000/month, were a significant expenditure for households with multiple commuters, and were valid only on restricted, less frequent services. Many women had quit working when they found that travel expenses made deep dents in their already low earnings. Young men found it hard to bear the transportation costs needed to search for work.

Figure 4 here.

But disconnection operated at even more mundane levels, through constrained access to main roads and bus stops. In SKV Nagar, the nearest bus-stop or share-auto stand was 1.5km or a 20-minute walk away, which residents found challenging in the summer heat. In UL, people had to walk half a kilometre to the main road and take share-autos costing Rs.5 to the BRTS stop. The condition of approach roads posed severe constraints to mobility. In Gudapakkam, the 1km-long path to the main road was a rough dirt track, deserted, unlit and experienced as unsafe by women and girls. There were numerous accounts of girls being accosted on this road. Safety issues on access roads were also repeatedly raised in SKV Nagar.

Inadequate public transport and poor connectivity in all the settlements meant that people relied heavily on private (two-wheeler) or para-transit options such as autos or shareautos. These options were strongly gendered. In Chennai, 36% of the surveyed households owned two-wheelers. Of the 41 persons who rode them, 38 were men. In Ahmedabad, 35 households owned bikes, all ridden by men. Para-transit options like autos were prohibitively expensive, and shuttles or share-autos, while more affordable and widely used, were described as risky, mostly due to overcrowding.

The poor connectivity and steep travel costs translated into low workforce participation, particularly by women, for whom the challenges of running households in poorly serviced settlements compounded the logistical difficulties of travel (Coelho et al 2011). In Chennai, of 277 working-age persons, only 165 (109 males and 56 females) were working. An additional 30 respondents (including 23 women) had dropped out of work after the relocation. Many households now survived on a single income, and were much more financially strained than before, even though housing costs had reduced significantly.

In Ahmedabad, of 268 working-age people, only 183 (143 men and 40 women) were working. Although only 5% had dropped out of the workforce here, women's labour force participation rates were markedly low, at 21% and 28% respectively in UL and SKV Nagar, as against 75% and 71% for men. This was partly because a section of women, especially in UL and from migrant households, were prohibited from working outside the home. But even women who had worked earlier found it difficult to continue. One said, 'I used to work as a maid in bungalows near Shahwadi (near the Sabarmati river), now I clean toilets in a school nearby. I have no other option'. Fifteen out of 100 workers in UL and 9 out of 113 in SKV Nagar had changed jobs due to high travel costs and mobility challenges. In SKV Nagar, many women had switched to home-based work such as tailoring or embroidery. Even here, relocation was driving a fall in earnings, as workers now had to depend on middlemen to

supply them raw materials and sell their finished products. In UL, women who had turned to home-based work found the work unreliable and earnings low. Most households had gone into debt after the move.

In both the Chennai cases, large numbers of children still travelled to schools near their old city-centre homes, for a better quality of education. They underwent long and difficult commutes, changing buses, leaving very early and returning so late that parents claimed that they were too tired to either study or play. Some families had, consequently, moved their children to local schools despite the lower quality of education. A few older children had dropped out of education altogether. In both the Ahmedabad cases large numbers of children had dropped out of school due to the costs of commute and – particularly for girls – perceived risks to their safety.

Disconnection from place-making: alienation, insecurity and fear

Our final question asked *how current forms of low-income housing-provision facilitated residents' participation in place-making processes.* In all four projects, the quality of housing and services, property vacancy and turnover, family absence/separation and concerns over safety undermined residents' ability to develop a sense of neighbourhood. In Chennai, tenements occupied for just over a year revealed large cracks in walls and ceilings, crumbling plaster, and collapsing window bars. Poor wiring and leaking walls were a source of fear. A woman in Gudapakkam said: 'For the last year the house has been leaking... We have complained to many officials but there has been no response. During the rains, leaks in the bedroom walls spread to the light switches. I am afraid of having my children in the house....'. Another resident claimed that the problem was widespread: 'Water seepage is there in all the blocks. When it rains, we cannot touch the walls because of electric shocks. We can't live in these houses peacefully.' In the Ahmedabad sites, poorly maintained buildings, polluted water, sewage overflows, and safety issues caused many to regret the move, even in UL, where many had moved by choice for low rents or formal homeownership.

The poor housing conditions combined with commuting difficulties led many families in all settlements to abandon or rent out their units. Vacant units, unoccupied and desolatelooking buildings, and a high turnover of houses from owners to renters were widely evident across our four sites. In SKV Nagar, only 37% of the original allottees were living onsite at the time of our survey. About 34% had rented out their units, and 200 units (29%) were vacant. In UL, 40% of the housing units were vacant, and there was a very large proportion of renters. Buildings here looked derelict, with broken windows in many blocks.

In both the Chennai sites, a significant number of allotted houses were unoccupied. In Gudapakkam, 270 of the 1024 houses (or 25%) were permanently locked. Neighbours claimed that the owners lived in the city and did not return even on weekends. Absence and separation marked life in these sites. In Gudapakkam, many families lived apart for at least part of the week, as men, and sometimes school- or college-going children, spent weekdays in the city, leaving the women alone in the resettlement colonies. Some families had left their children in the city to keep them away from the unsafe conditions in resettlement colonies. Working parents often returned late in the evenings and had little time to spend with their families. These absences and separations made for peculiar patterns of gendered occupancy, with a large number of women-headed households juxtaposed against large numbers of

unemployed men alone at home during the day. A woman in Gudapakkam described the latter as one reason why she felt afraid to leave her young daughters alone in the neighbourhood.

In all four sites, respondents represented their current conditions as a significant setback in their trajectories of urban advancement or socioeconomic mobility. In Gudapakkam, the narratives focused on loss: of income and jobs, of mobility, of opportunities and freedom. All this outweighed the benefit of an affordable dwelling unit. Residents recalled their shock at the emptiness around when they first arrived from their crowded centre-city neighbourhoods: 'There was nothing here, no shops, nothing'. Young residents missed urban amenities like the cinema, internet centres, and markets. Women missed their ease of movement in their city neighbourhoods, where they could step out of their houses in their 'nighties', to buy something in the market. Now they hardly left the settlement as this involved too much planning: whom to go with, what transport to take, what time they would return. They felt cut-off, ruralised and dependent. One woman described feeling 'boxed inside the area, lost somewhere in the forest'. An older man commented that the place was suitable 'for retired people like me..... we can just sit here and complete our remaining life...'. In both the Ahmedabad sites, respondents commented on the lack of leisure facilities like gardens, playgrounds, or cinema halls nearby. Some said the distance from their relatives had broken their social networks. A respondent in UL said the settlement felt 'like a jail. Because we cannot go anywhere'.

But it was the lack of safety that emerged as the strongest thread linking the four cases. This theme surfaced spontaneously in 24 (of the 50) interviews held in UL, 27 in SKV Nagar, 24 in Perumbakkam, and 21 in Gudapakkam. It was mentioned in almost every interview with women as a crucial constraint to their own and their children's mobility. Threats to safety were multi-faceted. In three of the four settlements, their siting – off highways, peripheral ring roads or high-speed corridors – posed hazards for people venturing out. In Gudapakkam, where long-distance buses and trucks sped through the nearby intercity highway at all hours, pedestrians, cyclists and two-wheelers found it risky to use the road. Several accidents were reported in the area. Similar conditions were reported in both the Ahmedabad cases, where pedestrians had no protection when they crossed the road to take shuttles or buses to the city. Safety issues also arose closer to home. All four settlements had inadequate lighting in corridors and compounds, on access roads and streets, making women and girls feel unsafe moving around after dark. In Gudapakkam and Perumbakkam streetlights were among the residents' most pressing demands during interviews.⁸

Accounts of frequent conflicts, theft, petty crime, and 'illicit activities' (such as prostitution) figured prominently in residents' descriptions of their neighbourhoods. In Perumbakkam and Gudapakkam, alcoholism and drug abuse were described as rampant.⁹ In Gudapakkam, residents claimed that outsiders entered the buildings at night and drank in the corridors, and that crime was increasing daily. Nor did these problems diminish with time: in Perumbakkam, a woman who had lived in the neighbouring resettlement colony of Semmencheri for 7 years claimed that the presence of gangs at street corners kept the area

⁸ Street and compound lighting was installed in these sites in the months following our interviews.

⁹ Respondents' accounts of the high incidence of alcoholism, drug abuse, child molestation, violent fights, and even murder are corroborated by press reports, see Aditi (2019) and Narayanan (2019).

unsafe. Another woman said that she did not let her children out of the house much: 'There are all kinds of people from everywhere, and fights all the time. Boys are drunk, even very young boys use alcohol, drugs even during the day. Stabbings and killings occur here.' In Perumbakkam, a taxi-driver described how the windshields of his taxi and six autorickshaws parked nearby were smashed one night in a drunken quarrel. Such brawls were a nightly occurrence, often resulting in damage to buildings and vehicles. In both Perumbakkam and Gudapakkam, there were many accounts of attempted and actual kidnapping of children. Child safety was an acute concern. In UL, several residents spoke of an active sex trade operating from the housing units. In SKV Nagar, many vacant units were reportedly taken over by 'criminals' or 'anti-social elements', and there were reports of a child kidnapping gang operating nearby.

These experiences severely constrained the mobility of women and girls. Particularly in the Ahmedabad cases, large numbers of girls had been withdrawn from school as buses were regarded as unsafe. The problem of safety was partly determined by culture-specific norms governing female mobility in public. In SKV Nagar and UL, many men claimed that they did not permit their wives and daughters to step out of their homes after sunset because of alcoholics in the neighbourhood. But even young male children were not left alone in the house. In SKV Nagar, a woman said: 'I accompany my son to school, he accompanies me to the market, no-one can ever go alone here.' In Chennai too, parents worried about their sons getting caught up in the daily brawls, and even men expressed feeling unsafe: 'Here everyone, adults and children, live in fear always.'

In all four settlements, safety concerns were articulated in language that reflected the alienation that most residents felt from their neighbourhoods and the stigma that they had internalised but also continued to deploy on their neighbours. Discourses of fear were interwoven with critiques of the heterogeneous social composition of the settlements and the undesirable people and activities found there. In Chennai's resettlement colonies, families from a single slum were not housed together; every block had a mix of people from different slums. SKV Nagar and UL had a large proportion of single male migrants and renters from parts of Bihar, Rajasthan and Uttar Pradesh. Neighbours were strangers, and respondents repeatedly expressed their discomfort with the proximity of unfamiliar people of certain categories – described by one respondent as 'third class public'. As Phadke (2013:50) points out, 'the discourse of safety is not an inclusive one, and tends to divide people into "us" and "them"'.

The social heterogeneity of these settlements is crucially different, in both genesis and effect, from the social mixing achieved in Chennai's 1980s sites and services projects, described above. The latter were integrative, intentionally accommodating households of varied social (primarily class, but inevitably also caste and ethnic) backgrounds within a single project with broadly uniform access to services. In contrast, the settlements described here are intrinsically segregating, targeted for the lowest classes as 'Economically Weaker Section' housing, with a correspondingly poor quality of services and governance. They possess most, though not all, of the characteristics of ghettos¹⁰ as outlined by Gayer and Jaffrelot (2012), drawing on Wacquant (2008), namely: a degree of constraint over residential

¹⁰ Although the ghetto is defined in western contexts as constituted by race, ethnic or religious categories, we argue that it is produced here by a class-defined housing category.

choice; a *regrouping* of social categories via such spatial relegation; neglect by state authorities; and estrangement from the city mainstream due to poor transportation and job opportunities. The social diversity produced under these conditions of ghettoization was experienced by residents as alienating rather than inclusive. Unsurprisingly, there was little evidence of social cohesion or a sense of community even in the older (Ahmedabad) settlements.

It also became clear, at least in Chennai, that resettlement colonies residents were regarded as alien by other low-income communities in the periphery. In a visit to Siruseri village (about 5 km south of Perumbakkam) in January 2019, we heard repeated accounts of the threat that residents of Semmencheri and Perumbakkam posed to villages nearby. Small farmers and agricultural labourers now working as housekeeping staff or security guards for nearby IT firms, described incidents of theft by men who came on bikes from the resettlement colonies. For these peripheral settlements, the newcomers from the city, outsiders in the periphery, represented new threats to their safety and new sources of urban crime.

Conclusions

To highlight the wider lessons our case studies offer, we return to the three dynamics of disconnection outlined in the introduction: exclusion of low-income households from the process of housing production, their spatial dislocation from the urban mainstream, and their alienation from a sense of place in the new housing projects.

Addressing the first dynamic required a historical, city-level analysis to understand why projects across different city contexts with different combinations of state and non-state actors produced similar outcomes, namely, an increasing dominance of large peripheral tenement developments of inflexible design and poor building quality. In Ahmedabad, where low-income residents were earlier housed in employer-provided *chawls* or informal slums, market forces have always played a strong role in shaping their housing options, with informal peripheralisation in the east accelerating after the liberalisation of land law from 1999. Successful in-situ upgrading efforts under the SNP were abandoned after BSUP funding became available. More recently, the PMAY-Urban has produced some centrally-located housing, but this has been outstripped by peripheral units delivered through its private developer-led components. In Chennai, although the sites and services schemes of the 1980s gave residents some control over the housing process, this has been replaced by supply-led projects of growing scale that operate against earlier political commitments to create socially-mixed neighbourhoods.

Change in both cases was driven by a growing commoditisation of land and a steep appreciation in inner-city land prices. As cities become motors of national economic growth, State-led redevelopment of centrally-located land occupied by slums, displacement caused by JNNURM-funded infrastructure projects, and a nation-wide agenda of 'slum-free cities', following nationally standardised policy responses to the slum 'problem', have increased the need for rehousing. In response, BSUP, RAY and PMAY-Urban have progressively attempted to increase the rate of delivery of completed low-income housing units. The resulting scale-jump in projects' size has led to their peripheralisation, as states and private builders alike seek out the cheapest available land for construction. This high-volume delivery of housing alienates low-income residents from production processes and positions them as recipients of a pre-determined housing 'product' for which they are partly financially responsible.

To address our second dynamic of disconnection, that of spatial dislocation, we moved to the scale of our four housing projects. The evidence here indicated that, as residents struggled to retain access to city-based jobs and services, the increased travel time and expenditure had knock-on effects on employment, schooling, and household incomes that fell disproportionately on women and the poorest. Conversely, these disadvantages were most easily overcome by those owning two-wheelers, an investment beyond the means of many, with access almost universally limited to men.

Dislocation, we argued, is not a simple function of distance, but reflects a failure to address ongoing problems of connectivity. This onus lies strongly on the state, first, because these are formal developments, and second because low-income households depend much more heavily on public services – in transport, schooling, health or childcare – than do other peripheral residents. Investments in ensuring connectivity could have significantly alleviated the dislocating effects of the peripheralisation of low-income housing, but these were absent. Appropriate bridging mechanisms, such as the provision of shuttle services and measures to develop the safety and reliability of para-transit, could have eased mobility in the mediumterm, but such innovation was absent from our case studies. An even more inexcusable failure of design and planning lies in neglecting the final step of connectivity – linking the project sites to their surrounding areas. Street lighting, safe access routes, and traffic speed control in the surrounding roads, are all relatively low-cost measures that could have significantly alleviated the isolation of their residents. These failures indicate that the policy focus on scaling up the delivery of affordable housing is not effectively framed within an inclusive agenda of integrating low-income households into the urban economic mainstream.

These gaps in provisioning are often written off as 'teething troubles' that will be resolved as settlements develop. However, evidence has shown that for vulnerable workingclass households, short-term disconnections from services and amenities can constitute definitive ruptures in their development trajectories, with lasting impacts in terms of the intergenerational replication of poverty.

Finally, our third dynamic of disconnection concerned the alienation of low-income residents from processes of place-making in their settlements. Here, disconnection from the housing process and spatial dislocation combined to undermine the everyday sociality that is crucial for the production of an urban neighbourhood. The large scale and ghetto characteristics of the developments, their poor build quality and enforced social heterogeneity, and the temporal and spatial 'stretching' of households through poor connectivity, all contributed to the residents' sense of physical insecurity and made safety, particularly of women and children, a widespread concern. This sense of alienation from place pushed residents into various defensive reactions, from curtailing their daily movements such that the settlement began to feel 'like a jail', to abandoning or renting out their housing units, providing evidence of a housing 'solution' that was not working. As relocated households fully or partially withdrew from the life of the settlements, anti-social and criminal activities expanded, producing a feedback loop that contributed to forms of negative place-making.

Together, these findings echo accounts of the failure of earlier generations of housing projects across the global North, or of more recent projects in the global South, where social

and spatial marginalisation converged in the production of city-edge ghettos (King et al 2017). However, as the urban peripheries receive greater attention from scholars and policymakers as emergent sites of urbanisation in India, our analysis of the dynamics that render formal low-income housing on these peripheries exceptionally disconnected from – or outside of – these developments, gains relevance. It provides insights into approaches and measures that would integrate these settlements into larger transformations unfolding on urban peripheries. If India aspires to becoming 'slum-free' in an inclusionary way, it needs to build decent neighbourhoods rather than new housing. This in turn would require placing the experiences and aspirations of low-income people at the centre of plan-making processes.

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Tables.

Table 1: Profile of Case Study Sites

	Ahme	dabad	Chennai			
	Umang Lambha	SKV Nagar	Gudapakkam	Perumbakkam		
Year of completion	2013	2010	2014	2014 (and ongoing)		
No. of dwelling units (DUs) constructed	909	704	1,024	23,864		
No. of DUs occupied	≈ 540	≈ 500	All allotted, 270 vacant	14,000		
Developer	DBS realty (private)	AMC	TNSCB	TNSCB		
Distance from city centre/former place of residence (km)	15	15	35	25		
Connectivity	Poor public transport connectivity, poor access to main road, no shops	Adjacent to industrial area, close to main road (but poor access conditions), 1.5 kms to BRTS stop	Poor public transport connectivity, poor access to main road	Large site, inadequate access to public transport		

Source: Compiled by authors from primary data.

Number of workers	Ahmedabad					Chennai						
	SKV Nagar			UL		Gudapakkam		Perumbakkam				
	Total	Μ	F	Total	Μ	F	Total	М	F	Total	Μ	F
still working in old	101	74	27	82	69	13	83	70	13	69	64	5
areas												
that have dropped out	3	1	2	3	2	1	14	5	9	16	2	14
of work												
that changed	9	5	4	15	14	1	3	1	2	15	7	8
occupation or												
workplace after												
relocation												

Table 2: Work changes after relocation

Source: Compiled by authors from primary survey.

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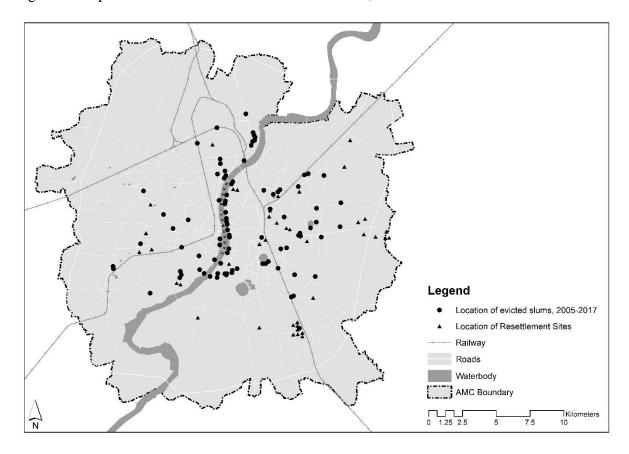


Figure 1: Map of locations of evicted slums 2005-2017, and resettlement sites.

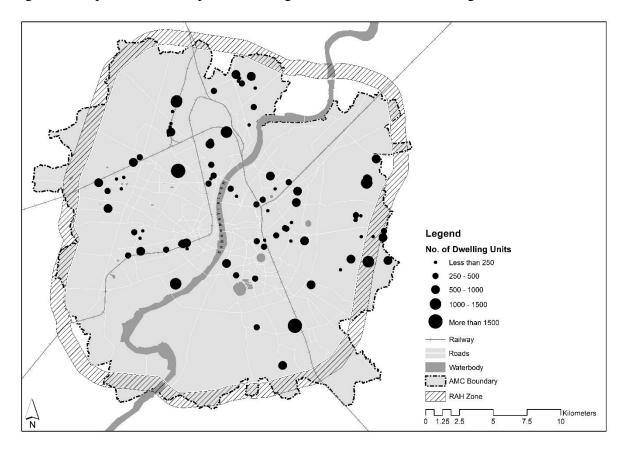


Figure 2: Map of location of public housing and the Affordable Housing Zone, Ahmedabad.

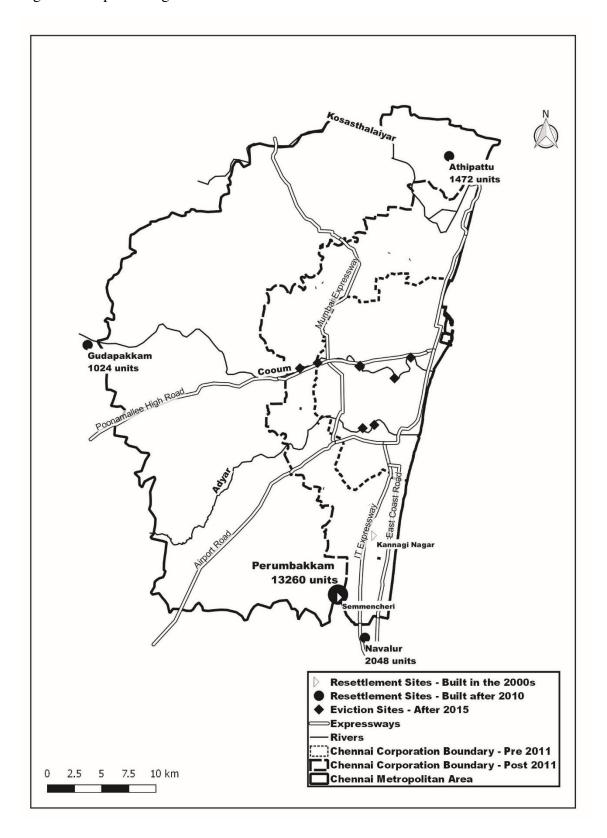


Figure 3: Map showing sites of eviction and resettlement in Chennai after 2000.

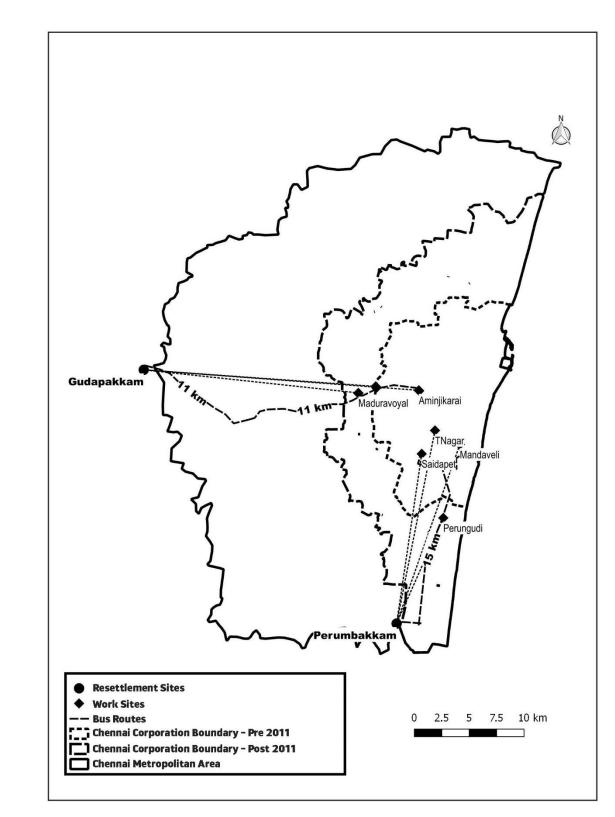


Figure 4: Map showing mobility routes from resettlement sites to work sites in Chennai.