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Longitudinal insights on a sites and services resettlement project. The case of Ambedkar Nagar in Chennai, India

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ABSTRACT


Sites and Services (S&S) schemes were popular in resettlement in the Global South, especially between the 1970s and 1990s. Towards the end of the twentieth century they were considered unsuccessful and discontinued. The abandonment of S&S was based on premature evaluations and narrow indicators, with little understanding of the real timeframes of incremental development processes. Yet, literature on the long-term development of S&S is scarce. This article draws on a longitudinal study in a S&S resettlement project in Chennai which was implemented at the beginning of the 1990s. It examines both the physical and social development of the project. Although initially, due to the remote location of the site and related lack of employment opportunities, a substantial number of beneficiaries had left the area during the early years, the long-term insights show that the neighbourhood achieved a desirable physical development. The results also underscore how different types of homeowners and residents enabled the development of various tenure types, including rental space. The paper argues that these developments facilitated social mixing across economic, ethnic, and linguistic groups.

KEYWORDS Sites and Services; incremental housing; resettlement; livelihoods; longitudinal research

Introduction

Self-help housing approaches such as Sites and Services (S&S) were popular in housing schemes in the Global South, particularly between the 1970s and 1990s (Wakely, 2014).

Towards the end of the twentieth century these housing programmes were written off as being unsuccessful. They were abandoned based on premature evaluations and narrow indicators, with little understanding about the real timeframes for incremental development processes (Owens

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et al., 2018). Yet, few studies have explored the long-term developments of S&S.

This paper gives insights into a S&S resettlement project in Chennai implemented between 1989 and 1993 with longitudinal research conducted between 1998 and 2019. The case study illustrates how allowing informal modes and incremental processes enables more equitable and inclusive urban development. The paper demonstrates that, after three decades, the incremental housing processes have created a dense and safe neighbourhood. The 'living conditions diamond' (Gulyani & Basset, 2010), that includes four fundamental dimensions, namely neighbourhood and location, tenure, infrastructure, and unit, was applied to assess the project between 1989 and 2019.

The emergence of Sites and Services

With regards to housing policy interventions in the twentieth century different continents have gone through different (time) paths. In the countries that were former colonies in Asia and Africa housing policies mainly benefitted specific groups, such as civil servants. This approach persisted until the 1960s and 1970s. Many of these countries however, failed to address the housing needs of most of the population, resulting in the formation and consolidation of urban informal settlements (Czischke & Ayala, 2021).

It became apparent that conventional housing provision approaches were not able to meet the ever-growing housing demand in rapidly growing cities in the Global South where there was an unprecedented growth in urban areas and the related formation and consolidation of informal settlements. This required governments to reconsider how to address the housing needs of urban dwellers.

Turner and Fichter (1972) suggested that people themselves know best their housing needs and are often capable of satisfying them. The insights of the Turner and Fichter volume are directly reflected in the two housing approaches, namely S&S and slum upgrading, that became dominant in policies governing international urban assistance during the 1970s and 1980s (Cohen, 2015). In the mid-1960s the governments of Kenya, Zambia, Colombia, and a few metropolitan administrations in other countries were already providing serviced plots instead of trying to deliver finished products, with the intention to spread more widely the limited resources available (Payne, 1984). It was the start of a new paradigm that followed the call to institutionalise and support self-help housing as a strategy to address the pressing housing problems in cities.

Following the idea of providing plots, the role of the government was to provide inexpensive land, security of tenure, and basic services. Various options have been implemented ranging from a surveyed plot, a plot with fully installed services, to a plot with a core or liveable space on which

the owners were expected to incrementally build their houses over time (McCarney, 1987).

By transferring most of the construction costs for housing to occupiers, some governments, international aid agencies and development banks saw the opportunity to maximise the number of beneficiaries and reduce the financial risks of programmes (Hamid & Elhassan, 2014).

International donors and development banks played a leading role in the promotion of S&S programmes. Nientied and van der Linden (1988) highlighted that the World Bank was an influential promotor of S&S policies and programmes. By 1983 the World Bank had supported more than 70 S&S projects (Wakely & Riley, 2011). In India alone they financed 11 projects with S&S components, providing approximately 280,000 plots across 27 cities (Owens et al., 2018). Other significant multilateral lenders and donors which funded S&S projects were the Inter-American Development Bank (IDB), the Asian Development Bank (ADB) and the United States Agency for International Development (USAID) (Wakely & Riley, 2011). However, Hardoy and Satterthwaite (1981) noted that governments rarely adopted S&S in their policies.

Incremental housing and livelihoods

The self-help approach has been widely discussed in debates around the sustainable livelihood theory. Housing, in these discussions, is seen as a productive physical asset especially when people can use this to create livelihood opportunities (Moser, 1998; Tipple 2000). Incrementality as observed also by King et al. (2017, p. 26) 'allows residents to build on their existing units and promises to improve quality of housing and quality of life'. Over time, these houses evolve into solid dwellings representing the main asset of most households (Buckley & Kalarickal, 2006).

Many studies underlined the importance of providing housing options that allow low-income households to gradually transform a basic dwelling in which both growing families' accommodation needs and residential and income generating options are addressed at the same time (Bredenoord & van Lindert, 2014). One example of an income generating activity is the renting out of rooms (Kumar 1996; Tipple 2000). Rakodi and Withers (1995) in their research on S&S schemes in Zimbabwe had already noted that many households extended their house gradually and rented out space for extra income. Kumar (1996) referred in this context to different forms of small-scale, petty-commodity landlords. While for *subsistence landlords*, renting out space represents a coping or survival strategy, *petty-bourgeois* landlords may use it as additional income for the household and for improving the quality of the house. On the higher end of the spectrum, *petty-capitalist landlords* aim to generate rent with the intention of expanding and reproducing the value of capital in the form of landed property. Apart from the possibility to generate rental income, dwellings

can also accommodate various income generating activities, such as small convenience stores, workshops, and services such as sewing or hair dressing (Hossain Foishal et al., 2023; Reimers, 2002; Tipple, 2000).

The temporal dimension of evaluating S&S

By the mid-1980s S&S were already beginning to lose credibility. Among the problems identified were conflicts over plot allocation, corruption in the beneficiary selection process, operational difficulties, inappropriately high building standards and regulations making projects very expensive and hard to replicate, slow implementation, lack of community involvement and poor management and overall lower standards (Arandel & El Batran, 1997; Bamberger et al., 1982; Baross, 1990; Buckley & Kalarickal, 2006; Gulyani & Connors, 2002; Onibokun et al., 1989; UN-Habitat, 1984; Wakely & Riley, 2011). Subsequently, S&S programmes were assumed to have failed, and therefore abandoned by many governments, aid agencies and donors.

However, the evaluations and assessments of these programmes were often conducted shortly after their implementation and tended to focus on defined rates of completion, cost recovery, the nature of the housing produced, on having 'successful' beneficiaries and whether beneficiaries matched the intended target group (Owens et al. 2018; Rakodi & Withers, 1995). S&S, therefore, tended to be assessed primarily on the achievement of stated project objectives (Owens et al., 2018).

There are several critical aspects which stress the limitations of these early evaluations. Evaluating policies (or projects) primarily based on pre-set criteria neglects important non-anticipated outcomes (Patton, 2002 in: Bressers et al., 2013). Furthermore, the aspect of time plays a key role in grasping such 'emergent' effects of policies and projects that may not be intended. Early assessments using predominantly predetermined criteria are therefore likely to fail comprehending 'the entire (complex, dynamic) reality through time' (Bressers et al., 2013, p. 26). Besides, Kirst and Jung (1980, in: Bressers et al., 2013) already highlighted the importance of longitudinal evaluations in implementation contexts where responsibilities and powers are shared among multiple layers, like central government, state, and local agencies.

Considering this, early evaluations ignored the development of self-help projects decades after occupation; they misunderstood the complexity and length of time it requires for these projects to mature (King et al., 2017; Napier, 2002; Wakely & Riley, 2011). This is confirmed by Reimers (2002), who stresses that consolidation processes provide a more accurate evaluation of S&S than predetermined criteria, such as repayment rates or plot turnovers. Another evaluation approach used by Nathan (1995), looked into levels of satisfaction regarding the neighbourhood, dwelling, and basic infrastructure.

Such evaluation approaches recognise better that S&S projects constitute permanent neighbourhoods that would exist for decades, and therefore, the complex relationship of these projects to the wider land and housing markets in the long run should be included. This also includes the formation of diverse (informal) rental housing sub-markets by small-scale landlords in self-help settlements (Desai & Mahadevia, 2014; Gilbert, 2012).

Paradigm shifts in housing policies

Since the 1980s, due to the inability of governments in the Global South to provide housing to meet the demand, under the influence of amongst others, the World Bank and UN-Habitat, the focus shifted to strengthening institutional frameworks that aimed at making private housing markets work (Chiodelli, 2016; Harris, 2015; Sengupta, 2019). Thus, S&S, and core and incremental housing were replaced by housing development approaches that deliver finished products by relying on multi-stakeholder arrangements (Czischke & Ayala, 2021). In recent years, however, due to the rising numbers of people who lack access to adequate, secure, and affordable housing, to achieve scale, there has been a resurgence of large-scale programmes led by the state to provide low-income housing (Buckley et al., 2016). New alliances have emerged between government, the private sector and society, leading to new coalitions with the different levels of government, ranging from federal to local, which have created new rules and shifted boundaries to achieve scale. Examples of which are to be found amongst others in India, Brazil, Colombia, Angola, China, and Ethiopia (King et al., 2017, p.12; Sengupta, 2019). The emergence of state-led housing¹ according to Sengupta means that the value of enabling has not been 'supplanted but supplemented', and where the state again is an active agent (Sengupta, 2019, p.511). Many of these housing projects are however located at the periphery, thereby creating new problems with amongst others accessibility and affordability (see amongst others Baviskar, 2013; Buckley et al., 2016; Coelho et al., 2022; Sengupta, 2019).

Housing the urban poor in Chennai

The city of Chennai is the capital of the state of Tamil Nadu, with a population of 4.64 million (Office of the Registrar General and Census Commissioner, India, 2011). It is governed by the Greater Chennai Corporation (GCC), and constitutes a district within the greater Chennai Metropolitan area (CMA) which itself covers 1189 km² and has a population of 8.65 million (Office of the Registrar General and Census Commissioner, India, 2011).

The Chennai Metropolitan Development Authority (CMDA) supervises, coordinates, and promotes the planned development of the CMA.

An important moment for slum interventions in Chennai was the establishment of the Tamil Nadu Slum Clearance Board (TNSCB)² in 1971, under the Tamil Nadu Slum Areas (Improvement and Clearance) Act, 1971. In the early years after its establishment the TNSCB predominantly constructed in-situ multi storey tenements to rehouse slum-dwellers (Coelho, 2016; Raman, 2011). In the 1980s the approach shifted to in-situ slum upgrading and S&S schemes under the World Bank-funded Madras Urban Development Projects (MUDP I and II, 1977-1988) (Pugh, 1991). In Chennai, 13 S&S sites were developed through World Bank funding which delivered 57,000 plots, between 1977 and 1997 (Owens et al., 2018, p. 264). After that the Government of India (GoI) in combination with the Tamil Nadu State Government funded their own S&S schemes, the case under study being the first one of this kind.

But by the mid-1990s, in line with the international trend of S&S losing credibility coupled with an increasing demand for affordable housing and the introduction of city beautification- and mega projects (Coelho & Raman 2010; Raman, 2011; Saharan et al, 2018), the approach changed to evictions and resettlement of slum-dwellers in tenements at the periphery and outside the city through large-scale programmes like Jawaharlal Nehru National Urban Renewal Mission (JNNURM), which was launched in 2005 (Ministry of Housing and Urban Affairs, Government of India, 2022). JNNURM aimed to boost investments in infrastructure and introduced reforms (Kundu & Samanta, 2011). Through its Basic Services to the Urban Poor (BSUP) and Integrated Housing and Slum Development Programme (IHSDP), attempts were made to make urban services accessible to low-income groups. They have been criticised, however, for giving a low priority to the upgrading of basic services and housing for this specific group (Banerjee-Guha, 2011; Maitra, 2011). BSUP was also accessible for those in S&S schemes, but research has shown that the late disbursement of funds, led to financial challenges for some of those receiving the funds (Venkat & Subadevan, 2015, pp. 37–38). Under the JNNURM funding, in combination with large-scale funding from the Tamil Nadu Urban Development Project (TNUDP) resettlement in Chennai shifted to isolated, poorly connected state built multi-storey tenements, which do not provide for opportunities to adapt or for incremental extension of housing (van Eerd, 2018; Coelho et al., 2022; Diwakar & Peter 2016).

Pradhanmantri Awas Yojana³ (PMAY) was introduced in Tamil Nadu and Chennai in 2015. Its Beneficiary Led Construction (BLC), like S&S, recognises the need of households to expand or consolidate an existing dwelling unit and targets individual land or house owners in need of a new or expanded dwelling unit. This has delivered more housing than any other housing programme, and, according to Mitra (2021) highlights the power of self-assisted housing. With regards to low-income housing however, similar to JNNURM, many of these housing units are in peripheral areas, in isolated or poorly connected sites that lack social and physical infrastructure which causes concerns about design and quality of life, and which intensifies existing inequalities (Coelho et al., 2022; Narayan 2018; Sengupta, 2019). To

increase efficiency and reduce time and costs of construction, the houses constructed under the BLC component, were exempted from obtaining planning permission from Urban Local Bodies, and the programme was extended to S&S schemes. Construction of houses under PMAY-BLC required a substantial beneficiary contribution for which low-income beneficiaries mostly turned to informal sources (Dasgupta et al., 2020).

Using the living conditions diamond for an integrated assessment

To operationalise our research, we used ‘the living conditions diamond’ of Gulyani and Basset (2010) which identifies four fundamental components to assess living conditions in low-income settlements in the Global South, which are 1. neighbourhood and location, 2. tenure, 3. infrastructure, and 4. unit (see Figure 1). Each of the dimensions strongly influences each other and should not be considered in isolation. Since the diamond focuses primarily on physical conditions and factors, Gulyani and Basset (2010) stressed that it would be more powerful if complemented with frameworks and data about the social and economic development of a given settlement as well as relevant government policies which affected these developments.

Since our research focuses on both the physical and social development of the site, we adapted the diamond and complemented it with relevant variables and indicators. Figure 1 illustrates the dimensions and respective variables (1.1–4.2). Below we provide an overview of the operationalisation (see Table 1).

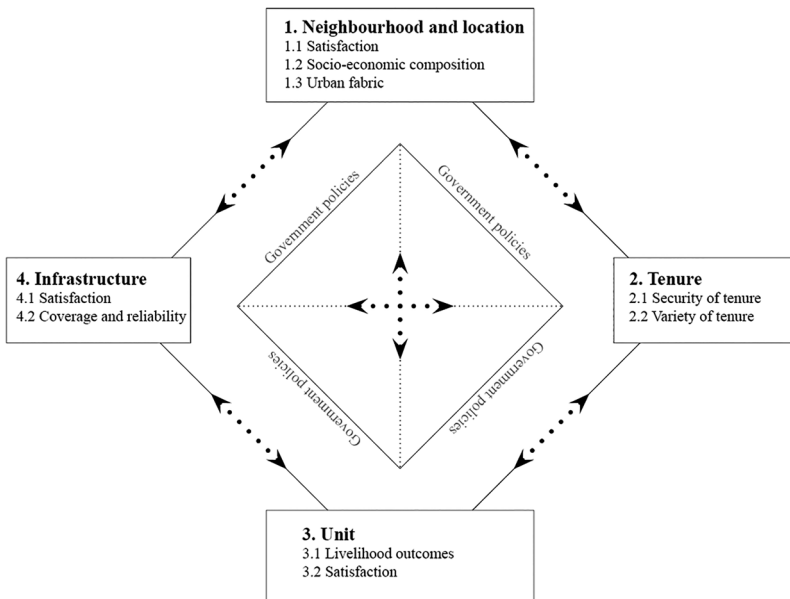


Figure 1. The living conditions diamond, adapted from Gulyani and Basset (2010).

Table 1. Operationalisation.

Variables	Sub-variables	Indicators
1. Neighbourhood and location	1.1 Satisfaction	Access to employment & social infrastructure (Ayala et al., 2019) Perception of safety & its gender dimension Physical and environmental vulnerability
	1.2 Socio-economic composition	Plot transfers and related shares (original allottees & buyers) Variety of housing conditions (Tippel, 2000) Various forms of small-scale landlords (Kumar, 1996) Types of tenants and diverse demand of rental space
	1.3 Urban fabric	(Rental) housing typologies & density outcome, considering initial physical layout and plot sizes (Gulyani & Basset, 2010; Owens et al., 2018)
2. Tenure	2.1 Security of tenure	No. of people who received full title deeds; Perceived security (of original allottees and buyers) against evictions & related investments in their properties (McCarney, 1987; Payne, 2002; Van Gelder, 2010).
	2.2 Variety of tenure	Rental housing opportunities through housing transformations (Owens et al., 2018; Tippel, 2000)
3. Unit	3.1 Livelihood outcomes	Housing transformations to accommodate growing families (Ayala et al., 2019; Tippel 2000) & income generating activities (Ayala et al. 2019; Avogo et al. 2017; Hossain Foishal et al., 2023; Tippel 2000)
	3.2 Satisfaction	
4. Infrastructure	4.1 Satisfaction	Accessibility and reliability of services (Gulyani & Basset 2010) & satisfaction of inhabitants with them (McCarney, 1987; Nathan, 1995)
	4.2 Coverage and reliability	
Government policies	Incrementality Access to finance	Provision of core or fully serviced plot to be incrementally developed (McCarney, 1987) Access to finance for incremental development (Dasgupta et al., 2020) Building standards

Longitudinal case study in Chennai: research question, methods and data

This study intended to answer the question of the impact of time on the incremental physical and social development of the Sites and Services project Ambedkar Nagar in Chennai. Policy studies in general have paid too little attention to the temporal dimension (Bressers et al., 2013). As mentioned earlier the S&S programmes were abandoned too early, ignoring the development of self-help projects decades after occupation (King et al., 2017; Napier, 2002; Owens et al., 2018). This study therefore aimed to examine the impact of time on the physical and social development. Therefore, a longitudinal approach was selected with several data collection tools, which are listed below.⁴

Table 2. Overview of data collection tools and years.

Item	Year	Data collection tools and sample size
1	1998–1999	First random sample survey ($N=158$) Focus group discussions and in-depth interviews with selected key experts & key informants
2	2017–2018	Second survey at the same address as the first survey ($N=158$)
3	1998–2019	Photo-documentation of incremental development
4	2019	Case study on the rental housing market, 34 semi-structured, in-depth interviews with tenants (20 interviews with tenants belonging to the local Tamil population, 14 interviews with tenants belonging to a community of internal migrants from Northeast India) and six landlords

The surveys consisted of a combination of open ended and closed ended questions and included questions, among others, on the general household characteristics; when they had moved into the area; and whether they were the original allottees, tenants or buyers; their assessment of the area; and whether and why they had made changes/alterations to their house.

Focus group discussions and in-depth interviews, mostly with women, were conducted in 1998–1999 and 2017–2018 and focused on topics including the informal trade of plots, transformations in the area, and dwelling, - and satisfaction with the neighbourhood and its services.

The case study of 2019 focused on the demand side of the rental market and includes 34 semi-structured in-depth interviews with tenants (see Table 2). The interviewees were sampled using purposive sampling, and to a limited extent snowball sampling, to ensure a diverse representation of perspectives and experiences of different income, age, and ethnic groups. The interviews focused on the tenants' numbers of and reasons for moves within the area, the relationships to their landlords, and the accessibility of rental spaces for different income and ethnic groups among others. Additionally, six interviews were conducted with landlords who differed in terms of financial means and the quality of housing they owned.

Between 1999 and 2019 a longitudinal photo-documentation of the neighbourhood was conducted, to assess changes over time and analyse and exemplify the relations of people to their (material) environments (Harper, 1988).

Introduction into Ambedkar Nagar

Ambedkar Nagar is in Velachery in the south-west of Chennai.⁵ Between 1989 and 1993, 2,640 slum—and pavement dweller households were relocated to the site from many different localities in the city centre (Dattatri, n.d., p. 22). The site was located 15 kilometres from the city

centre, outside the Chennai Corporation border at that time. The project site was part of a lake, which had been partially filled in by the TNSCB, and a retaining wall was constructed between the lake and the site as a protection barrier when the construction of the project started (see [Figure 2](#)).

The layout of the site was approved by the Madras Metropolitan Development Authority MMDA (now called CMDA). The implementing agency TNSCB invited contractors for the provision of roads, storm water drains, culverts, and the retaining wall (de Wit, 1993). The division of land use patterns in the initial layout are shown in [Table 3](#). The plan intended to maximise the effective usable space for housing and public utilities. The street layout consists of a hierarchical system of roads and paths with widths ranging from three to twelve metres.

Table 3. Division of land use patterns in the initial layout (Dattatri, n.d., p.11).

Land use	Extent (ha)	Percent
Roads and accessways (width varying from 3 to 12 metres)	3.20	23.25
Park and open spaces	1.37	10
House sites	6.76	49.13
Public utilities	2.31	16.75
Commercial uses	0.12	0.87
Total	13.76	100

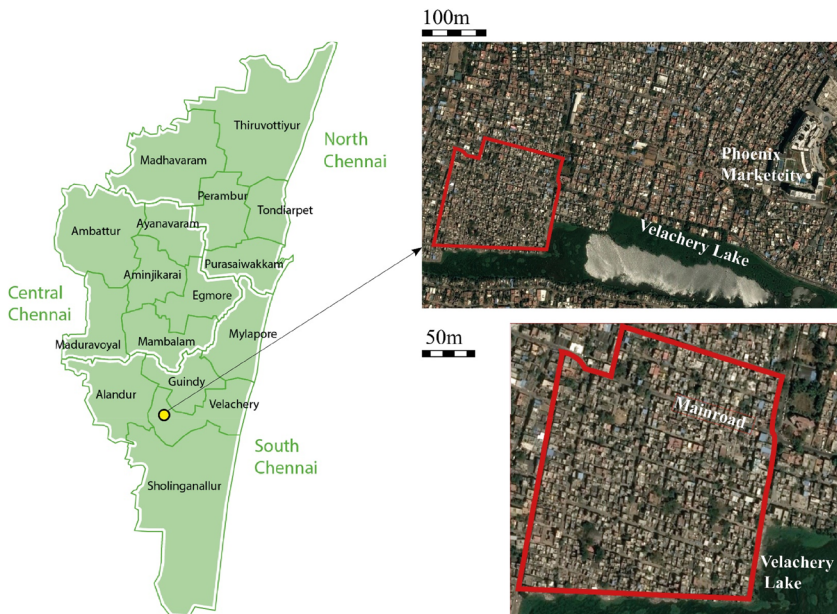


Figure 2. Location of Ambedkar Nagar⁶.

The project was the first of its kind to be implemented in India under the Pavement Dwellers Scheme of the Government of India (Gol) (Dattatri, n.d., p. 7). It was financed by Tamil Nadu State Government in combination with a grant from the Gol. The costs of land and development was to be limited to Indian Rupees (Rs.) 5000⁷ per beneficiary to be within the grants available per household from Gol at Rs. 4000 and from the Tamil Nadu State Government at Rs. 1000. Between 1989 and 1993 different housing typologies were constructed: 812 thatched huts were constructed with some cash support; 1656 core houses, 30 row houses and 12 twin houses were constructed by the TNSCB, and the NGO Centre for Development Madras CEDMA, constructed 64 core houses. The total plots size of these houses was 24.75m² and the plinth area of most core houses was 11.50m² (Dattatri, n.d.).

The monthly repayment per household ranged from Rs. 60 to 85, depending on the type of dwelling unit. The project did not envisage cost recovery since the funding was on a grant basis. The TNSCB however decided to allot the plots to those resettled on a leasehold basis on a monthly rent of Rs.10 for 10 years, keeping its option open to enhance the lease amount later if circumstances required. This also was to prevent desertion and sale. The loan component was to be paid for the dwelling unit.⁸ After repaying the loans and the leasehold for the land, they would receive a title deed.

It is important to note that tenants in the inner-city slums were ineligible for resettlement. They had to continue renting informally in Ambedkar Nagar if they wanted to stay with the same community.

In the initial phase of the project when the first relocatees moved in, roads were still unpaved, and services were underdeveloped. On top of that, there was a lot of tension and conflict between relocated groups and their leaders.

Location and neighbourhood satisfaction in the early years

Due to remoteness, the underdevelopment of the area and the related lack of employment opportunities in and around Ambedkar Nagar, many original allottees left Ambedkar Nagar in the early years. Therefore, there was active informal plot trading in the first period after the implementation of the project. For those who lost all income and were unable to find new employment, there was no other option than to move back to the city and vacate, sell, or rent out their plot in the resettlement site. Others said the area was 'full of snakes', there was a 'trade in drugs', 'bad activities' and there were 'floodings' which explained why they moved back to their original location. The isolated nature of Ambedkar Nagar was expressed by one respondent in 1998 as 'we are living in the forest'. Another respondent formulated it as follows: 'what is the use of a roof over my head when all my other problems are not solved'. Some sold off their plot, others just left to return to their original location, and when they went back to Ambedkar Nagar, a few years later, discovered that their plot had been taken over by someone else and 'they were chased away'.⁹

The survey conducted between 1998 and 1999 confirmed this as 76% of the respondents were original allottees, 19% were buyers and 5% were tenants (see Table 4).

Table 4. Overview of allottees, buyers and tenants in the surveys in 1998–1999 and 2017–2018 ($N = 158$).

	1998–1999%	2017–2018%
Original allottees	76	44
Buyers	19	44
Tenants	5	12

Buyers came to Ambedkar Nagar because they foresaw that over time the area would improve, and land prices would rise as Chennai grew and the settlement would become absorbed in the city. Some said that nowhere in the city could they buy a plot for the same price as in Ambedkar Nagar (van Eerd, 2008). Some only bought a plot as an investment and rented it out. Others moved to the area later when it was more developed. Again, others were first renting in the area and bought a plot later, or they were living with their parents and bought a plot when they had saved enough to purchase one.

Local leaders¹⁰ in Ambedkar Nagar played a mediating role in the trade of plots, which was a profitable business for them. They were involved in the reconstruction and selling of houses, contractual arrangements between buyers and sellers, selling off unoccupied houses and plots, and the falsification of No Objection Certificates which were required whenever someone wanted to apply for an electricity connection.

Infrastructure

By 2017 the status of the infrastructure had greatly improved. Public toilets which people had to pay to use, and which were the only option available in 1998–1999, slowly fell into disuse as the inhabitants increasingly constructed their own toilets inside their houses.¹¹ Several educational and health care facilities had been introduced in the surrounding areas. The status of the drainage, however, remained problematic as 54% said that they experienced floods during the monsoon season.

In 2019, the provision of water was observed to be insufficient to cater for all the residents, which was also confirmed in interviews. Particularly during the extreme droughts in that year, people were complaining about low levels of groundwater. In addition, complaints regarding the low pressure of Metro Water pipes were made, and the fact that sewage came out of the pipes which was already a problem in 1998–99. Due to the severe water shortages in the area, water tankers arrived every day to provide residents with drinking water.

Changing composition of housing occupiers

A comparison with regards to the composition of housing occupiers between 1998–1999 and 2017–2018 shows a significant decline in original

allotees and a more than doubling of the number of buyers, now being equal in size (44%), and a more than doubling of tenants (12%), see [Table 4](#).

Ninety percent of the buyers came to the area because they considered a house to be cheap in Ambedkar Nagar. Seventy percent indicated that they had come because they liked it there. Eighty-five percent of the buyers bought a house, and 15% bought a plot or a partially constructed house.

Tenants were less easy to identify and interview as many lived with in-situ landlords and did not have a name plate at the door. Of the total number of original allottees (44% of the total sample) 9% said they rented out rooms. Of the buyers (44% of the total sample), 10% said they rented out a room.¹² But when triangulating this with observations and photographs over the years the number of rooms and floors has gone up enormously, which indicated that these figures are much higher. It is estimated that in Chennai around 40-50 per cent of the population are tenants and that the percentage of rental households in low-income settlements is marginally lower, potentially due to insufficient reporting (Das et al., 2018).

(Perceived) tenure security and investment in properties

Very few of the original allottees said they had paid off their full instalment. Those that had done so were entitled to receive an allotment order which was to be handed out by the TNSCB. Only 10% of the original allottees indicated that they received that proof in the form of a document from the bill collector.

Although most of the original allottees did not possess the ownership documents, 30% had made changes to their house which ranged from plastering, changing the roof material, construction of an individual water connection and the installation of a toilet. Fifty-three percent fully reconstructed their house, the reasons ranged from: improving the quality of the house; expansion as the house was considered too small; and, raising the floor to prevent the house from flooding during the monsoons.

Despite lacking any proof that instalments were paid by the previous inhabitant, nor having full ownership titles, 40% of the buyers took the risk of investing in their house. Sixty-four percent of them had transformed their house, mostly because the quality of the house was not good, and the house was too small, and 39% had fully reconstructed their house.

Overall, most respondents were unaware of the procedures and entitlements to obtain formal title deeds. Many people (54%) indicated in 2017 that they feel that they are secure where they are, which was considered as very important.

Government policies, housing transformation and livelihood outcomes

To improve their house, some households had received support through PMAY,¹³ and others had received a loan through BSUP.¹⁴ To be eligible they had to prove that they had paid some of their instalments. They first had to demolish their house and construct new foundations prior to receiving the loan in instalments of Rs. 50,000 each time.¹⁵

Below is the story of Susheela, who managed to invest in her house with government support- through BSUP, which on the one hand created financial risks as she had to borrow to fulfil the BSUP requirements, but on the other hand it has created major assets and had improved her living conditions.

In 1998 Susheela is 33 years old.¹⁶ She was married to Selvam, and they had 3 sons. In 1991 they moved into a core house in Ambedkar Nagar. She managed to obtain another plot on which she constructed a hut where she opened a tiffin shop.¹⁷ The family survived on informal labour. She worked as a servant in the North of Chennai, her husband worked infrequently and was a heavy drinker. Their overall household income was about Rs. 2500–3000 a month, with fluctuations. Up to 1999 Susheela had managed to save Rs. 5000, which she invested in her house, including the plastering of the walls. She managed to join 'a government scheme' [BSUP] that helped her to reconstruct her house, so that she could construct separate units for her and her husband, and her three sons and their families. For the transformation of the house, she hired construction labourers from Ambedkar Nagar itself. She 'was not aware of any building regulations, and nobody checks if they follow them'.¹⁸ She was happy that they managed to stay in Ambedkar Nagar where they have their own house. She and her daughters-in-law paid for the reconstruction as 'both her husband and her sons were drunkards who have contributed nothing'. Although she has paid off some of the instalment, she has not fulfilled the payment of the full amount, because they cannot afford to pay it off. Besides she observed, no-one came to collect it, so she saw no need to try. Therefore, she had not yet received the allotment order. Also, she was still repaying the moneylenders from whom she borrowed for the reconstruction.¹⁹ She preferred a plot over an apartment which she could 'extend and achieve this [full house] - in a flat (referring to a newer resettlement site called Perumbakkam where people are moved into high-rise apartment buildings) that would not be possible, and life would continue to be difficult'.

Incremental development and urban fabric

By 2017 the area had transformed enormously as is shown in [Figure 3](#). Although there were some households that were still living with unchanged

living conditions since 1999, overall, the quality of housing had greatly improved.

Numerous houses had added one to two or even three floors, plots and houses were merged, verandas and roof tops were constructed, and streets were paved in the area. Many of the transformations were implemented to accommodate a growing family, or to rent out rooms. As the area became part of the city and there was a high demand for rooms, many rented out rooms to young couples, students, newcomers, including migrants from Northeast India.

The small plot sizes stimulated the vertical, incremental expansion of houses. The hierarchical system of rather narrow road and path widths promoted pedestrian movements within the neighbourhood, but also allowed inhabitants to actively use the streets as an extension of the private spaces. The low-rise, high-density spatial outcome and urban fabric enabled a lively street life which also facilitated social interaction between different income and ethnic groups (Figures 4–7).

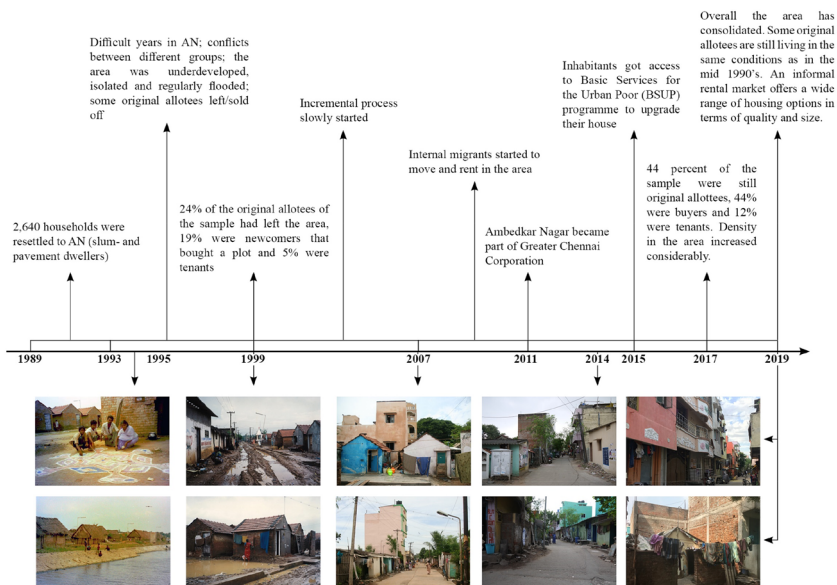


Figure 3. Timeline of Ambedkar Nagar, Sources of pictures: authors, own adaption, pictures from 1994 from Besselink.

Variety of tenure and typologies of rental spaces

The case study conducted in 2019 gives some detailed insights on the rental housing market in the area. The study indicates different



Figure 4. Social interaction at street level.



Figures 5, 6 & 7. (left) example of 1-BHK apartments, (right) ongoing transformation process (2019), source: authors.

types of small-scale landlords operating in Ambedkar Nagar differing substantially in terms of financial means. The rental supply therefore pointed towards a wide range of living spaces in terms of quality, size and price and offers housing options for both low- and middle-income groups.

Rental spaces with the lowest quality and rent prices can be found in some of the existing houses from the period of the project implementation which have barely been upgraded. During incremental housing construction, some homeowners with limited financial means tended to construct simple rooms on their terrace and rent them out. These landlords utilised their rental income to cover basic expenditures or to upgrade and maintain their house.

Rental spaces with higher quality, in the form of self-contained units, are found in multi-storey residential buildings. The buildings have two to three storeys and differ in quality and size. Since the plot sizes of Ambedkar Nagar were planned to be very small, the floor space of these buildings is limited. The common typology of rental units in these houses is a 1-bedroom-hall-kitchen (1-BHK) unit. Bigger units (2-BHK) are rarer and only possible if two plots or more had been merged to build a house.

Most of the tenants interviewed living in these multi-storey residential buildings had petty-bourgeois in-situ landlords. However, in some cases, interviewees stated that their landlord did not live in the same house. This is an indicator of absentee petty-capitalist landlords operating in the area who bought plots and invested in properties with the sole aim to rent them out and increase the value of their capital. [Table 5](#) gives an overview of the existing typologies of rental spaces, the related types of landlords and rent price indications.

It is worth mentioning, that the rental housing market in the area is highly informal. Out of the 34 interviewed tenants, 28 had oral agreements, two written rental agreements, and four written lease agreements.

Table 5. Typologies of rental spaces, types of landlords and rent price levels.

Housing typology	Type of landlords	Rent prices (including bills) (Rs.)	Deposits (Rs.)
Houses from the period of project implementation (only ground floor level, barely upgraded)	Absentee subsistence and petty-bourgeois landlords	2500–4000	Max. 10,000
Simple rooms on terraces	In-situ subsistence and petty-bourgeois landlords	2500–4000	Max. 10,000
1 or 2 Bedroom-hall-kitchen (BHK) units in multi-storey building	In-situ petty-bourgeois landlords, Absentee petty-capitalist landlords	4000–7500	15,000–30,000

Socio-economic composition

The rental housing market, which has organically developed over time, has substantially contributed to the characteristics and social mix of the neighbourhood. As the diverse financial means of small-scale landlords indicates, there is a diverse group of tenants living in the area.

Generally, there are three main categories of households that rent in the area. Firstly, many tenants represent the second generation of the initial residents. One female respondent who grew up in Ambedkar Nagar stated: 'Since I am married, I rent with my husband. We are married for two years now. After the marriage we first lived outside Ambedkar Nagar because we could not find a house here. We wish to buy, but we have not enough money for that. We want to stay in Ambedkar Nagar because all the family is here' (interview in Ambedkar Nagar, 2019). Secondly, there are older Tamil residents who faced debt problems, had to sell their plots and houses, and therefore started to rent living spaces within the neighbourhood. Finally, internal migrants coming from Manipur, Nagaland, or Assam rent in the area.

On the one hand, the incremental housing developments have facilitated that younger generations can rent and remain living in the community close to their (grand-) parents and allow the formation of multi-generational households. On the other hand, vulnerable older residents have access to affordable rental spaces and therefore can keep living close to their (grand-) children who sometimes support them with the payments of basic expenditures. Besides, newcomers have been able to build a community which is also reflected in the existence of various small convenience stores that offer products from Northeast India. Members of both population groups, namely Tamil and Northeast Indian, regularly stressed cultural differences, such as food habits or the way of dressing. However, during the interviews, there was hardly any mutual mistrust between the different ethnic communities noticed. This is also reflected in the observations, which showed that that discrimination based on cultural or religious background would hardly affect the accessibility of rental spaces for internal migrants. This may also partly relate to the fact that internal migrants have several income sources and share rental units, which seem to give landlords a certain level of trust.

Overall, it can be said that the growing rental housing supply substantially contributed to strong ties between households and the socially sustainable development of the area. This is also reflected in the perception of safety of the survey conducted in 2017–18 where 73 percent of the respondents felt that the area is safe, including for children and women, due amongst other things to proper streetlights, the fact that many people know each other, and many people are outside in the evening which makes it safe for women to walk around in the evenings. A female respondent reflected: 'there is no rowdiness anymore, whenever there is a problem we go to the police, we do not live in fear anymore' (interview in Ambedkar Nagar December 2017).

However, especially vulnerable, and poorer tenants stated that rent prices had been going up, and it becomes harder to find affordable rental spaces in the area. This indicates that the consolidation process of Ambedkar Nagar also puts pressure on the poorest section of the neighbourhood.

Discussion and conclusion

For our study we adjusted the living conditions diamond of Gulyani & Basset (2010) to assess the longitudinal incremental changes with regards to the physical and social development of a S&S project. Our research clearly demonstrates that one of the key factors to comprehensively assess the impacts of S&S projects is *time*. Many households were able to incrementally invest in their properties through which they satisfied their housing needs, created assets for themselves and the next generation on site, and created livelihood opportunities, as in line with the findings of Moser (1998); Bredenoord & van Lindert (2014); Rakodi & Withers (1995); Buckley & Kalarickal (2006); and Owens et al., (2018). The related livelihood improvements for these households are a significant example of the positive long-term outcomes of this housing approach and stress that housing solutions that provide people the flexibility to adapt their house and plot are beneficial (Ayala et al., 2019). The fact that the state remained at a distance and did not interfere in imposing rigid bylaws and standards played an important role as was also observed by Das & King (2019) and Kamunyoru et al. (2022). This situation promoted creative voluntary action—fundamentally, a market response—and generated housing typologies and forms of tenure that closely reflected demand.

The lessons learnt from this longitudinal study can therefore help to predict the future outcome of many new and existing neighbourhoods which emerge because of re-introduced self-help housing programmes, such as the BLC component in PMAY which eased building standards and provided incremental builders with financial support.

While most households have invested substantially in their properties, the trunk infrastructure such as water provision and sewage has not been maintained or improved in the area which relates to the (lack of) capacity of the city corporation to upgrade the area. The rapid growth in the demand for these services has worsened the situation, which is in line with findings from Nathan (1995) in another S&S project in Chennai. The case study also reveals that a considerable number of plots have changed owner over time, a situation or development that was criticised regularly in the early assessments of S&S in the 1980s and 1990s (Bamberger et al., 1982). The main reasons behind the active trading of plots, especially during the early period, related to the remote location and the lack of employment opportunities and concerns about the lack of services as well as concerns about safety.

With regards to tenure security, not one of the respondents in the site had been able to acquire a formal title and many were even unaware of the procedures and entitlements which shows a lack of state action, and an overall lack of information sharing on processes and procedures from the state. However, as observed also by Payne (2002), housing occupiers invested in their properties which indicates that the perceived tenure security has strengthened over time.

Even though the project did not include a range of plot sizes to attract various income groups as examined in other S&S projects (see e.g., Owens et al. 2018), the area developed into a socio-economically mixed neighbourhood, which should be considered as a desirable outcome. Recent research in the United States indicates, for example, that relocating from high-poverty neighbourhoods to low-poverty areas can strongly benefit families and particularly children (Chetty et al., 2016).

The initial layout of the project had a significant impact on the spatial configuration, density outcomes, and housing typologies of the neighbourhood. Due to the small plot sizes, the area has developed to a low-rise, high-density neighbourhood. This desirable physical development has created a lively street life and safe environment, a development that was also observed in other (upgraded) self-help settlements (see e.g., Das & King, 2019; Kurniawati et al., 2022; Hwang & Feng, 2020; Furtado & Renski, 2021), which also facilitates social mixing across economic, ethnic, and linguistic groups.

The (informal) rental housing market has also had a significant impact on both the consolidation process as well as the economic and cultural diversification of households living in the area. The interrelation between the rapidly growing city and the related growing demand for rental housing, a housing segment that has been neglected for a long time in policy making in Tamil Nadu, reveals the importance of neighbourhoods such as Ambedkar Nagar at a city level.

This self-help approach has proven to be a sustainable alternative to the mainstream approach of providing low-income housing and resettling people in multi-storey tenements on the fringes of cities, with many negative consequences (Diwakar & Peter, 2016; Coelho et al., 2022). This research therefore calls for reconsidering S&S as an effective approach to provide urban poor communities with opportunities and guide urban expansion in a sustainable manner over time.

Notes

1. In India most 'state-led' mass housing programmes are initiated by the national government but implemented by the respective states and local governments.
2. In 2021 renamed as the Tamil Nadu Urban Development and Habitat Board. In this paper it will still be referred to as TNSCB.
3. Or: Prime Minister's Awas Yojana, dubbed 'Housing for All by 2022.
4. The research was conducted by the two authors. Items 1–3 were conducted by researcher 1, item 4 by researcher 2, in close collaboration with researcher 1.
5. Dr Ambedkar Nagar is its official name, it is located in ward 177 since 2011 when it became part of the Chennai Corporation.

6. Sources: Map (left) From imagery available on <http://www.tngis.tn.gov.in/>. The design is based on Planemad's design which can be found here. Maps (right) Bing Maps, own adaptation.
7. Rs 1000 is €1256 (Oanda Currency Converter 15 Sept 2022).
8. The leasehold was the same for everyone, Rs. 10 per month. The loan component depended on the type of dwelling provided.
9. All these citations are from interviews conducted in Ambedkar Nagar in 1998.
10. These were leading figures in the area whom the community referred to as local leaders, and many of them were said to have political connections.
11. Trunk infrastructure including the main sewerage pipes were already installed at the start of the project, by 2017 many households had installed their individual toilets.
12. Quantitative data on the share of rental housing of the survey needs to be treated with caution, as landlords may be reluctant to share this information.
13. This was observed as some houses had indicated this on their front porch, though they were not included in the survey, so further information is lacking.
14. Although Venkat & Subadevan (2015) mention that only inhabitants of notified slums received the support, but it can also be directed towards a specific area based on a TNSCB (nowadays called TNUHDB) or Tamil Nadu Government decision.
15. These core houses lacked proper foundations and could not be extended in their original status and therefore required to be demolished and rebuilt from scratch.
16. The data presented are based on survey data and in-depth interviews with Susheela in her house in Ambedkar Nagar in 1989–1999 and an in-depth interview at the same location in December 2017.
17. A tiffin shop is a small eatery usually run by survival entrepreneurs, mostly women, where they cook small eats like Idly, Dosa and Appam.
18. Since 5/8/1975, most constructions require Planning Permission from CMDA and a Building Permit from the respective local Authority where the site is located, which CMDA could also modify to allow such construction providing shelter for EWS.
19. Due to the late disbursement of funds in stages after the construction she had to borrow from moneylenders initially.

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References

- Arandel, C., & El Batran, M. (1997). The informal housing development process in Egypt. *IDS Working Paper* nr 82.
- Avogo, F. A., Wedam, E. A., & Opoku, S. M. (2017). Housing transformation and livelihood outcomes in Accra, Ghana. *Cities*, 68, 92–103. <https://doi.org/10.1016/j.cities.2017.05.009>
- Ayala, A., van Eerd, M., & Geurts, E. (2019). The five principles of adequate housing. In: V. Bharne, & S. Khandekar (Eds.), *Affordable housing, inclusive cities* (pp. 94–100). ORO editions.
- Bamberger, M., Sanyal, B., & Valverde, N. (1982). Evaluation of Sites and Services Projects. The experience from Lusaka, Zambia. *World Bank Staff Working Papers Number 548*.

- Banerjee-Guha, S. (2011). New urbanism, neoliberalism, and urban restructuring in Mumbai. In: W. Ahmed, A. Kundu, & R. Peet (Eds.), *India's new economic policy: A critical analysis* (pp. 76–96). Rawat Publications.
- Baross, P. (1990). Sequencing land development: The price implications of legal and illegal settlement growth. In P. Baross, & J. van der Linden (Eds.), *The transformation of land supply systems in Third World Countries* (pp. 57–82). Avebury.
- Baviskar, A. (2013). Participolis: Protest and participation in the city. In: Coelho, K., Kamath, L., & Vijayabaskar, M., (Eds.), *Participolis, consent and contention in neo-liberal urban India*. Routledge.
- Bredenoord, J., & van Lindert, P. (2014). Backing the self-builders: Assisted self-help housing as a sustainable housing provision strategy. In J. Bredenoord, L. van Lindert, & P. Smets (Eds.), *Affordable housing in the urban global south: Seeking sustainable solutions* (pp. 55–72). Routledge.
- Bressers, N., van Twist, M., & ten Heuvelhof, E. (2013). Exploring the temporal dimension in policy evaluation studies. *Policy Sciences*, 46(1), 23–37. <https://doi.org/10.1007/s11077-012-9169-3>
- Buckley, R. M., & Kalarickal, J. (Eds.). (2006). *Thirty years of World Bank shelter lending: What have we learned?* The World Bank. <https://openknowledge.worldbank.org/bitstream/handle/10986/7061/362170PAPER0re101OFFIC%20IALOUSE0ONLY1.pdf?sequence=1&isAllowed=y>
- Buckley, R. M., Kallergis, A., & Wainer, L. (2016). Addressing the housing challenge: Avoiding the Ozymandias syndrome. *Environment and Urbanization*, 28(1), 119–138. <https://doi.org/10.1177/0956247815627523>
- Chetty, R., Hendren, N., & Katz, L. F. (2016). The effects of exposure to better neighborhoods on children: New evidence from the moving to opportunity experiment. *The American Economic Review*, 106(4), 855–902. <https://doi.org/10.1257/aer.20150572>
- Chiodelli, F. (2016). International housing policy for the urban poor and the informal city in the Global South: A non-diachronic review. *Journal of International Development*, 28(5), 788–807. <https://doi.org/10.1002/jid.3204>
- Coelho, K., Mahadevia, D., & Williams, G. (2022). Outsiders in the periphery: Studies of the peripheralization of low-income housing in Ahmedabad and Chennai, India. *International Journal of Housing Policy*, 22(4), 543–569. <https://doi.org/10.1080/19491247.2020.1785660>
- Coelho, K. (2016). Tenements, ghettos, or neighbourhoods? Outcomes of slum-clearance interventions in Chennai. *Review of Development and Change*, 21(1), 111–136. <https://doi.org/10.1177/0972266120160106>
- Coelho, K., & Raman, N. V. (2010). Salvaging and scapegoating: Slum evictions on Chennai's waterways. *Economic and Political Weekly*, 45(21), 19–23.
- Cohen, M. (2015). John FC Turner and housing as a verb. *Built Environment*, 41(3), 412–418. <https://doi.org/10.2148/benv.41.3.412>
- Czischke, D., & Ayala, A. (2021). Housing in the global north and the global south. In: A. M. Orum, J. Ruiz-Tagle, & S. V. Haddock (Eds.), *Companion to urban and regional studies* (pp. 579–604). John Wiley & Sons Ltd. Publisher.
- Das, A., & King, R. (2019). *Surabaya: The legacy of participatory upgrading of informal settlements*. World Resources Institute.
- Das, A., Mukherjee, A., & Mazumder, A. (2018). *Prevailing rental housing practices among urban poor*. Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH.

- Dasgupta, S., Das, Mukherjee, A., & Sarkar, B. (2020). *Homes: Beneficiary-led individual house construction: An analysis from Odisha, Kerala and Tamil Nadu*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) & Centre for Policy Research (CPR).
- Dattatri, T. G. (n.d.). *Rehabilitation of pavement dwellers: The Velachery experience. Project implementation Tamil Nadu Slum Clearance Board*. Economist Group.
- Diwakar, G. D., & Peter, V. (2016). Resettlement of urban poor in Chennai, Tamil Nadu: Concerns in R&R policy and urban housing programme. *Journal of Land and Rural Studies*, 4(1), 97–110. <https://doi.org/10.1177/2321024915616675>
- Desai, R., & Mahadevia, D. (2014). Diversity and dynamics of informal rental housing in a mid-sized city in India. *Environment and Urbanization ASIA*, 5(2), 285–301. <https://doi.org/10.1177/0975425315577173>
- Furtado, L., & Renski, H. (2021). Place attachment in self-built informal housing: Improving spaces of crime. *Journal of Housing and the Built Environment*, 36(1), 283–301. <https://doi.org/10.1007/s10901-020-09755-3>
- Gilbert, A. (2012). *Private rental landlords: Developing countries* (pp. 381–386). Elsevier Ltd.
- Gulyani, S., & Connors, G. (2002). *Urban upgrading in Africa: A summary of rapid assessments in ten countries*. The World Bank.
- Gulyani, G., & Basset, E. M. (2010). The living diamond: An analytical and theoretical framework for understanding slums. *Environment and Planning A*, 42, 2210–2219.
- Hamid, G. M., & Elhassan, M. A. A. (2014). Incremental housing as an alternative housing policy: Evidence from Greater Khartoum, Sudan. *International Journal of Housing Policy*, 14(2), 181–195. <https://doi.org/10.1080/14616718.2014.908576>
- Harper, D. (1988). Visual sociology: Expanding sociological vision. *The American Sociologist*, 19(1), 54–70. <https://doi.org/10.1007/BF02692374>
- Hossain Foishal, I., van Eerd, M., Hassan Al-Tanbin, S. K., & Al Noman, A. (2023). Restoring and improving livelihoods in resettlement sites through housing transformation: Evidence from Gopalganj, Bangladesh. *American Journal of Civil Engineering and Architecture*, 11(3), 94–101. <https://doi.org/10.12691/ajcea-11-3-5>
- Hardoy, E. J., & Satterthwaite, D. (1981). *Shelter: Need and response. Housing, land and settlement policies in seventeen third world nations*. John Wiley & Sons.
- Harris, R. (2015). International policy for urban housing markets in the Global South since 1945. In Miraftab, F., & Kudva, N. (Eds.), *Cities of the Global South Reader* (pp. 122–133). Routledge.
- Hwang, Y. H., & Feng, Y. (2020). 12 years after: Lessons from incremental changes in open spaces in a slum-upgrading project. *Landscape Research*, 45(4), 412–427. <https://doi.org/10.1080/01426397.2019.1673327>
- Kamunyori, S. W., Arif, R. S., Mwangi, K. M., & Tasker-Brown, J. K. (2022). *Reconsidering sites and services: A global review*. World Bank Group.
- King, R., Orloff, M., Virsilas, T., & Pande, T. (2017). *Confronting the urban housing crisis in the global south: adequate, secure and affordable housing*. Washington, DC: World Resources Institute.
- Kirst, M., & Jung, R. (1980). The utility of a longitudinal approach in assessing implementation: A thirteen-year view of title I, ESEA. *Educational Evaluation and Policy Analysis*, 2(5), 17–34. <https://doi.org/10.3102/01623737002005017>
- Kumar, S. (1996). Subsistence and petty capitalist landlords: A theoretical framework for the analysis of landlordism in Third World urban low-income settlements. *International Journal of Urban and Regional Research*, 20(2), 317–329. <https://doi.org/10.1111/j.1468-2427.1996.tb00318.x>

- Kundu, D., & Samanta, D. (2011). Redefining the inclusive urban agenda in India. *Economic and Political Weekly*, XLVI(5), 55–63.
- Kurniawati, W., Dewi., & D. I. K., Nurini. (2022). The street alley (gang) as negotiating space in the urban kampung: The case of Semarang. In S. Roitman, & D. Rukmana (Eds.), *Routledge handbook of urban Indonesia* (pp. 178–192). Routledge.
- Maitra, S. (2011). Economic liberalization and urban governance: Impact on inclusive growth. In: W. Ahmed, A. Kundu, & R. Peet (Eds.), *India's new economic policy* (pp. 97–124). Rawat Publications.
- McCarney, P. L. (1987). *The life of an idea: the rise and fall of sites and services at the World Bank*. [Doctoral dissertation, Department of Urban Studies and Planning]. Massachusetts Institute of Technology.
- Ministry of Housing and Urban Affairs, Government of India. (2022). *Discourses on affordable housing in India and best practices under PMAY-U*. <https://pmay-urban.gov.in/storage/materials/Discourses-of-Affordable-Housing-in-India.pdf>
- Mitra, S. (2021). Policy-implementation dynamics of national housing programmes in India – evidence from Madhya Pradesh. *International Journal of Housing Policy*, 22(4), 500–521. <https://doi.org/10.1080/19491247.2021.1934649>
- Moser, C. O. N. (1998). The asset vulnerability framework: Reassessing urban poverty reduction strategies. *World Development*, 26(1), 1–19. [https://doi.org/10.1016/S0305-750X\(97\)10015-8](https://doi.org/10.1016/S0305-750X(97)10015-8)
- Napier, M. (2002). *Core housing, enablement, and urban poverty: the consolidation paths of households living in two South African settlements*. [Doctoral dissertation]. University of Newcastle. University Theses and Dissertations Archive. <https://theses.ncl.ac.uk/jspui/handle/10443/2052>
- Narayan, P. (2018). Displacement as disaster relief: Environmental gentrification and state informality in developing Chennai. *Just Green Enough*, 139(150), 139–150.
- Nathan, V. (1995). Residents' satisfaction with the sites and services approach in affordable housing. *Housing and Society*, 22(3), 53–78. <https://doi.org/10.1080/0882746.1995.11430233>
- Nientied, P., & van der Linden, J. (1988). The 'new' policy approach to housing: A review of the literature. *Public Administration and Development*, 8(2), 233–240. <https://doi.org/10.1002/pad.4230080210>
- Office of the Registrar General and Census Commissioner, India. (2011). https://censusindia.gov.in/census.website/data/data-visualizations/PopulationSearch_PCA_Indicators
- Onibokun, A. G., Agbola, T., & Labeodan, O. (1989). World Bank assisted sites-and-services projects: Evaluation of Nigeria's experiment. *Habitat International*, 13(3), 51–64. [https://doi.org/10.1016/0197-3975\(89\)90020-9](https://doi.org/10.1016/0197-3975(89)90020-9)
- Owens, K. E., Gulyani, S., & Rizvi, A. (2018). Success when we deemed it failure? Revisiting sites and services projects in Mumbai and Chennai 20 years later. *World Development*, 106, 260–272. <https://doi.org/10.1016/j.worlddev.2018.01.021>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage Publications.
- Payne, G. K. (1984). *Low-income housing in the developing world: The role of sites and services and settlement upgrading*. John Wiley & Sons.
- Payne, G. (2002). *Land, rights, and innovation: Improving tenure for the urban poor*. Practical Action Publishing.
- Pugh, C. (1991). Housing policies and the role of World Bank. *Habitat International*, 15(1-2), 275–298. [https://doi.org/10.1016/0197-3975\(91\)90020-L](https://doi.org/10.1016/0197-3975(91)90020-L)

- Rakodi, C., & Withers, P. (1995). Sites and services: Home ownership for the poor? issues for evaluation and Zimbabwean experience. *Habitat International*, 19(3), 371–389. [https://doi.org/10.1016/0197-3975\(95\)00005-Z](https://doi.org/10.1016/0197-3975(95)00005-Z)
- Raman, N. (2011). The board and the bank: Changing policies towards slums in Chennai. *Economic and Political Weekly*, 46(31), 74–80.
- Reimers, C. A. (2002). *After sites and services: planned progressive development strategies in low-income housing during the 1990s* [Master's Thesis]. Massachusetts Institute of Technology. <https://dspace.mit.edu/handle/1721.1/69443>
- Saharan, T., Pfeffer, K., & Baud, I. (2018). Shifting approaches to slums in Chennai. Political coalitions, policy discourses and practices. *Singapore Journal of Tropical Geography*, 39(3), 454–471. <https://doi.org/10.1111/sjtg.12244>
- Sengupta, U. (2019). State-led housing development in Brazil and India: A machinery for enabling strategy? *International Journal of Housing Policy*, 19(4), 509–535. <https://doi.org/10.1080/19491247.2018.1510076>
- Tipple, A. G. (2000). *Extending themselves: User-initiated transformations of government-built housing in developing countries*. Liverpool University Press.
- Turner, J., & Fichter, R. (Eds.). (1972). *Freedom to build: Dweller control of the housing process*. Collier- Macmillan.
- UN-Habitat. (1984). *Promoting organized self-help through co-operative modes of participation*. United Nations Centre for Human Settlements.
- van Eerd, M. (2008). *Local initiatives in relocation, the state and NGOs as partners? From research to action*. Manohar Publishers.
- van Eerd, M. (2018). Development with impoverishment: Displacement, resettlement and inadequate compensation in India and Nigeria. In B. Hoops, E. Marais Mostert, L. Van Schalkwyk, & N. K. Tagliarino, (Eds.), *Rethinking expropriation law III, fair compensation* (pp. 87–119). Eleven International Publishing.
- Van Gelder, J. (2010). What tenure security? The case for a tripartite view. *Land use Policy*, 27(2), 449–456. <https://doi.org/10.1016/j.landusepol.2009.06.008>
- Venkat, T., & Subadevan, M. (2015). *Implementation of JNNURM-BSUP: A case study of the housing sector in Chennai. Impact of infrastructure and governance transformations on small, medium and big cities in India*. Centre for Urban Policy and Governance, School of Habitat Studies, Tata Institute of Social Sciences.
- Wakely, P. (2014). *Urban public housing strategies in developing countries: Whence and whither paradigms, policies, programmes and projects* (p. 160). University of UCL.
- Wakely, P., & Riley, E. (2011). The case for incremental housing. *Cities Alliance Policy Research and Working Paper Series No. 1*.
- De Wit, J. W. (1993). *Poverty, policy and clientelism in Madras slums: Dynamics of survival, gender and leadership*. Centrale Huisdrukkerij, Vrije Universiteit.