

City profile



Examining the informality in urban informal settlements – Evidence from Kapashera

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ABSTRACT

Informal settlements have become a defining feature of the urban economy in developing countries. Comprising one-sixth of global population, the number is expected to double in the next decade. Lack of basic amenities, improper building structures, unhealthy and dangerous environmental conditions, unsafe residency rights, poverty and social deprivations are some of the characteristics of these settlements. With a known presence across the globe, informal settlements continue to be an abode that harbor marginal and poor communities despite being literally pushed aside by governments and nation leaders. They continue to be excluded from urban opportunities, policy planning and decision making.

This paper, therefore, studies the evolution and characteristics of one such settlement located on the Delhi-Gurgaon border – Kapashera — that provides a home to tens of thousands of migrant workers from Bihar and other northern states. The spatial characteristics of Kapashera highlight the several gaps in the policies pertaining to the space in particular, and informal settlements in general that need urgent attention of the policy makers especially in the light of recent pandemic.

1. Introduction

Informal settlements have become a defining feature of the urban economy in developing countries. Also referred to as squatter settlements, shantytowns, slums, favelas, or ghettos, informal settlements are defined as “unplanned, improvised human settlements without legal tenure and public infrastructure” (University of Buffalo, 2019). Comprising one-sixth of global population, the number is expected to double in the next decade (UNStats, 2021). 80% of these settlements are concentrated in Eastern and Southern Asia, Sub-Saharan Africa and Central and Southern Asia (Ghasempour, 2015). Lack of basic amenities, improper building structures, unhealthy and dangerous environmental conditions, unsafe residency rights, poverty and social deprivations are some of the characteristics of these settlements (Williams et al., 2019).

Various factors have driven and will continue to drive the emergence of such settlements globally and particularly in developing nations such as: insecure employment and unemployment in the rural and some of the poor urban areas, lack of affordable housing opportunities, weak governance (particularly in policy, planning and urban management), social and economic exclusions and the need to be located nearer to urban resources and opportunities (Niva et al., 2019), a natural catastrophe like hill slide, riverbank erosion, floods, and cyclones etc. These have resulted in the urban poor claiming their right through these settlements (Awasthi, 2021).

Given the low earnings of the migrant workers and inability to spend huge amounts on transportation, they are usually situated close to the places offering employment opportunities; either located in clusters in inner cities or close to industrial areas (Aggarwal, 2017). Being a

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globally dominant phenomena, there are various examples that illustrate the unique nature of informal settlements.

The *Favelas* of Rio de Janeiro (Brown University Library: Centre for Digital Scholarship, n.d.), a low-income settlement in Brazil, is one such example. As Brazil continued to experience economic and political transitions, the community grew in size with as many as 11 million people currently living in 6000 *favelas* (Phillip, 2020). Similarly, *Kibera* is the biggest slum in Africa with approximately 2.5 million slum dwellers occupying 200 settlements in Nairobi (APHRC, 2014). *Dharavi* in Mumbai is yet another example of the informal settlements in India. With about 85 communities and 700,000 inhabitants, the self-created special economic zone for the poor contributes to over US\$ 1 billion per year to the overall economy (Sushmita et al., n.d.). With such a known presence across the globe, informal settlements continue to be an abode that harbor marginal and poor communities despite being literally pushed aside by governments and nation leaders. They continue to be excluded from urban opportunities, policy planning and decision making (Ghasempour, 2015). In summary, the attitudes of the city government towards informal settlements range from opposition and eviction to reluctant tolerance and support for legalisation and upgrading. While there has been prevailing view that informality signals the failure of planning and urban management (UN Habitat, 2003), it has also been argued by many scholars that the presence of these settlements is an intentional deregulation of urban spaces and processes where “the seeming withdrawal of regulatory power creates a logic of resource allocation, accumulation, and authority” (Roy, 2009, p. 83). In India, the absence of explicit national policy on tenure regularisation (Banerjee, 2002, p.39) means that slum occupies a tenuous position in urban cities where large scale evictions are allowed in these areas to function as a place holders for future formal-housing development as well as reservoirs of flexible and low cost labour (Bardhan et al., 2016).

These examples of informal settlements and slums show that they differ in size, shape, pattern and population (Taubenböck and Kraff, 2014). However, there are several commonalities including vulnerabilities and deprivations that the residents have to face, which make these urban informal spaces an interesting area of study for policy makers and scholars.

This paper, therefore, studies the evolution and characteristics of one such settlement located on the Delhi-Gurgaon border – Kapashera — that provides a home to tens of thousands of migrant workers from Bihar and other northern states. The rapid industrialisation in the neighbouring area of Udyog Vihar and the setting up of the Maruti Factory in Gurgaon in the late 90s led to the growth of migrant workers in Delhi who arrived there in search of better livelihood and employment. Providing an avenue for all necessary aspects of living, the area includes marketplaces, schools and other businesses.

Through this paper, we show how urbanisation and industrialisation are responsible for the growth and current conditions of informal settlements with a special focus on Kapashera. Sections 3 and 4 of this paper describe the various characteristics of the settlement and the deprivations that the inhabitants residing in the informal settlement in Kapashera face. Section 4 focuses on the impact of pandemic on the residents in Kapashera. Section 5 concludes. The spatial characteristics of Kapashera highlight the several gaps in the policies pertaining to the space in particular, and informal settlements in general that need urgent attention of the policy makers especially in the light of recent pandemic.

2. Kapashera – an urban informal settlement on Delhi-Gurgaon Border

Gurgaon, a suburban city of 1.2 million people has become one of the leading financial and banking centers in India (after Mumbai and Chennai). The city's economic growth story can be traced back to the establishment of an automobile manufacturing plant — Maruti Suzuki India Limited. Set up in the 1970s, the plant produces worth INR 28,000 crores of passenger cars, motorcycles, scooters and their components.

Following the success of the Maruti plant, economic growth gained momentum after the establishment of Hero Honda, Honda Motors of Japan, Suzuki Motorcycle and the ancillaries of these automobile companies (Punia and Cheema, 2013).

With the automobile industry bringing a wave of industrialisation to Gurgaon, more sectors initiated the process of setting up factories. Another industry category that has shown tremendous growth in the city is that of readymade garments that have come up in the well-developed industrial area of Udyog Vihar. Following this, the IT industry has also developed heavily such that city has emerged as one of the key hubs of the IT sector, hosting local offices for more than 250 Fortune 500 companies (Gurgaon Business Directory, n.d.) as can be seen in Fig. 2.1.

The industrialisation and urbanisation in Gurgaon attracted several low-income and migrant communities from poorer regions in India to work in the “informal sector, industries and in services job related to security, housekeeping, domestic work, transport, street vending and retail (Naik, 2015)”. These developments have also resulted in the proliferation of urban villages/informal settlements, largely expanded by the acquisition of agricultural land. These settlements play a key role as ‘arrival cities’ for migrants, filling a critical gap in housing and infrastructure for this important working group (Naik, 2019). However, these spaces are spatially segregated between reified identities producing purified spaces for chosen population, while excluded populations residing in these settlements are contained at a distance, governed through toleration in “unserved, deprived, stigmatized” spaces of the city (Yiftachel and Yacobi, 2003).

One such example is Kapashera, which partially sits between the “Thank you for visiting Gurgaon” and “Welcome to Delhi Signs (Cowan, 2015)”, located on the north-eastern corner of Gurgaon as seen in Fig. 2.2. Kapashera has transformed from a century old Ahir settlements (hera) of wild cotton (Kapas) to an industrial tenement town determined by its namesake Kapa's planetary play. To allow the influx of capital, the Ahir landowners over the years converted their Khet (farm) into a commodity open for play. The large Khet took the shape of farmhouses and the small khets converted into tenement.

The settlement is one of the three adjacent parts of Kapashera village which largely corresponds to the affluence of the residents including:

- High Tension-wali gali to the temple is the original village: Lane 1–3
- Between the temple and the ganda nala is original extension: Lane 4–8
- Beyond the *ganda-nala* is “Kapashera Border” that fully extends into Haryana and around the Surya Vihar gated colony-unauthorised extension to the village.

As per Ideal Youth for Revolutionary Change (IYRC), an NGO in Kapashera, the local population of the area is estimated to be approximately 3 lakhs now (it was approximately 7 lakhs before the lockdown in 2020). The lockdown, uncertainties associated with employment and lack of support from the government forced many migrants to move back to their hometown.

In terms of the demographic composition of the settlement, there are:

- a) **Permanent migrants** who have been residing in Kapashera for more than 10–15 years, of which some have also built their own houses
- b) **Temporary migrants** who stay for a period of 6–12 months in search of employment
- c) **Locals** which comprise of 5% of the total population

2.1. Profile of the respondents

In a study conducted by the Centre for New Economics Studies

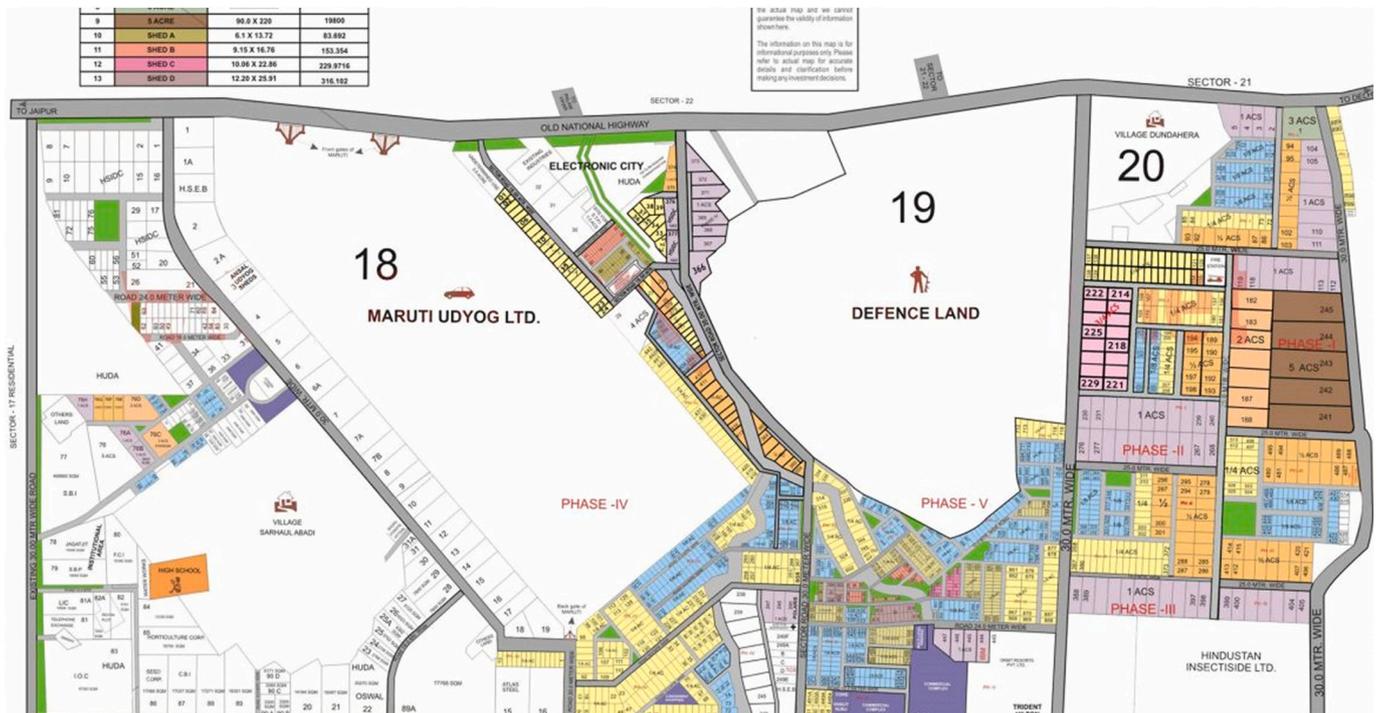


Fig. 2.1. Udyog Vihar Industrial Area.
Source: Gurgaon Property Dealer website



Fig. 2.2. Kapashera Location.
Source: Google Earth

(CNES) titled “Kapashera: Lives and Livelihoods of Informal Migrant Workers” (Mohan et al., 2021), the profile of the respondents¹ and nature of work shed some interesting observation (please see Appendix 1 for the details on the methodology). A total of 113 random interviews were conducted with the chief wage earners in the households of

Kapashera.

A. Age and Education

Of the 113 workers interviewed, 99 were male and 14 were female. This is not surprising given that the head of the household or the chief wage earner in India is mostly a male. The respondents' age-wise distribution, depicted in Fig. 2.3, shows that the maximum number of

¹ Interviews were conducted with chief wage earners.

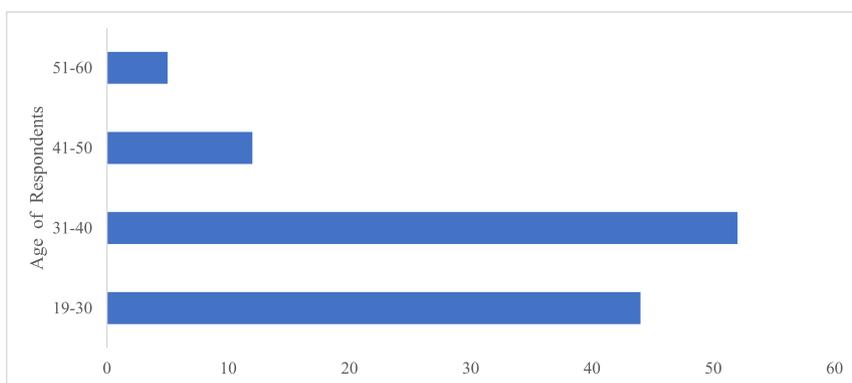


Fig. 2.3. Age-wise distribution of respondents in Number of Respondents.

respondents belonged to the age group of 31–40 years, with the mean age of the respondents being 34 years. Around 12% of the respondents did not receive formal schooling, while 31% have had schooling for 5–9 years. Around 26% of the respondents had passed the 10th standard and 14% had completed their senior secondary education. 15% of the respondents were graduates and only 2 respondents had completed their post-graduation, as can be seen in Fig. 2.4 below. Female heads of the households were comparatively less educated than their male counterparts.

B. Marital Status, Family Size and Domicile Place

Around 99 respondents were married, 12 were single and 2 were widowers. 87% of the respondents that were married or widowed had children (see Fig. 2.5). On an average, the family size comprised of a minimum of 4 members. However, larger families were also observed with as few households having 10 members staying in a single room.

2.2. Nature of work

‘Cotton’ is entangled with the destiny of Kapashera as most of the migrant workers are working in garment manufacturing industries/export companies in the nearby Udyog Vihar industrial area. Processed cotton arrives from various countries, including China, to be spun and stitched into garments that then leave for western shores in exchange for capital. People work hard to make a paltry living in the factory and textile mills in the adjoining areas. These workers are employed on temporary contracts through *thekedars*, and do not find full coverage in

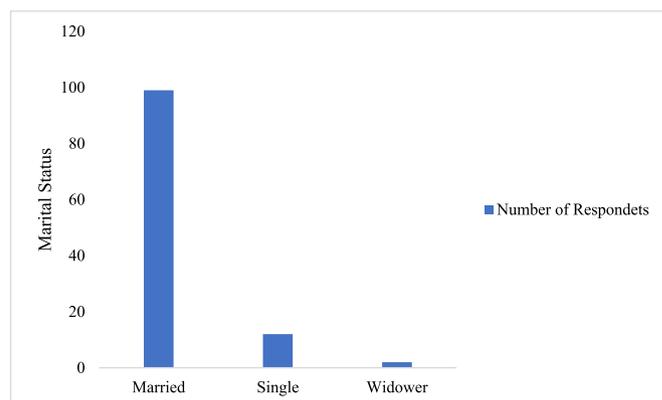


Fig. 2.5. Marital Status of respondent.

the labour laws. On an average these workers earn around INR 7000 per month for rendering their service for 12–16 h a day (Ramesh, 2005). Over the years, the real wages of the workers particularly in the garment industry have witnessed a decline as a result of the inflationary spiral (Shrivastava, 2020). The *Thekedar* system deployed in Udyog Vihar has rendered fear among the workers and there have been cases of exploitation and harassments that have made headlines.

In addition to the garment workers, Kapashera is also home to a few construction workers, balloon sellers, vegetable vendors, daily wage workers, and domestic workers. In addition, some of the workers are

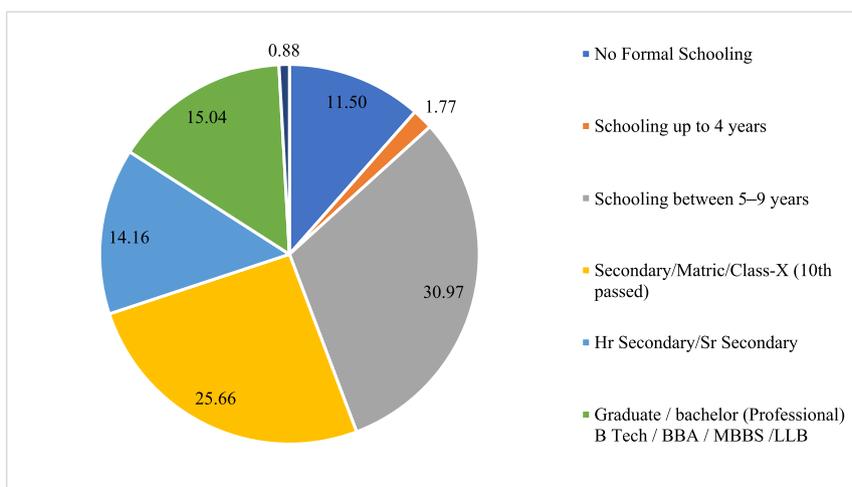


Fig. 2.4. Highest Education of the Chief Wage Earner (Head of the Households) (in %).

also employed with IT companies as drivers, watchmen, helpers etc. (Singh, 2016). The earnings are low and the nature of the employment is largely informal. Some of the migrant workers are also the owner of the shops of rations, dairy products, shoes and general stores that cater to the needs of the local population.

In the section below we highlight various characteristics of the space and the informality associated with Kapashera.

3. Informality in Kapashera

The nature of informality in Kapashera is visible not only in the profile of the residents and their nature of work, but also in the housing system, landlord-tenant dynamism and access to the basic amenities.

3.1. Housing and informal rent in Kapashera

Rental housing in most of the Asian cities is provided by landlords who rent out either additional space in their own house or create an extension or a building for the purpose of renting. As per the Asian development bank (Smith, 2013), small landlords contribute to 80% towards the availability of rented units globally.

In the informal rental market, the rental accommodations are largely located in the informal/quasi-legal urban settlements. While there is a wide variety of informal rental practices that have existed in Asian cities, what has remained common is the absence of formal contracts. Sinha (2014) has established that the contracts in these settlements are largely oral, signifying trust; further, family and networks play a key role for migrants to be able to access rental housing.

Much like the *Seng system in Thailand (originated in China)*—where tenants pay a large sum of rent at the beginning of the lease period (3–50 years) followed by a nominal monthly payment for the time of occupation (Landlord and Tenant law and practice, n.d.)—there are also evidences from Indian cities such as Bangalore wherein tenants use these systems to get quick return on investments (Kumar, 2001). In other cities such as Surat, Mumbai, Delhi, Gurgaon etc. tenants who were erstwhile migrants and are employed as daily wage workers have developed rental properties over time, mostly in the peripheries of the cities, providing homes to low-income migrant class.

We see these urban- periphery state spaces being commonly created in India through the channels of informality and Kapashera is no exception. A product of land acquisition in Delhi's urban fringe up until 1990. The disposed peasants built rental accommodation for the migrants on vacant agricultural land upon the development of Udyog Vihar all the while themselves residing in the original villages. Over time, it developed into a living space for the low earning migrant workers residing close to their workplace. This raises a question on the participation of government authorities and whether it is their absence or presence that further contributes to such informalities.

3.1.1. Landlord tenant dynamism in Kapashera

In rental setups, a clear power structure exists between landlord and tenant where the asset-owning landlord can exert dominion over the tenant. Given the excess demand for affordable housing, there is no incentive for the landlord to provide quality housing to the tenant. The low bargaining power possessed by the tenant results in the decks being stacked against migrants.

While few landlords can be said to be maximising profits from the use of their property, this does not alter the fundamentally capitalist character of their relationship between landlord and tenant. Land and capital are being used to generate unearned income.

In Kapashera, the cases of landlord exploitation are few but there are instances where they do occur. More frequently are cases of *thekedars* abusing their power and exploiting the residents.

As termed by Kumar (1996), 'absentee landlords' appoint middlemen called *thekedars* to act as property managers between the landlord and tenants. Under the Model Tenancy Act of 2021 (The Model

Tenancy Act, 2021), the Property Manager refers to a "person or company who is authorized by the landowner to manage the premises and who represents the landowner in his dealings with the tenant".

For the tenants staying in lanes 1–8, most of the landlords stay either in Palam Vihar (a formal housing colony nearby) or in the Extension-wali Gali. In return, the property managers are released from either paying rent for the room or from other charges including electricity, water etc. The presence of a middle agent, like in many other sectors including agriculture and health, has also presented cases of exploitations in Kapashera. More uniquely, this exploitation does not occur in the form of higher rents but through other rent-seeking sources. Based on the interview conducted with IYRC, in particular, water, drainage, electricity and repair work are used as rent-seeking resources.

As representatives of the landowners, property managers are required to carry out certain activities, which they fail at. For instance, they do not fix local issues with the buildings in time or refuse to cooperate during police verification processes without bribes. The corrupt and unethical behaviour of the *thekedars* has fostered major trust issues in the tenants. In such cases, the absence of landlords makes the situation worse for the tenants. On the other hand, in the *extension-wali-gali* that provides 1-BHK, 2-BHK and 3-BHK apartments, the presence of the landlord benefits tenants by offering them quick repair services and assistance in police verifications for legal rental contracts between landlords and the tenants.

To prevent the exploitation of tenants and ensure quality housing many governments have passed rent control regulations. In India, the Delhi Rent Control Act, 1958 and Model Tenancy Act of 2021 were introduced to protect tenant rights and guarantee fair behaviour. Unfortunately, rental agreements in Kapashera are either oral or written on paper with no legal validity. Rental payments are mostly made in cash without being provided with any receipt to act as proof. As explained by Sunil Kumar:

"little can be done to prevent landlords from raising the rents" because of the "fact that the tenant market is illegal". Moreover, "the consensus of opinion even of tenants whom these controls are designed to protect, is that rent controls are not effective, and often do more harm than good"

Thus, in the low-income settlements a (rental housing) market has been operating, unconstrained by the rent control legislation.

3.1.2. Housing quality and rentals in Kapashera

Unlike various slums in India, including Dharavi, that mainly consists of Jhuggis, there are various housing patterns that can be seen in Kapashera. The settlement is arranged in lanes, hence, the rent of the house varies based on location and the quality of the house (Mohani et al., 2021). The walls of the houses in Kapashera are either made of thatch sheet or thermocol; tarpaulin, aluminium and tin sheets are used for roofing. In case of single storey tenements, unplastered bricks, corrugated tin or asbestos are used. Poor ventilation, cramped rooms, sharing bathing and washing spaces, lack of space for cooking, no or limited privacy for the members are some of the common features of housing in Kapashera. Below, we provide a snapshot of various informal housing topologies available to the migrants as seen in Figs. 3.1 and 3.2. These includes:

a) Jhuggis:

These dwellings are made of temporary materials including mud and corrugated iron sheets, which are mostly occupied by waste pickers. There is no rent charged for such accommodations.

b) Semi-Permanent Rooms:

These dwellings lie in the intermediate zone of Kapashera and are

Semi-Permanent Room



Multi-Storey Pukka Tenements



Fig. 3.1. Housing Typologies in Kapashera.

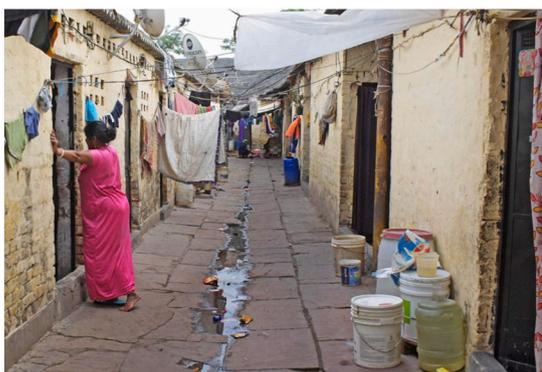


Fig. 3.2. Pakka Room with shared toilets and Metertap in compound in Kapashera.

Source: Based on field visits conducted by the Center for New Economic Studies (CNES) <https://jgu.s3.ap-south-1.amazonaws.com/jsbf/Kapashera.pdf>

inhabited by fruits and vegetable vendors, cleaners, rickshaw pullers etc. The housing structure is made with brick walls, tin or asbestos-cement roofs. Often a contractor/property manager is nominated by the landlord to collect rent ranging between INR 1500–3000 from the tenants.

c) Permanent multi-storey pukka tenement:

These are located in lane 4–8 behind a well-known management institute where informal and semi-formal workers (drivers, security guards, construction workers and factory workers) share the cramped rooms. Toilets are common to the floor such that 8–10 rooms share a toilet. The rent of INR 1500–3000 is charged from the tenants by the landlords who live in the formal settlements nearby Kapashera.

d) Pakka Rooms with shared toilets and metered water:

The rooms are located in high tension area in lane 1–3. The rent is expensive and the room is occupied by 5–6 families sharing toilets and bathrooms.

e) 1, 2 and 3BHK rooms:

Catering to migrants with higher job security who have been staying in Kapashera for longer, these housing units are relatively self-sufficient in terms of services with attached toilets and baths and improved ventilation. Accordingly, the rent is higher: INR 4500 for 1 bedroom-hall-kitchen (BHK), INR 7000 for 2BHK and INR 8000–10,000 for 3BHK accommodation. Landlords often stay near or within the premises. This kind of housing is located at the periphery of the village in what is

popularly called the Extension-wali Gali. The term ‘extension’ derives from the phenomenon of urban villages spilling out of the prescribed ‘lal dora’ area that was demarcated in the land records as the inhabitation area, outside which the village commons and the agricultural lands once existed.

3.1.3. Access to basic amenities: a case of access to water in Kapashera

Access to safe drinking water has been recognised as a basic human right by United Nations in 2010. However, nearly 600 million Indians are facing high-to-extreme water stress. More than 40% of the annually available surface water is used every year and about 200,000 people dying per annum due to inadequate access to safe water (Awasthi, 2021). As per the ‘Composite Water Management Index’ (CWMI) report, released on 14 June 2018, the situation is likely to worsen as the demand for water will exceed the supply by 2050. The worst affected would be slums and informal settlements (UNICEF, n.d.).

The lack of legal status and limited recognition by the government makes the availability of piped water supply to these settlements difficult (Agarwal and Taneja, 2005; Subbaraman et al., 2012). Even for those having access to safe water, the quality varies considerably (Jahan et al., 2015; Ezeh et al., 2017; S. Smiley et al., 2017) across the households.

Additionally, the access to water is contingent upon affordability. Low-incomes of the residents impacts their abilities to obtain sufficient safe drinking water. In cases of slums and informal settlements which lack recognition, the residents are bound to pay more for their water than those who are legally recognised (Subbaraman et al., 2013).

Water in Kapashera is treated as a rent-seeking source for the landlords. Both treated and untreated sources of water are available to the

residents here. Untreated water is supplied to households throughout the day. Landlords fix meters in each room that measure the amount of water consumption for cleaning and washing purposes and accordingly are being charged for the consumption of untreated water as can be seen in Fig. 3.3 a.

The treated water, used for cooking and drinking, is supplied for a certain period of time. One bucket of drinking water is provided per room for free. The additional consumption of water is managed through the water jars distributed locally. Households, therefore, procure water in three different ways depending on their needs and financial constraints. The treated tap water and untreated water tanks are available within the premises and water jars are available near the premises for purchase (Mohan et al., 2021).

On analysing the data we find that the minimum monthly expenditure on water is approximately Rs 450–500 per month. Water used for other (non-drinking) purposes such as washing, bathing and sanitary needs — also known as “*gandaa paani*” in local language — remains billed through a metric-system reporting an average expenditure of Rs 360 per month (Mohan et al., 2021). Hence, on average, almost Rs 860 per month is spent on solely procuring water.

Given the limited availability of drinking water, some of the families also locally source large water jars to meet their water needs. However, in some cases they are forced by their landlords to buy water from the same distributors who supply to all the residents in their building, thereby creating a monopoly (Mohan et al., 2021). The cost of each jar ranges between Rs 10–12. (see Fig. 3.3b) Given the absence of enforceable contracts, tenants are forced to oblige at the risk of being evicted. “In absence of contracts, there have been several anecdotes of tenants being asked to vacate their room on short notice by landlords on account of tenants not maintaining the property or not buying water from the shops owned by the landlords”, explained a member of local NGO — Ideal youth for Revolutionary Changes (IYRC). This bestows de-facto monopoly status to each shopkeeper in their local area and gives room for abuse of market power.

3.1.4. Electricity and repair work

Electricity costs are high in Kapashera where electricity is measured through meters for every house or shanty. It is charged based on per unit consumption (regardless of the condition in which power is distributed to each household). Hence, the presence of more electrical appliances leads to significant expenditure on electricity. Electricity is also available through illegal connections. On average, a family pays a minimum of INR 600–1000 for electricity which increases to INR 1200–1500 in cases where families use coolers (Mohan et al., 2021) as seen in Fig. 3.4. *Thekedars* hike up electricity bills and water bills to scam their tenants into paying more than they need to while pocketing the difference.

3.1.5. Drainage

The drainage system in Kapashera is also used as a source of revenue



Fig. 3.4. A water cooler is fixed next to Electricity meters at a colony at Kapashera.

collection by the landlords. The sewage waste disposal management is very poor. The wastewater goes through ‘*nalas*’ (sewage canals) and continues flowing within the lanes, posing a major health hazard. Most of the time the drainage lines carrying this water get choked up. The presence of only one municipal vehicle responsible for sanitation is not enough to rectify the problem. As a result, the landlords often demand payments (of around Rs 20 per house) from the residents to get the choked drains cleaned.

The presence of informality in every nook and corner of Kapashera highlights its vulnerabilities and the lack of representations in public policy. The pandemic further added to the residents' miseries by not only impacting their social and economic conditions but also amplifying the health crisis as a result of the space they live in.

While many countries followed strict lockdowns, control on mobility, economic and social activity and social distancing requirements, India adopted a very stringent lockdown in March 24th 2020, with only four hours of notice given to the entire population. India's strategy failed to take into account the socio-economic contexts and characteristics of life and work for most people in India. The pandemic and lockdown fallouts have been immense and have impacted lives and livelihood of marginalised communities adversely. In the section below, by citing examples from Kapashera, we highlight how migrants residing in the informal settlements were one of the worst affected during the lockdown.

4. Pandemic impact on kapashera residents

The high density of population and cramped building structures was found to be one of the reasons for large number of people testing positive during the pandemic (News18, 2020). Furthermore, the use of communal toilets, bathing and washing facilities, as highlighted in Section 3, made it extraordinarily challenging for people to practice physical distancing in these settings. One of the newspapers reported that:



Fig. 3.3. a: untreated water and water meters Fig. 3.3 b: water jars. (Source: <https://jgu.s3.ap-south-1.amazonaws.com/jsbf/Kapashera.pdf>.)

“Forty-one people residing in one single building in Delhi’s Kapashera have tested positive for Covid-19. The building is in Theke Wali Gali near the district collector’s office in Kapashera and was sealed after one person contracted the respiratory disease” (News18, 2020).

“On April 18, one person in Kapashera had tested positive following which other people residing at the building including milkman, vegetable vendor, and almost 350 people in the neighbourhood were also tested for COVID-19” (News18, 2020).

Further, water collecting and waste disposal required the women of the households to frequently leave their homes since Kapashera and other informal settlements in general have very few dwellings who have water connection in their home. These communal points further create risks of transmissions, given that personal protective equipment’s were not available to them. Furthermore, uncleaned water for buckets and leakages in pipes are common phenomenon, which results in water contaminations, thereby producing more health risks.

Additionally, open defecation in open field, water streams etc. are common practices in Kapashera. With limited scope of physical distancing and hand washing, the residents failed to adhere to the first line of defence against the pandemic; handwashing with soap.

The open drains are also often blocked with solid waste and effluents. As the workers who are typically responsible for maintaining the drains are reluctant to come into the communities during the lockdown, it resulted in deteriorating conditions and higher levels of risk to other infectious diseases in Kapashera.

5. Conclusion

The informality and lives of residents in Kapashera depict the story of many informal settlement located across the globe. While these settlements provide an affordable housing to many migrants, they also offer certain disadvantages to those who are poor and work in informal economy. The space is one of the breeding examples of how lack of inclusion of the informal settlements in the urban policy planning affects the modalities and lives of the residents.

The overall poor quality of housing, poor sanitation, unventilated rooms and exploitations and harassments by landlords and thekedars (property managers) make the lives of residents very vulnerable. The existence of exploitative power structures between landlord and tenants as highlighted in the paper is imperative in providing a holistic image of the settlement. The cases of harassments call for the need for written contracts, similar to the formal rental housing arrangements. Further, emphasis on social-political relationship between landlords and tenants or property managers and tenants are important and integral to the dwelling environment. As explained by Turner (1968), the qualitative dwelling environment model is not tied to material standards or dwelling structures. “It recognises that value lies in the relationship between man and environment not simply in physical conditions” thereby accounting for social situations and socio-economic relations as well.

A radical change is required in the city planning, as informal settlements are currently bypassed from mainstream infrastructure interventions which became all the more visible during the pandemic. Water and sanitation, that are perceived to be the top priorities of the residents, need urgent policy attention. Toilets that are “always clean, without odour, devoid of bad user behaviour and practices, and desludged whenever necessary” are important in addressing any health hazard (Agyei et al., 2020). Therefore, the authorities should priorities on building and improving the quality of the houses.

The residents of Kapashera provide a case for the policy makers not only in India but also globally, to integrate them into the mainstream urban cities. This is crucial, not only for improving environment conditions but also safeguard the health in cities. The recent pandemic has raised several concerns and signifies the importance of building a quality

housing and facilities such that the residents of the settlements are not deprived of basic amenities. Since informal settlements provide the work force to cities — higher risks of transmission of infections in those communities also poses a risk for other parts of the city. Therefore, targeted social, political and environmental improvements will uplift the ability of cities to respond to pandemics and health of local populations with reduction in transmission pathways to infections. Thereby improving the overall quality of lives.

CRediT authorship contribution statement

Deepanshu Mohan conceptualized and formulated the research objectives. Richa Sekhani conceptualized, prepared and created the original draft. Jignesh Mistry collected the photographs and facilitated conversation with IYRC, NGO. Advaita Singh and Vanshika Mittal provided support in writing and editing the paper.

Declaration of competing interest

None.

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Appendix 1

Methodology on the survey conducted by CNES on Impact of Pandemic on Lives and Livelihood on Kapashera.

During the months of February and March 2021, a total of 130 interviews of migrant workers were conducted using simple random selection. The study used ethnographical style of participatory-observation² to interpret and examine the primary data collected through oral interviews, with respondents using a set of objective and subjective questions. The questions on income and expenditure were divided into three sections including

- **Pre-Lockdown Phase:** Before March 2020
- **During the Strictest Lockdown:** March–May 2020
- **Now:** the period when the interviews were conducted and the lockdown restrictions were loosened: February–March 2021

The interviews were conducted near Radha Krishna temple and behind FIMT college (Lane 1–8) in Kapashera. No interviews were conducted in *jhuggis* and *extension-wali Gali*.

We partnered with a Non-Governmental Organisation (NGO) in Kapashera – Ideal Youth for Revolutionary Changes (IYRC) which works with the youth of the weaker sections of society — to conduct the interviews with heads of the household/chief wage earners residing in Kapashera.

In cases where the chief wage earners were not available, researchers interviewed the member of the household who seemed to be informed and was willing to share the information. In our case, 11 respondents were not the head of the household, however, they responded from the perspective of the head. For instance, in a family where the chief wage earner was not available for the interview, we collected information from the child or wife who had fair knowledge about their father/husband’s age, earning, education status etc. The familiarity of the migrant workers with their families and with the NGO made our task of data

² Participatory observation refers to interacting freely with the subjects, building a personal rapport and observing them in their natural environment to gain an understanding of their behaviors and circumstances

collection and interviews easier.

Designing the actual questionnaire — which was used as the primary means of collecting information — involved a few preliminary visits prior to the actual field-work. The preliminary visits developed a consultative process for researchers with the migrant workers in Kapashera. We used personal observations, notes and recordings (with verbal consent from the respondent) to collect relevant data and draw inferences.

Due to some missing and unclear responses, the final sample size of 113 migrant workers has been used (out of the 130 initially collected) for an in-depth analysis provided in Section 4 below. A crucial part of the interview involves the researcher disclosing their identity and research objectives at an early stage. While this technique was effective in drastically reducing the resistance and overcoming trust vacuums, it also brought into play a set of challenges, known as the ‘reactive effect’. The pandemic added new challenges in conducting interviews. There was a pervading sense of scepticism behind the intention of the interviews. A limitation of the study remains that the interviews and data provide the point-in-time analysis which may not be applicable to the situation at present, given the uncertainties associated with the pandemic and their impact.

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