Chapter 5
Urbanisation and Urban Villages: An Overview of Slum Communities in India

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Abstract In 2011, over 65 million people lived in slums in urban India. A slum is an informal settlement that largely consists of dilapidated housing, small living area, without adequate access to clean and potable drinking water, sanitation and unstable renting agreement. Within these slum settlements exist real people and communities whose lives revolve around the nexus of urban (in)formal economy, with hopes and dreams for a better future for themselves and their next generation, as they take decisions to out-migrate from underdeveloped rural areas. These informal and yet vibrant communities often become the backbone of urban economies. Despite a lack of basic amenities, these settlements provide affordable housing to a significantly large share of slum dwellers in India's cities. This chapter reviews academic literature along six major themes to summarise the accomplishments so far, and existing gaps that need further attention. These include the following: (1) Effects of Globalisation and the Neoliberal Economy in Housing Crises and Growth of Slums in India, (2) Neoliberal Economy and Wage Inequality, (3) Changing Patterns of Economy—From Formal to Informal, (4) Rural–Urban Migration and the Role of Urban-centric Economic Bias, (5) Livability in Urban India and Declining Quality of Life and (6) Methodological Focus in Urban Slum Scholarship in India. This chapter concludes with suggestions for under-researched lines of work with the hope of a spatially informed policy intervention.

Keywords Urban India · Informal settlement · Dilapidated housing · Informal economy · Out-migration

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Introduction

According to the UN-Habitat, over 1 billion people lived in slums worldwide in 2016 (HTTP1). This number is huge, but not surprising given the fast rate of urbanisation globally. India's rate of urbanisation has also increased consistently since 1947 (Sharma and Abhay 2022). The Census of India (2011) suggests there are 377 million urban dwellers, with this share increasing by 2.76% between 2001 and 2011. With fast urbanisation also comes in the growth and expansion of urban slums, given the limited availability of resources to provide quality housing to all. India is unique since a large part of its population still participates in agricultural work. At the same time, it is relatively difficult to pinpoint the number of people who have left their agricultural work and migrated to cities in search of better opportunities, often settling in slums; and given the lack of record keeping on migration in much of the global south, an accurate assessment of these numbers is difficult (Nandy et al. 2021). What is true, however, is that a large share of these migrants ends up settling in the urban slums, creating spaces of clustered poverty while experiencing lower quality of life (Abhay and Sharma 2022; Sharma 2017; Sharma and Abhay 2022).

In this chapter, while we summarise various aspects of fast urbanisation and growth of slums in urban India, it is critical to understand the reasons for its growth and expansion in today's developing world. According to Bandyopadhyay and Agrawal (1981), there are two reasons contributing to the development of slums: the partition of India in 1947 that led to large numbers of refugees and the Industrial Revolution. Slums play important roles in the lives of urban migrants because most often these are the most affordable housing in urban areas. The conditions of slums may be worse than their homes in the countryside from where they originated, but these are typically the only options these migrants have. If we are to look back into history, slums are not new. Slums were usually put in areas near centres of dynamic economic growth as they served as residential centres of the service labour. Since the economic liberalisation of India starting 1990s and onward, the prevalence of slums has been on a rise in the cities of Mumbai, Delhi, Kolkata, Chennai, Bangalore and other second-tier metropolises. India's census categorises urban areas into four types: statutory towns, census towns, urban agglomerations and urban growth centres. Statutory towns are towns that are allowed to have municipality (Jain and Korzhenevych 2020). Census towns are villages with at least 5000 people in the last census recorded, and at least 75% of its male working population not engaged in non-agricultural activities (Mukhopadhyay et al. 2016). To be described as a census town, population density must be at least 400 people per km^2. An urban agglomeration is a continuous spread of urban areas that cover one or more towns, and the population stays above 20,000 people (HTTP2). Finally, urban growth centres are areas around a major city outside of its city limits, with its own distinct features, such as railways, universities, or ports. India's urban structure holds importance as this becomes a major pull factor for those migrating from rural to urban.

This chapter summarises scholarly work focused on some of these issues and the effects of slums in India along six major dimensions as discussed below in the

methodology section. In doing so, we identify major lines of research that need further attention such that suitable policies can be implemented at national, regional and local scales to help improve the lives of slum dwellers. As such, the remainder of this chapter discusses the research approach taken in completing this chapter, followed by an overview of existing literature in five thematic subsections, with the sixth and last subsection providing an overview of research methodologies, data sources and scale of analysis as applied in select literature reviewed here. Finally, we discuss major conclusions drawn from the wide gamut of literature reviewed, and the policy implications of suggested new lines of research. Because of the rising effect of globalisation in India since 1991, in this chapter we focus specifically on literature published in the 1990s and onward. It is our belief that access to proper housing is a human right and our research aims to provide new pathways towards examining these inequalities.

Methodological Approaches

In this chapter, we provide an overview of published scholarly work along six major dimensions: (1) Effect of Globalisation and the Neoliberal Economy in Housing Crises and Growth of Slums in India, (2) Neoliberal Economy and Wage Inequality, (3) Changing Patterns of Economy—From Formal to Informal, (4) Rural–Urban Migration and the Role of Urban-centric Economic Bias, (5) Livability in Urban India and Declining Quality of Life and (6) Methodological Focus in Urban Slum Scholarship in India. It is important to point out that even though the term ‘slum’ has a negative connotation, these are real people and communities who have built a vibrant economic ecosystem while residing in these slums. As such, this chapter points out issues that exist within slums, but we neither advocate nor oppose the eradication of slums due to multi-faceted social and economic consequences of slum removals in developing economics.

The discussed articles have summarised their study areas, scale of analysis, major findings and the shortcomings. The literature reviewed in this chapter was gathered from online databases, such as Google Scholar and JSTOR. We performed content analysis to discuss India’s slums while grouping these into five broad themes. The aim of our research is to identify the areas that have still not been addressed in slum scholarship, and how might a geographic approach help policymakers, geographers and social scientists to help build an economically and spatially just society.

Thematic Lines of Research

Effect of Globalisation and the Neoliberal Economy in Housing Crises and Growth of Slums in India

To understand the challenges that exist and have existed in India, one must know the history of India, particularly India's relationship with The Great Britain. Colonialism (Islamic and European) had existed for a long time, but modern colonialism started around the fourteenth century. Europe wanted to explore the world in desire for raw material and was particularly keen on starting trade routes with South Asia. As such, India was repeatedly battered by annexation and forced treaties because the Great Britain and other European powers wanted control over India (HTTP3). While there is little published research on this topic, it would be beneficial for academicians to establish the connection between the British colonisation of India and present-day economic policies that caused the persistence of slums. A recent work (Chakraborty et al. 2022) has indeed looked at the growth of urban slums and quality of life from the framework of colonialism and its segregationist policies, which still mimic today's urban landscapes in Kolkata. While colonialism of India is general knowledge today, it is important to remember the impacts it has had on its people, culture and economy even decades later. Thus, colonisation and globalisation are connected because the economic benefits of globalisation in contemporary times are similar, albeit to a new order well captured in the term *neoliberal economy*.

Globalisation has had an impact on growth and expansion of slums because of its role in the urban economies of developing countries, which has further exacerbated the urbanisation processes, thereby inducing growth of slums in the urban areas of India. Today, not only do more slums exist in the world than at the beginning of the first globalisation era, but they are denser than they ever have been. Globalisation today, as captured in the term *neoliberalisation,* has negative consequences for developing countries (Davis 2006) as it also widens the income gaps between formal and informal sectors, even though it has helped advance the economies of the developing world to some extent (Woo and Jun 2020). Neoliberalism has made multi-faceted imprints on urban areas, especially in the global south. Since the initiation of more conservative fiscal policies, such as the privatisation and liberalisation of trade policies since 1991, it has forced more than 20% of the population of India to live in slums, creating more urban poor. Woo and Jun (2020) propose the Economic Globalisation Hypothesis to explain this process—that the more economically globalised a country is, the more likely it is to have higher share of its people living in slums, given that much of the peripheral and semi-peripheral world lacks in resources and sound policies to provide decent urban housing for the fast-expanding urban migrants.

Some scholars (Weinstein 2014) assert that because places like Mumbai have become more globalised and there is a push for globalisation, it leaves slums like Dharavi in the periphery. Weinstein points out that the government of Mumbai had created a redevelopment project in 2004 to transform Mumbai into a 'world-class city' by getting rid of slums. However, getting rid of slums is not an easy solution

because not only do slums, like Dharavi, have a significant contribution to Mumbai's and overall India's economy, but there are real people and real communities who live there and have long since built a synergistic ecosystem. Cultures and people thrive in these slums. Weinstein (2014) contends that a public–private partnership would be ideal for the 'Dharavi problem'. Mumbai can be considered a dual city, where the formal and informal are interdependent on globalisation (Bardhan et al. 2015). Since slums are places of labour and capitalism in their own right, globalisation influences the types of work that thrives in slums. For example, within Dharavi, there is a leather industry that exports products to foreign brands, an apparel industry and pottery makers that are typically created by the Kumhar (pottery) community. Dharavi makes over $1 billion every year and has many economic opportunities created by globalisation (Hasan et al. 2017; Kaur and Kaur 2014). The formal urban area of Mumbai is a financial and commercial hub. Within Mumbai, there are also many chemical, pharmaceutical and petrochemical industries. Among all the cities in India, Mumbai receives the most foreign direct investment, with The Bank of America, Volkswagen and Disney as examples of multi-national companies with corporate offices in Mumbai. Given the skyrocketed real-estate prices, many of the low-to-mid-waged workers live in Dharavi and commute to these work opportunities. Thus, based on the relevance of slum economy and slum dwellers' contribution to overall economy in contemporary globalised Mumbai, we believe that improving the infrastructure within slums rather than eradicating them entirely might be a workable solution, although its feasibility needs to be researched further.

Neoliberal Economy and Wage Inequality

In the new global order, India is not alone in its participation in the International Monetary Fund (IMF). The IMF gives access to a variety of loans to numerous countries across the world, and these loans come with a set of terms and conditions. These policies must be considered 'good' by the IMF, with the ultimate goal being able to stabilise the country receiving the loans while promoting poverty (*sort-of*) reduction and growth (Vreeland 2019). However, these policies have severe consequences on numerous segments of the vulnerable population as the drastic reductions in welfarist programs put these groups at the greatest risk. With subsequent cuts in various government-assisted programs, the most vulnerable in rural and urban areas fell victims to the direct and indirect impacts of IMF's policies (Vreeland 2019). The predatory loans from the IMF tend to hinder the growth of developing nations because of how high interest rates are and how ineffective the IMF is in balancing inflation for developing nations (Vreeland 2019). Cumulatively, these policies produced a large share of poor across rural and urban spaces alike.

Alongside, wage inequality was another outcome of India's neoliberalisation starting in the 1990s. While poverty declined in the 1990s, economic growth largely benefited those relatively wealthy, and income was not and is not distributed equally. Between 1983 and 1999, the most important finding of wage inequality was reflected

in the wage increases of wealthy groups—as noted from their individual tax returns. The 1991 liberalisation of trade in India had significantly increased wage inequality within its labour force (Kumar and Mishra 2008). The trade reforms were exogenous, surprising many lawmakers, and soon India was on a pathway to dramatically liberalise the external sectors which led to significant decline in tariffs from 117 to 39% within a span of 10 years (Kumar and Mishra 2008). Until the 1980s, India's trade with the rest of the world involved high tariffs and non-tariff barriers with an import licencing system, which had protected India's economy. This, however, took a deep dive with the involvement of the IMF as the social safety net enjoyed by Indians were lost against IMF's stringent policies in exchange for IMF's loans.

In 1991, when the new government took over, the Indian economy was experiencing issues. There was an external payment crisis coming, and India's foreign currency holdings were less than $1 billion (Kumar and Mishra 2008). Because of the export–import policy (EXIM), all import licencing was eliminated. This meant that all capital and intermediate goods could be imported freely, apart from consumer goods. Some scholars (Kumar and Mishra 2008) assert that trade liberalisation could affect industry wages in competitive markets if there is immobility of labour. Further, trade liberalisation could also impact wages in perfectly competitive models if the workforce was heterogeneous. Kumar and Mishra (2008) explain that the existence of wage premiums in India could be because of lack of perfect mobility of labour across different sectors in India, and hence, the decrease of tariffs correlated with the decrease of wages among the Indian workforce. Surprisingly, the decrease of wage equality impacted the skilled workforce, whereas the unskilled workforce experienced increase in wages. This meant that the sectors that had the largest change in tariffs largely hired those considered as 'unskilled workers'—thus creating a new type of socio-economic polarisation across space. Kumar and Mishra found that the relationship between industry wage premiums and tariff rates was inherently negative.

According to Mehta and Hasan (2012), however, reallocation of labour and wage shifts occurred because of economic liberalisation. They asserted that the liberalisation in service sectors also had an impact on wage inequality and these impacts were much larger than the overall impacts of the trade liberalisation. Almost 30–66% of the increase in wage inequality was because of skill premiums and change in wages that cannot be linked to just trade liberalisation (Hasan et al. 2017; Mehta and Hasan 2012). However, Mehta and Hasan acknowledged that Kumar and Mishra's work on trade liberalisation changed the industry wage premiums. The IMF would again loan money to India in 1997. The crisis in 1991 was not devastating because of lack of private sector debt and India's banks not holding foreign assets. By 1997, also they did not hold bank holdings either. Compared to other countries, however, India was not as vulnerable, which helped India's economy stay stable in the 1990s (Woods 2006).

In short, the neoliberal economy and the concomitant increase in wage inequalities within the urban spaces have successfully created clusters of urban poverty in ever-expanding and densely growing cities of India. And while the wage inequalities within these urban spaces have contributed to declining qualities of housing and

lives for the slum dwellers, the regional disparities in economic opportunities in the formal and informal sectors alike have also widened due to the urban-centric policies in India (Patnaik 2007). The wage differentials between the rural and urban counterparts were still quite high to propel fast urbanisation and uncontrollable rural–urban migration. The neoliberal policies, as such, have succeeded in creating various types of socio-economic inequalities at various scales—regional and local—within the intra-urban contexts of major metropolises of India, and this has created a new global order of socio-economically polarised new world cities.

Changing Patterns of Economy—From Formal to Informal

Uneven Development, Outmigration and the Role of Remittances

Due to uneven development, India's rural regions are in dire poverty. Part of this is also because of India's bias towards urban development, essentially overlooking the rural regions (Sharma 2017). The world systems theory formulated by Immanuel Wallerstein asserts that there are 'core' countries which are more industrialised and advanced, whereas the peripheral and semi-peripheral countries remain less developed (Wallerstein 1987). When applying this theory to India's rural versus urban dilemma, where the urban centres in India are the 'core' and the rural areas are the 'periphery', there is no doubt that much of the rural and semi-urban areas remain largely neglected. Following this framework, even in contemporary India, agriculture still comprises a large share of its workforce, with gradual waning out over recent years (Choithani et al. 2021). India has experienced three major changes in the past few decades: shifting away from agricultural employment by large numbers, rapid urban growth and villages becoming more urbanised with improved quality-of-life amenities (Choithani et al. 2021). West Bengal is one such example that has experienced significant out-migration, with Uttar Dinajpur (UD) being a major exporter of workers (Mishra and Sarkar 2021). UD being one of the poorer districts in West Bengal, with low literacy rate and bad infrastructure, has forced people to migrate, seasonally or permanently, towards urban areas seeking for better opportunities.

According to Mishra and Sarkar (2021), there are studies that have reported both positive and negative effects of out-migration of workers to urban areas. The negative is long working hours, low wages, unstable employment, employer exploitation and poor working and living conditions. However, they also report that out-migration provides them with better employment and wages compared to locations where they resided originally, and other benefits of these urban areas include better household welfare, access to information and better life outlook. It is important to note, however, that the autonomy and participation in the domestic setting as well as outside of it also occur for out-migrants in urban areas. According to Mishra and Sankar (2021), most of the urban migrant population are single (60%) as often only the males out-migrate in search of work, while leaving behind their female partners and other

family members in rural locations, gradually creating social and family disharmony. The authors also suggest that at least 50% of these out-migrants are literate.

It is also important to acknowledge the role of remittances of migrants' income back to their families at home—a critical reason for rural–urban migration. When migrants move to urban areas, they often settle in slums to not only being able to live and work without spending their entire money on rent, but also to be able to save and send money back home. 85% of migrants send money back home, with almost 67% of migrants sending money back home every two months, and 24% of migrants sending it monthly (Mishra and Sankar 2021). The impact of remittances on families in rural areas is huge because remittances, sometimes, count for the household's entire income, if not most of it. While these remittances are usually not a lot, they significantly help reduce rural poverty in India (Castaldo et al. 2012). This makes the whole situation more complex as the urban migrants who are struggling to keep a roof over their heads are forcing themselves into urban working poor. But by doing so, they are somehow alleviating rural poverty back in their places of origin. This situation can be addressed by creating pro-rural economic opportunities that can somehow reduce urban migrants.

Rural–Urban Poverty and Employment Policy

Nandy et al. (2021) asserted that programs that are public-works based have been critical towards policies addressing unemployment, poverty and inequality in rural India. In 2005, India launched the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). This policy intended to reduce rural out-migration by ensuring employment and income security in rural areas. The key policy goals of the program included: social protection for the most vulnerable living in rural India, security of livelihoods, including water security, soil conservation and improved land productivity, empowerment of the socially disadvantaged, mitigating push factors for rural out-migration, deepening democracy and creating more transparency in the government. However, this policy fell flat because according to the World Bank, while there were many people who tried to find work, most were unsuccessful in finding meaningful employment. Another problem with the program was lack of awareness about this program. As such, this program had mixed results and did not prove to be very effective.

Political Discrimination and the Dynamism of Slum Votebanks

There is also evidence of political discrimination against rural out-migrants. According to India's Constitution, 'all citizens shall have the right to move freely throughout the territory of India, to reside and settle in any part of India'. However, Gaikwad and Nellis (2020) claim that politicians are discriminatory towards rural migrants, especially those originating from specific regions/states of India as they are

viewed as outsiders, uneducated and uncivilised, and they feel that their constituents may be hostile towards migrants and electoral issues.

In contrast, other scholars assert that slum residents' votes—their votebanks—are extremely important to the outcomes of elections (Zhang 2018). A votebank has remained a contentious political discourse in India, which is a bloc of voters from a specific community who consistently support candidates in elections that will vote according to the politically divisive policies of specific governments. In the case of slums, votebanks usually target issues that slum dwellers care about. However, to sway away voters towards personal agenda, many politicians allow illegal settlements to be constructed and give away poverty relief funds around election seasons. This has remained a major issue in the illegal settlements in numerous urban slums of contemporary India (Sharma 2017). The term 'political society' was created to describe the relationship between slum inhabitants and governmental agencies making welfare policies (Zhang 2018). Divisive policies help retain these votebanks, and most of the time only a small slice of the promised policies will be implemented. In this entire process, though, several new illegal encroachments and illegal slums get created, exponentially expanding the clusters of urban poor (Sharma 2017).

Rural–Urban Migration and the Role of Urban-Centric Economic Bias

People relocate to urban areas for better jobs or education that they cannot find in their hometowns. When migrants arrive at urban centres, they are faced with high rent prices. A historical overview of rental policies in Mumbai provides some insights into the struggles that the slum residents face. Mumbai implemented rent control policies to help fight inflation and protect renters from evictions after World War I. The Bombay Rent Act of 1947 stated that tenant payment to landlords had to remain at or below standard rent prices, which are determined by the courts (Zhang 2018). It was extended in 1999 and since 2010, 19% of properties in Mumbai were protected under this act. Unfortunately, many property owners let their properties stay empty rather than rent for a cheaper price to low-income citizens. According to Zhang (2018), this act had negative effects on affordable housing in Mumbai. It ignored inflation rates and gave no incentives to landlords for upkeep of their properties. Rents were not allowed to rise even if landlords were to improve the quality of rental housing, creating an unprofitable situation for landlords. As such, many landlords were unwilling to rent their properties. These policies also made landlords want to build more expensive housing where they could charge higher rents, which did not appeal to the rural migrants, making slums look more appealing to them (Zhang 2018).

Yet another issue that came out of the rent control act was the deterioration of rental units that had already existed. In response to that, the state government created the Mumbai Building Repairs and Reconstruction Board to help fix this issue. The

reasoning behind the act was to collect more taxes to renovate rental units, but progress has been slow since its passing in 1971. According to Zhang (2018), rent-controlled housing continues to deteriorate. In addition to rent control policy, Mumbai slums are also impacted by land use policies. Zhang (2018) asserts that the combination of both land use policies and rent control policies has disincentivised the private sectors for good quality housing construction.

Zhang also uses the credibility thesis and applies it to the study of urban informality to understand the persistence of slums and the function of slums. The credibility thesis suggests that property and land are determined by their functions (Ho 2014). The problem with rent control laws in India is that none of the two parties involved in these rental agreements benefit from the laws. Some scholars have argued that because of lack of benefits for both landlords and tenants, the policies have basically failed, and it is time they learned more from other countries who have rent control laws in place so that some reforms to the current laws could hopefully help (Dev 2006). Zhang (2018) also points out that there is low-income housing outside of Mumbai, but due to lack of transportation and commute times, people opt to live in the slums instead. A revamp of public transportation and more low-income housing in large cities like Mumbai would be beneficial to slum population.

Livability in Urban India and Declining Quality of Life

Urban Livability and Legacy of British Imperialism

The 'livable' city was not a concept until the industrial revolution, which refers to the notions of survival of citizens regarding access to electricity and water, quality housing, rate of crime and sanitation (Chakraborty et al. 2022). The American idea of a livable city is very different from the reality that city dwellers face in developing nations like India. India's Census shows that only 31% of India's population was urban in 2011, and much of the urban space in India is limited in livability. Chakraborty et al. (2022)'s analysis found that the colonial policies of the British government not only restricted themselves to making Kolkata a military installation, but also intended to transform Kolkata into a trading port. Kolkata's racial segregation highlighted the divisions that the British colonisation had created in the city, with the better locations occupied by the Whites and the thin slice of elite Indians whereas other less desirable spaces/wards were inhabited by the average and below-average Indians, with low-quality amenities. Kolkata was just a rural district in India until 1690 when agents for the English East India Company arrived for trade opportunities. Sutanuti, Kalikata and Gobindpur were merged to create the city of Kolkata in the eighteenth century. According to Mukherjee (2012), a white town was created for the British near the Old Fort William. However, Kolkata was sacked and recaptured by the British in 1757. Construction of a new Fort William took place in Gobindpur. The native population was pushed north of the city, and it was not as well constructed

as the white town. The white town was constructed with care and had beautiful architecture, earning the nickname 'City of Palaces' (Mukherjee 2012). The native city had a mix of both old and new, creating slums for the people who worked for the British and rich Indians.

According to Mukherjee (2012), the colonial legacy still impacts the growth or lack thereof in Kolkata. North Kolkata has a large amount of mixed land use that comes with the existence of slums, while the areas of the former white town have lower population growth and lower density. According to Chakraborty et al. (2022), the regions where indigenous people were moved were considered chaotic and anarchist to the colonial powers in Kolkata. The colonial forces in Kolkata brought their concept of urban planning and implemented it into the 'White Town', where ideals based on spaciousness, improved household amenities, sanitation and beautification were promoted (Chakraborty et al. 2022). They also found that the current rate of dilapidation is dominant in North and East Kolkata, where the 'Black Town' was placed. Chakraborty et al. (2022) also found that the level of 'good' conditioned houses was scattered in the North, East and Western parts of Kolkata. The Southern part of Kolkata, however, had 70% of their housing in 'good' condition. Spatially, these patterns proved that the segregation that the British government had put into policy still impacts the city and its livability. Thus, there are noticeable markers in India, as well as in other developing nations that remain tattered with the legacies of colonialism and imperialism even today.

There is no doubt that the occurrence of urban slums in India has a huge impact on the people who live in and around them. However, not everyone's experience is the same and not everyone has the same outlook. People are pushed to migrate for different reasons and generally the quality of life is greatly impacted by their own view of life and their unique situation. According to Sharma (2017), the informal economy provides opportunities for those in slums, giving then a relatively better quality of life (economically, culturally and politically) compared to where they came from, even though this may not be *at-par* quality at a global scale.

Health of Slum Dwellers

In the last two years, COVID-19 has ravaged the entire world, and India is no exception. There is very little scholarly work on COVID-19 cases and the impact it had on India's slums. According to Mukhopadhyay (2021), however, there were 32.7 million cases in India by the second wave of the infection. In a study conducted from March 21 to August 21 in 2021, the author found that the slum residents of Kolkata were at huge risk of COVID-19 transmission because of low education, poor civic facilities, limited family spaces and their physical environment, and the sharing of toilets and water points (Mukhopadhyay 2021).

According to Chimankar (2016), the most serious diseases in India are transmitted by air, water, soil, or food. Inadequate health care, sanitation, infrequent garbage collection and water provision create conditions where diseases spread easily. Individual health and hygiene are also impacted by the availability of drinking water and

proper sanitation. All these reasons cumulatively add to very high child mortality in India (Chimankar 2016), making it one of the highest in the world. The level of infant and child mortality is an indicator of quality of life, but neonatal mortality is quite high in urban slums, particularly in Southern India (Vaid and Evans 2017; Vaid et al. 2007). In a study conducted in the slums of Agra, India, it was found that only 41% of the children were immunised (Ghei et al. 2010). The same study also found that only 44% of India's total children are fully immunised (i.e. full vaccinations for tuberculosis, DPT, polio and measles).

Adult health is also at risk in slums. According to a study conducted in Chennai, Viswanathan and Tharkar (2010) reported that 17.2% of the sampled population suffered from respiratory illnesses whereas 13.5% had other types of illnesses. Further, the mean haemoglobin levels in the population of 20 years and older were only 12.3 ± 2.4 gm/dl for males and 11.1 ± 1.4 gm/dl for females. These levels show anaemia, with females at far greater risk. Likewise, Viswanathan and Tharkar (2010) also found 21.4% of the adult population suffering from hypertension whereas glucose intolerance affected 8.6% of adults. It is important to note that a lot of these issues often go undiagnosed due to economic conditions of people and lack of generic health awareness, and even though hypertension and diabetes are lifestyle-related disorders, they are still prevalent widely among the poorer segments in India. The quality of home environment also plays a huge role in their overall wellbeing and health. Environmental pollution, polluted water sources, lack of nutritious food, dilapidated housing, spousal and child abuse, and lack of health care are all contributors to poor health of slum dwellers. Some scholars assert that a failure to recognise slums as separate spaces from the city has had adverse effects on the slum dwellers as they tend to be marginalised and denied basic services (Ezah et al. 2017). It is important to recognise that while most slum dwellers have barely enough money to get by, a serious illness could put them back into dire poverty, and potentially homeless.

Mumbai's cotton textile industry boom in the nineteenth century had created the need for more housing in Mumbai to accommodate the rural migrant labour needed to fill the labour needs of the textile industry. Thereafter, the petroleum industry also took off, creating more in-migrants into Mumbai. Since the migration pattern was largely for single males, housing was created to fit that need, which were one-room tenements called 'chawls' (Bardhan et al. 2015). While the migration patterns changed overtime, the housing opportunities showed no change in their supply and affordability. These housing eventually also often become residence for families with wives and kids. Originally, they were rented out to industrial workers, but the chawls were not upkept, creating worse living conditions with time for these dwellers, eventually denigrating the quality of housing in these slums. Overall, then, these habitations also became spaces of negative human behaviour, with varieties of physical and mental health issues and declining quality of life (Sharma and Abhay 2022; Thomson et al. 2013).

Methodological Focus on Urban Slum Scholarship in India

In this subsection, we highlight the methodological approaches in select scholarly work (Table 5.1) and identify major shortcomings in our reviewed work. Thus, the Table 5.1 is not a complete compilation of the wide literature reviewed in this chapter. Our review identified these listed dimensions that need further research. These include spatial analysis of slum poverty and slum population, particularly density of unemployment and/or under-employment and their proximity to employment clusters. Further research linking the British colonialism in India and its impacts on current socio-economic status of the slums would be beneficial as well. Female migration remains under-researched, especially in developing economies. Also, the use of qualitative interviews and case studies illustrating experiences of those who live and work in slums in India would add a human element to this body of research.

Spatial Analysis as a Tool—Economy, Health, Circular Migration and Female Migrants

Some scholars (Baud et al. 2008; Choithani et al. 2021) conduct spatial analysis of urban slums. Choithani et al. (2021) describe the social transformations (i.e. shifting occupations and livelihoods) that impact rural–urban migration. These cases could be enhanced through use of interviews and case studies to add a human angle to their findings. Baud et al. (2008) map urban poverty using the 'livelihoods assert framework' model to describe multiple dimensions of deprivation, and their implications on geographic areas and sectors targeted by Indian politicians. While they conduct spatial analysis, the comparison of smaller slums in India would be beneficial, as smaller urban areas and their slum clusters go un-researched whereas significance of money and resources are allocated towards slum dwellers in the mega-cities of India. Meanwhile, other scholars (Bardhan et al. 2015; Chimankar 2016; Echanove and Srivastava 2016; Ezah et al. 2017; Nandy et al. 2021; Sarkar and Mishra 2020; Zhang 2018) analyse other aspects of urban slums in India. Nandy et al. (2021) analyse the implications of slum-related employment and policies, while also discussing how to expand current employment policies. In doing so, they provide an interesting critical analysis of MGNREGS. We think that the use of remote sensing data would add a spatial dimension in explaining the ineffectiveness of MGNREGS. Zhang (2018) analyses the economic importance of slums and their prevalence. A spatial analysis of employment density and their proximity to population centres would add meaningful spatial insights in Zhang's research. These interventions could help policymakers to address employment policies for slum population by making spatially just policies.

Ezah et al. (2017) provide good analysis of health in slums. A GIS-based visualisation of the prevalence and density of unhealthy clusters could be insightful, even though we are aware of the confidentiality issues in acquiring health data. Spatial knowledge on the location of poor health clusters in slums could be critical to policymakers in improving health infrastructure and its accessibility for slum dwellers.

Table 5.1 Methodological approaches in select Urban scholarship

Article title and authors and journal	Research focus/questions	Area of study and scale of analysis	Methodology applied	Pros and cons of the analysis
Sharma and Abhay (2022). Urban growth and quality of life: inter-district and intra-district Analysis of housing in NCT-Delhi, 2001–2011–2020. *GeoJournal*	Urban growth sprawl and how it impacts quality of life of Delhi's residents	Districts and Subdistricts of NCT, Delhi, India	Remote sensing data to examine urban built-up space and census data linked to examine change in quality-of-life indicators	Pros: Provided good overview of how the urban sprawl in NCT Delhi has expanded over two decades and how has that changed quality of life of residents Cons: A few case studies through interviews or focus groups could add a human angle to the findings
Choithani et al. (2021). Changing Livelihoods at India's Rural–Urban transition World Development	Social transformation that impacts rural–urban migration like occupation shifts and livelihoods	India	GIS data and buildings and field visits to investigate the relation between urbanisation and development	Pros: good analysis of urban versus rural employment Cons: Interviews and case studies could add a human angle to findings
Nandy et al. (2021). India's Rural Employment Guarantee Scheme—How does it influence seasonal rural out-migration decisions? Journal of Policy Modeling	Analyses implications of employment policy and discusses how to expand the scale of MGNREGS	India	Uses the Indian Human Development Survey to secede the impact of MGNREGS	Pros: Gives good analysis and description of the MGNREGS Cons: GIS/remote sensing data could add a spatial aspect in explaining the effectiveness of MGNREGS
Zhang (2018). The credibility of slums: Informal housing and urban governance in India	Explains and analyses why slums are prevalent as well as describes why slums in India are major socio-economic and political hubs	India	Fieldwork and 40 interviews	Pros: Gives good analysis of political and economic importance of slums Cons: A clearer spatial analysis would help provide insight into populations and urban density of slums

(continued)

Table 5.1 (continued)

Article title and authors and journal	Research focus/questions	Area of study and scale of analysis	Methodology applied	Pros and cons of the analysis
Vaid et al. (2007). Infant Mortality in an Urban Slum Indian Journal of Pediatrics	Explains infant mortality in India's Urban slums from 1995 to 2003	Vellore, India	Used birth history, immunisation records and infant mortality datasets of infants to determine infant deaths in this area of India	Pros: good record of general infant mortality in Vellore Cons: Would be beneficial to add factors contributing to a higher mortality rate of boys in Vellore
Ezah et al. (2017). The history, geography and sociology of slums and the health problems of people who live in slums	Explains in 4 sections the issues and health problems concerning slum dwellers	India	Used past studies and DHS, UHS and NCSS data to describe the health problems within slums	Pros: Gives good overview and analysis of slum health Cons: The use of GIS could help visualise the health issues and what could potentially be causing clusters of health problems
Gaikwad and Nellis (2020) Do Politicians Discriminate Against Internal Migrants? Evidence from Nationwide Field Experiments in India	Identified political inequalities that slum dwellers face, particularly internal migrants, from politicians	India	Compiled lists of sitting municipal counsellors in 28 cities and produced letters to these counsellors claiming to be citizens of internal migrant status to get a response on the following issues: religion, migrant status, gender, problem type, political party and skill profiles	Pro: good research and analysis of the problems that internal migrants face Cons: no insight on internal migrants who are part of the LGBTQ community

(continued)

Table 5.1 (continued)

Article title and authors and journal	Research focus/questions	Area of study and scale of analysis	Methodology applied	Pros and cons of the analysis
Baud et al. (2008). Mapping Urban Poverty for Local Governance in an Indian Mega-City: The Case of Delhi Urban Studies	Maps urban poverty, using 'livelihoods assets framework' to describe multiple deprivations, examining the implications for area and sector targeting by policymakers	Delhi	GIS datasets and census datasets	Pro: the use of GIS gives a good spatial analysis of urban poverty in Delhi Con: Would be useful to include smaller slums to draw comparisons
Bardhan et al. (2015) Mumbai slums since independence: Evaluating policy outcomes Habitat International	Describes the informal economy and policies affecting slums following the independence of India	Mumbai	Census data	Pro: Gives good analysis on major policies impacting Mumbai Cons: Would be beneficial to have better spatial analysis of Mumbai past and present to show how policy has impacted populations; Would be beneficial to have background info on how colonisation of India impacts the informal economy today
Sarkar and Mishra (2020). Circular labour migration from rural India: A study of out-migration of male labour from West Bengal. Journal of Asian and African Studies	Describes how circular migration impacts India's economy as well as economic and social impacts on populations in the informal sector	Districts within West Bengal	Census data and interviews	Pros: Analyses migrations patterns in the informal economy well Cons: More emphasis on female migrants would add a better even gender perspective to migration. Spatial analysis would contribute as well

(continued)

Table 5.1 (continued)

Article title and authors and journal	Research focus/questions	Area of study and scale of analysis	Methodology applied	Pros and cons of the analysis
Bandyopadhyay and Agrawal (1981) Slums in India: From Past to Present International Refereed Journal of Engineering and Science	Describes how India's slums are impacted by their past and how that past is prevalent today	India	Census data	Pros: Gives good description of urbanisation of India Cons: Does not provide any contributing factors from India's past (pre-1947)
Echanove and Srivastava (2016) This is not a slum: What the world can learn from Dharavi World Policy Journal	Gives a description of slum life in Mumbai	Mumbai	Secondary sources	Pros: Gives great description of issues in Mumbai as well as positives Cons: adding spatial analysis by income level in Dharavi to point out where the poorest populations are
Chimankar (2016) Urbanization and Condition of Urban slums in India Indonesian Journal of Geography	Describes the conditions and why slums are prevalent	India	Census data	Pros: Gives great insight into slum conditions Cons: Spatial analysis of slum clusters for all of India would be beneficial for further study
Kumar and Mishra (2008). Trade Liberalization and Wage Inequality: Evidence from India. Review of Development Economics	Analyses the liberalisation of trade and its impact on wages	India	Micro-labour market data and data on tariff and non-tariff barriers from the National Sample Survey	Pros: Gives great insight to the liberalisation of trade and its impact on wages Cons: Could benefit from spatial analysis to show the distribution of wage and show what communities are being negatively impacted throughout India

Vaid and Evans (2017) and Vaid et al. (2007) analyse the level of infant mortality rates and health status of slum dwellers in Vellore, India. Here too, a spatial insight could be beneficial in illustrating the clusters of high infant mortality and their gender disparity. These could be useful for policymakers in improving their health conditions by targeting fuller vaccination coverage in the slum community.

Bardhan et al. (2015) discuss informal economy and policies affecting slums since the independence of India. This research could have benefited from a spatial approach by likening the impact of British colonialism in Mumbai's slums and how the slum-living and informal economy are tied to each other. Sarkar and Mishra (2020) describe how circular migration in India impacts the economy as well as the social and economic experiences of the labour engaged in the informal sector. In particular, this research could benefit by focused emphasis on female migrants whose contributions to a variety of informal labour often get masked due to lack of measurement tools. Spatial analysis could help assess volume of circular migrants, which would eventually help initiate and implement targeted policies in the rural and underdeveloped parts of the country.

India's Past–Present Linkage, Economic Wellbeing and Discrimination

Bandyopadhyay and Agrawal (1981)'s research on how India's contemporary slums are impacted by their past histories provides a good understanding of India's urbanisation processes. However, not much is known about their pre-1947 (before independence) histories, especially from a geographic lens—an area that needs academic intervention. In contrast, Echanove and Srivastava (2016)'s analysis of slum life and earnings in Mumbai and Chimankar (2016)'s analysis of conditions of slums and their prevalence in South India provide a decent understanding of their contemporary status. Both studies could benefit from a spatial approach as these steps help with targeted intervention.

Gaikwad and Nellis (2020) identify political discrimination faced by slum dwellers. However, there is no insight into the inequalities faced by other marginalised communities, such as the LGBTQ+ and other migrants and minorities. Given the new civil acceptance laws concerning the LGBTQ+ communities in India, we believe these must have started making changes to the economic and cultural landscapes in poorer urban settlements where they used to live. These could comprise innovative lines of academic spatial inquiry. Finally, Kumar and Mishra (2007)'s focus on trade liberalisation and its concomitant impacts on wage inequality in India provides a good understanding of the economic relationships. However, every space has distinct characteristics in terms of migrants and their human capital preparation. These could be addressed at much deeper levels through spatial and detailed econometric approaches.

Conclusions

An analysis of issues pertaining to contemporary urban India comprises an underrepresented line of research, especially within American and western academia, and this chapter hopes to fill in this void to some extent. The most imperative pathway for future research includes empirical study of migrants and citizens of slums, particularly those focused on the human and spatial dimensions of migrants' lives and their livability. We also found that GIS/Spatial-based analysis of various issues such as female migrants, slum dwellers' health and the role of British colonialism in the prevalence of slums and contemporary informal economy is the apparent pathways for pursuing future geographic research. Studying slum population, health and migration through a geographic lens would be beneficial to the slum dwellers and slum economy. A study of female migration in India would shed light on gendered perspectives of migration. Much of the current research heavily leans toward analysing male migrants, which is largely true in the context of Indian migration system where women are left behind in their villages to care for the elderly. However, how does their life get impacted due to partial and seasonal abandonment from the out-migration of males is an area worth studying.

The numbers and size of slums have continued to grow in India, especially since the 1990s, as economic liberalisation has impacted its economic structure. People continue to migrate to India's urban centres because of underdeveloped rural India and the false economic premises and perceptions of globalisation-induced urban economy, which has dramatically reshaped the informal sector in urban India (Gupta and Mitra 2002). Most of the reviewed scholarly work here were largely housed in the programs of urban studies, sociology, economics and political science. We believe geographers can contribute towards the *spatiality* of slums while likening them with their impacts on people and communities. This is more important due to the enormous physical, human, cultural and economic diversity of India's 1.4 billion people. Out of a global count of 1 billion slum dwellers, India's slum population makes up for a significant share of the global total. Given the significant role of rising India in today's global political economic order, it is far more important now than ever that a timely and focused spatialised assessment be conducted on India's slums and their quality of life. This will help policymakers with spatialised interventions which will, hopefully, provide the slum dwellers with a ray of hope towards achieving their middle-class dream.

Significance and Policy Implications

We also believe past imperialism has facilitated the creation of urban-centric economic policies in India, and colonialism had a role in shaping its cities and villages in contemporary times. Thus, a historical geographic perspective on the role of Islamic imperialism and the British colonialism in creation of urban villages and

slums and their current livability and socio-economic polarisation, especially given the significance of informal economy in urban economy in India, would add another dimension to academic research. Most of the published research so far has focused on post-1947 India, and not much is known about India's pre-independence urban villages. These topics are under-researched, especially from a geographic perspective, and some insights on those could be useful in rewriting pro-rural economic and socio-spatial just policies.

The economic conditions of Indian slum dwellers hold special significance, given the role of informal economy in India's total GDP. Slums are spaces of specialised and spatialised economic ecosystems, with real lives and real communities. These need appropriate economic interventions. Given the urban-centric economic biases that aggravate rural–urban migration, it is critically important to conduct a timely analysis of rural India's economy and how the under-development and wage inequalities among rural villages and small towns impact the current levels of uncontrolled out-migration. This must include special focus on female migrants, since the perspectives of female migrants and women's contributions to India's informal economy have remained largely ignored in academic work.

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