Chapter 8 Socio-spatial Segregation and Exclusion in Mumbai



Abdul Shaban and Zinat Aboli

Abstract Indian society is characterised by significant horizontal (religious, regional, linguistic) and vertical (income, occupation, caste) divisions. These socioeconomic fragmentations significantly shape the production of space in cities. In fact, all major cities in the country are pervaded by socio-spatial divides, which often become sources of conflict, violence, exclusion and, also, solidarity. Mumbai is the industrial, commercial and financial capital of the country. Bollywood has, over the years, helped in carving out a distinct (pan) Indian identity for itself and the city, both within and outside India, and is a major rallying and unifying aspect for India. Among all its glitter, the city is also infamous for its underworld (originating from its excluded and marginalised neighbourhoods), slums and poor residential areas. The city is pervaded by socio-spatial fragmentation and is a divided city. This chapter shows that the highest level of segregation in Mumbai is based on religion (Muslims and Non-Muslims), followed by class, caste and tribe.

Keywords Socio-spatial segregation \cdot Real estate prices \cdot Slums \cdot Communal violence \cdot Marginalisation

8.1 Introduction

India is socio-culturally a very diverse country. Historically, it has been home to all the major races, castes, languages and religions. Hundreds of minor groups have also existed side by side. Indian civilisation has evolved through the processes of immigration, assimilation and adaptation. Although large-scale inter-group wars and

A. Shaban (⊠)

School of Development Studies, Tata Institute of Social Sciences, Deonar 400088, Mumbai, India e-mail: shaban@tiss.edu

Z. Aboli

Department of Mass Media, Mithibai College, Vile Parle (West), 400056 Mumbai, India e-mail: zinataboli@gmail.com

violence have been absent in Indian history, as experienced by European civilisation, the processes of devalourisation, de-assimilation, discrimination and peaceful hostility against marginalised and minorities have existed in one form or another.

About 80% of the Indian population follows Hinduism. Caste, especially in Hinduism, has been one of the major defining social features, based on the conception of purity and pollution, endogamy and commensality. Hindus are divided into four *varnas*¹ (major caste groups) where the lowest caste group is *Shudras* (the untouchables), now termed as Scheduled Castes² (SCs). The *Shudras*, historically, have faced socio-spatial exclusion. Another defining feature of Indian society is the division based on tribes. Tribal groups in India belong to different ethnic groups and are often treated as outcaste population. Although the Government of India has made several provisions and anti-discrimination laws, socio-spatial exclusion, discrimination and segregation continue to be practised both in urban and rural areas. These socio-spatial practices largely shape the morphologies of Indian villages and cities.

The early twentieth century saw the emergence of religion-based politics in India. Hinduism became a major rallying point for certain political parties [Jana Sangh, now Bhartiya Janata Party (BJP) and cultural groups like Rashtriya Swayamsevak Sangh (RSS)]. Muslims, as a religious minority group, have been under constant threat from hostility, violence and discrimination by right-wing Hindus. Thousands of lives from both communities have been lost in these hostilities. The open and tacit discrimination against Muslims in the housing market, jobs and education have also existed since then. Succumbing to the Hindu right-wing groups, the State has not been able to bring any separate provisions to deal with the violence and discrimination against Muslims [as has been done in the case of SC and Scheduled Tribes (STs)³]. As a result, today, a very polarised communal (religious) concentration exists in Indian cities.

These socially discriminatory practices have also shaped the morphology and distribution of populations in Indian cities. All the major cities in the country, including Mumbai, are pervaded by socio-spatial divides, which in turn become sources of conflict, violence, exclusion and, also, of solidarity. Mumbai is the industrial, commercial and financial capital of the country. Among all its glitter, the city is also infamous for its underworld (originating from its excluded and marginalised social groups and neighbourhoods), slums and poor residential areas. The city is pervaded by socio-spatial fragmentation and the divides run deep along religious, class and caste lines. We do not have city-level data for income inequalities, but the World Bank (2020) estimates show that income inequalities at the country level in

¹There are four *varnas* among Hindus, namely *Brahmins* (priestly castes), *Kshatriyas* (warrior castes), *Vaishyas* (cultivators and merchant castes) the *Shudras* (the lowest castes in the hierarchy, the untouchables).

²Scheduled Caste is an officially designated group of historically disadvantaged people in India. The British in India created a list of castes belonging to *Shudra* group which was adopted in 1935 under the Government of India Act (see Dushkin 1967: 626).

³Scheduled Tribes are the tribal groups of India scheduled under the Government of India Constitutional Order of 1950 or the Act as amended thereafter (Government of India 1950).

India measured through the Gini index have risen from 32.1 in 1982, to 34.4 in 2004 and 35.7 in 2011.

The present paper attempts to examine exclusionary development and socio-spatial divides in Mumbai on class (population with formal housing versus those living in informal neighbourhoods, called slums), religion (between Non-Muslims and Muslims), castes (non-SCs and SCs) and tribes (non-STs and STs) bases. The paper is divided into six sections. Section 8.2 outlines the data and methods used to examine the socio-spatial segregations. Section 8.3 deals with real estate prices and slums in Mumbai. Section 8.4 examines the religious conflicts and segregation of Muslims in the city. Section 8.5 discusses the spatial concentrations and exclusions of SCs and STs. The last section concludes the paper.

8.2 Data and Methods

Mumbai city (Greater Mumbai) has seen a steady increase in population over the years. The population of the city has risen from 0.9 million in 1901 to 12.4 million in 2011. The population density of the city is currently about 28,472 persons/sq. km. This population growth has been fuelled by migration from different states of the country including from within Maharashtra state (in which Mumbai is located). The city is home to all major religious communities in the world. Muslims constituted 20.7% of the total population of Mumbai city in 2011 and formed the largest religious minority group (Census of India 2011). The share of Hindus in the same year was 66%. Other religious groups like Buddhists (4.9%), Jains (4.1%), Christians (3.3%), and Sikhs (0.5%) individually constituted less than 5% each of the total population of the city.

For this study, data has been collected from various sources to examine placebased segregation and interaction between dominant and marginalised ethnic groups in Mumbai city. The decennial population census of India is a major source for data on religion, caste and tribes. It provides data at ward and sub-ward (section) levels for SC and ST populations for cities. There are 88 sections in Mumbai and they have an average population of around 141,000. Data on the religious groups are available only at city and district levels, which are meso units. Therefore, an attempt was made to find out the data from alternative sources. The Election Commission of India provides the eligible voter's name. An attempt was made to sort the names of Muslims from the voter lists of 2018 [(as has been done by Susewind (2017) for 11 cities of India)]. The adults over 18 years old are registered in these voter lists. The distinctly 'Muslim sounding' names were sorted out from the lists. However, there remains a possibility of errors of 5–10% due to non-recognisable names and non-registration of Muslims in voter lists (see Shariff and Shaifullah 2018 on Muslim missing voters). There are in total 36 assembly constituencies in Mumbai and Mumbai Suburban districts. Together these districts are known as Greater Mumbai or Mumbai City (see Fig. 8.1). The data was compiled for 7289 polling booths (with an average number of voters about 930, and a population of about 1250, respectively, per booth)

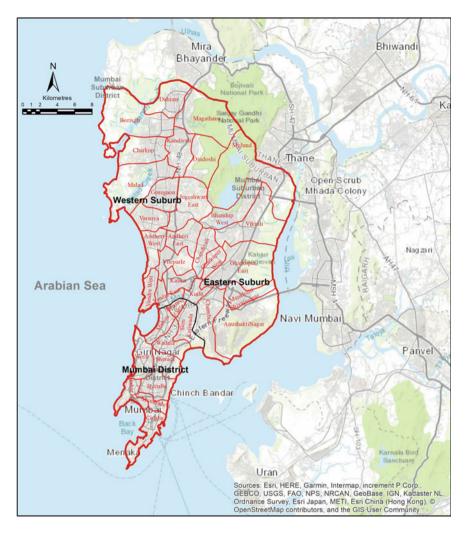


Fig. 8.1 Assembly Constituencies in Mumbai and General Geographical Context, 2018. (*Source* Authors). *Note* The base map used from Esri's ArcGIS online, while the Assembly Constituencies are drawn by the authors

under 27 assembly constituencies. Data for 9 constituencies could not be gathered, namely Borivali, Dahisar, Magathane, Kandivali, Charkop, Mankhurd Shivaji Nagar, Anushakti Nagar, Vandre West and Wadala. The total registered voters in these constituencies (leaving out nine constituencies) were 5,503,051 and the total number of Muslim voters were 1,271,655, that is 23.1%. As per the Census of India (2011), Muslims comprised about 21% of the total population of Mumbai City.

Index of Dissimilarity (D), Entropy Index (h) and Interaction or Exposure Index (B) have been computed to examine the spatial segregation and interaction of the

above-mentioned ethnic groups. For discussion on D, h and B indices, see also Chap. 1 of this book.

The data for slums by census tracts or sections are available only for the year 2001. The 2011 Census provides data for slum population only at the city level. Therefore, only the 2001 Census data, for its 88 sections are used for understanding the distribution and concentration of slum populations in the city. The data on real estate (residential/flat) prices are taken from supplements published by the popular broadsheet daily, *The Times of India* and adjusted to property tax wards.

8.3 Real Estate and Increase of Slums in the City

Residentially, Mumbai is a divided city. On the one hand, there are upper and middleclass high rises and colonies, on the other, there are vast areas of slums inhabited by lower and underclasses. The high rises and middle- and upper class colonies are also interspersed by slums. It is a city where thousands also live on the pavement in rudimentary structures, which may have not be classified as slums by the Census of India. In fact, an increasing population, a lack of land supply, and lackadaisical government policy response have created considerable housing and shelter issues in the city. The prices of the houses in the city have grown enormously over the years and have gone beyond the reach of the lower class population. The ratio between the index number of the income of factory workers (this index is used for the working class related inflation and as most of the population in the city are workers, it is the most appropriate index) in Maharashtra and the price of residential flats in Mumbai provides further insight into this issue (Table 8.1). The ratio has considerably risen over the years. Notwithstanding the rise in income of factory workers, the comparatively higher rise in real estate prices have dashed the hopes of lower classes to own a house. Between 2003 and 2012, the price of real estate in the city increased by 3.5 times relative to the wages of the factory workers. Only in the Eastern Suburb of the city, the increase in real estate prices was slightly lower, while the highest increase was in Mumbai District. During 2003-2012, the average flat prices in Mumbai District [from INR 6,872 (US \$147.5) to INR 36,056 (US \$773.7)], and Western Suburb [from INR 3,726 (US \$80.0) to INR 18,211 (US \$390.8)] have risen more than five

⁴Census of India (2011: 4) defines a slum as residential areas where dwellings are unfit for human habitation by reasons of dilapidation, overcrowding, faulty arrangements and design of such buildings, narrowness or faulty arrangement of street, lack of ventilation, light or sanitation facilities or any combination of these factors which are detrimental to the safety and health. Three types of slums have been identified for the purpose of Census. There are: (i) notified slums (All notified areas in a town or city notified as 'slum' by State, UT Administration or Local Government under any Act including a 'Slum Act'), (ii) recognised slums (All areas recognised as 'Slum' by State, UT Administration or Local Government, Housing and Slum Boards, which may have not been formally notified as slum under any act) and (iii) identified slums (A compact area of at least 300 population or about 60–70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities).

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Wages/Prices/Index		2003	2012
Average annual wages of factory workers*	Per annum (Indian Rupees, Rs. or INR)	71,778	103,000
	Index no. of wages	100	143.5
Average price of flats in Greater Mumbai (INR)#	Per sqft (INR)	3725	18,632
	Index number	100	500.2
Average price of flats in Mumbai District (INR) #	Per sqft (INR)	6872	36,056
	Index number	100	524.7
Average price of flats in Western Suburb (INR) #	Per sqft (INR)	3726	18,211
	Index number	100	488.8
Average price of flats in Eastern Suburb (INR) #	Per sqft (INR)	2269	10,736
	Index number	100	473.2
Flat price index–wage index ratio (2003 and 2010)	Greater Mumbai	_	3.5
	Mumbai District	_	3.7
	Western Suburb	_	3.4
	Eastern Suburb	_	3.3

Source *Government of Maharashtra 2005, 2012. # Times of India (2003, 2012)

times, while the same has been comparatively lower in the Eastern Suburb [from INR 2,269 (US \$48.7) to INR 10,736(US \$230.4)] of the city. While for the city as a whole, the average flat prices rose from INR 3,725 (US \$79.9) in 2003 to INR 18,623 (US \$399.8) in 2012 (*Times of India* 2003, 2012). Mumbai District and Western Suburbs house a majority of the upper and middle classes of the city, while the Eastern Suburb traditionally has housed lower class workers. However, of late, the class character of the Eastern Suburb has also changed drastically and a number of upper and middle-class colonies have emerged. This change started since the liberalisation of the economy in 1991, which allowed more inflow of capital in the built environment of the city. Since then, a relatively higher growth rate of the economy had led to the rise of per capita income and hence rise of the demand for better housing. Further, the development of road infrastructure like Vashi–Mankhurd bridge, Eastern Freeway, Chembur–Wadala sky-bus, etc., added to this process of gentrification.

Figure 8.2 shows that the growth rate in real estate prices in the city has been significantly higher in almost all the property tax wards. The prices between 1993 and 2012 have increased by more than 12% per annum and this increase has been as high as 28.6% in some wards. In some areas of South Mumbai (in Mumbai district) and Bandra, also known as Vandre (in Western Suburb), the residential flat prices were as high as 71,000 per sq. ft. in 2012.

Overall, the above discussion shows that the workers' wages are not keeping pace with the rise in real estate prices. A large proportion of the population of the city, specifically slum dwellers and those working at the lower spectrum of the informal

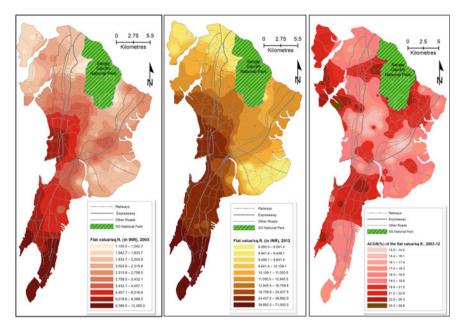


Fig. 8.2 The growth of prices of residential flats by property tax ward, 2003 and 2012. *Note* INR = Indian Rupees; ACGR = Annual compound growth rate (%); The data related to residential/flat prices available from *The Times of India* have been adjusted to property tax wards. *Source* Based on data from *The Times of India* (2003, 2012)

sector, cannot afford housing in Mumbai. For slum dwellers, average family earnings remain at only Rs 5,000 per month (at 2007–2008 prices) and many of them somehow subsist on this (Jain and Shaban 2009; Sujata and Shaban 2008; Sharma et al. 2008; Shaban 2010). This forces them to squat on public land and trade their goods through hawking and vending. Given this situation, the housing market in Mumbai, in fact, denies any access to formal housing to a large majority of its citizens (Sharma 2007: 291).

The rise of real estate prices in Mumbai has, among others, been determined by its large population living in small houses or in slums. With liberalisation and the opening of the service sector (especially the Financial and Information Technology sectors), there has been a significant increase in the share of middle-class citizens who desire better housing. The share of the middle class in urban areas in India has risen from 54.7 to 72.4% during 1999–2000 to 2011–2012 (Krishnan and Hatekar 2017). The limited land supply in the island city (Greater Mumbai) and lack of effective integration with its periphery has added to the significant rise of real-estate prices in the city (Migozzi et al. 2018).

The archaic Rent Control Act 1974 (amended several times) has also resulted in rapid obsolescence of buildings in Mumbai city. Most of the buildings constructed in the 1940s and 1950s require repair and maintenance (Shaban 2010). It is estimated that there are about 16,502 buildings in the city built before 1940 (Janwalkar 2006)

which are in a dilapidated condition; some of them have collapsed in recent years, killing several. A judgment passed by the Supreme Court on September 4, 2008, has paved the way for the redevelopment of these buildings by providing an extra Floor Space Index (FSI)⁵ to the builders. They now can profitably build the structures and make a 225 sq. ft. flat available to every resident family of the buildings, free of cost (Mahapatra 2008). The decision by the court ushers hopes for the redevelopment of dilapidated buildings in south and central Mumbai (in Mumbai District).

The government's inadequate response and skewed policies are responsible for the housing crisis in the city. Mumbai was expecting a massive respite from congestion due to the availability of about one-third of some 600 acres of land from 60 textile mills for open space. Mumbai has an open space ratio of about only 0.03 acres per 1000 persons. Recommended open space at the international level is often 4 acres per 1000 persons. The availability of mill land was expected to somewhat correct this. However, much of the land went to builders and only 133 acres have been provided for open spaces and public housing (Katakam 2006).

The controversy over the sale of mill land dates back to 1991 when the government, in response to appease mill owners, introduced Sect. 58 in the DCR. Better known as the 'one-third formula', DCR 58 allowed mill owners to divide the area into three parts. They could then sell one-third, give the second part to Greater Mumbai Municipal Corporation to create open spaces and the other third to the Maharashtra Housing and Area Development Authority to provide affordable housing to the families of mill workers who lost their livelihoods with the closure of the mills. In 2001, however, the state government used a loophole in the Maharashtra Regional and Town Planning Act, 1966, and amended DCR 58–DCR 53 (I), according to which the only land that is vacant—that is, with no built-up structure—shall be divided under the one-third formula. Thus, the mill owners managed to keep the bulk of the land and the area to be given to the municipal corporation and to the workers was substantially reduced (Katakam 2005, 2006).

The political bargaining and competition within the city have assured some housing schemes for the poor in an otherwise neoliberal regime. In the 1990s, popular city leader Bal Thackeray initiated the Slum Rehabilitation Scheme (SRA). SRA attempted to provide houses for slum dwellers through cross-subsidy. The transfer of development rights was granted to the builders who came forward to develop slums and provide flats of 225 sq. ft., free of cost to the dwellers. The scheme has been hugely successful as poorer sections of the population have been able to acquire constructed homes free of cost in place of their hutments. This has also resulted in the decline of the slum population, as is evident from the data of the 2001 and 2011 Indian censuses, mentioned below.

In sum, the lack of adequate provisions for affordable formal housing has created a huge number of slums in Mumbai. High real estate prices, government apathy and lower wages have undermined the city's development. This has resulted in amassing of the lower class population in slums. In fact, in 2001 and 2011, 54.0% and 41.1%,

⁵Floor Space Index (FSI) is the ratio of built or constructed area and actual land area. For instance, if a land is 100 sq. ft. and construction on the same land is of 300 sq. ft. area, FSI is 3.

respectively, of Mumbai's population was living in slums (Census of India 2014a, b). In 2011, 15.85% of Mumbai district (489,068 of total population of 3,085,411) and 49.38% in Mumbai suburban district (4,620,654 of total population of 9,356,962) lived in slums (Census of India 2014a, b). One of the reasons for this has been the success of the SRA. However, many claim that the Census of India undercounts the slum population and does not reflect the actual situation in the city. Going by this claim, the proportion of population living in slums in Mumbai is estimated to be about 60% of the total population (Shaban 2008).

The lack of development of social and physical infrastructure, poverty, large size families and a dense population do increase the probability of social deviance. It is found that slum areas of the city are also prone to a higher crime rate (Shaban 2010). A large family with limited resources often results in family disruption and decreasing formal and informal social controls. Communities with a higher level of social disruption tend to be characterised by a lower rate of participation in voluntary organisations and local efforts, which have an important role to play in controlling crime. Overcrowding in houses means that personal matters are difficult to keep private in domestic life (Shaban 2010).

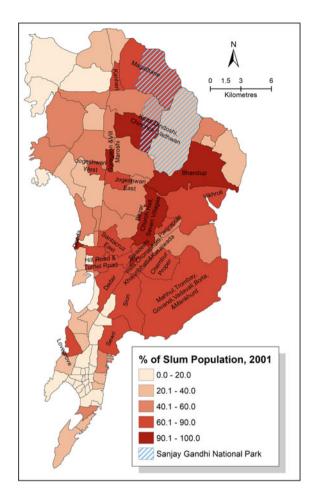
The slum population is not evenly distributed in the city. The highest concentration of the slum population is found in the Eastern Suburb, which is the least developed part of the city (Shaban 2010). As shown in Fig. 8.3, Mankhurd, Trombay, Govandi, Deonar, Vikhroli, Bhandup, Bazar Church-Hall and Chembur, have a large share of their total population living in slums.

The computed Dissimilarity Index (*D*) between non-slum and slum population for the year 2001 in Mumbai city is 0.460, which shows high levels of spatial segregation between non-slum and slum population (Table 8.2) (Jahn et al 1947). Further, the computed value of Interaction or Isolation Index (*B*) for slum and non-slum populations for the year 2001 is 0.321, showing that the probability of a slum dweller interacting with a non-slum dweller is about 32.1%.

8.4 Inter-religious Conflicts and the Segregation of Muslims

Hindu–Muslim rivalry in India arose during the colonial period in the latter half of the nineteenth century. It gave rise to religious nationalism and an ethno-nationalist philosophy, which resulted in the division of India in 1947 into India and Pakistan. After independence, the Hindu right-wing with their political formations have attempted to communalise Indian democracy. This has resulted in the marginalisation of Muslims. As Sen (2013) writes "India's Muslims are ... victims of untold indignities in a country still fighting the ghosts of a blood-soaked partition in 1947 that turned vast swathes of it into Muslim-majority Pakistan. The baggage of history and the cynical calculus of caste, class, community and religion still dictate the fate of most things in India: from who wins elections and wields power to who has a better chance of getting jobs, healthcare or justice" (p. 127). The religious politics of the

Fig. 8.3 Distribution of slum population in Mumbai by sections, 2001. [Source Based on data from Census of India (2001)]



Hindu right-wing has resulted in religious violence (communal riots), discrimination against and the stigmatisation of Muslims. This has further led to the geographic concentration of Muslims in urban centres, both as a result of discrimination (in the housing market) and violence. The Sachar Committee Report (2006) contends that "fearing for their security, Muslims are increasingly resorting to living in ghettos across the country" (p. 14). Other studies have also pointed out the spatial and social segregation of Muslims in urban centres is mainly because of state's apathy and negligence towards Muslims, recurrence of communal violence and perception of security concerns by Muslims themselves (Gayer and Jaffrelot 2012; Thorat et al. 2015; Shaban and Khan 2013). Contractor (2012), in her study on Shivaji Nagar in Mumbai, argues that ghettoisation increases with new communal riots.

As mentioned above, the cityscape of Mumbai is fractured on class, caste and religion. In terms of religion, the city is largely polarised in Hindu and Muslim areas. The Muslim concentrated areas have been shaped and reinforced by frequent

Indices	Groups	1991	2001	2011	2018
Dissimilarity index (D)	Non-SC/SC populations	0.241	0.242	0.231	_
	Non-ST/ST populations	0.291	0.253	0.191	_
	Non-slum/Slum populations	-	0.460		_
	Non-Muslims/Muslims populations	_	_	_	0.609
Entropy (h) index	Non-SC & Non-ST/SC/ST populations	0.271	0.220	0.270	_
Interaction or exposure Index	Non-SC/SC populations	0.913	0.932	0.914	_
(B)	Non-ST/ST populations	0.974	0.986	0.986	_
	Non-slum/Slum populations	_	0.321	_	_
	Muslims/Non-Muslims populations	_	-	_	0.486

Table 8.2 The dissimilarity, entropy and interaction indices

Source Computed using data from Census of India (1991, 2001, 2011) and Government of Maharashtra (2018)

communal riots and discriminations against Muslims in the formal and informal housing markets. Dongri, Pydhonie, Nagpada, Byculla, Mazgaon, Mahim in Mumbai city district, Bharat Nagar, Millat Nagar, Behrampada and Jogeshwari in Western Suburb, and Kurla, Sonapur–Bhandup, Govandi, Cheeta Camp and Kidwai Nagar (Wadala East) in Eastern Suburb are examples of areas where there is a high concentration of Muslim populations. Between 1927 and 2008, a total of 84 Hindu–Muslim riots have been recorded in the city. In these riots, about 1870 persons have been killed, 8463 injured and millions of rupees in property has been destroyed. The incidence of riots between the two religious communities was very high prior to Independence. The decade of the 1950s was a relatively peaceful period. But the city again experienced a higher incidence of riots during 1970–75, 1984–87, 1991–93 (see Wilkinson 2005; Punwani 2018; Shaban 2008; 2016; 2018).

The computed values of Dissimilarity Index (D) of 0.61 for the year 2018 show that spatial segregation among Muslims and non-Muslims is very high in the city (Table 8.2). This indicates that 61% of the Muslim population need to move to other polling booths in order to create a uniform distribution of Muslim and Non-Muslim populations in all the polling booths of the city. Further, the interaction index (B) computed for non-Muslims and Muslims is 0.486, showing that the probability of a non-Muslim interacting with a Muslim is about 48.6%. This shows higher segregations, as Muslims will meet more Muslims rather than non-Muslims.

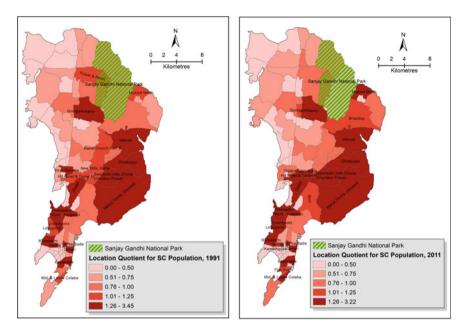


Fig. 8.4 Location quotient for Scheduled Castes (SC) population in Mumbai, 1991 and 2011. [*Source* Based on data from the Census of India (1991, 2011)]

8.5 Segregation of Scheduled Castes and Scheduled Tribes

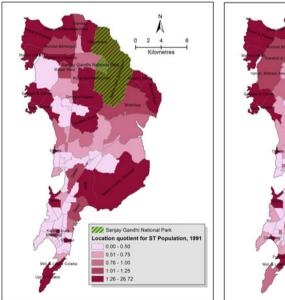
Mumbai is also polarised on caste and tribe lines, though relatively less in degree, as compared to religion. The SC population though clustered, is relatively more spread out or ubiquitous in the city than Muslim populations (Shaban 2012). The areas inhabited by the SCs often act as a buffer between the areas dominated by Muslims and higher caste Hindus. In other words, the SC population often acts as a shock absorber between higher caste Hindus and Muslims. The major area of concentration of SCs is in the Eastern Suburb, where their share in the total population ranges from 5 to 15%. The location quotient for SCs in most of the sections of the Eastern Suburbs are higher than 1 in both the years 1991 and 2011, showing that these sections have higher share of SC population than the share of SC population at the city level (Fig. 8.4). Besides the Eastern Suburbs, the major areas of concentration of SCs are Dharavi, Agripada-Byculla and Mulund. In central Mumbai, SCs are generally concentrated in 33 labour⁶ camps and Bombay Development Directorate (BDD) chawls (a cluster and basic housing scheme with community toilet, water supply and little open spaces by the Municipal Corporation of Mumbai for textile workers started in the mid-twentieth century). The concentration of the SCs has

⁶Labour camps were built by the Government of Maharashtra in the first half of the twentieth century to tackle housing for migrant workers from the interiors of Maharashtra who were employed in textile mills in the city and/or railways. They still mainly house the poorer section of the society or SCs.

increased in the Eastern Suburb, between 1991 and 2001, because of the growth of slums (see the location quotient distribution in Fig. 8.4).

Given the legal provisions and affirmative actions deployed by the State, the open discrimination against SCs and STs is becoming rare. However, the social divides resulting in spatial segregation does show up in residential differentiations. SCs mainly worked in textile mills in central Mumbai, while STs are relatively more concentrated in the northern part of the city. A comparison between the location quotient of 1991 and 2011 reveals that the relative share of ST population has declined in the southern part of the city and increased in the northern part. This is mainly because of exclusionary urban development in the southern and central parts of the city. However, the northern part of the city, i.e. the area around Sanjay Gandhi National Park and mangrove forests around the coast provide them with a livelihood (like fishing) and also offer them opportunities to build their rudimentary houses on relatively cheaper and development-free lands. This explains the location quotients for ST population being higher in the northern part of the city (Fig. 8.5).

Our computation shows that the Dissimilarity (D) Index for SCs with respect to non-SC population in the city has largely been stable between 1991 and 2011 (Table 8.2) but substantially lower than Muslim-Non-Muslim Dissimilarity Index value. The index shows that about 24% of the SC population need to move in order to achieve a uniform distribution of population by caste (SC and non-SC) in the city. The D values for SCs are lower compared to D for the religions. The reasons are (i)



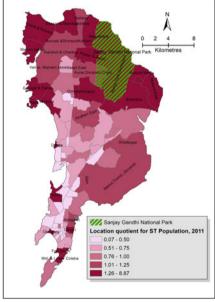


Fig. 8.5 Location quotient for Scheduled Tribes (ST) population in Mumbai, 1991, 2011. [*Source* Based on data from the Census of India (1991, 2011)]

religion-based discriminations are stronger in the city, (ii) as opposed to Muslims who can be easily recognised by their Arabic, Turkish or other Central Asian origin names and surnames, and also by his/her religious practices, one cannot easily find out a person's caste and tribe by name, and, therefore, it is easier for lower castes and tribal groups to find houses in other Hindu areas and mix with other Hindu castes, (iii) caste- and tribe-based discrimination is punishable through a special Government of India Act, called 'The Scheduled Castes and The Scheduled Tribes (Prevention of Atrocities) Act, 1989' (Government of India 1989) and there are no such special provisions and rules against discriminations based on religion. In fact, the D for STs has declined over the years, which indicates that a relatively uniform distribution of SCs is emerging in the city. The interaction or exposure (B) index for both the SCs and STs have been significantly higher in comparison to Muslims. During the period between 1991 and 2011, it has ranged between 0.913 and 0.932 for SCs and 0.974 and 0.986 for the STs. The index shows that SCs and STs have a significantly higher probability of interaction with other groups (non-SCs and non-STs, respectively) than Muslims. Thus, the study shows that the major social and spatial segregation in the city exist on the basis of religion (Muslims and non-Muslims) rather than caste and tribes, though they do have their own residential segregations.

As *h*-index is based on the summation of individual geographic unit score; the higher the individual units or section's score, the greater the diversity in the section. Therefore, we have mapped the scores of individual geographic units. On average, the *h*-index for SCs and STs are higher in the Eastern Suburb and northern part of the city than those in the Western Suburb and Mumbai district (Fig. 8.6). This shows that ethnically the Eastern Suburb and northern part of Mumbai are more diverse than western and southern parts of the city. Given the economically marginalised nature of SC and ST communities, cheaper real estate and large-scale slums (informal settlements) allow them to inhabit in large numbers Eastern Suburb and northern part of the city, and this creates greater diversity in these parts of the city. Figure 8.4 shows that the concentration of SCs has significantly increased between 1991 and 2001 in Chuna Bhatti, Ghatkopar and Vikhroli.

8.6 Conclusions

Mumbai, the commercial and financial capital of India, is also a divided city. The divide runs deep along religious, class and caste lines. The housing market of the city and government apathy to inclusive development has led to the emergence of a large number of informal settlements or slums, where millions of people are forced to survive in substandard living environments without adequate social and physical infrastructure (such as better transport facilities, educational institutions, health care, access to water supply, sanitation, etc.). The fast-rising real estate prices and relatively lower increase in wages make it impossible for millions of people in the city to have any formal housing.

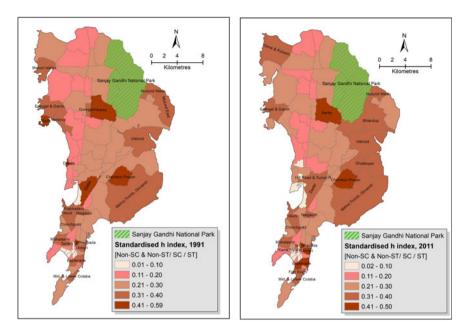


Fig. 8.6 Entropy index (*h*) for the Non-SC & Non-ST, SC and ST population groups in Mumbai, 1991, 2011. [*Source* Computed using data from Census of India (1991, 2011)]

In their study, Gupta et al (2009) find that a disproportionately large share of historically disadvantaged caste groups live in slums. Mehta (1969) in a longitudinal study also shows the highest segregation of lower caste groups and the persistence of the same phenomenon in Pune city. In a recent study on spatial segregation, based on data from the Census of India, 2011, focusing on seven major cities (Ahmedabad, Bangalore, Chennai, Delhi, Hyderabad, Kolkata and Mumbai) of India, Vithayathil and Singh (2012) show that the degree of residential segregation by caste (combined SC and ST)—is highest in Kolkata (D index = 0.364) followed by Hyderabad (0.325) and in Mumbai (0.222). It is argued that a lower segregation index for Mumbai for lower castes (SC and ST combined), in comparison to other major cities, is mainly due to the dispersal of SCs and STs in central and South Mumbai.

Mumbai is also extremely divided on a religious basis. In a large part of the city, Muslim and non-Muslim areas are highly segregated. In fact, the segregation index, on the basis of religion (Muslim and non-Muslim), is found to be higher than the slum and non-slum divide. Even the slums are divided on the basis of religion. The Hindu–Muslim divide that emerged during the early twentieth century has been a bane for the city. The recurring communal riots have taken thousands of lives and destroyed properties worth millions of rupees. The fear of riots and violence has kept Muslim populations concentrated in a few pockets of the city, and these pockets are transforming into underclass ghettos. The communal production of spaces not only

manifest various forms of injustices but actually produces and reproduces them, and thereby maintains established social relations based on domination and oppression.

To bridge these social and spatial divides, the city needs new emancipatory politics. The emancipation from suppression, domination, repression and exclusion. This emancipatory approach should be able to free and liberate those trapped and incarcerated in space, chained to a place or disabled by socially produced spaces. This politics needs to end the social devalourisation of communities and avert social exclusion and spatial segregation.

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