

# CASE STUDY RESETTLING THE CITY: DISCRIMINATORY PLANNING AND ENVIRONMENTAL DEREGULATION IN MUMBAI

Hussain Indorewala – 2018



Funded by the  
Erasmus+ Programme  
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## ABSTRACT

This Case Study aims to unravel a paradox: how does a city that aspires to be ‘slum free’ produce rehabilitation and resettlement schemes that formal definitions of a ‘slum’ ought to have rendered unacceptable? This article considers the PAP township of Mahul in the Eastern Suburbs of Mumbai, the rehabilitation site for families evicted along the Tansa water trunk mains, where the municipal corporation plans to build a new bicycle track. It argues that the shift in Mumbai’s planning from its earlier ‘restrictive-redistributive’ paradigm to its current ‘incentive-extractive’ one has led to the evolution of the city’s unique discriminatory and differentiated (de)regulatory regime. This shift has facilitated the

construction of rehabilitation blocks and townships that evoke some of the most deleterious conditions produced during the *laissez-faire* period of late nineteenth century Bombay. The article will historicize the city’s planning discourse and practice, and explain this paradox as a convergence of three recent trends: a reconceptualization of the ‘slum,’ from its earlier focus on physical conditions towards legal status and aesthetic criteria; the characterization of public intervention and regulation in housing as a constraint on market activity; and a recalibration of planning as essentially the design of monetizable ‘incentives’ and regulatory ‘relaxations’ to enable the private sector deliver development goals. ♦

“This Case Study aims to unravel a paradox: how does a city that aspires to be ‘slum free’ produce rehabilitation and resettlement schemes that formal definitions of a ‘slum’ ought to have rendered unacceptable?”

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## ABBREVIATIONS

AR	Accommodation Reservation
AFSI	Additional Floor Space Index
BCIT	Bombay City Improvement Trust (also BIT)
BDD	Bombay Development Department
BMC	Bombay Municipal Corporation (or now Brihanmumbai Municipal Corporation)
BPCL	Bharat Petroleum Corporation Limited
BUDP	Bombay Urban Development Project
CDP	City Development Plan
CR	Central Railways
DCRs	Development Control Rules
DP	Development Plan
EWS	Economically Weaker Sections
FSI / FAR	Floor Space Index / Floor Area Ratio
GoM	Government of Maharashtra
HIG	High Income Group
INR	Indian Rupees
JNNURM	Jawaharlal Nehru National Urban Livelihood Mission
LIG	Low Income Group
MbPT	Mumbai Port Trust
MCGM	Municipal Corporation of Greater Mumbai (also BMC)
MHADA	Maharashtra Housing and Area Development Authority
MIG	Middle Income Group
MMRDA	Mumbai Metropolitan Regional Development Authority (earlier BMRDA)
MSRDC	Maharashtra State Road Development Corporation Limited
NGO	Non-Governmental Organization
PIL	Public Interest Litigation
PAP	Project Affected Persons
R&R	Rehabilitation and Resettlement
SRA	Slum Rehabilitation Authority
SRD	Slum Redevelopment Scheme
SUP	Slum Upgradation Program
TDR	Transfer of Development Right
TPS	Town Planning Scheme
ULCRA	Urban Land Ceiling and Regulation Act
WB	World Bank
WR	Western Railways

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## PART 1 INTRODUCTION

*“But the city is not made for the poor; it has evolved not to reduce dependency but to take advantage of it; it is not made so as to enable the poor to improve their conditions but rather to serve the wealthy and to allow them to enjoy and increase their advantage.”<sup>1</sup>*

In 2006, a Mumbai based NGO committed to ‘good governance’ filed a Public Interest Litigation (PIL) in the Bombay High Court against ‘slum encroachments’ along 70 km of the Tansa Pipeline, Mumbai’s water mains. The issue assumed urgency following the 26/11 attacks<sup>2</sup> of 2008, with the Court expressing concern over the ‘security environment’ in the city, and the safety of the pipes that carry water for the “citizens of Mumbai.” The court also worried about public hygiene “because throughout the route of these pipes, there are hutments built unauthorisedly by people” (PIL No. 140, 2009). A four member Committee of high-level bureaucrats was set up to prepare an action plan for the “removal of hutments on and around the water trunk mains in Mumbai” (GoM, 2009). The Committee recommended rehabilitating 8,790 hutments built before January 2000 in Project Affected Person (PAP) housing<sup>3</sup>, and evicting without rehabilitation the remaining 6,193 “ineligible encroachers.”<sup>4</sup> Areas cleared on both sides of the pipeline were to be “protected using compound walls / fencing so that no new encroachments take place in the future.” It also recommended amending the city’s

Development Control Rules (DCRs) to increase the Floor Space Index (FSI) for rehabilitation schemes up to 4.0<sup>5</sup>, so that additional tenements in other locations for ‘eligible encroachers’ can be constructed.<sup>6</sup>

In late 2016 the Municipal Corporation of Greater Mumbai (MCGM) began to demolish homes along the Tansa Pipeline, acting on the orders of the High Court. Between 7,000 - 10,000 homes were pulled down in various locations (Sarkar, 2017; Subramanian, 2017). The plan was to build a 39km fenced jogging and cycling track, called “Green Wheels Along Blue Lines,” to replace the homes along pipeline – and hopefully to “improve the health of the citizens” (Singh, 2018). A few hundred evicted households found eligible for rehabilitation were forced to move 11km away in a township built for displaced slum dwellers in Mahul on the Eastern periphery of the city, almost an hour away from their place of residence. Ironically, families being moved have appealed to the High Court citing safety, health and environmental concerns – similar grounds that led to their eviction in the first place. Evictees pointed out that the township’s proximity to a state-owned petroleum refinery poses safety and health hazards, and that its remote location, poor transit connectivity and poor infrastructure make conditions unlivable.

1 Jai Sen, *The Unintended City*

2 26/11 attacks on various locations in South Mumbai by armed gunmen in 2008

3 Households displaced due to infrastructure projects are rehabilitated in tenement blocks typically constructed under the PAP housing scheme, administered by the Slum Rehabilitation Authority (SRA), or under the Rehabilitation and Resettlement (R&R) policy of the Mumbai Metropolitan Regional Development Authority (MMRDA). These tenement blocks are built by private developers on behalf of these agencies in lieu of incentive development rights.

4 Eligibility for slum rehabilitation in Mumbai is based on date-line criteria – called cut-off date. If a beneficiary can prove that she/he has been a resident of that settlement before the cut-off date, she/he has the relevant entitlements under the scheme.

5 When these recommendations were made in 2009, the FSI for rehabilitation schemes was 2.5. The state government has now increased FSI for the rehabilitation of PAPs to 4.0.

6 Recent scholarship has begun to focus on the extensive use of the Public Interest Litigation (PIL) by middle-class activists as an instrument to discipline, order, beautify and sanitize urban environments (Bhan, 2016; Zerah, 2007). As in many such PILs, the language of the Janhit Manch vs BMC petition and the Court’s comments are instructive in their characterisation of settlers along the pipeline, suggesting a seamlessness between illegal occupation, criminal behavior, unhygienic living, and even potential terrorist activity. Also revealing is the court’s distinction between “citizens of Mumbai” vs. “people living unauthorisedly in hutments,” supplementing the long list of binaries that evoke deviance of the poor from conventional norms, deployed to justify targeting them en masse either as criminals or dependents (Anjaria, 2009; Chatterjee, 2004; Friedmann, 2011; Gans, 1971; Ramanathan, 2006).

A quick look at the satellite imagery of Mahul [figure 1] reveals its adjacency to the Bharat Petroleum Corporation Limited (BPCL) Refinery to its east, the Mahul Creek and wetlands to its west and north, and the urban village or *Koliwada* to its south. The township is built on 16.1 hectares of land, with 17,495 tenements each 20.9 square meters, in 72 eight storey buildings. Meant for more than 85,000 people, the township has no functioning health or educational facilities, markets or employment opportunities. Poor quality design and construction, overflowing sewers, and garbage accumulation are all common features. By any assessment, the township when fully occupied will be extremely overcrowded, with a population density of more than 5,000 persons a hectare, and 1,327 tenements per net hectare (CSA, 2017). If one consults the *general* planning regulations (known as the Development Control Regulations or DCRs in Mumbai), the township would be considered unauthorized – its buildings are too closely packed, there are too many homes on too little land, fire safety norms are relaxed, and social infrastructure is inadequate. But the township is both planned and authorized – made possible by the city’s two-tiered planning system, with specially tailored (relaxed) regulations for rehabilitating slum dwellers. By a curious paradox, the ‘slum free’ aspirations of liberalization era Mumbai have produced settlements that formal definitions of a ‘slum’ ought to have rendered unacceptable. Environmental (spatial) inequality and degradation for the city’s poor households are built into Mumbai’s *planning system*<sup>7</sup> – with a special set of planning and building codes that apply only to them.

Mahul is just one of the many resettlement colonies built in Mumbai since the turn of this century. Mumbai’s hyperbolic quest for building the ‘City of the

Millennium’<sup>8</sup> was to be operationalized through broad strategic frameworks and key infrastructure projects: new arterial roads, surface and elevated rail links, airport modernization, river beautification and the tallest statue in the world. According to one estimate, 136,000 households living in self-built dwellings would need to be displaced as a consequence (Modi, 2009). The Mumbai Metropolitan Regional Development Authority (MMRDA) and the Slum Rehabilitation Authority (SRA) emerged as the two main parastatal agencies to facilitate the construction of housing for the city’s dishoused. Both have involved private developers to build these units on their behalf, by offering development-rights as incentives. The MMRDA has since 2001 facilitated the construction of 564 buildings with 64,568 tenements in its various Rehabilitation and Resettlement (R&R) colonies.<sup>9</sup> Starting in 1997, the SRA by 2018 had managed to produce 78,901 tenements under its Project Affected Persons (PAP) Scheme, with 36,160 under construction.<sup>10</sup> A majority – though not all – of resettlement units have been built so far in the city’s eastern suburbs,<sup>11</sup> and most of these colonies have been plagued by issues of health, safety, security and a general lack of services (Bhide, 2008; TISS, 2012). A recent report commissioned by the MMRDA revealed high instances of tuberculosis among inhabitants in resettlement blocks (DFY: 2018) arising out of poor ventilation and lack of sunlight. Remarkably, more than a hundred years after the first state interventions in the urban environment driven by health and safety concerns, planning in Mumbai has come full circle. Bombay’s elite learned their early lessons in environmental health as the city recovered from a devastating epidemic in the first decade of the twentieth century. This essay attempts to understand how these lessons were gradually forgotten.

7 I use the term *planning system* to avoid mistaking *planning* in Mumbai with the *Development Plan* prepared every 20 years by the MCGM as a Planning Authority for (most of) the city. The interventions of many agencies of the state government (MMRDA, SRA, MSRDC, MHADA) and the central government (MbPT, WR, CR) affect spatial outcomes in Mumbai, and as a Planning Authority the MCGM often has little authority over their policies or plans (Patel 2015). In this article, I refer to *planning* as the aggregate effect of the actions of all these various agencies and actors, and *planners* as the spatial decision makers within these agencies.

8 The vision statement of Mumbai’s 25 year City Development Plan (CDP) which was prepared to avail central government funding under the Jawaharlal Nehru Urban Transformation Mission (JNNURM).

9 Data acquired from the MMRDA through an RTI query dated 9<sup>th</sup> March 2018. Out of these, 45,478 units have been allotted by MMRDA itself, and 14,812 units have been handed over to other agencies.

10 Based on an RTI query filed with the SRA in 2018

11 Out of all the PAP tenements completed, 92.5% are in the L,M/E and M/W wards.

**Figure 1**

Mahul PAP Township and its surroundings. Notice the proximity to the refinery on the right.



### Planning as ‘Environmental Decision Making’

Beginning with Anthony King’s plea that planning ought to be understood as ‘environmental decision-making’ (King, 1980, p. 205), this article aims to investigate the emergence of the differentiated and discriminatory regime of planning and environmental regulation in Mumbai. Contemporary scholarship has begun to carefully dismantle untenable dualisms that posit the planned, formal and legal city *versus* the unplanned, informal and illegal one – dualisms that fail to come to terms with the actual dynamics of planning discourse and practice (Björkman, 2014). Gautam Bhan (2016) has argued that illegality is an effect of and not the absence of planning; that illegality is constructed and regulated by planning and its various categories. Asher Ghertner (2015) points out that the mode of spatial governance in Indian cities is based increasingly on codes of order and appearance, not documents, records or calculative logics. These arguments emphasise the

discursive power of planning; to be – or often to *look* – planned is to be rendered legitimate, orderly, adequate, desirable. Yet, it may be possible to ask in turn: what gives planning the power to render such social legitimacy and status? One answer perhaps lies in the assumption that informs the common sense understanding of planning: that planning offers the prospect of an adequate standard of living for all inhabitants. When the Judge hearing the plea of Tansa evictees was presented with photographs depicting conditions of resettlement in Mahul, he asked: “but aren’t they better off here?”<sup>12</sup> After all, the planners who drew up the roads and the arrangement of buildings, must have applied their knowledge of the physical environment, social interaction and human comfort? If planned environments are expected to ensure adequacy, it is unsurprising that being *unplanned* is often expressed

12 Based the account of the lawyers representing Mahul residents at the High Court



as a *lack* – lack of acceptable amenity levels, of spatial and functional efficiency, and of measures to promote health, safety and convenience (Klosterman, 1985).

Paradoxically however, Mumbai's shift since the mid-80s from a restrictive-redistributive regulatory paradigm to its current incentive-extractive one has severed the link between 'planned' and 'adequate' environments. The increasing use of market-based planning instruments has created new socio-spatial reconfigurations of inhabitation – with tens of thousands of evicted slum households forcibly relocated in 'planned' resettlement colonies, disrupting their occupational security, producing unprecedented concentrations of poverty and sub-standard living environments (Bhide, 2008; Nainan, 2008). The evolution of Mumbai's unique differentiated and discriminatory (de)regulatory regime – that has facilitated the construction of this resettlement landscape – is arguably the outcome of three converging trends in planning discourse and practice: a reconceptualization of the 'slum,' away from its earlier focus on environmental conditions towards legal/aesthetic criteria; the characterization of public intervention and regulation as a constraint on market activity; and a recalibration of planning as essentially the design of monetizable inducements – 'incentives' and 'relaxations' – to enable the private sector deliver development goals.

Although the problems of the city's diluted planning regulations are evident, it is important to move beyond a consequentialist reading to one that can highlight the deeply contested nature of urban environmental production. A political reading, I argue, would require mapping regulatory shifts in urban governance with respect to political-economic and ideological shifts – in contrast to an approach that merely problematizes specific regulatory practices. It could be argued that the construction of urban 'problems,' the means chosen to address them, and their various strategies of legitimation, are reflections of fundamental shifts in the meaning

of the urban and modes of city-making. Coercive 'public health' interventions in the early twentieth century to produce a sanitary city – occasionally even overriding the wishes of clamorous sections of the city's elite – served the aims of the colonial state to preserve socio-economic stability and sustain its legitimacy. In the post-colonial period, regulation of the land market along with a policy of pragmatic 'tolerance' (Bhide, 2009) towards the occupancy of land by squatters helped accommodate the demands of the urban working classes with those of an industrial urban system. The Liberalization era axioms of 'highest and best use' and 'inclusive growth' have justified the removal of self-built settlements, densification and resettlement, facilitating the speculative drive to capture high-value land in urban centers by private developers; environmental health and well-being, that provided the justification of much state intervention in the earlier periods were simply displaced in liberalization-era Mumbai, and replaced by the calculative logics of affordability and viability. In other words, to focus merely on the ill-effects of deregulation without examining its expropriative function and discriminatory application is to risk missing the key dynamics of development planning in Mumbai. The paper therefore attempts to both analyze and historicize the process of environmental production, in five sections. Section 1 and 2 trace the evolution of the city's bye-laws and planning practices, and the process of their liberalization in recent decades. Section 3 will highlight the changing and divergent meanings of the slum in urban discourse; and this will contextualize the rise of the slum redevelopment regime, that will be discussed in section 4. Finally, the essay will conclude by positing housing as an environmental question, and planning as environmental decision making – to reinstate the links between deregulation, socio-economic stratification and access to and distribution of environmental goods and services. ♦

## PART 2 PRODUCING THE SANITARY CITY

### Disaster, Disease and Environmental Improvement

State regulation of low-income housing or introduction of public housing programs cannot be considered evidence of the state's concern for the poor. As Marcuse (1986) explains in the context of American cities, or as Chaplin (1999) shows in the context of British ones, environmental reform – through the introduction of new sanitary arrangements, regulations and building codes, and through the public provision of housing – arose as a means to forestall any physical, social or political disturbance to the private conduct of economic affairs. Similarly, measures for worker well-being in the form of environmental regulation and public housing construction in colonial Bombay were motivated by the threat of disease and discontent rather than the benevolence of administrators or employers. It is possible to trace Mumbai's civic and environmental 'improvement' laws all the way back to the first half of the 19<sup>th</sup> century, that were meant primarily to prevent fires and tackle frequent epidemic outbreaks (Srivastava, 2017, p. 77). The most significant event that shaped the city's sanitary discourse and regulations, however, was the bubonic plague of 1896. Remarking on the epidemic and its aftermath, the historian Rajnarayan Chandavarkar (2009, p. 52) claimed that *“the plague as a consequence of the abysmal sanitary conditions of the town had combined as a social moment the disruption of the city's commerce, the subversion of its political order...and the threat of fatal disease even to that part of the city's elite which lived in relatively antiseptic surroundings. It showed then that the contrast between the strategies of development which sought to develop the commercial possibilities of the island, and those which*

*attempted to alleviate its material and physical conditions, represented an essentially false dichotomy.”*

Poor environmental conditions in dense insanitary dwellings (slums) were linked with public health, economic growth and political stability. The epidemic caused hundreds of thousands of people to flee the city, including a large section of the industrial working class. Consequently, the city's Mill Owners<sup>13</sup> began to perceive the issue of sanitary housing as a “labour question” (Arnold, 2012). The Bombay City Improvement Trust (BCIT) was set up to improve the city's appalling living conditions – predominately experienced by the poor. In a series of lectures entitled *Insanitary Conditions, Density of Population* and *Light and Air in Dwellings* delivered before the Bombay Cooperative Housing Association between 1912-15, J. P. Orr, the Chairman of the BCIT, urged environmental improvements through more stringent municipal codes; he blamed the Bombay Municipal Corporation (BMC) and its defective bye-laws<sup>14</sup> that did not prescribe adequate standards for sanitation, overcrowding or light and ventilation (Srivastava, 2017, p. 85). Orr (2015) condemned the practice of “sweating of building sites” by landlords, which involved building one room tenements on almost the entire area of the plot and too high, that increased overcrowding and “filched” light and air from the lower, side and rear parts of the buildings (Burnett-Hurst, 1925; Orr, 1915). But lack of light and air was not the only fault of the city's insanitary buildings:

13 Represented by the Bombay Mill Owners Association

14 The Municipal Councilors in turn blamed the BCIT for transferring its responsibility on private builders (Srivastava: 86).

“...There is also the very imperfect drainage which results from the crowded nature of the sites, and the dampness of soil due to this insufficient drainage and other causes. Dwelling rooms are too small and too low. Yards and compounds are not decently paved. Proper arrangements for disposal of refuse are absent.”<sup>15</sup>

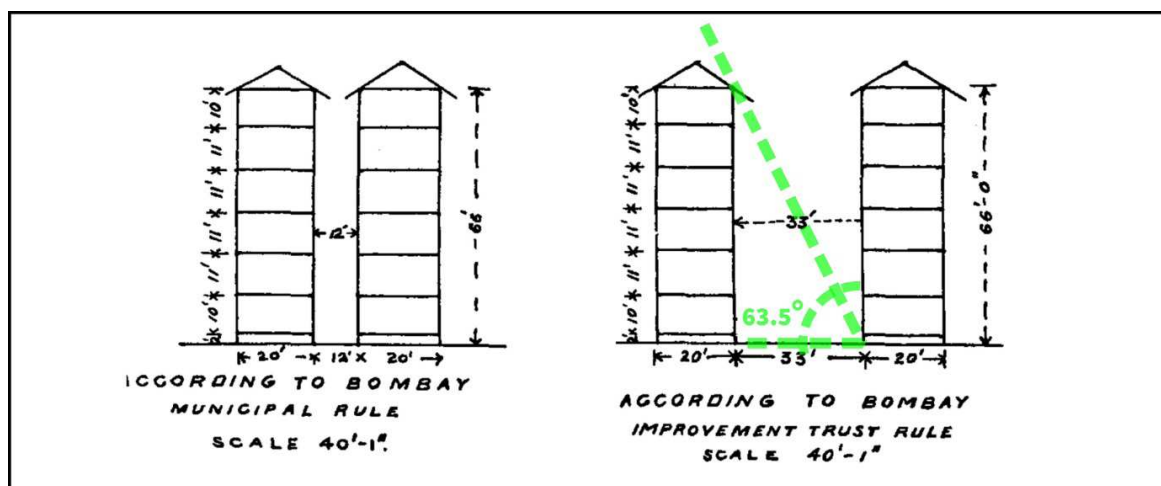
15 Orr (1915) quoting the Secretary of the Bombay Development Committee, B. W. Kissan-

The answer to the problem of insanitary conditions, Orr argued, was a revised municipal building code to restrict building coverage area, and the introduction of the 63 ½ degree rule<sup>16</sup> that would allow buildings to breathe and be adequately lit within [figure 2].

16 The 63 ½ degree rule requires creating minimum air space between buildings, by drawing an imaginary sixty three and half degree plane from the top of one building towards the floor plane of the lowest habitable room of the adjacent building, ensuring that the building stands beyond the line of intersection. The peculiar angle of 63 ½ degrees represents an inclination of 2 vertical to 1 horizontal, that is, a maximum height for a building which is twice the gap between buildings (see Figure 2). For building coverage, Orr advocated a maximum two-thirds of the site be covered by building, or in the case of detached houses, a maximum of one-third coverage.

Figure 2

BCIT’s sketch comparing its own bye-laws with those of the BMC, and the effect of enforcing the 63 ½ degree rule (green highlight added).



Additionally, building working class housing on sanitary lines and opening up land for the construction of new sanitary housing in the peripheries would help reduce congestion and overcrowding.

### The Insanitary City and the Garden Suburb

In 1919, the much debated 63 ½ degree rule finally found itself included in the Municipal regulations, but was applicable to areas other than the formally built city - to lands that were either vacant, or were occupied by temporary buildings. Till the late 1880s, the main objective of urban policy had been to attract traders and workers to the city, and no restrictions on building activity were imposed on landlords. The

first set of controls were introduced in 1865, when it was realized that the high mortality rates in the city were linked to environmental conditions. With the passing of the 1888 Municipal Act, additional bye-laws were introduced; while some improvements in sanitation, water supply and daylighting were achieved, there was still no regulation on siting of industry, working class housing, and environments within and around buildings. The landlord-dominated BMC<sup>17</sup> resisted the adoption of a sanitary

17 At this point, the BMC had a very limited franchise consisting of 'rate-payers' or property owners who paid municipal property tax, making the Corporation "a close borough of landlords and capitalists" (Kidambi, 2007, p.48). In 1922 the franchise was extended to 'rentpayers' or those who were paying rents of at least ten rupees a month (Rao, 2013, p.9).

Source: (Orr, 1912, p.39)

building code in 1919, that was expected to hurt the interests of its members (Indorewala et al., 2016; Kidambi, 2007, p. 30; Srivastava, 2017, p. 48). The BMC accused the BCIT<sup>18</sup> of trying to “convert the city into a garden city in one stroke” and argued that the imposition of strict building regulations on the congested parts of the city would amount to a “confiscation of [their] property”; the 63 ½ degree rule and open space norms, if applied to the existing buildings, “might result in hardship to *owners* of the houses” (TOI, 1919a, 1919b). Four years earlier in 1915, prominent Indian members of the BMC had battled a town planning legislation,<sup>19</sup> and succeeded in restricting its application only to the undeveloped areas in the Island City and to areas outside the Island City limits (Rao, 2013, p. 215). As a result, two different sets of formal development processes and regulations governed development in Bombay after the 1920s – the lenient urban ones that applied to areas with high land values, and in the congested parts of the existing city (called ‘Scheduled Areas’); and the stringent ones, that applied to the rest of the city and to suburban outgrowths.

So while Municipal bye-laws indexed building heights to the width of streets that they abutted, Bombay’s suburban growth in the early decades of the twentieth century was guided by the garden city ideal, and shaped building height, plot coverage and setback rules. The city’s town planning scheme<sup>20</sup> mechanism determined ‘planned’ suburban expansion with bungalows – and subsequently apartment buildings – built on private plots surrounded by a garden, enclosed by a compound wall. These suburban regulations, born out of the reaction to an epidemic outbreak, became the means to neutralize the insanitary city. Restriction of single-room tene-

ment construction by the BCIT, the growing market for multi-room flats, and regulation that would only permit low-rise small footprint developments meant that population densities in these schemes would remain substantially lower than the city average. It also meant that the garden apartment would emerge as the archetype of formal suburban habitation in Bombay, inhabited predominantly by its middle-class, upper-caste residents (Rao, 2013).

To be sure, an explicit aim of planning in Colonial Bombay was to develop a class-segregated city – the ‘poorer classes’ were to be housed in chosen locations away from the ‘wealthy classes’ (GoB, 1914). But the BCIT was set up primarily to eradicate the slum – especially in congested parts of the city – and the problem of providing working class housing on sanitary lines was its mandate. Over three decades, the BCIT and the Bombay Development Department (BDD) – set up by the Provincial Government in 1918 – together constructed 26,598 tenements<sup>21</sup> between them to house the working class, much less than what the BCIT alone demolished (Burnett-Hurst, 1925, p. 32; Modak, 1946, p. 164). The BCIT had no legal obligation to house those it evicted, and therefore notwithstanding the fervent advocacy of its Chairman, the BCIT’s interventions were more successful in dishousing than housing the city’s working class. However, the little that was built by these early interventions achieved significant improvements in conditions, bringing down mortality rates in BCIT chawls to between a third and a quarter of that of the rest of the city (Burnett-Hurst, 1925, p. 26).

### Regulating Development Intensity: The FSI Approach

When the Bombay Town Planning Act of 1954 replaced the 1915 Act, the scope of planning was enlarged to enable comprehensive planning of the whole city. The first Development Plan of Bombay was prepared in 1964, which introduced the concept

18 Constructed by colonial officials to “guarantee the basic framework of property rights” (Arnold, 2012), the Board of the BCIT itself was dominated by the representatives of commerce and industry.

19 The Bombay Town Planning Act of 1915, the first such legislation in India.

20 The town planning scheme was a mechanism to lay out roads, plots and social infrastructure without having to acquire land from private owners. It involved pooling together all the land from an area, and redistributing it proportionately deducting the area need for laying out road networks, land for common use facilities, etc. Owners would consent to the scheme since they stood to gain from the increase in land values.

21 16,524 of these were built by the BDD.

of ‘Floor Space Index’ (FSI)<sup>22</sup> as a device to regulate land development. The earlier regulations had adopted *volume controls* such as setbacks and height restrictions to regulate light, air and open space, and tenement sizes. With FSI, planners found a simple uniform numerical ratio to control development *intensity* – which afforded more flexibility for building design, and the ability to foresee the maximum floor space that can be built in a given area (and thereby, to control population densities). The 1964 Plan also removed restrictions on building heights, with the expectation that buildings will go higher leaving more space around them. Different parts of the city were assigned different FSI values by taking into account existing and proposed provisions for infrastructure, existing development characteristics, living space standards, and desired limits on population growth (BMC, 1964, p. 147-150).

Almost immediately, however, the logic of FSI as a tool to regulate population density was undone (Phatak, 2007). The Bombay Repairs and Reconstruction Board, constituted in 1969, was allowed to use 2.4 times permissible FSI and higher densities for reconstruction of thousands of rent controlled buildings in the Island City. In the 1970s, in another significant move, FSI began to acquire the characteristics of ‘development rights’ when private landowners who could not build on lands due to Development Plan reservations were allowed to utilize their ‘rights’ elsewhere, instead of the rather cumbersome process of land acquisition with monetary compensation (Phatak, 2007). And so began the steady rise of FSI to its current lofty status in Mumbai’s urban policy, endowed with the mythic power to get around the city’s most intractable problems. ♦

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<sup>22</sup> FSI is the ratio between the built area of all floors and land area on a given plot.

## PART 3 THE SHIFT TO MARKET-BASED REGULATIONS

### **Fiscalization of FSI: AFSI, AR and TDR**

The second Development Plan of Bombay was sanctioned in 1991. Inspired by the attempt of the first Regional Plan to restrict the population of the island city in the interest of dispersed growth at the regional level, the 1991 Development Plan applied a uniform low FSI of 1.33 in the Island City and 1.0 in the Suburbs of Greater Bombay. But inspired by the approach of the second Regional Plan, that was in preparation at the time, it adopted a range of new ‘New Town Planning Instruments’ to replace the earlier approach of land acquisition and public provisioning of social infrastructure (Nainan, 2012). This was soon after macro-economic liberalization, and the shift to such market-based regulations was considered legitimate and desirable – especially since a large burden of responsibility for the poor implementation of the earlier Plan was placed on the adoption of traditional planning tools that were predicated on the MCGM’s (limited) financial resources.

The first of the market-based Planning Instruments was Additional Floor Space Index<sup>23</sup> (AFSI), assigned to certain categories of existing buildings or schemes, significantly higher than the low uniform general FSI. It meant that higher development intensity was permitted in certain areas, enhancing potential land values, to enable property developers and existing residents to share the high land values by agreeing to undergo redevelopment (Mukhija, 2000, p.23). The second Instrument was Accommodation Reservation (AR), which allowed a land owner to

build social infrastructure – a school for instance – on a part of her land and utilize the development right of the entire land on the remaining part, or on another plot. This meant that FSI, that was thus far linked to land area, had been decoupled from it and brought out of “thin air” (Phatak, 2007). As a result, land owners and property developers became the actual producers of social infrastructure (Nainan, 2012, p.11). The third Instrument was the Transfer of Development Right (TDR) that allowed development rights to be ‘moved’ to another plot if for some reason it could not be consumed on the plot from which it originates.<sup>24</sup> The condition was that it could be moved only to the north of the generation point, and only in the Suburbs; planners expected TDR to move to low density areas, presumably to facilitate a redistribution of population and employment. With the adoption of these new FSI-based tools, the humble built-up-space to land ratio was fiscalized – to be conjured up by state planners at will from ‘thin air,’ and supplied as monetizable incentives to private actors for the achievement of public ends.

### **Planning as Structured Inducements: ‘Incentives’ with ‘Relaxations’**

Socially acceptable norms for environmental adequacy and well-being are often expressed through the regulatory function of the state. Here, the concern specifically is with regulations that set limits on the intensity of development, the number of people who can live in a given area, and the codes and design parameters that ensure safety and

<sup>23</sup> This is the notorious Regulation 33 of the DCR. It contains additional FSI for, among others, educational and medical institutions 33(2); government offices 33(3); starred hotels 33(4); redevelopment of old public housing 33(5); redevelopment of rent controlled buildings 33(7); urban renewal clusters 33(9); slum redevelopment 33(10) and so on.

<sup>24</sup> However, TDR is also granted as *compensation* (‘incentive’) to developers for constructing rehabilitation blocks for displaced slum dwellers.

an acceptable quality of life.<sup>25</sup> As ‘public goods,’ conditions that promote health, safety, comfort and well-being are less profitable from the point of view of capital, and as the experience of early 20<sup>th</sup> century Bombay shows, state intervention in this sector was tolerated to prevent economic disruption and to forestall social conflict (Castells and Lebas, 1978, p.18). However, with the shift in planning approach that was now focused on enabling market-based planning tools to work, environmental controls began to be perceived as a restriction on private sector activity. Instead of public spending for land acquisition and social infrastructure creation, state planners now aimed to extract land or facilities for public use by capturing a share of ‘development’ led by private actors. The approach was quickly adopted and applied across the board – from the creation of medical facilities, to schools to rehabilitation tenements for slum dwellers. With planning goals now contingent on the performance of market actors, planning has become the art of devising structured inducements, such as additional development rights or transferable rights (‘incentives’) along with an attenuation of environmental regulations (‘relaxations’); this incentive-extractive modality allows the state to achieve its public commitments by offering private actors the prospect of achieving higher gains from development. The effect is the entanglement of government interests with those of the private sector, making the government itself part of what Nainan calls the “building boomers coalition” (Nainan, 2008). In the case of housing, the inevitable consequence of this modality is that the policy goals of extracting tenements, and of ensuring environmental adequacy, are artificially counter-posed – to have one, the other must perforce be sacrificed. Housing availability and affordability are considered the primary problems for policy to address, while environmental quality, security, and

livability are framed either as imposing high costs (and therefore impairing affordability) or restrictions (and therefore affecting availability).

A striking example is the norm for tenement density in low-income housing. The maximum permissible density for rehousing under the slum clearance schemes in Bombay post-independence was 300 tenements per net hectare (BMC, 1964). When the World Bank assisted the Bombay Urban Development Project (BUDP) in the 1980s, it insisted on lowering design and service standards to make housing ‘affordable’ by bringing down the cost per house; maximum tenement densities were revised to 450 per net hectare for BUDP’s aided self-help (or ‘site and service’) schemes (Bank, 1985; BMC, 1991).

But even with these lowered standards, aided self-help, and public housing layouts constructed by the Maharashtra Housing and Area Development Authority (MHADA)<sup>26</sup> in the 1980s were based on the understanding that low-income housing requires more net land area per household as compared to middle income households who could afford to live in mid-rise and high-rise apartments<sup>27</sup> [figure 3]. Thus far, tenement densities were determined on the basis of what may be workable in terms of infrastructure provision or acceptable in terms of environmental quality. The 1991 Development Plan for the first time de-linked density from infrastructure and crowding, and linked it to development potential: the site’s permissible FSI value. For slum rehabilitation, it allowed a maximum of 500 tenements per hectare *for 1.0 FSI*, and since the permitted FSI was 2.5, the maximum density permitted on site was 1,250 tenements per net hectare (BMC, 1991).

25 These are building regulations that specify limits on densities, zoning and building intensity, as well as codes that specify heights, setbacks, coverage, etc. to regulate light, air and open space; safety from fire and earthquakes, etc. Here I am not concerned with regulations that govern permits on construction or registration of property or other such that do not affect the built form.

26 Earlier the Bombay Housing Board, and combined with the Bombay Repairs and Reconstruction Board in the 70s as one public housing agency of the state government

27 Crucially, public housing layouts [figure 3] combined housing for different income groups, in contrast to resettlement that is entirely for poor households.

In subsequent amendments to these regulations, the ceiling was transformed into a floor – the upper limit to the number of units in a scheme was removed altogether, and today the regulation demands a *minimum* of 650 tenements per hectare for rehabilitation schemes (BMC, 1991). Mumbai’s 2016 Development Plan aims to permit a *minimum* tenement density of 1300 units per hectare for Rehabilitation and Resettlement (R&R) Schemes (MCGM, 2016, p.91). The kind of housing densities that are resulting from such relaxations is unprecedented, and represents

a staggering diminution of living standards.<sup>28</sup> But since the business of the state is extracting a share of development, regulations that safeguard environmental well-being have become constraints to be removed, rather than commitments to be respected.

28 Even the National Building Code of India (NBCI), which is manual for planning and building standards, interestingly prescribes lower standards for low income housing. However, it limits net tenement density at 500 DU/Ha, building heights at 15 meters (G+4 storeys) and requires a minimum provision of 3 square meters open space per person. The NBCI’s planning norms specify areas for social infrastructure. Patel et.al (2007) prescribe a “rock-bottom minimum” of 5 square meters of social infrastructure land area (open spaces, streets, education and health facilities) even for very dense areas like Dharavi to ensure adequate quality of life. The architects Kamu Iyer and Ashok Lall (interview with author) similarly advocate at least equal or greater land area per capita outside the home for low-income layouts as indoor residential area.

**Figure 3**

Comparison of housing layouts: Charkop ‘site and service’ layout (left), MHADA layout (centre) and MMRDA’s Lalubhai Compound R&R township (right). Notice that the first two are mixed income layouts, while the third is only for low income households.



The idea that strict regulation of urban land use restricts economic growth and imposes high costs, is an assumption that is widely shared within the international development community. It creates a “thicket of crippling regulations,” (Patel and Phatak, 2014) and raises the “threshold for buying

into the formal sector” making formal housing unaffordable for many low-income households, and thereby perpetuates informality. Furthermore, since regulations restrict the supply of built up space, they increase land and housing prices and reduce the benefits of urban agglomeration

Source: Author



(MCGM, 2014; Monkkonen and Ronconi, 2016, p.25). The World Bank (1993) has been at the forefront of such advocacy. In 2004, the World Bank praised the MMRDA for its “innovative approach” of involving the private sector in its Rehabilitation and Resettlement (R&R) program, and the use of TDR as a financial mechanism to make the program “affordable for the government” (Bank, 2004; Nainan, 2008). Behind such advocacy lies the presumption of an autonomous housing market and the ill-effects of state ‘meddling’ within it (Marcuse, 1986). The legitimate ‘enabling markets’ role for the state, it argues, is to stimulate

demand through the creation of property rights, housing finance and targeted subsidies; and more importantly, to facilitate supply through deregulation. This neoliberal narrative worries about the impact of regulations on markets, prices and distributional outcomes (Ortiz and Bertaud, 2001; Patel and Phatak, 2014; Sridhar, 2010); it has been less concerned with the impact of environmental deregulation in producing deleterious conditions, displacement, segregation and concentration of low income housing; in other words, it has failed to take cognizance of the link between deregulation and increase in socio-environmental inequity. ♦

## PART 4 THEORIES OF THE ‘SLUM’

### **The Slum as *Environmental Condition***

Speaking a few years after Independence, India’s first Prime Minister famously called for Bombay’s slums to be burnt (Dwarkadas, 1955). His advisors, however, seemed to be far more judicious. A Sub-committee on Housing appointed by the National Planning Committee in 1948 urged attending to housing “as an integral, essential part of the National Plan.” The post-colonial Indian state would consider housing as the “most important of Public Utilities and Social Services – an indispensable necessity of life” (NPC, 1948). After a pre-war survey of housing conditions predominantly in the city’s ‘Scheduled Areas’, the Sub-committee (*ibid*) would remark on the slums of Bombay:

*“Over and above the acute shortage of housing...and dangerous over-crowding in one-room tenements... the City suffers [due to] the very large extent of dark, ill-ventilated, badly built housing with appallingly squalid surroundings... [there are] rooms so dark that even during the day the inmates cannot see each other in passages, or in the single living rooms, without the help of a light or fire. Fresh air is completely lacking. Very often there is no passage of air from room to room, many of which are built back to back. Ventilation is of the poorest standard imaginable. The single room serves as a living room, bed-room, sick-room, kitchen, dining room etc... If further proof were needed, one has only to study the official vital statistics to understand the extent of the toll in human life taken by this ill-conceived housing, a good deal of which, even under the present inadequate and long obsolete standards laid by the Old Municipal Act of 1888, can be classed as unfit for human habitation. It is tolerated because*

*there is no alternative housing available; and the inmates would be on streets if the tenements are declared and marked unfit for Human Habitation... The environmental, human, sanitary and health conditions in these one-room tenements, and particularly the slums, are such that there is no wonder that very heavy mortality and morbidity occur in these tenements.”*

In the 1950s, the BMC identified three types of slums in Bombay: (1) permanent multistorey buildings that did not conform to existing building regulations and sanitary requirements, (2) temporary or semi-permanent but authorized structures that have deteriorated or have become insanitary, and (3) unauthorized and insanitary huts built by squatters on public or private land (BMC, 1964; Indorewala et al., 2016). Slums were understood as neighborhoods or buildings “unfit for human habitation” - deficient in structural, environmental or service conditions. The Slum Areas (Improvement and Clearance) Act of 1956, and later the Slum Areas (Improvement, Clearance and Redevelopment) Act of 1971 would define a “slum area” as a neighborhood or buildings that are insanitary, dilapidated, or overcrowded, poorly designed, planned or serviced, making them “detrimental” to the health, safety or convenience<sup>29</sup> of its residents. Specifically, a public authority could deem a building unfit if it was found conditionally deficient in terms of: (1) repairs, (2) stability, (3) freedom from damp, (4) natural light and air, (5) water supply, (6) drainage and sanitary services, and (7) disposal of waste water.

<sup>29</sup> The 1971 Act replaced the word “morals” that appeared in the 1956 Slum Clearance Act with the word “convenience.”

With the slum conceived as inadequate and therefore unacceptable housing, the approach of the post-colonial state faced with the challenge of slums was a combination of slum clearance and resettlement, public housing construction, schemes for subsidized housing, and schemes for industrial workers. The Bombay Housing Board was set up in 1948, slum clearance schemes were initiated in the early 1950s and a National Slum Clearance Act was passed in 1956. Through these and other initiatives, it was hoped, the public sector would house all low-income citizens in formal sanitary homes. However, post-colonial realities tempered these (often coercive) means of producing a formally built city. In the 50s and 60s, the official approach began to shift; political movements of slum-dwellers (Anand and Rademacher, 2011; Mahadevia and Narayanan, 2008) and a shortage of resources fostered a policy of pragmatic “tolerance” (Bhide, 2009) towards slums. The discourse of slum improvement and aided self-help began to take hold. A slum Improvement Cell was set up by BMC in 1969, and a centrally funded Slum Improvement Program (SIP) was launched in 1970 to improve basic amenities in slum areas. The Maharashtra Government set up a Slum Improvement Board in 1974 to coordinate the work under this program, that would provide basic infrastructure in 200 slum pockets covering half a million slum dwellers (Sivaramakrishnan, 1978, p.90). Nevertheless, improvements through the provision of sanitation and services were considered a temporary measure, with the expectation that formal housing will eventually replace improved squatter settlements.

#### **The Slum as *Transgression***

Twenty years after the first post-Independence slum survey carried out by the BMC, the Maharashtra state government undertook the first Slum Census during the National Emergency in 1976. The percentage of the city’s households living in self-built homes had grown to almost 35% and was seen to be growing at an “alarming”

rate (TOI, 1977). But the “slum” itself had transformed: it was now a reference not to inadequacy of shelter in terms of structural quality, hygienic conditions or service provision, but to the hundreds of thousands of “unauthorized hut-ments” built on public and private lands. With the arrival of the World Bank on the scene, this shift in settlement classification became more pronounced. The Bank’s reform-linked assistance in the housing sector demanded moving public investment from subsidized apartment construction to provision of serviced plots with full cost recovery, halting slum growth and finding ways to channel private capital into the production of legal affordable housing for low income families (Bank, 1985; Panwalkar, 1996). The Bank conceptualized the slum simultaneously as illegal and environmentally unacceptable housing – the former being the cause of the latter. According to this theory, illegality leads to insecurity (due to threat of eviction) and therefore a reluctance to invest in housing even when households can afford it (Mukhija, 2000; Patel and Phatak, 2014, p.284); the policy response that follows therefore is property creation (or ‘clarification’) through land titling or redevelopment. But while the correlation between tenure security and living conditions in informal settlements may be real, the proponents of market-oriented development uncritically assume that security of tenure can only be achieved through the creation of property rights (Handzic, 2010; Mahadevia, 2011). Also uncritically held is the untenable dualism that illegal or informal housing – the terms are used interchangeably – is environmentally unacceptable, and that formal or legal housing will automatically be adequate and acceptable.

#### **Slum as a *(Re)development Category***

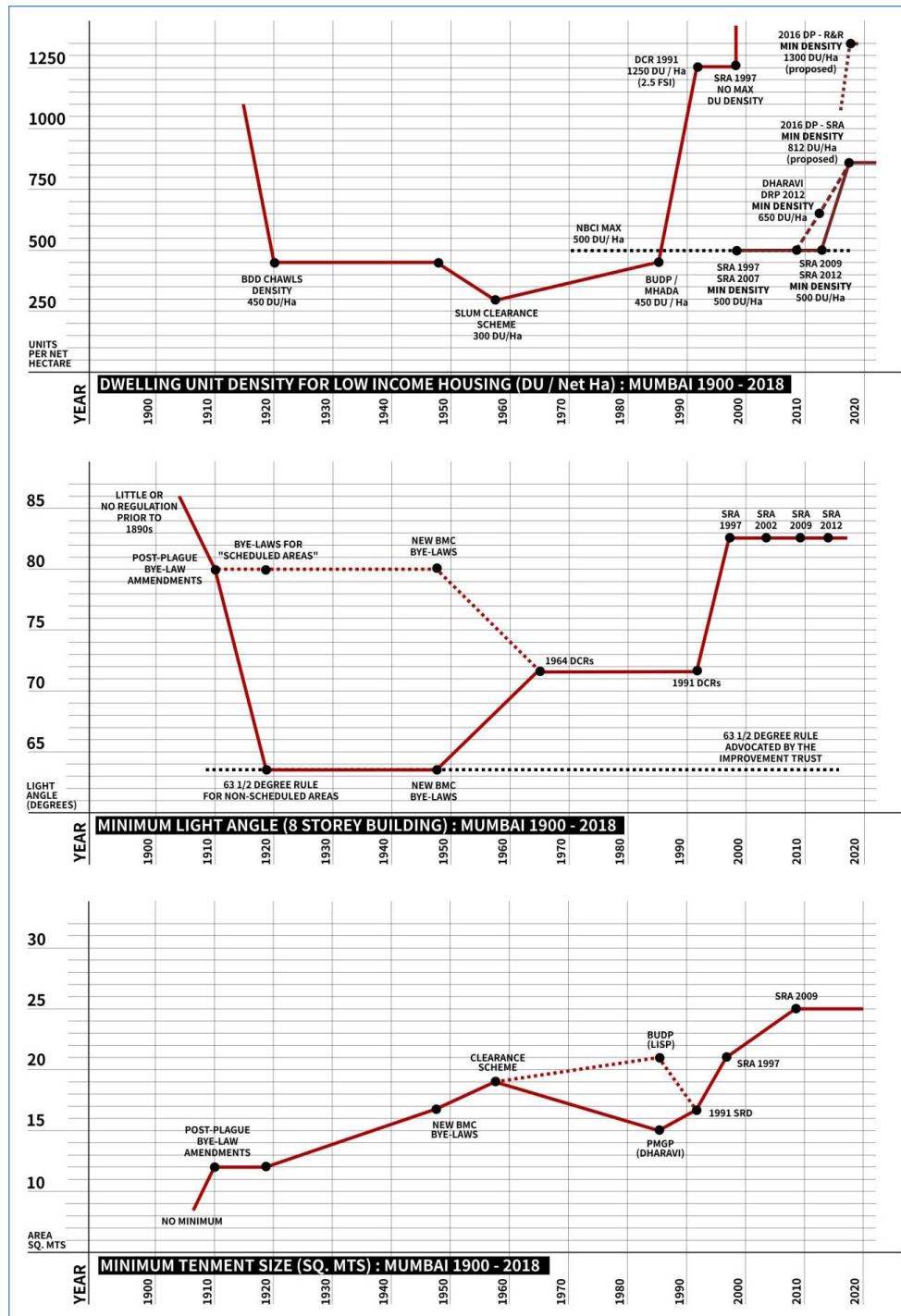
Quizzed by a housing activist recently on what he meant by a “slum,” a senior bureaucrat of the State Government nonchalantly replied, “a slum is what looks like a slum.” In 2009, the Slum Rehabilitation Authority (SRA) entertained a proposal to declare

the stately administrative head-quarters of the Maharashtra government a slum. A mystified local newspaper reported the story with a photograph of the building and the headline: “does this look like a slum to you?” (Akela, 2009; Deshmukh, 2010). One could very well ask, “but what does a *slum* look like”? This, in the context of development in Mumbai, would be a fruitless question, simply because it assumes a distinction between an object (‘slum’) and its various representations (‘looks like’) - and the ‘actual’ or ‘real’ meaning of the term that can be established by some criteria. More fruitfully, we could ask “what *looks like* a slum”? In this case, the representation is the object, or as Wittgenstein would argue, the meaning of the term is its use. It is also likely that for certain development categories in Mumbai, the meaning of the term is its *usefulness* – what a particular category offers over others in terms of development outcomes. In the bureaucrat’s admission, and the newspaper’s framing we can find the peculiarity of development semantics in Mumbai, and the divergence of the ‘slum’ in urban discourse, in legal documents, and in development practice.

In contrast to policy documents, where this ‘modernist’ (Mukhija, 2000) classificatory system that privileges physical condition still persists, more recent working definitions or discursive characterizations tend to foreground legal status and aesthetic criteria in identifying settlements as slums. In the language of Mumbai’s ‘building boomers,’ (Nainan, 2008) a slum is an area that does not have a ‘world class’ appearance and offers scope for redevelopment (Björkman, 2014). The category specifically refers to squatter colonies, but not to unserviced, overcrowded, poorly designed or unsafe buildings, provided they are formally constructed. Mumbai’s planning system has produced an elaborate development taxonomy affected by a land, building or settlement’s origin, function, tenure, type, planning jurisdiction, development agency, land ownership, landuse zone, location, adjacency, even prior regulation. Each of these categories then carries a different set of regulations, relaxations and incentives. A ‘slum’, from the perspective of the building boomers, is simply a unique configuration of each of these – the city’s most lucrative development *opportunity*. ♦

**Figure 4**

Deregulation (‘relaxation’) of bye-laws for low-income housing in Mumbai. While airspace and tenement densities have been severely attenuated, minimum tenement size has increased over time. This anomaly is due to the nature of FSI incentives that are linked to the rehabilitation area produced.



Source: Author

## PART 5 REDEVELOPMENT AS ‘ENVIRONMENTAL IMPROVEMENT’

### Consent, Conditions, & Compensation in Slum Rehabilitation

In 1995, the Slum Rehabilitation (SR) scheme was initiated by the state government as a pro-market ‘win-win solution’ to rehouse Mumbai’s squatters. Based on the incentive FSI approach, under the scheme developers receive FSI if they agree to build rehabilitation tenements and hand them over free of cost to the Slum Rehabilitation Authority (SRA). The FSI could then be used by developers to build and sell residential or commercial space on the market for cost recovery. This ‘rehab with cross-subsidy’ concept was justified as a means to help the government deliver low-income housing without burdening the tax payer. The apparently incongruous aims of making the city ‘slum free’, managing electoral demands and facilitating a booming real estate sector could all be reconciled through the incentive FSI approach. When launched, the program promised to rehouse 800 thousand squatter families in 5 years. Almost immediately, the program elicited mixed reactions (Patel, 1996), and over twenty years, has achieved a great deal of scrutiny and wide ranging criticism – the city-elite and middle-class groups decry the ‘free’ component, while housing-rights advocates object to its date-line<sup>30</sup> based criteria for eligibility under the scheme. Yet, the SRA, as the scheme eventually came to be called, had some significant progressive elements. The first was the recognition that squatters are legitimate inhabitants of the city and contribute to its economy. The second was that they often live close to their places of work, and therefore rehabilitation through the scheme must

happen *in situ*. Third, it upheld the principle that dwellers ought to have some say in their rehabilitation, and therefore each project required consent of at least 70% of the eligible households to begin. Finally, it recognized slum dwellers’ right to secure and adequate homes, which meant that dwellers would be entitled to a minimum house area, environmental services and adequate living conditions.

Soon after the regulations of the SRA were introduced in 1996, its stipulations began to be circumvented or watered down in all three respects. One criticism of the SRA was the fragmentary nature of its various developments. In the early 2000s, the R&R policy of the World Bank assisted Mumbai Urban Transport Project (MUTP) began to emerge as an alternative model, that conceived of resettlement as a ‘development program’ of socio-environmental ‘rehabilitation.’ Shaped by the World Bank’s Operational Directive for ‘involuntary resettlement’, planned R&R colonies were expected to provide displaced dwellers “sufficient investment resources and opportunities to share in project benefits” and be “assisted in their efforts to improve their former living standards, income earning capacity and production levels” (Bank, 1990; Bhide and Dabir, 2010). The SRA’s project Affected Persons (PAP) scheme<sup>31</sup> that was formulated during this time allowed rehabilitation of slum-dwellers off-site if physical constraints made on-site rehabilitation impossible, or if land occupied by slum dwellers is required for vital infrastructure projects. Notwithstanding the progressive premises of the R&R policy, PAP colo-

30 Or ‘cut-off dates.’ [See *fn.* 4 above].

31 The SRA administers four kinds of rehabilitation schemes : (1) the *in situ* scheme specified under DCR 33(10); (2) the PAP scheme under Clause 3.11 of Appendix IV of DCR 33(10); (3) the construction of permanent Transit Camps DCR 33(14); and (4) Special Township Projects.

nies that grew out of this regulation did not involve any rehabilitation ‘program’ nor did they retain the locational advantages promised to squatters by the SRA’s *in situ* scheme. PAP tenements, built predominantly as ‘townships’ such as Mahul, have contributed a significant amount of the total units produced under the SRA – 55,568 tenements were constructed under the PAP scheme up to 2011, while the SR scheme had produced a total of 157,402 completed tenements by 2014 (GoM, 2011; Praja, 2014). In addition to this, most *in-situ* SRA projects produce additional tenements, over and above those being rehabilitated,<sup>32</sup> to house families displaced from other sites. In other words, despite being an *in situ* scheme, a large number of families rehabilitated under the SRA are *ex situ*. Similarly, the 70% consent clause for *in situ* schemes – which do not apply to PAP housing – was made inapplicable for projects undertaken by the State Government or Public Authorities in 2002. Finally, with respect to living conditions, successive relaxations in building bye-laws and density limits to make projects ‘viable’ [figure 4] have increasingly worsened living conditions in rehabilitation units (Keluskar, 2018).

And therefore in townships such as Mahul, and PAP housing generally, three of SRA’s progressive objectives, of *in situ* rehabilitation, consent, and environmental adequacy can be circumvented: dwellers are displaced and resettled elsewhere, have no say in their rehabilitation, and are forced to accept sub-standard living environments. As [figure 4] shows, environmental regulations for low-income housing in Mumbai have been relaxed in recent decades in every respect (intensity, density, open spaces, setbacks, etc.) save one: minimum tenement size. This standard has steadily increased after a dip in 1985 to the current minimum of 25 square meters.<sup>33</sup> What explains this anomaly? The reason is straight-

forward: rehabilitation area is linked to incentive structures – the more the rehabilitation area (to be extracted by the SRA from the development), the greater the compensatory FSI (availed by the property developer for sale on the market). So while all the other regulations impose costs and risks to the developer, increased rehabilitation area confers increased benefits; and benefits accentuated by the fact that per unit area, the sale price far exceeds the cost of construction.

But here we arrive at another oddity. A study group appointed by the state government that led to the formation of the SR scheme explained that the objective of rehabilitation policy was to improve “living conditions, environment and hygiene of slum and surrounding areas” (Afzulpurkar, 1995). Rehabilitating squatters in formal apartments was expected to improve living standards. However, the objective of deregulation (from the perspective of the government) is to extract more tenements through redevelopment. These two objectives, in practice, are irreconcilable, even contradictory. One can only succeed at the expense of the other.

### Resettlement Colonies or TDR Mines?

Despite having produced tens of thousands of rehabilitation tenements in different parts of the city, the relevant regulations for the SRA’s PAP scheme are hard to locate. They are divulged in an obscure article – Clause 3.11 of Appendix IV of DCR 33(10) – buried deep within the 1991 Plan’s Development Control Regulations (DCRs) document. This article, that stipulates the rules for a major resettlement scheme of the state government, was inserted a few years after the 1991 Plan was sanctioned. To those familiar with the bewildering complexity of Mumbai’s multi-agency planning system, this is hardly odd – a quick glance at DCRs shows that it is a document in *flux*, amended so many times that the MCGM publishes it on its website in an unfinished form. This thicket of regulations can be navigated only by those who shape, scrutinize and

32 Due to the SRA regulations’ minimum density rule of 650 tenements per net hectare. Average densities for rehabilitation tend to be lower.

33 In some cases, such as the redevelopment proposal of the BDD Chawls (discussed above) – the minimum rehabilitation tenement are offered to entitled households is 45 square meters.

can exploit its stipulations – engineer and architect liaisons, municipal and state regulators, and property developers.<sup>34</sup>

Under the PAP scheme, a land owner who surrenders their land for rehabilitating slum dwellers is entitled to twice the land area as TDR. A developer who constructs tenements for the SRA free of cost can avail 1.33 times the built area as TDR. These parameters however do not determine the form and arrangement of buildings. In most of the resettlement schemes, it may have been possible to construct a better quality environment by building taller and leaving more open spaces between buildings. What has determined the almost identical layouts and building types (7-8 storeys) in PAP and R&R schemes is the brutal arithmetic of profit maximization, that regards any question of environmental health or well-being as an additional cost on development; the dozens of such layouts peppered across the city’s M-Ward are an optimized solution for a 2.5 FSI scheme [figure 5]. Buildings taller than 8 storeys invite additional fire safety regulations, bigger setbacks and additional building services – in short, higher costs for the same output carpet area. In other words, such environments are not really *prescribed* by development regulations, rather the development regulations simply *permit* the construction of such environments. The schemes enable property developers who build for PAP and R&R to generate ‘movable’ development rights while keeping their construction costs to a bare minimum.

The result is the production of rehabilitation townships that evoke some of the most deleterious conditions produced by *laissez-faire* housing in the late

34 Navtej Nainan in a careful study of the making of Mumbai’s 1991 Development Plan. She describes the “networks between private actors and public actors” that present the “informal context” that has considerable influence over the city’s planning process. An influential actor is the Practising Engineers Architects and Town Planners Association (PEATA), known for its ‘innovative interpretations of urban land policies’ and credited as being the initiator of the TDR mechanism. PEATA is known to be closely linked with the building and planning department of the MCGM. The Maharashtra Chamber of Housing and Industry (MCHI) is another powerful group at the state level, and the Confederation of Real Estate Developers’ Associations of India (CREDAI) is a strong lobby group at the national level (Nainan, 2012 p.106).

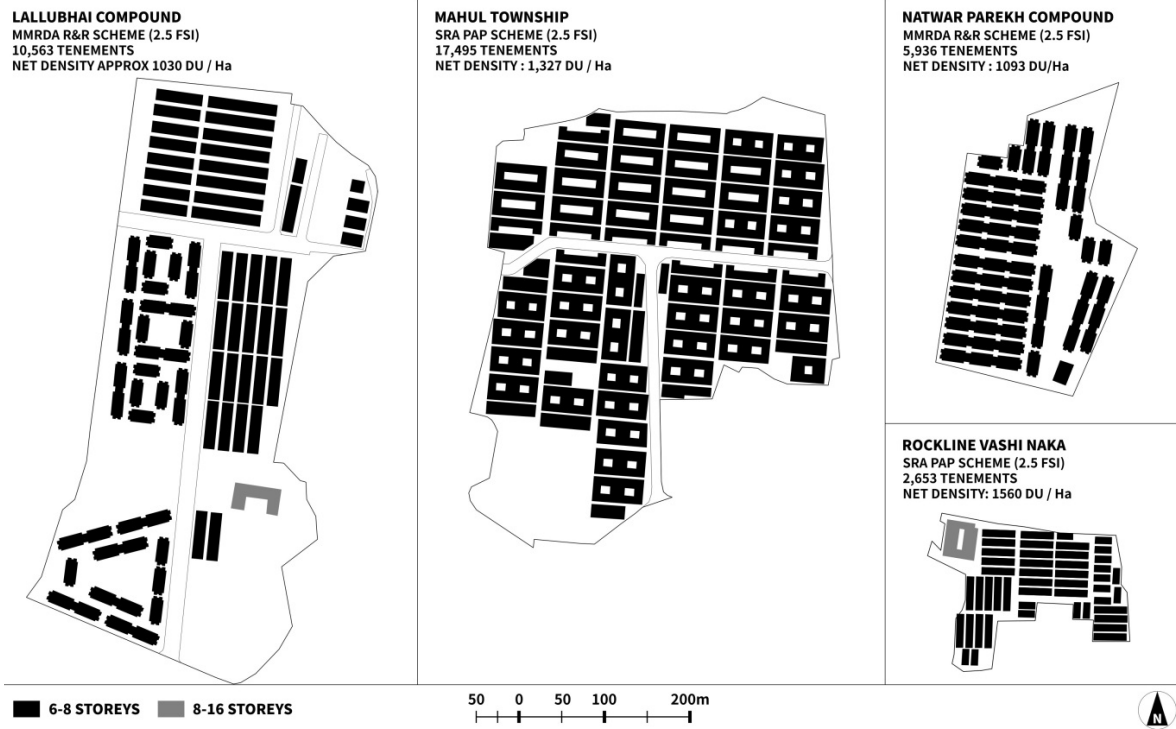
nineteenth century. The exhausted TDR quarries that this ‘play’ of planning tools leave behind can hardly be considered socio-environmental improvement for squatters evicted from advantageous locations.<sup>35</sup> As development rights generated in the low-value peripheries are ‘moved’ and encashed in the lavish new developments in the city’s high-value areas, working people are coercively evicted and ‘moved’ from high-value areas to the peripheries to make way for ‘world class’ infrastructure and beautification projects. This dual movement, that produces terrific real estate surpluses through a combination of market-oriented tools and extra-economic coercion (Ghertner, 2014; Harvey, 2008), is premised on a deep rooted environmental discrimination - where propertied ‘citizens’ are deemed deserving of sanitized and safe environments, while the property-less ‘encroachers’ are condemned to live in degraded natural and man-made wastelands on the fringes. Mumbai’s makeover is likely to relocate tens of thousands of households creating a significant demand for rehabilitation townships like Mahul, and the demand for new sites that can be built with higher development intensities. The logic of this incentive-extractive planning paradigm has presented the city’s highly uneven geographies as lucrative opportunities for accumulation, and its outcome has been an even higher concentration and densification of the city’s poor. Historically, a common refrain among the middle-class civil society in Mumbai has been that the city’s ‘slums’ have grown and spread due to the absence of planning: the object of ‘planning’ in this conception, was the achievement of spatial order and social control. The key innovation of neo-liberal planning has been to make this objective profitable – environmental deregulation has not produced spatial inequities in the city; rather, it has opened up greater possibilities to *profit* from inequity. ♦

35 The World Bank’s Operational Directive for “involuntary rehabilitation” that have been made to align with the SRA’s PAP and MMRDA’s R&R township models, requires rehabilitated populations to be provided “sufficient investment resources and opportunities to share in project benefits” and “assisted in their efforts to improve their former living standards, income earning capacity and production levels.” (Bank, 1990; Bhide and Dabir, 2010).



**Figure 5**

Building footprints of some PAP and R&R projects developed with 2.5 FSI.



Source: Author

## PART 6 CONCLUSION: IN SEARCH OF ENVIRONMENTAL WELL-BEING

### **Housing as an Environmental Question**

When is “housing an environmental problem?” asks Anne Rademacher (2009) in a piece that investigates how environmental logics are deployed to problematize specific forms of urban housing. Recent scholarship has begun to apply a political ecology framework to the study of urban contexts (Rademacher and Sivaramakrishnan, 2013), with a focus on “urban nature and social dynamics in which they are experienced”, and an interest in “social nature...as a contested site and a constituent of imagined sustainable lives” (ibid, p.11-13). The conception of adequacy and habitability are essentially environmental categories, and therefore ought to be considered central to the way ‘nature’ shapes and is shaped by aspirations and interventions in the production of urban environments. In many ways urban housing has a long legacy of being considered an environmental ‘problem,’ justifying historically the gradual increase of government action in housing – though with different trajectories in different contexts (Chandavarkar, 2009; Leopold and McDonald, 2012; Marcuse, 1986; Rao, 2013). Environmental health and wellbeing historically evolved into a collective good, and like all other collective goods, has remained a dynamic site that has witnessed waves of struggle, accommodation and capture. Expressed through the regulation function of the state, the notion of what is considered ‘adequate’ as conditions for health, safety, comfort, privacy and wellbeing of inhabitants is enshrined in various housing and building codes and environmental planning norms; planning and its power to shape and regulate the city, has thereby simultaneously offered both the

promise of an acceptable quality of life, and the prospect of delegitimizing all that refuses to conform to its strictures. Since environmental planning and regulation is concerned with the governance of, and access to environmental goods and services even in dense urban contexts, it plays a central role in the conception, adoption, regulation and transformation of the environment to sustain a healthy and dignified urban life. In that sense, the struggle over living conditions in cities – housing being the main vehicle for such a demand – has always been, in part, an environmental struggle.

Public intervention in the promotion of environmental health was a means to decommodify environmental goods and services – a counter movement (Polanyi, 2001) that emerged when the social consequences of unregulated housing were experienced and recognized. In recent decades, regulations that promote environmental health, safety and quality have been recast as state interference to be overcome if the city’s millions are to be housed ‘affordably’ in formal apartments. And though there has been a general diminution overall, regulations have been reduced to the point of non-existence for the habitations of the poor, condemning them to the most degraded conditions produced in the city, and this has been achieved through the instruments of formal planning. Mumbai’s formal planning system emerged historically as a means to prevent the very conditions that it now actively facilitates; it is this new modality of planning, and not its absence, that perhaps poses the gravest threat to the health, livelihood and well-being of the city’s working poor. ♦

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