

# Dharavi Redevelopment Plan: Contested Architecture and Urbanism

The Dharavi Redevelopment Project reduces slum rehabilitation to a simplistic problem of numbers in terms of Floor Space Index. At the core of the battle over Dharavi Redevelopment Project is a cultural conflict over urban citizenship and what the ideal city should be.

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Dharavi, an organic settlement in Mumbai, is located on a roughly triangular site that measures a whopping 525 acres. The slum is located between Nariman Point, which is the central business district in southern Mumbai and the Bandra-Kurla complex, which is the new emerging financial center in mid-town Mumbai. The suburban train stations of Mahim, Matunga, and Sion – located at the three corners of Dharavi’s triangular site – connect the township to the Western, Central, and Harbour suburban train lines. Dharavi is often referred to as Mumbai’s “golden triangle” because of its connectivity to the suburban train system and its proximity to the central business district, the mid-town financial center, and Mumbai’s international airport – the Chhatrapati Shivaji International Airport.<sup>1</sup>

In 2004, the Maharashtra Housing and Area Development Authority (MHADA) proposed the Dharavi Redevelopment Project (DRP) as a public-private enterprise that would be open to global developers. In June 2007, the government of Maharashtra advertized the redevelopment project as a five billion euro venture that would divide Dharavi into five sectors. On the basis of competitive bidding, international developers were supposed to develop these sectors. The developers would pay a premium to the Government, re-house the slum dwellers, and provide amenities like schools, primary healthcare facilities, and infrastructure – thereby, ridding the state of some its developmental responsibilities. In exchange the developers would get incentivized Floor Space Index (FSI) that could be built for commercial and residential land uses for sale in the open market. The Dharavi Redevelopment Project was conceived by the architect Mukesh Mehta who listed the key goals of the DRP as: “sustainable development; rehabilitation of all the slum families and businesses; reestablishment of non-polluting industries; and the integration of slum dwellers with main stream residents.”<sup>2</sup> The Dharavi Redevelopment Project has been marketed as a form of sustainable urbanism through the HIKES (health, income, knowledge, environment, and socio-cultural

development) program.<sup>3</sup> The HIKES program, which effectively realizes the “world-class city” urban vision of neoliberal urbanists is postured as sustainable urbanism, making it attractive to neoliberal urbanists and middle class environmentalists alike.

In theory, the Dharavi Redevelopment Project would provide the residents with cross-subsidized materially upgraded permanent high-rise modern housing, piped water, sanitized waste disposal, drainage, and green parks. Yet the slum-dwellers have rejected it as a hubristic and unsustainable project designed to evict and disenfranchise them. This paper examines why the Dharavi Redevelopment Project is a contested model of architecture and urbanism to argue that the project is emblematic of class warfare over architectural typologies, urban space, urbanism, and the role of the state in making world-class cities. The Dharavi Redevelopment Project reduces slum rehabilitation to a simplistic problem of numbers in terms of Floor Space Index. At the core of the battle over Dharavi Redevelopment Project is a cultural conflict over urban citizenship and what the ideal city should be.

## **DHARAVI**

In the nineteenth century Dharavi was a marshy malarial swamp that was considered unsuitable for development. It became the marginal northern squatter settlement for immigrants in the city of Bombay, which largely developed on the southern parts of the archipelago. In the twentieth century, as Bombay continuously expanded northwards beyond Dharavi, the formation of northern suburbs – such as Andheri, Jogeshwari, Kandivli, Juhu, Versova, Powai, and Malad – have located Dharavi almost at the center of Mumbai. Dharavi is an organic settlement that has evolved without any planning regulations and zoning ordinances. It lacks modern infrastructure and amenities such as hygienic systems of waste disposal and an adequate clean piped supply of drinking water. The vernacular housing stock that comprises shanties displays originality, resourcefulness, and cleverness in the use of urban and construction waste. Dharavi’s building stock is a combination of permanent and impermanent structures, which often do not conform to the city’s building codes and are a safety hazard for the residents.

Dharavi is an extremely dense, overcrowded, complex, and vibrant township that is not merely a residential area that provides cheap labor for the city. Dharavi is a mixed landuse settlement that supports several functions including living, retail, services, wholesale supplying, and manufacturing.<sup>4</sup> It is a low-FSI high-density settlement with the median floor area of houses typically at 10 Sq.m (2.2 sq.m per capita).<sup>5</sup> Dharavi houses as many as 15,000 single room factories that employ around a quarter million people, mostly housed in single room tenements. The retail, manufacturing, services, and wholesale supply chains operating out of Dharavi are estimated to turn over a whopping \$US 660 million to a billion annually.<sup>6</sup> Dharavi, a melting pot of immigrants from the Indian hinterland, has evolved to become a multi-religious, multi-ethnic, and multi-linguistic community with distinct spatial settlements that conform to its demographic diversity.<sup>7</sup> The residents of Dharavi often lack substantiated proof of land tenure, making them extremely vulnerable to land sharks.

## **NEOLIBERAL URBANISM: THE INTELLECTUAL FOUNDATION OF THE DHARAVI REDEVELOPMENT PROJECT**

Mumbai’s cityscape has undergone a rapid and uneven transformation that resulted from neoliberal urban policies. These changes began with the

liberalization of India's economy beginning in 1991 and matured into the millennial vision of transforming Mumbai into a world-class city, on the lines of Singapore and Shanghai. The state has used three instruments of urban transformation to achieve the world-class city status: slum evictions, Special Economic Zones, and peri-urban new towns.<sup>8</sup> Of these instruments, this paper is most concerned with slum evictions and the role of the state in the provision of housing. As India's markets liberalized one of the impacts of the new market driven policies was that the state withdrew from its former responsibility as one of the key players in the provision of housing and urban infrastructure. The 1990s saw the increased emergence of housing as a private industry with the implementation of neoliberal urban policies. The rise of neoliberal urbanism has also catalyzed the privatization of urban services, such as water, electricity, and communications, which were previously the state's responsibility. Consequently, urban developments such as – the implementation of large-scale infrastructure projects through public-private partnerships, the increased demolition of slums to free up land for middle-classes and the rich, and the demolition of Mumbai's old inner city industrial building stock to make way for new building types such as multiplexes and malls – have transformed Mumbai's cityscape.<sup>9</sup>

Two significant developments have signaled a transformation in the role of the state in the housing sector – the repealing of the Urban Land Ceiling and Regulation Act (ULCRA) in 1999 and the introduction of Transferrable Development Rights (TDR) in 1991. The ULCRA was a housing act passed in 1976 during Indira Gandhi's emergency rule with the intent of providing a fair distribution of land and housing to the poor. Through the ULCRA the state set up a ceiling on urban land and made provisions to distribute surplus urban land to the poor at affordable prices. In theory the act was equipped to provide equitable distributive justice in terms of access to housing, but in practice ULCRA was subject to legal and structural loopholes that became barriers in achieving its objective on a wide scale.<sup>10</sup> However flawed the act was, its repealing symbolized that the state would no longer be the dominant actor responsible for housing its homeless citizens. TDR is an instrument that enables the trade of development rights in the free market. It separates a parcel of land from its development rights and makes it transferable to another location because the original parcel is unbuildable to its full FSI. The privatization of housing and the introduction of deregulatory instruments such as TDR have contributed to the creation of a socially fragmented cityscape, deeply fissured by class.<sup>11</sup>

The neoliberal urbanist vision for the complete Haussmanization of Mumbai and its transformation into a world-class city was fully fleshed out in the McKinsey report. In 2003, McKinsey Consulting and Bombay First published a report titled *Vision Mumbai: Transforming Mumbai into a World-Class City: A Summary of Recommendations*.<sup>12</sup> The report proposed making Mumbai into a world-class city through large-scale urban renewal and rebuilding with higher FSIs to increase the building stock of the city. Currently, in Mumbai the FSI is 1.33 for the island city and 1.00 for the suburbs.<sup>13</sup> The report contended that the current FSI's of 1.0, 1.33, and 2.5 were inadequate. The McKinsey report proposed a block-by-block demolition and rebuilding Mumbai with higher FSIs of 3 to 4. The increased population density would be supported by a world-class transport infrastructure.

The report anticipated that the rebuilding of the city would reduce the percentage of the slum population from the existing 50–60% to 10–20%. The report made a strong case for emulating Shanghai as a model for Mumbai's

transformation into a world-class city.<sup>14</sup> The McKinsey paradigm was based on a public–private alliance that would attract an enormous amount of global capital in the form of foreign direct investments (FDI) injected into the housing and infrastructure sectors. This market driven paradigm assumes that bulldozing the city and rebuilding with higher FSIs will generate profits through the sale of surplus built area.

Mumbai already has market driven incentivized FSI models of slum rehabilitation in place. In the mid-1980s, the state government of Maharashtra established a new model of cross-subsidized slum redevelopment strategy in Mumbai. Prior to this model, slum rehabilitation focused primarily on granting legal land tenure rights to residents. The cross-subsidized slum redevelopment model relied on a new, higher FSI, medium-rise building block that granted the original slum dwellers a free apartment.<sup>15</sup> Currently, the developer who undertakes slum rehabilitation gets a FSI of 2.5 instead of 1 of the original slum. The developer gets to build 2.5 times the lot size and gives the original slum residents a free constructed living unit equal to 1.0 of the FSI. The developer then sells 1.5 times the built area in the open market. A part of the profit from the sale in the open market subsidizes the construction cost of the living unit of the slum rehabilitees. The McKinsey report proposed much higher FSIs than the existing slum rehabilitation programs support. The report came under heavy criticism from several constituencies for its lack of understanding of the ground realities of Mumbai.<sup>16</sup> Charles Correa criticized the report noting that, “There’s very little vision. They’re more like hallucinations.”<sup>17</sup> The Dharavi Redevelopment Project is firmly grounded in the McKinsey paradigm, which signals a fundamental transformation in the role of the state, formerly from a housing provider – that keeps checks and balances on the private sector – to an agency that is a stakeholder in enabling a highly profitable private housing sector, supported by global capital.<sup>18</sup>

### **MIDDLE CLASS ENVIRONMENTALISM**

The Dharavi Redevelopment Project not only embodies the vision of the neoliberal urbanists, who argue for greater deregulation and limiting the role of the state in urban development, but also urban middle-class environmentalists who aspire to world-class cities. Indian cities, including Mumbai, have seen a surge of middle class environmentalism that has served as an agent in the retooling of urban public space to advance a range of agendas such as greening the city; removal of beggars, hawkers, slums, and filth; and developing recreational facilities.<sup>19</sup> Neoliberal urbanists ally with middle-class urban environmentalists to form an easy and mutually supportive alliance in the construct of the “slums as nuisance” discourse.<sup>20</sup> This “bourgeois environmentalism” operates through civic non-governmental organizations formed at the neighborhood level.<sup>21</sup> In the bourgeois environmentalist discourse slums constitute illegitimate and unwanted urban sites that defy civic urban codes and aesthetics.<sup>22</sup> Instead of looking at slums as sites that marginalize urban poor making them vulnerable in terms of their survival, slums are viewed as ugly encroachments that erode the urban fabric. In the realm of the middle class urban imagination, slums are grasped as polluting, filthy, criminal, and out of place in the city. This perception of slums legitimizes their razing as a legal and ethical gesture of environmental stewardship in making the city beautiful, clean, and healthy. The middle class environmental propriety in realizing the vision of a clean city is easily appropriated by neoliberal urbanists who rely on urban renewal to deprive the poor of their home in the city and a clean environment.<sup>23</sup> Middle class environmentalism easily lends

## ENDNOTES

1. Rani Day, Society for Promotion of Area Resource Centres, and KamlaRaheja Vidyanidhi Institute of Architecture and Environmental Studies, *R[E] Interpreting, Imagining, Developing Dharavi* (Mumbai: Society for the Promotion of Area Resource Centres and Kamla Raheja Vidyanidhi Institute for Architecture and Environmental Studies, 2010).
2. Mukesh Mehta, "Dharavi Redevelopment Project" (paper presented at the Council on Tall Buildings and Urban Habitat: Remaking Sustainable Cities in the Vertical Age, Mumbai February 2010).
3. "Building New 'Ecosystems' in Mumbai's Slums," *India Knowledge@Wharton*, September 06, 2007.
4. Day et al., *R[E] Interpreting, Imagining, Developing Dharavi*.
5. Sunil Kumar Karn, Shigeo Shikura, and Hideki Harada, "Living Environment and Health of Urban Poor: A Study in Mumbai," *Economic and Political Weekly* 38, no. 34 (Aug. 23–29, 2003): 3575–77, 3579–86.
6. Jim Yardley, "Dharavi: Self-Created Special Economic Zone for the Poor," *Deccan Herald* June 4, 2013.
7. Jan Nijman, "A Study of Space in Mumbai's Slums," *Tijdschrift voor Economische en Sociale Geografie* 101, no. 1 (2010): 4–17.
8. See Ananya Roy, "The Blockade of the World-Class City; Dialectical Images of Indian Urbanism," in *Worlding Cities: Asian Experiments and the Art of Being Global*, eds. Ananya Roy and Aihwa Ong (Malden, Mass.: Wiley-Blackwell, 2011), 259–78.
9. Swapna Banerjee-Guha, "Neoliberalising the 'Urban': New Geographies of Power and Injustice in Indian Cities," *Economic and Political Weekly* 44, no. 22 (2009): 95–107.
10. Harini Narayanan, "In Search of Shelter: The Politics of the Implementation of the Urban Land (Ceiling and Regulation) Act 1976 in Greater Mumbai," in *Bombay and Mumbai: The City in Transition*, eds. Sujata Patel and Jim Masselos (New Delhi; New York: Oxford University Press, 2003), 183–206.
11. Navtej Nainan, "Building Boomers and Fragmentation of Space in Mumbai," *Economic and Political Weekly* 43, no. 21 (May 24–30, 2008).
12. McKinsey and Bombay First, "Vision Mumbai: Transforming Mumbai into a World-Class City: A Summary of Recommendations," (Mumbai: McKinsey and Bombay First, 2003) Available online: <http://www.visionmumbai.org/aboutus-docs/McKinseyReport.pdf>
13. Alain Bertaud, "Mumbai FSI Conundrum: The Perfect Storm," in *Mumbai Reader '08*, eds. Pankaj Joshi and Isaac Mathew (Mumbai: Urban Design Research Institute, 2009), 128–51.
14. McKinsey and Bombay First, "Vision Mumbai: Transforming Mumbai into a World-Class City: A Summary of Recommendations."
15. Vinit Mukhija, "An Analytical Framework for Urban Upgrading: Property Rights, Property Values and Physical Attributes," *Habitat International* 264 (2002): 553–70.
16. The News Network, "Vision Mumbai a Recipe for Disaster," *The Times of India, Mumbai* Dec 18, 2003.
17. Suketu Mehta, "Megacities, Mega Dreams for a Connected World," *YaleGlobal* 14 June 2007.

itself as a means of expression, dissemination, and consumption of the neoliberal agenda of making world-class cities.<sup>24</sup>

The collusion of neoliberal urbanism, middle-class environmentalism, and the elite desire to implement the world-class city discourse renders slums as unsustainable urban disasters and validates sociological, ecological, and cultural reasons to rid the city of slums by bulldozing them. In the case of Mumbai, the Maharashtra government and the Brihanmumbai Municipal Corporation (BMC) demolished approximately 360,326 housing units between 1994 and 1998 and another 300,000 in 2004–2005 through slum clearance.<sup>25</sup> The implementation of world-class urbanism projects have faced considerable resistance, making architectural typologies, urban land, and landuse subject to class struggles – of which the Dharavi Redevelopment Project is a prime example.

## RESISTANCE TO THE DHARAVI REDEVELOPMENT PROJECT

The Dharavi Redevelopment Project has become the battleground for what an ideal slum rehabilitation project should be and the role that the state should play in such projects. Zoning, FSI, architectural typologies, entitlements, and unilateralism have emerged as contentious issues in the making of a viable rehabilitation plan. The negotiations over the Dharavi Redevelopment Project between architects, the state, Dharavi residents, NGOs, academics, and public intellectuals illuminate how the project is the site of a battle between fractured state agencies, private developers, and Dharavi residents.<sup>26</sup> By exercising their right to the city, Dharavi residents have collectively asserted their right to participate in urban planning decisions and the right to retool their space on the basis of their needs.<sup>27</sup>

An assessment of cultural and social parameters renders the FSI incentivized model of slum rehabilitation deeply problematic and unsustainable. Dharavi is not a single landuse residential bedroom community where people sleep at night and then commute to their jobs to a distant elsewhere during the day. The single room tenements in Dharavi function as workshops by the day and double up as highly congested sleeping quarters at night. The residents of Dharavi adhere to a livelihood that is often tied to their ethnic, linguistic, and religious identity.<sup>28</sup> A demographic analysis of the township reveals that Muslims from Uttar Pradesh and Hindus from Tamil Nadu dominate the leather industry, Gujarati immigrant potters comprise a guild called "*Kumbharwala*," Biharis and Tamilians populate the textile industry, and women comprise the majority of the workforce in small scale food manufacturing industries.<sup>29</sup> Over several generations, these demographic groups have created complex ingenious modes of spatial inhabitation through fluid landuse patterns and vernacular architectural forms that are uniquely suited to their vocational, kinship, and ethnic ties. One of the most frequently cited examples of this spatial ethno-linguistic dynamic is the *Kumbharwada*, the Gujarati potters community in Dharavi. Their homes are designed as part of the community to support ethno-linguistic ties, the production of pottery, sharing of common services such as kilns, and the sale of their wares.<sup>30</sup> These functions require a low FSI development, an active architectural interface with the street, and a particular shared relationship between adjacent houses. Residents of Dharavi and critics of urban renewal fear that generic models of high-FSI development will be unable to replicate the specificity of vernacular architectural typologies and landuse patterns that are uniquely suited to the Dharavi communities.<sup>31</sup>

FSI remains one of the most contested proposals of the plan. In the rest of

Mumbai, developers are granted an FSI of 2.5 for slum rehabilitation projects and must seek the approval of at least 70% of the community who would be the project-affected persons (PAPs), that is people who will be displaced by the project. In order to be economically competitive and increase the profit margin, specifically for the Dharavi Redevelopment Project, the government deregulated the existing slum rehabilitation rules to increase the FSI to 4 and exempted the developers from the 70% PAP consent rule.<sup>32</sup> The Dharavi Redevelopment Project allows higher FSIs without a clear landuse plan, which is likely to render any infrastructure planning a potential failure.<sup>33</sup> Dharavi residents fear that higher FSIs will create higher unsustainable densities that will place added pressures on infrastructure provision beyond the carrying capacity of the city.<sup>34</sup> This will end up reproducing and exacerbating the spatial urban inequalities that residents are currently subject to.

The Dharavi Redevelopment model relies on capital-intensive construction that not only necessitates an initial high cost of construction, but also entails subsequent recurring expensive building maintenance costs. Heavy rains and poor swampy soil conditions in Mumbai often create the need for expensive structural repairs that can be financially unbearable for the slum rehabilitees.<sup>35</sup> The project recommends high-rise buildings that have higher operational costs like maintaining elevators, delivering water, and keeping the green spaces manicured. It is possible that resettled residents may not be able to afford the high operational and maintenance costs. Even with government subsidies, rehabilitees often struggle with basic utility bills and routine operational costs once they move into rehabilitation housing.<sup>36</sup> It is very likely that rehabilitees will find the cost of living in the building financially unsustainable and feel pressurized to sell their living unit in the market and move to a less desirable peripheral location.

There is no safety net in the Dharavi Redevelopment Project that ensures the residents that they will be able to continue their vocation in the same way as they have in Dharavi for several generations. That would essentially mean that they would either have to move their work site elsewhere and commute to their work, or look for a new job. Either of these scenarios might potentially pressurize rehabilitees into relocating in a new slum in pursuit of their vocation that Dharavi sustained for them. Since their livelihood is deeply intertwined with their ethnolinguistic communities, depriving them of their vocation will essentially mean the breaking down of their closely-knit communities. High-rise towers will not be able to replicate the spatial relationships that foster their existing communities. The displacement of vernacular architectural typologies with global housing types is seen as deeply problematic as it essentially erases the cultural histories of the city.<sup>37</sup>

The most predatory and disputed feature of the Dharavi Redevelopment Project is the lack of a detailed data set to rely upon and a set of transparent parameters to determine housing entitlements.<sup>38</sup> For the redevelopment project to rehabilitate the residents, at the very least it needs an accurate and reliable census data set. Further, detailed information about the spatial requirements of the residents to sustain their vocations would form the basis of a successful plan. A clear and fair definition of what constitutes Dharavi residency and who is entitled to housing is needed.<sup>39</sup> Proving residency makes the residents feel insecure, a majority of who are long-term tenants or proxy tenants, who might be unable to produce documents required for proving their tenure.<sup>40</sup> At the time the Dharavi Redevelopment Project was conceived there was no detailed census of Dharavi

18. See Vinit Mukhija, "Enabling Slum Redevelopment in Mumbai: Policy Paradox in Practice," *Housing Studies* 16, no. 6 (2001): 791–806.
19. Swapna Banerjee-Guha, "Shifting Cities: Urban Restructuring in Mumbai," *Economic and Political Weekly* 37, no. 2 (2002): 121–28, Amita Baviskar, "Between Violence and Desire: Space Power and Identity in the Making of Metropolitan Delhi," *International Social Science Journal* 55, no. 1 (2003): 89–98, Leela Femandes, "The Politics of Forgetting: Class Politics, State Power and the Restructuring of Urban Space in India," *Urban Studies* 41, no. 12 (2004): 2415–30, D. Asher Ghertner, "Nuisance Talk and the Propriety of Property: Middle Class Discourses of a Slum-Free Delhi," *Antipode* 44, no. 4 (2012): 1161–87, Jonathan Shapiro-Anjaria, "Guardians of the Bourgeois City: Citizenship Public Space and Middle-Class Activism in Mumbai," *City and Community* 8, no. 4 (2009): 391–406.
20. Ghertner, "Nuisance Talk and the Propriety of Property: Middle Class Discourses of a Slum-Free Delhi."
21. Amita Baviskar labels this form of middle class environmentalism as bourgeois environmentalism. See Baviskar, "Between Violence and Desire: Space Power and Identity in the Making of Metropolitan Delhi."
22. Ghertner, "Nuisance Talk and the Propriety of Property: Middle Class Discourses of a Slum-Free Delhi."
23. Baviskar, "Between Violence and Desire: Space Power and Identity in the Making of Metropolitan Delhi."
24. See Roy, "The Blockade of the World-Class City; Dialectical Images of Indian Urbanism."
25. Darshini Mahadevia and Harini Narayanan, "Shanghaing Mumbai – Politics of Evictions and Resistance in Slum Settlements," in *Working Paper Series* (Ahmedabad: Centre for Development Alternatives, 1999).
26. Liza Weinstein, "'One-Man Handed': Fragmented Power and Political Entrepreneurship in Globalizing Mumbai," *International Journal of Urban and Regional Research* 38, no. 1 (January 2014): 14–35.
27. Mark Purcell, "Excavating Lefebvre: The Right to the City and its Urban Politics of the Inhabitant," *GeoJournal* 58, no. 2–3 (2002): 99–108.
28. Nijman, "A Study of Space in Mumbai's Slums."
29. Day et al., *R[E] Interpreting, Imagining, Developing Dharavi*, 15.
30. Manish Chalana, "Slumdogs Vs. Millionaires: Balancing Urban Informality and Global Modernity in Mumbai, India," *Journal of Architectural Education* 63, no. 2 (2010): 25–37, Day et al., *R[E] Interpreting, Imagining, Developing Dharavi*, Amina S. Razvi, "A Multilateral Design Methodology for Development Contexts: A Framework for the Dharavi Potters" (Massachusetts Institute of Technology, 2002).
31. Chalana, "Slumdogs Vs. Millionaires: Balancing Urban Informality and Global Modernity in Mumbai, India."
32. Kalpana Sharma, "Dharavi: An Uncertain Future," in *Reclaiming (the Urbanism of) Mumbai*, eds. Kelly Shannon and Janina Gosseye (Amsterdam: Sun Academia, 2009), 83–91.

33. Sheela Patel and Jockin Arputham, "Plans for Dharavi: Negotiating a Reconciliation between a State-Driven Market Redevelopment and Residents' Aspirations," *Environment and Urbanization* 20, no. 1 (2008): 243–253.
34. Ibid.
35. P.K. Das, "Manifesto of a Housing Activist," in *Bombay: Metaphor for Modern India*, eds. Sujata Patel and Alice Thorner (Bombay; New York: Oxford University Press, 1995), 170–84.
36. Sheela Patel and Jockin Arputham, "Recent Developments in Plans for Dharavi and for the Airport Slums in Mumbai," *Environment and Urbanization* 22, no. 2 (2010): 501–04.
37. For a scathing critique of the McKinsey report, see Chalana, "Slumdogs Vs. Millionaires: Balancing Urban Informality and Global Modernity in Mumbai, India."
38. Sheela Patel et al., "Getting the Information Base for Dharavi's Redevelopment," *Environment and Urbanization* 21, no. 1 (2009): 241–51.
39. According to the recommendations of the Slum Rehabilitation Act of 1971, initially the Slum Rehabilitation Authority (SRA) proposed that the slum dweller who is registered in the voters' list as of January 1, 1995 and who can prove occupancy of a tenement in Dharavi would be eligible for rehabilitation. See Slum Rehabilitation Authority, "Dharavi Redevelopment Project," ed. SRA (Mumbai 2004). Online at <http://www.sra.gov.in/htmlpages/dharavi.htm> Through protests and negotiations, the government reestablished a cut-off date of January 1, 2000 as a criterion for claiming Dharavi residency. If a resident can prove that s/he has been living in Dharavi before the cut-off date they would be entitled to housing. See Sanjay Jog and Aneesh Phadnis, "Government to Expedite Dharavi Rehab Plan," *Business Standard* January 3, 2012.
40. Clara Lewis, "With No Proof, Dharavi Tenants Have Nowhere to Go," *The Times of India, Mumbai* Dec 17, 2011.
41. Patel and Arputham, "Plans for Dharavi: Negotiating a Reconciliation between a State-Driven Market Redevelopment and Residents' Aspirations."
42. The first survey was intended to be plane table survey that provided a physical enumeration of land details, lot sizes, streets, structures, and slum dwellers. The second was a geographical information system (GIS) based biometric baseline socio-economic survey. Varun Singh, "7-Year-Itch for Dharavi Redevelopment Project," *Mid-Day* April 24, 2012.
43. Patel et al., "Getting the Information Base for Dharavi's Redevelopment," 241–51.
44. Nauzer Bharucha, "Dharavi Remake Plan a Land Grab, Says Panel," *The Times of India* Jul 8, 2009.
45. Camillo Boano, Melissa Garcia Lamarca, and William Hunter, "The Frontlines of Contested Urbanism: Mega-Projects and Mega-Resistances in Dharavi," *Journal of Developing Societies* 27, no. 3–4 (2011): 295–32.
46. Sheela Patel and Jockin Arputham, "An Offer of Partnership or a Promise of Conflict in Dharavi, Mumbai?," *Environment and Urbanization* 19, no. 2 (2007): 501–08.
47. Patel et al., "Getting the Information Base for Dharavi's Redevelopment," 241–51.

that would form the basis of the rehabilitation plan. In the absence of a demographic survey, and a clear set of guidelines for deciding who would get entitled to free housing, it became clear that a number of residents would be evicted from their homes in the process.<sup>41</sup> To implement the Dharavi Redevelopment Project, two incomplete surveys were conducted in April 2004 and November 2007.<sup>42</sup> The survey was difficult to complete because of the complex, extremely dense, and fluid patterns of settlement in Dharavi. In addition, the residents feared the surveyors and therefore, were reluctant to offer information.<sup>43</sup> This is one of the biggest structural loopholes in Dharavi Redevelopment Project that creates opportunities for developers to deny entitlements to residents. The project has been critiqued as a top down "land grab scheme" that gives carte blanche to international corporate developers at the cost of several evicted Dharavi residents.<sup>44</sup> The project relies heavily on free-market driven mechanisms to achieve spatial distributive justice and its so-called sustainable urbanism. Further, this market driven model of urbanism operates under corrupt and opaque political regimes, which increases the possibility of bureaucratic malfeasance to deny entitlements to Dharavi residents.

The Dharavi Redevelopment Project architect Mukesh Mehta has been accused of treating the site as a *tabula rasa* condition on which the high-rise high-density plan would be imposed.<sup>45</sup> The residents of Dharavi were never consulted in the formulation of the plan. It was assumed that they would be on board to get free housing and further, that the proposed architectural and urban typologies would be acceptable to them. The residents viewed the unilateral formulation and execution of the Dharavi Redevelopment Project with suspicion. With the support of three non-governmental organizations – Society for Promotion of Area Resource Centres (SPARC), the National Slum Dwellers Federation (NSDF), and Mahila Milan – the Dharavi residents have collectively enfranchised themselves by resisting the unchecked implementation of the Redevelopment Project. The refusal to accept the project appeared in the public sphere in June 2007 when Jockin Arputham from the NSDF wrote an open letter to the government and private developers critiquing the plan as a unilateral program with several loopholes designed to evict residents. In the letter Arputham enlisted the demands of the Dharavi residents that included: one, a detailed census; two, data collection on all enterprises in the township; and three, a participatory multilateral paradigm of redevelopment in which the Dharavi residents would have a voice in their resettlement.<sup>46</sup> Their efforts led to the formation of an expert advisory group called the Concerned Citizens for Dharavi. This group comprised NGO social workers, retired professionals, Mumbai architects, and academics.<sup>47</sup> In 2009 the government of Maharashtra formally recognized this group and sought their advice in revising the Redevelopment Project. At the time of the writing of this article, the Dharavi Redevelopment Project is being revised and reformulated to better meet the needs of the Dharavi residents.