

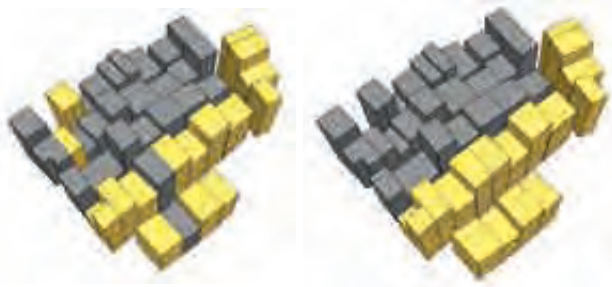
# The Meaning of Valuable

## 10

SHORT LISTED

Smruti Kamat, Lester Rozario, Soumya A.S,  
Zeba Aziz, Vipul Mehra, Mekhla Basu,  
Vishus Narayanan

The team proposes to tap the economic potential and livelihood generation of Dharavi rather than its land value, thus proposing Brand Dharavi – collectively owned by entrepreneurs to assure quality, better sales and promotion of Dharavi produced goods. It proposes cooperatives and provision of occupancy rights so that residents can build incrementally in accordance with new building codes without further densifying Dharavi. The jury appreciated these ideas and the proposed upgrades based on street widening, pooling plots, house swaps and a co-op housing block. However, the jury found that other essential elements related to social amenities, community participation, and environmental concerns were not addressed.



## PREMISE

A lack of affordable, adequate housing and infrastructure in cities with increasingly burgeoning populations has brought about a proliferation of informal settlement patterns around the world. Hence it is binding on part of the Government to make options for affordable housing available to this half of the city.

Most policy makers view slums as a challenge, a problem generated by the contradictions of urbanisation in developing countries and a product of flawed land and housing policies. In fact, informal settlements continue to provide viable housing options for the urban poor and are one solution to building inclusive cities.

Such settlements could be a strong driver of development if Governments stopped treating them as a problem to be cleared and started treating them as a population to be serviced, providing access to reliable land titles, security, roads, water and sewer lines, schools, and clinics. The urban poor should be realised as a major resource rather than a problem.

### **Reinforce the Positives**

**Naturally Occurring Mix** — The urban fabric of Dharavi shows that multiple uses can co-exist adjacent to each other contributing to lively community networks, use of local materials, mixed use and walkable neighbourhoods.

**Sustainable Living** — Governments must recognise the innovative and sustainable design tactics in this complex, emerging housing scenario and aim to build such inclusive cities.

**Low Crime Rates** — Contrary to popular belief, the crime rate in Dharavi is very low in comparison to other districts in Mumbai.

**Recycling Marvel** - Mumbai is home to almost 300,000 "ragpickers" - people who make their living by recycling waste which primarily takes place in Dharavi's 13th Compound; a place where over 80% of Mumbai's waste is given a new lease of life. The seller and buyer both make money thus making it a true revenue-generating idea.

### **Tackle the Negatives**

**Narrow streets** — Many streets in Dharavi are extremely narrow, preventing the penetration of light and ventilation.

**Poor sanitation** — Only 4% of the community's population has access to individual toilet facilities while the remaining use public toilets. Public toilets are limited in number (roughly 1 toilet per 1,440 residents) and not accessible at all times of the day. This leads to open defecation, a widely rampant practice throughout Dharavi.

**Poor water supply** — Around 27% households have access to individual water connections while the rest depend on public taps. Due to the limited number of hours that water is supplied in the slum, public taps become a point of conflict around the issue of access.

**Waste dumping** — Most of Dharavi is home to or surrounded by solid waste, both organic and inorganic. The western portion, along the Mithi River, is a dumping ground for the entire city. Such conditions have severe implications on the community's public health; especially in a wet city like Mumbai.

## GUIDING PRINCIPLES

The underlying principle is to preserve the fabric of Dharavi, causing minimum interference to established networks that contribute to its success, while improving the quality of life.

### 1. Economic Value, not Land Value

There is a merit in tapping economic potential rather than exploiting land/ real estate value of Dharavi. The proposals that advocate unlocking the land value would only yield monetary gains for the Government and a selected few. The land in question has already been fully exploited in terms of economic output, livelihood generation and housing.

### 2. No Free Housing

A diverse group of people have been living together in Dharavi for generations, enmeshed in an intricate pattern of owners and renters. These equations are built on the investments each individual has made incrementally over the years and they have been accepted peacefully by all residents. Apart from being economically unsustainable, the prospect of free housing will disrupt this pattern of relationships and thereby prevent residents from uniting together as a community to better their conditions.

### 3. Community Driven Development

Eliminating the prospect of free housing will put the onus back on the community to better their living conditions. It will lead to a more accurate survey, which is vital to making an appropriate proposal.

### 4. Infrastructure development by the Government

While individual households can invest in and build their houses incrementally, provision of infrastructure and services remains the responsibility of the Government. Also, it has been established in other cases and in Dharavi that the poor actually end up paying much more for accessing water and sanitation services.

### 5. Mixed Use Zoning

The efficiency of systems in Dharavi is based on the co-location of multiple uses including manufacturing. Horizontal and/or vertical segregation of activities usually calls for construction of elevated podiums, skywalks, etc. This invariably leads to neglected spaces underneath these structures where crime and filth proliferate.

### 6. Context Specific Approaches

There cannot be a single blanket solution for all of Dharavi, considering its scale and diversity. Any such attempt is bound to fail.

## GOVERNANCE

The Government needs to move away from the short term gain of a land centric approach towards an economy centric approach. The Government could tap the inherent potential of Dharavi's industries by bringing them under some form of legal ambit. When Dharavi's industries are put together it would form a formidable economic force and a tremendous employment generator.

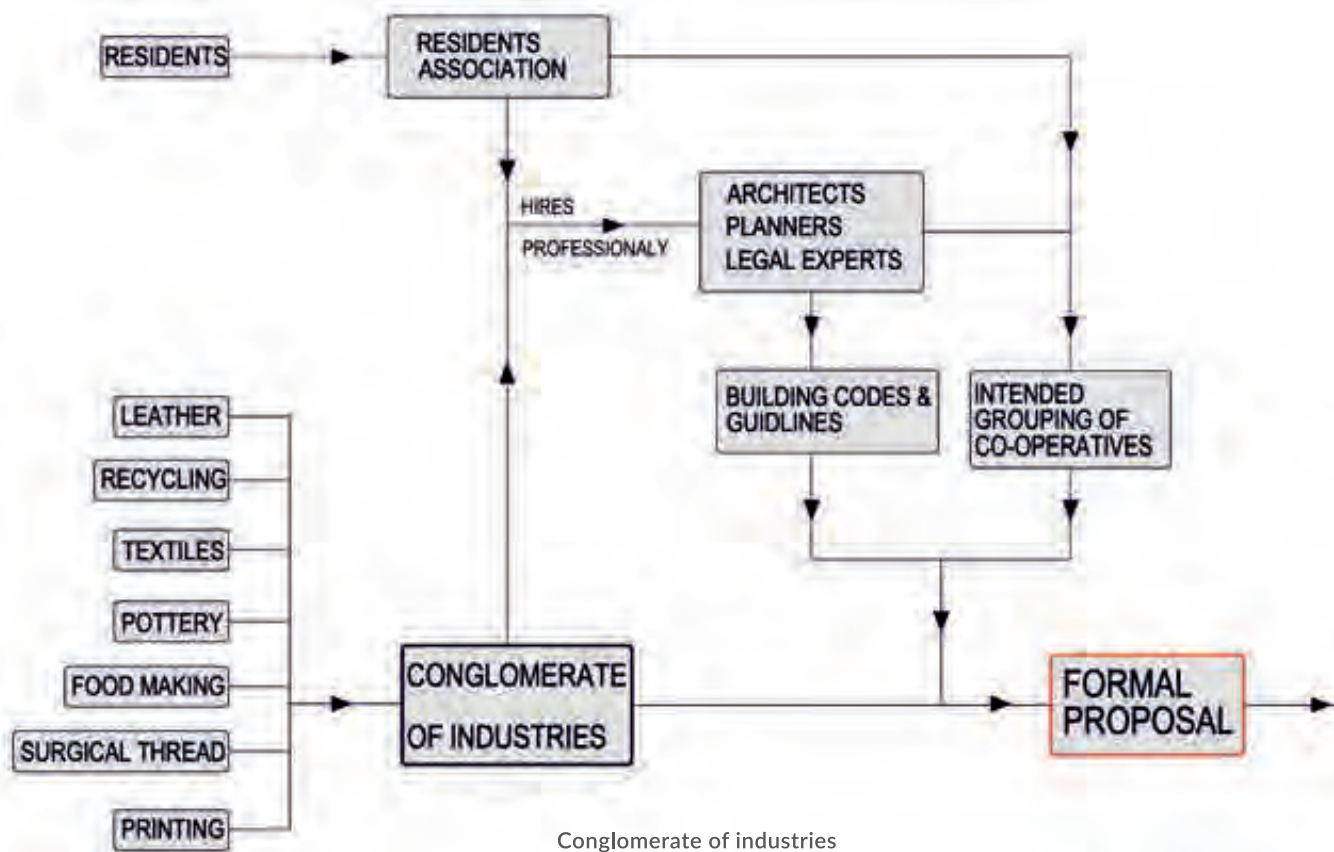
The proposed strategy is to create a conglomerate called Brand Dharavi.

The proposal also suggests the creation of co-operatives based on existing communities and geography that will form a federal structure.

The proposal for a residents association petitions the Government for occupancy rights for those who are established as residents of Dharavi.

A set of building codes and guidelines are proposed to be prepared by a panel of professionals such as architects, planners and legal experts, hired by the conglomerate prior to approaching the Government for approval.

Once the residents are given the right to occupy their dwellings, they will redevelop their houses incrementally following the building codes and guidelines while the Government will provide the infrastructure.



Currently most of the products made in Dharavi are sold in the informal market where the quality and cost may or may not be appropriate. Also, there is a stigma that prevents many outside parties from associating with anything coming out of Dharavi. The purpose of the company is to assure the quality of products and provide a platform to sell them in a wider market. This can be done by certifying the products based on quality and other standards and stand guarantee for the same. For the above purpose the company will hire professionals who will perform the following duties:

### 1. Quality Assurance and Certification

Depending upon their quality, all products ranging from leather wallets to recycled plastic pellets may be rated such as 1 Star, 2 Star etc. Apart from the actual products, the certification will also look at standards such as basic humane work conditions, standard wages, safe disposal measures etc. The idea behind stepwise grading is to give an opportunity to industrial units to clean up their act incrementally. This may reduce their profit margins in the short run but will yield higher, long term profits.

### 2. Marketing, Promotion and Sale

Brand Dharavi will also engage in marketing and promotion of products through various platforms and fetch a wider market. Brand Dharavi keeps a percentage of the profits generated from the sales.

The companies participating in Brand Dharavi do not need to sever ties with their existing buyers. Once they see value in selling their products through this platform they would automatically increase the share of products sold through Brand Dharavi. All industry owners need not sell their products through Brand Dharavi. They may avail of certification services only.

As Brand Dharavi's corpus increases they may provide loans to industrial units who want to upgrade their infrastructure and products.

We propose the formation of a conglomerate that represents all industries called Brand Dharavi, once occupancy rights are provided to all Dharavi residents.





Given that the businesses in Dharavi are not run out of purely industrial units, this process of redevelopment will cover residential, retail and all types of built structures. This means that all types of occupations will have representation in Brand Dharavi.

As more and more people engage in redevelopment, Brand Dharavi may further diversify its role as follows:

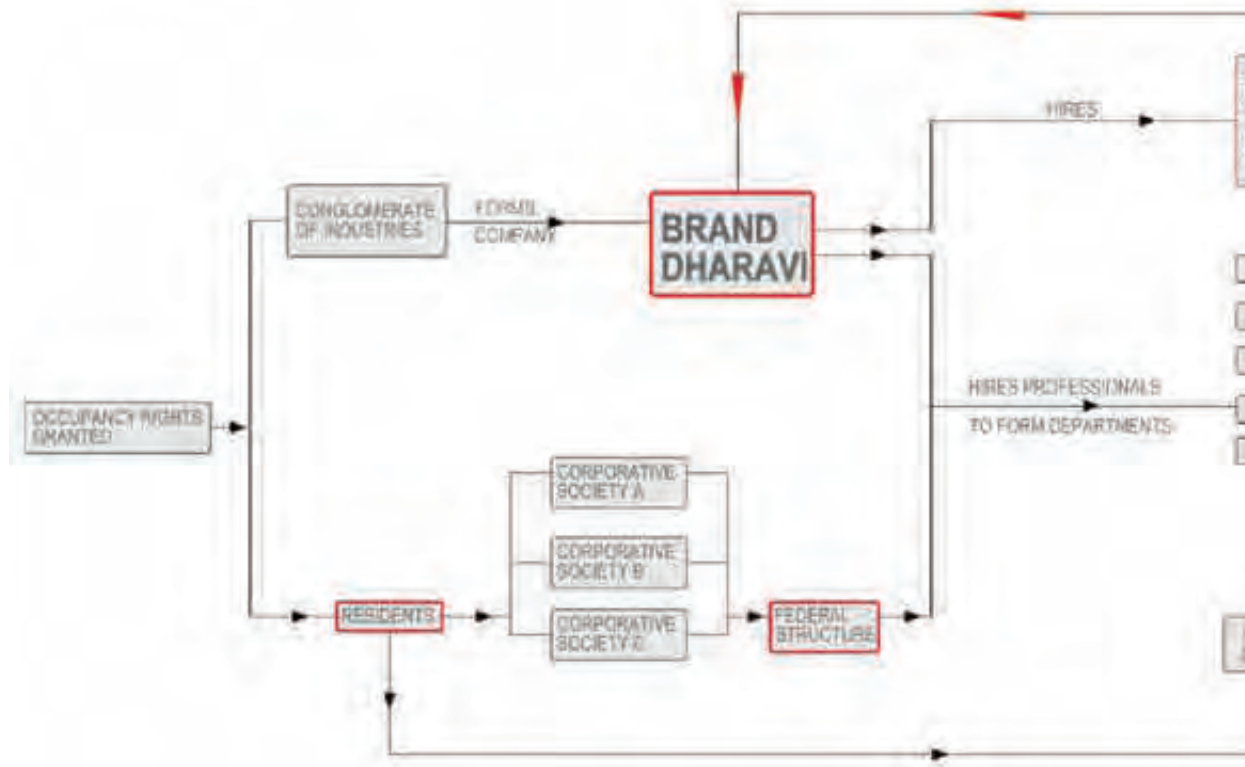
1. Design - To advise residents on how to incorporate the prescribed building codes with respect to built form and open spaces. This department will hire architects and planners.
2. Valuation and finance - To determine the order of rents and monetary settlements when properties upgrade and/or tenure rights exchange hands. It will engage chartered accountants and economists.

3. Entitlement - To ensure that displaced occupants of Dharavi get their proportionate entitlements at the time of redevelopment. This group will also regulate the transfer of tenure rights to outside parties. It will hire legal experts and social workers.

4. Industrial monitoring - To monitor working conditions and safe effluent disposal methods. Environmentalists will be hired in this department.

5. Liaison department - To liaison with the Government to ensure that the infrastructure provision is coordinated with other redevelopment. This will have engineers, social workers, architects and planners.

As the company grows, it is hoped to galvanize more support that can impact the State in the interest of Dharavi as a whole.



# FINANCE

## Brand Dharavi

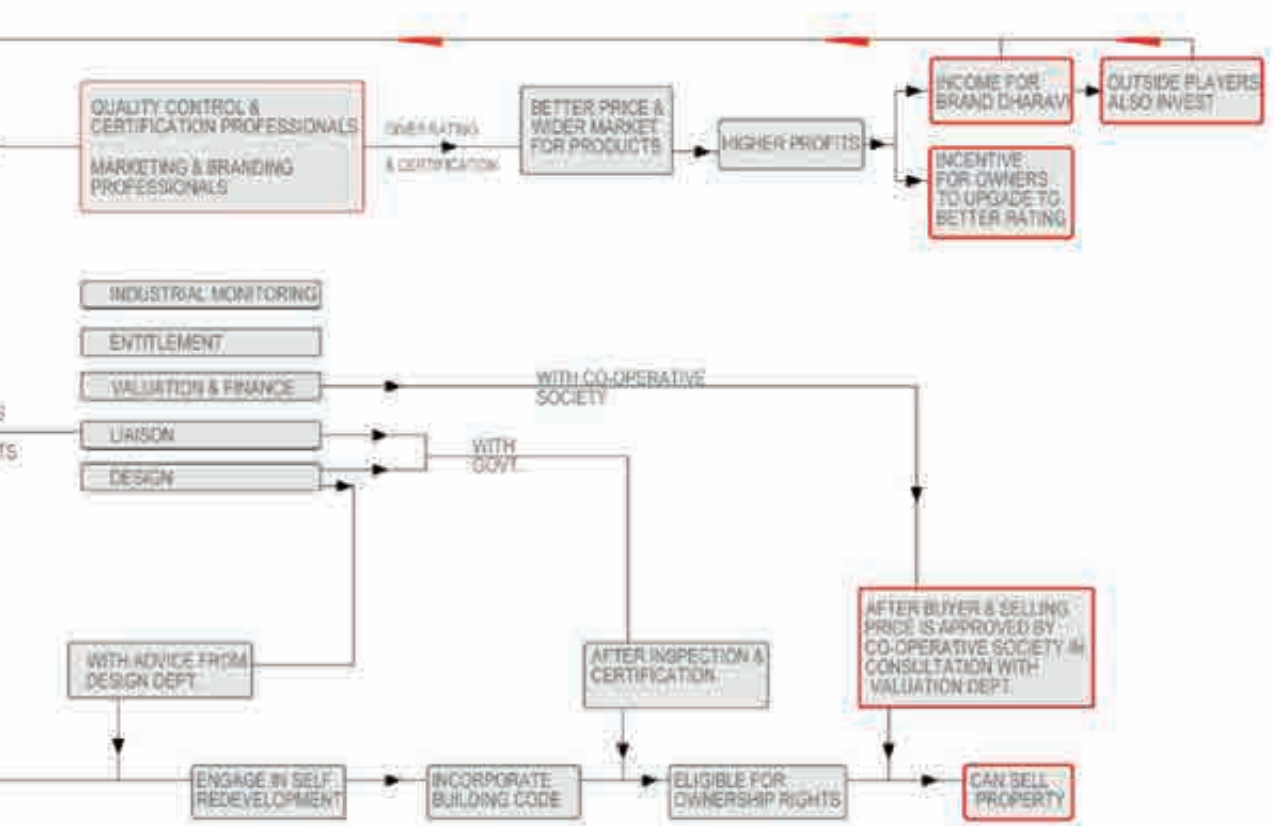
The initial seed money for Brand Dharavi will be raised by paying a membership fee. Additional funds will be pooled by initial members to form a corpus. After the company reaches a certain level in terms of profit raised from sales and certification, the seed money could be returned to the initial investors with interest. This will be done to create a neutral platform so that power is not concentrated in the hands of a few people. This is also to ensure that the initial investors cannot promote their own products and kill the competition within Dharavi. The board of directors could be elected to their post to oversee and manage the activities of the company on a rotational basis.

## Infrastructure

Funding for infrastructure is assumed to be from Government schemes and the local Government budget.

## Housing

It is envisaged that the housing units will be upgraded incrementally by house owners themselves. As Brand Dharavi becomes a bigger franchise, some of the profits may be channelised towards redevelopment and upgrading of houses as well.





## PLANNING

### Industrial Zoning

Retain the mixed use nature of Dharavi, in terms of how industries and workshops co-exist in residential areas. At a broad level there already exist industrial zones in Dharavi such as recycling and pottery.

Move the residual units of recycling and other polluting industries into one zone so that they use the proposed effluent treatment plant, making sewage management easier to handle. There are certain extremely hazardous industries which will need to be moved out of Dharavi.

### Strengthening Existing Roads

Existing roads are proposed to be widened to put in water supply and sewage lines. These new roads will become the main streets for each cluster that is being upgraded.

### Open Spaces + Community Spaces

In order to encourage the creation of open and community spaces, owners who give up their land to create community spaces will be given extra FSI. The objective is to retain the village-like quality of neighbourhoods and improve their habitability.



Map showing the regrouping of the recycling units to a common area making it easier to manage effluents from these industries.





### Cluster Redeveloped incorporating Guidelines

The plans show an intervention on a portion of Social Nagar, a neighbourhood off 90 Feet Road. The nagar is transformed using the tools and guidelines described under planning.



- LEGEND
- TYPE A ( ALTERATION)
  - TYPE B ( GROUPING)
  - TYPE C ( COMMUNAL HOUSING)
  - OPEN & COMMUNITY SPACES
  - WIDER STREETS(STRENGTHENED)
  - EXISTING STRUCTURE
  - REDEVELOPED BUILT FORM



## HOUSING

To achieve livability, as directed through guidelines and standards, modifications are proposed as described in the three typologies.

### TYPE A

- Widening of streets requires the building line to be setback further.
- The structures that give up part of the footprint because of this expansion can build that area on the top most floor provided that they have not exceeded the maximum FSI.
- The plot size considered for FSI will be the area before making the deduction for road expansion.



Realignment of houses after widening of streets

Most of the houses are load bearing and upper floors are built incrementally in brick and mortar. An I section frame with stone slabs spanning the I sections form the floors. It is possible to alter these houses by building a wall in line of the new setback thus acting as a scaffolding and systematically demolishing the part protruding into the setback.



Original load-bearing structure

New wall built in line with a new setback on all floors

Top floor walls demolished to new setback line

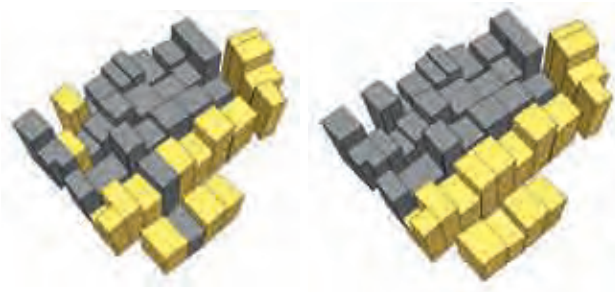
First floor walls demolished to new setback line

I section walls demolished to new setback line

Ground floor walls demolished to new setback line



Pooling plots



House swap



Co-operative housing/ communal block

## TYPE B

### Pooling Plots

- Individual Plots may be pooled into a single larger plot and redeveloped. This is ideal under conditions where street widening has reduced plot sizes or where there is an opportunity to create open spaces and common amenities.

### House Swap

- Residents may swap houses between those who want to redevelop and those who don't. In doing so they may demolish the entire block and rebuild it as a group to suit their needs.
- Structures that have exceeded the FSI limit may be demolished and compensated by owners to occupy other structures. Displaced owners will be given an additional FSI as incentive and those who accommodate the owners an extra FSI per household.

## TYPE C

### Co-operative Housing / Communal Block

- The design introduces openings on the ground floor, allowing an engagement with the existing neighbourhood.
- The space between blocks can be used for community activities.
- The block design will vary in size and configuration depending on the residents.
- A raised plinth could be introduced to cut off vehicular access through the common space.
- A combination of residential, small scale industry and commercial development is proposed.
- The use of a frame structure ensures that the dwelling unit can be flexible depending on the needs of the user configuration depending on the residents.



## POLICY

### We propose the granting of Occupancy Rights as an incentive for self-redevelopment.

#### Owners with Rights

- Right to occupy the dwelling
  - Right to use as collateral
  - Right to Will to legal heir
  - Right to transfer the right to occupy
1. Owners retain the right to occupy the property; however this does not imply immediate transfer of freehold titles.
  2. Owners may use the property as collateral so as to have access to credit.
  3. Owners may will their rights to their legal heirs.
  4. Until freehold titles are obtained, owners may transfer the right to occupy the property to a new party only if proof of legitimate new residence elsewhere is furnished. The transfer of these rights will be considered complete only once co-occupation of the new premises is proved. This is in order to prevent formation of a new slum. The operatives along with the entitlement department shall regulate the process of transfer.

#### Non-Owners with Rights

- Right to occupy
  - Right to upgrade and become owner
  - Right to exit
1. Tenants continue being tenants with the assurance of no eviction. The tenant who chooses to continue as a tenant will pay rent which will be higher to compensate for the cost for better living conditions.
  2. The tenant may pay the owner a settlement amount to upgrade his own rights to owner status. In turn, the tenant will have to invest in redevelopment along with the owner.
  3. A tenant who wishes to leave may be compensated to relinquish his rights by the owner or the new incoming tenant.

However, any resident of Dharavi can choose to trade his rights in exchange for economic compensation. He may do so only if he is able to furnish proof of legitimate residence elsewhere, in order to prevent new slum formations. The payment amount will be decided upon by a valuation and finance department.

## BUILDING REGULATIONS

### Compliance

A step-wise time frame will be defined at the end of which experts will inspect and certify the compliance of redeveloped properties. Compliant residents must become eligible for ownership rights, envisaged to be between 10 to 15 years. As a safeguard regarding the sale of plots and gentrification, all sale transactions are allowed only after the approval of the respective co-operative societies in consultation with the valuation and finance department.

### Building Codes and Guidelines

- Retain an FSI of 2, which has been physically achieved in Dharavi to house all residents, as against the norm of 1.33 in Mumbai. This should not be mistaken for an increase in density but will help increase open spaces. The idea is for the built up area to be redistributed without adding more density and creating the required open spaces. Extra FSI will be allowed in special instances as explained later.
- Control the number of households per built-up area to ensure that crowding inside dwelling units does not occur.
- Create prescribed open spaces.
- Develop standards for light and ventilation in units in terms of number and size of windows /openings per square foot of built-up area.
- Develop basic sanitation standards such as a certain number of toilets or otherwise vis-a-vis the built up area owned.
- Create social amenities and community spaces.



## SERVICE INFRASTRUCTURE

### Sanitation

Recognising space limitations, both inside and outside the buildings, a mix of individual household toilets and community toilet blocks has been proposed. Individual household toilets will be the responsibility of occupants while community toilets will be constructed by the Government but operated and managed by the community.

Shallow sewers will be put in place to convey sewage from household and community toilets in densely developed areas where road width is an issue, to the deeper main lines laid on the main roads and ultimately to the treatment and disposal facility. Shallow sewers are characterised by reduced pipe diameters, reduced minimum depth, and access chambers and solid interceptor tanks.








### Waste Management

Decentralised Wastewater Treatment Systems (DEWATS) might prove to be a very expensive and cumbersome process. On the other hand, Dharavi already has a sewage pumping station close by and there is a proposal for laying a connector/conveyance tunnel close to Dharavi leading to Bandra. Therefore, it is suggested to connect the shallow sewers to trunk sewers, which in turn will lead up to the Sewage Treatment Plant (STP) for treatment and disposal. Capacity of the existing STP close to Dharavi could be reviewed and increased to carry and process the additional load.

### Water Supply

Evidence shows that the poor in India do pay for whatever urban services they can access and in fact, in most cases end up paying more than their better off counterparts. In Dharavi, there is already some sort of existing water supply network. The proposal is to extend the network and supply potable water to all households. Water connections will be metered and households will pay a tariff to the Corporation as per their consumption. The tenure document could be used as a proof of address to provide a connection.



-  Main Sewer Lines
-  Shallow Sewer Lines
-  Recycling Precinct -13th Compound
-  Effluent Lines
-  Effluent Treatment Plant
-  Marshlands
-  Mithi River

