g5ELL2

A PARTICIPATIVE DEVELOPMENT MODEL

DCLT

DHARAVI COMMUNITY LAND TRUST

"Conventional planning approaches to slums and slum dwellers are thoroughly paternalistic. The trouble with paternalists is that they want to make impossibly profound changes, and they choose impossibly superficial means for doing so. To overcome slums, we must regard slum dwellers as people capable of understanding and acting upon their self interests, which they certainly are. We need to discern, respect and build upon the forces for regeneration that exist in slums themselves and that demonstrably work in real cities. This is far from trying to patronize people into better life, and it is far from what is done today."

Jane Jacobs

"The Death and Life of Great American Cities"1961

Towards an Inclusive Definition

The UN-HABITAT (2006) defines "slum" as a settlement in an urban area in which *more than half* of the inhabitants live in inadequate housing and lack basic services. It defines a "*slum household is a group of individuals living under the same roof in an urban area who lack one or more of the following five conditions:*

1. *Durable housing*
2. *Sufficient living area*
3. *Access to improved water*
4. *Access to sanitation*
5. *Secure tenure*

In India, there is no common definition of a slum.

The Census, National Sample Survey Organisation (NSS0) and Slum Area Act 1956 have different definitions. However, all three include the four parameters of lack of ventilation or light/sanitation, access to safe drinking water, structural quality and overcrowding (Riesbud 2010).

None include living area or security of tenure as a parameter for measure of slum.

Dharavi and its Many Challenges

Source : www.persquaremile.com

The challenges of Dharavi can be broadly categorised as – Institutional, Land Tenure, Lack of Information, Lack of Infrastructure and Implementation Conflicts. The people of Dharavi live with the uncertainty of relocation as they are deprived of :

1. *The Right to Participate* in the Redevelopment Process.

2. *The Right to Entitlement* of land, structure and space.

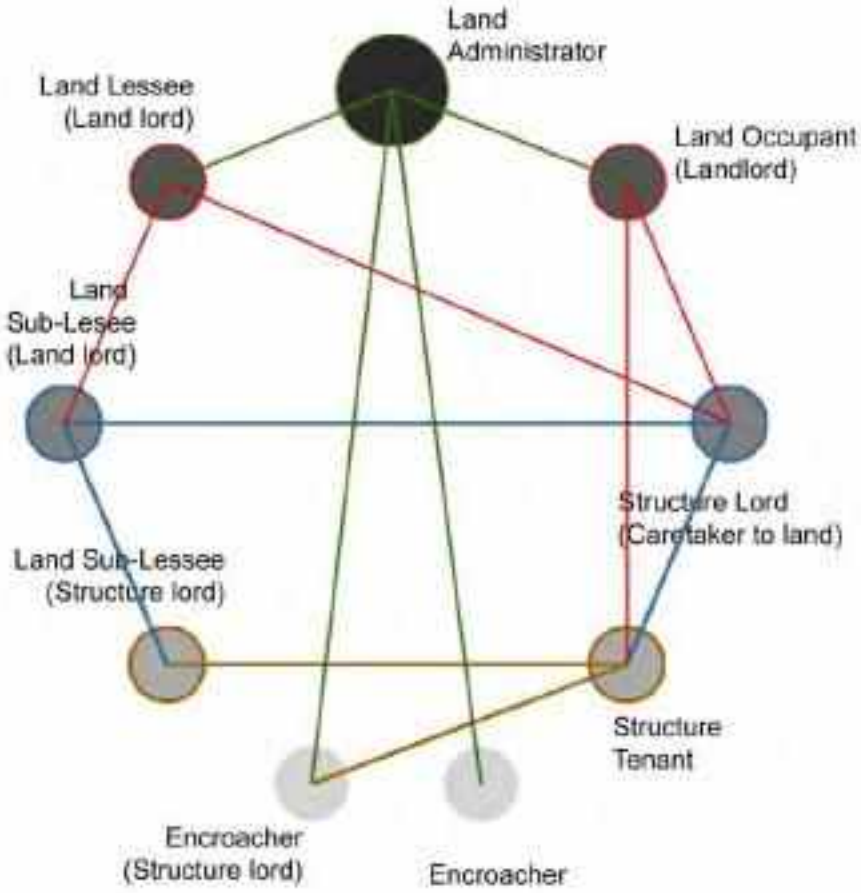
3. *The Right to Work* from their established place of work.

DENSITY	1,420.50 people / hectare

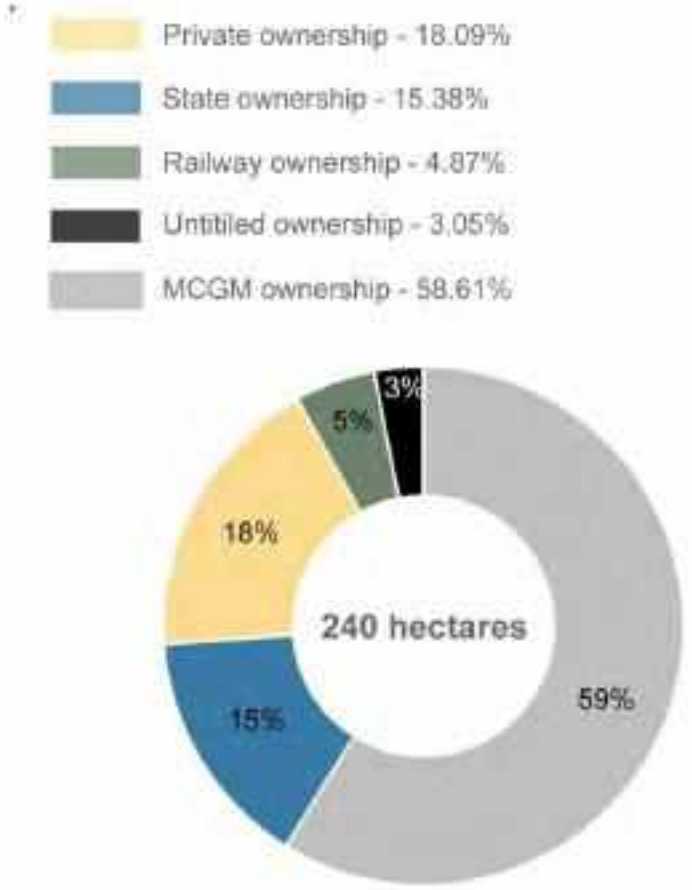
Percentage of slum Population in Mumbai as per Census 2011

Framework for the Proposal

1. Innovative Participatory Model - HCD
2. Mandate for Land Ownership, Land Tenure - DCLT
3. Transparent Survey/Mapping Process - Ecosystem
4. Flexible Development Tool - FBC
5. Develop Social ,Environmental and Physical Infrastructure



Stakeholders Association within Dharavi



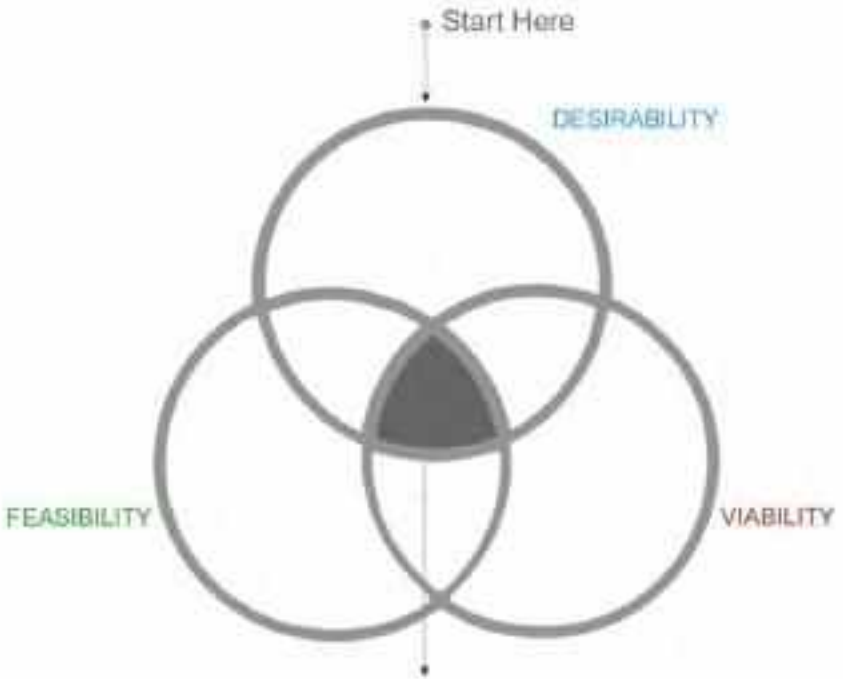
Ownership Pattern within Dharavi. (SRA)

Human Centered Design

HCD is a process and a set of techniques used to create new solutions. The process begins by examining the needs, dreams, and behaviors of the people we want to affect with our solutions. Once we have identified a range of what is Desirable, we begin to view our solutions through the lenses of Feasibility and Viability.

The Three lens of HCD

(Tim Brown)



The overlap created by these three lenses make the IDEA Desirable, Feasible and Viable

Ecosystem Mapping

Desirability

An alternative mapping idea which can generate parallel understanding of work and live patterns. This mapping system is evolved on the understanding of Ecosystems. Documents data at five different levels.

1. Individual 2.Population 3.Community 4.Ecosystem 5.Field of Ecosystem

Refer Report for Industry wise documentation.

PLASTIC RECYCLING

PERSON (Name & Profession)	ECOLOGICAL FOOTPRINT: (planets / year)
Anand - Sorter	0.33 Earth
Kamala - Ragpicker	0.25 Earth
Waseeq – Owner	0.65 Earth
Rajesh - Grinder	0.35 Earth
Kartik - Surveyor	0.56 Earth
Palak - Surveyor	0.39 Earth
Kritin - Surveyor	0.70 Earth

CARDBOARD RECYCLING

PERSON (Name & Profession)	ECOLOGICAL FOOTPRINT: (planets / year)
Ram - Sorter	0.23 Earth
Rajkumar - Loader	0.25 Earth
Deva – Owner	0.15 Earth
Rajesh - Stacker	0.40 Earth
Priyanka - Surveyor	0.65 Earth
Khadija	1.40 Earth
Harsh - Surveyor	0.90 Earth

HOME BASED IDLI INDUSTRY

PERSON (Name & Profession)	ECOLOGICAL FOOTPRINT: (planets / year)
Family 1 - Female	0.40 Earth
Family 1 - Male	0.50 Earth
Family 2 - Male	0.65 Earth
Family 2 - Female	0.35 Earth
Kushal - Surveyor	0.90 Earth
Sangeet	1.20 Earth
Devika - Surveyor	0.80 Earth

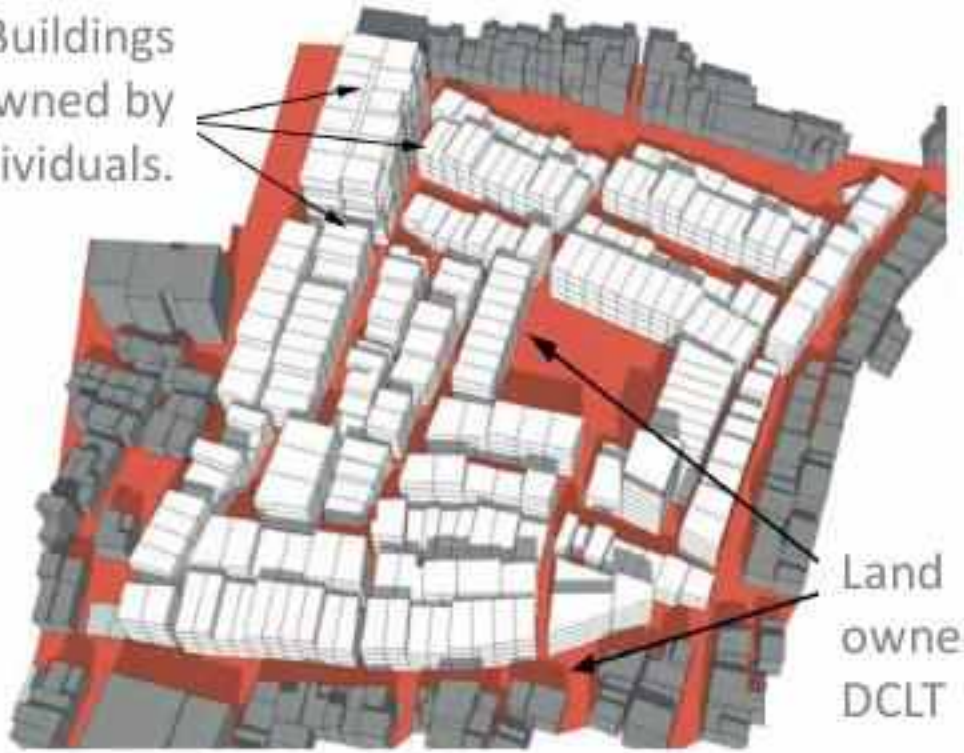
CLOTH BAG MANUFACTURING

PERSON (Name & Profession)	ECOLOGICAL FOOTPRINT: (planets / year)
Maqbul - Head	0.40 Earth
Shyam - Master	0.25 Earth
Ramdas - Talior	0.50Earth
Nawsad - Cutting	0.20 Earth
Kunal - Surveyor	0.40 Earth
Saurabh	1.39 Earth
Drishti - Surveyor	0.70 Earth

Dharavi Community Land Trust

"A community land trust (CLT) is a ***nonprofit corporation*** *that develops and stewards affordable housing, community gardens, civic buildings, commercial spaces and other community assets* ***on behalf of a community.***

"CLTs" balance the needs of individuals to access land and maintain ***security of tenure*** *with a community's need to maintain affordability, economic diversity and local access to essential services".*



Dual Ownership Concept

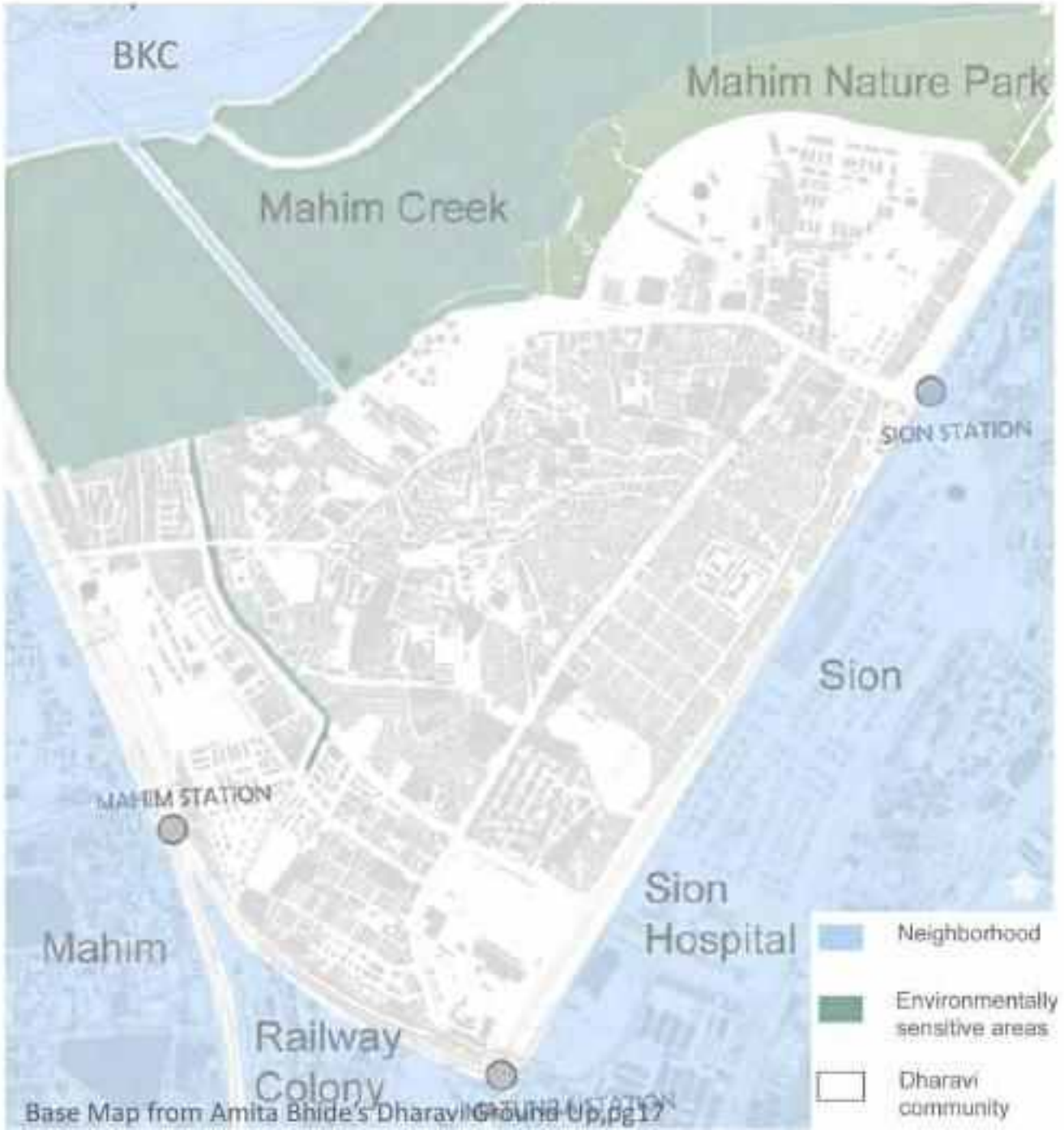
Base Image from Dharavi-Informal Settlements & Slum Upgrading by University of Melbourne.

7 ESSENTIAL COMPONENTS OF DHARAVI COMMUNITY LAND TRUST

1. DUAL OWNERSHIP
2. PERPETUAL AFFORDABILITY
3. PERPETUAL RESPONSIBILITY
4. VOTING MEMBERSHIP
5. COMMUNITY CONTROL
6. TRIPARTITE GOVERNANCE
7. FLEXIBLE DEVELOPMENT

Dharavi Community Land Trust

Governance and Management



Base Map from Amita Bhide's Dharavi Ground Up, pg17

Organisational chart showing Governing and Managing Committees of Dharavi Community Land Trust

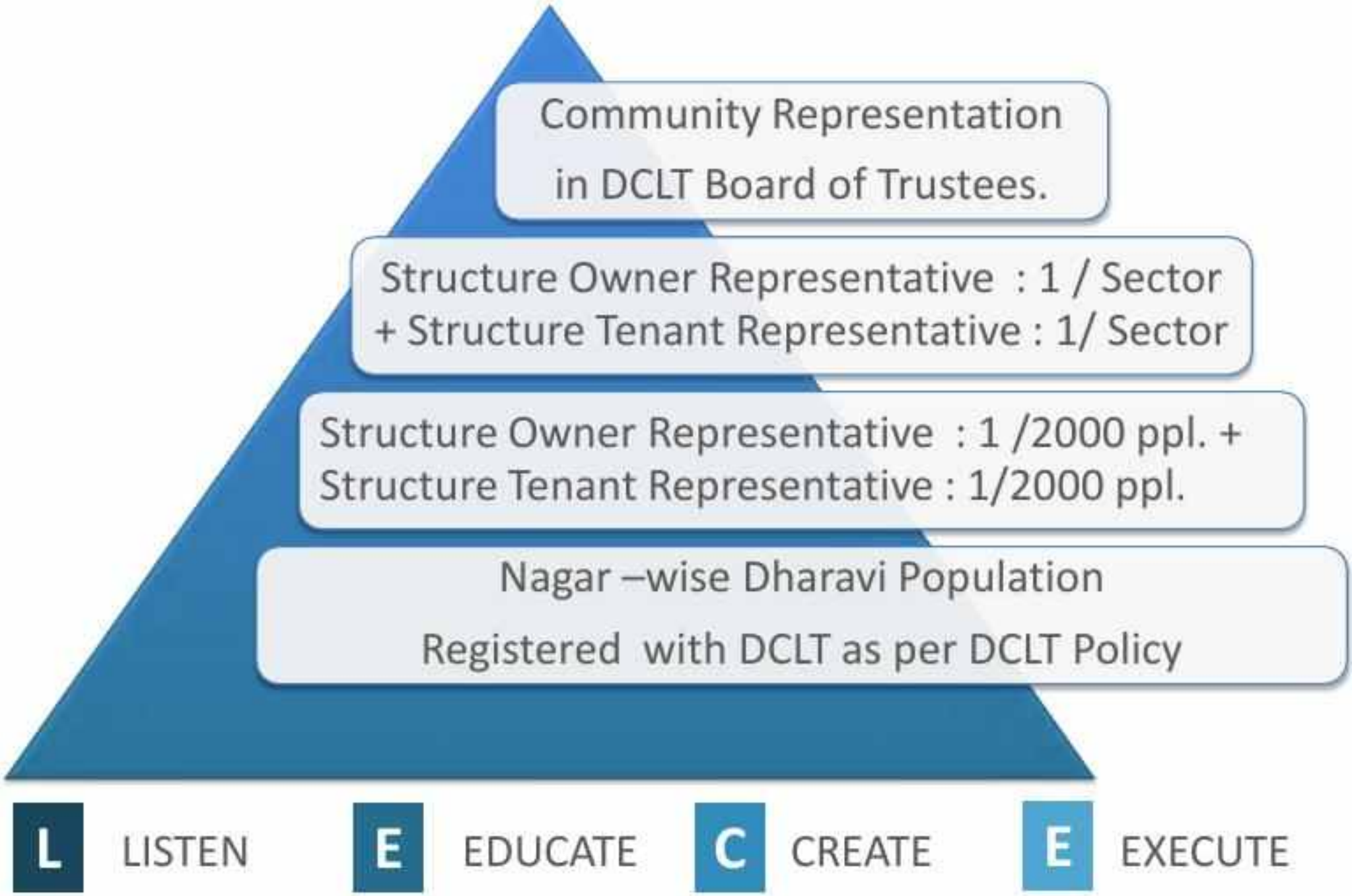
Dharavi Community Land Trust — Viability

Tripartite Governance : The DCLT is governed by board of trustees. It is made up of three equal parts with equal decision making rights. The decisive majority is proposed at 75% to avoid exclusion of any one fraction.

Refer proposed Mandatory Policy in the Report.

Fig 1: DCLT - Formation of Board of Trustees

Dharavi Community Participation _____ Feasibility



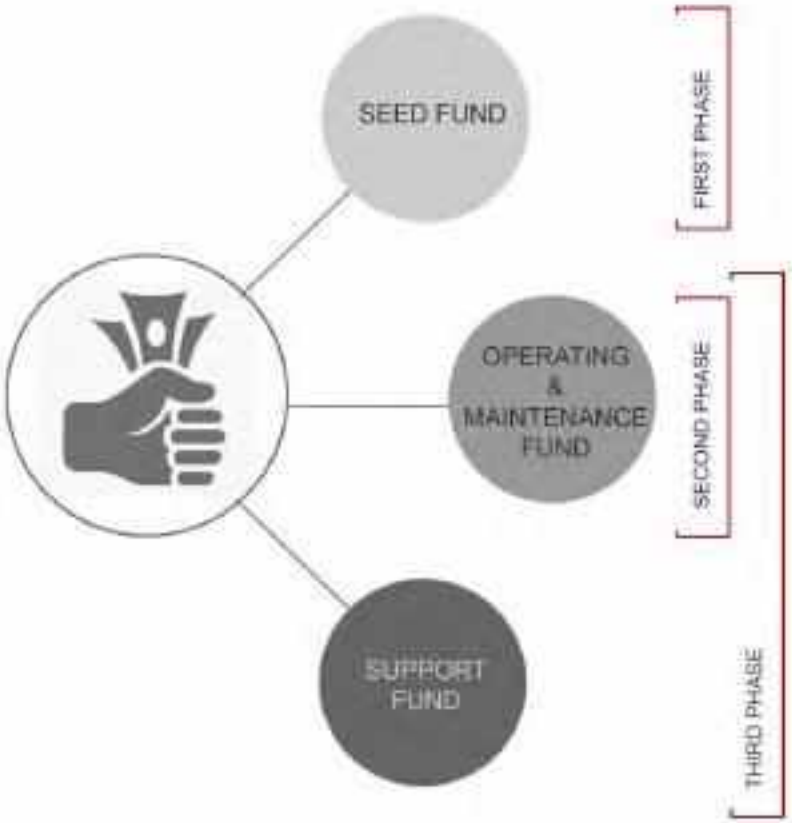
Dharavi Community Land Trust — Viability

Finance Model under the DCLT will operate at three levels.

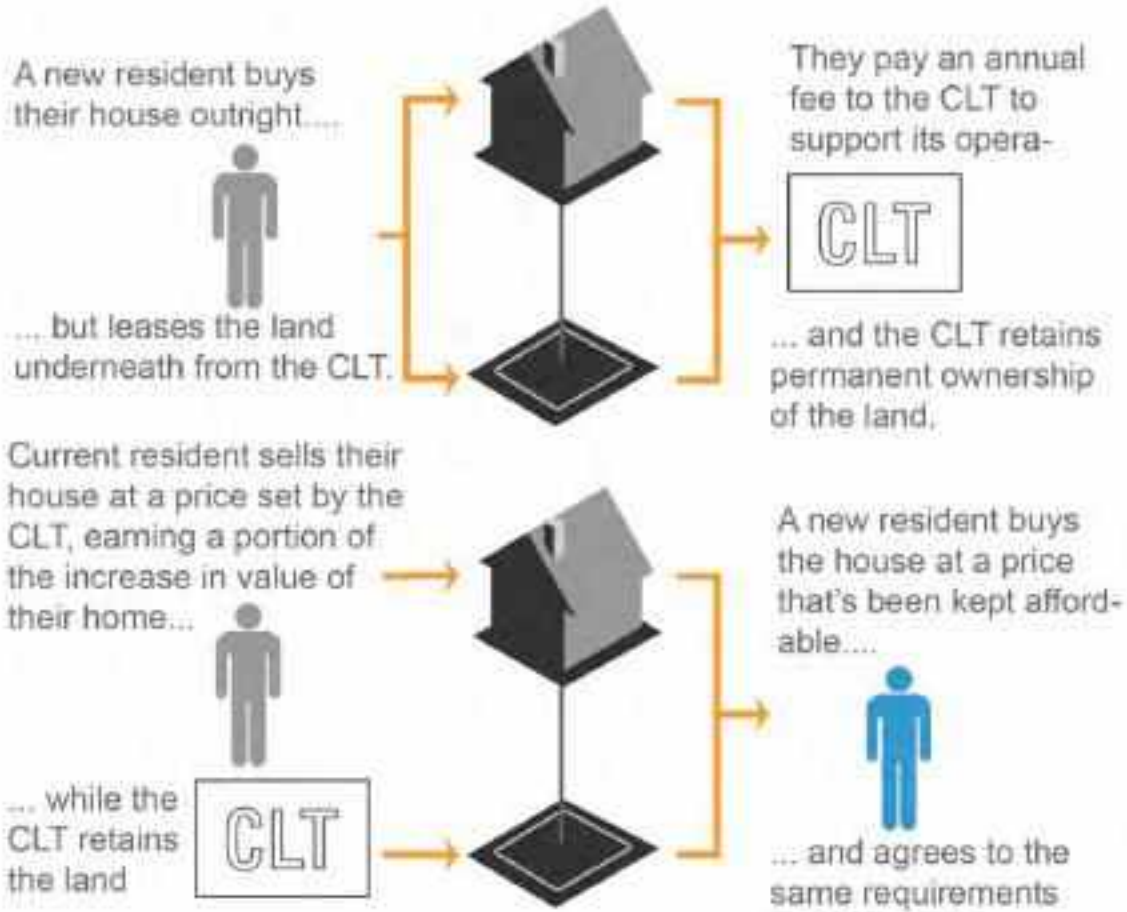
SEED FUND : pooling of various funds.

OPERATING & MAINTENANCE FUND : earn money from sale/re-sale of property, rents etc. for maintenance of the social and physical infrastructure.

SUPPORT FUND : in later phases give construction home loans to residents.



Phase wise funding Model



Structure Resale Model under DCLT

DCLT Mandates

1 Proactive Planning and Decision Tool

The EIA process is a proactive planning tool to avoid and pre-empt adverse environmental impacts that might be caused or experienced by the proposed development. The EIA is proposed to be linked to the decision making process.

2 Resulting Infrastructure Projects

Natural Cleaning of the Nala
Storm Water Management Plan
Waste Management Plan

3 Level s of Operation

Macro City Level proposals to connect with city Infrastructure.

Micro Cluster Level proposals to connect within Dharavi.

Current type of drains:
- Open surface drains and Nallas

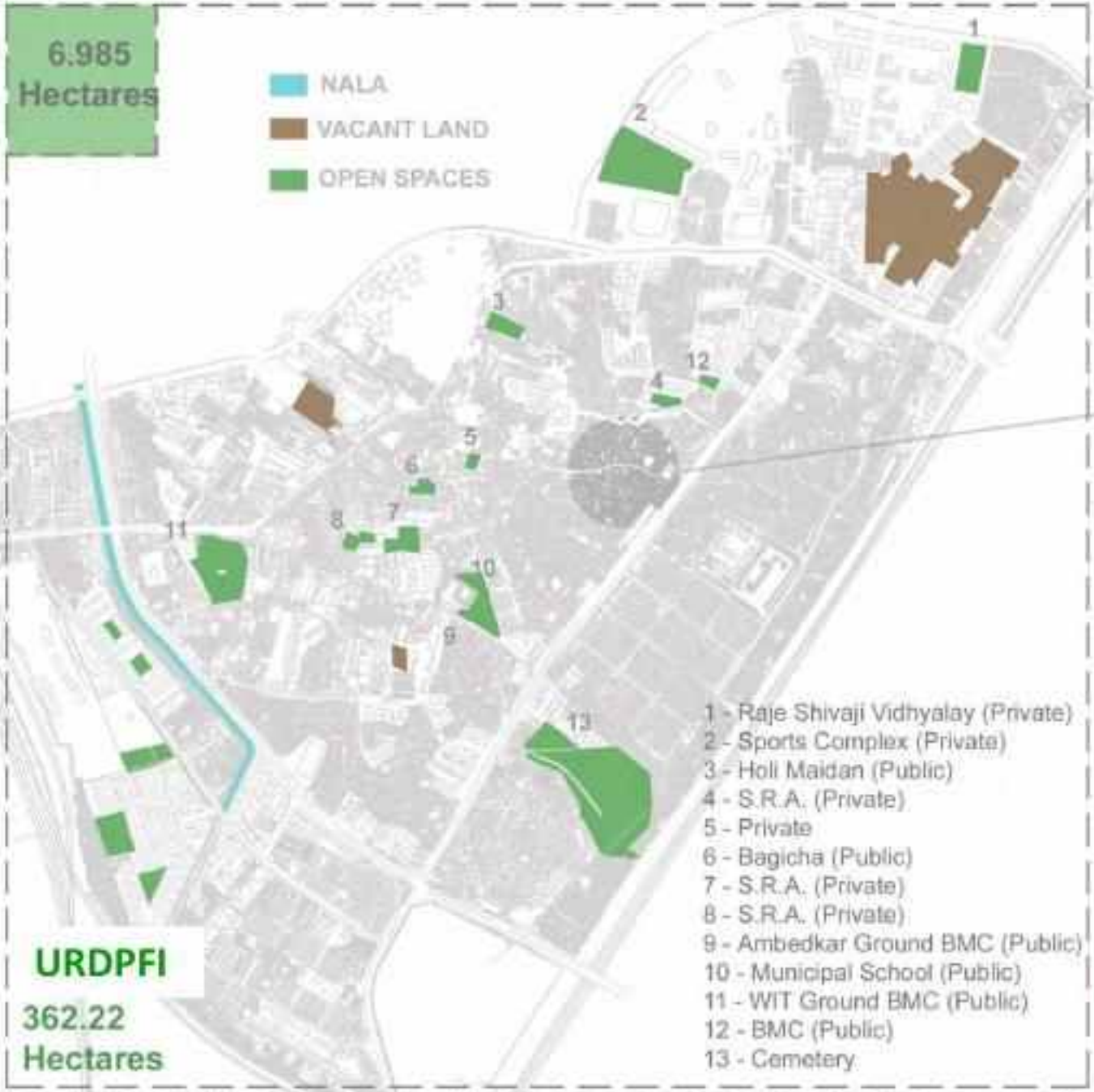
Current storm water collection:
- By gravity towards north - west

Disposal:
- To river Mithi using SWD Pumping Station

Physical Conditions:
- Majority of the drains are overloaded
- Poor quality construction further degrades due to lack of maintainance

Source: Environmental Impact Assessment Ordinance, Cap.499 Guidance Note

Social Infrastructure

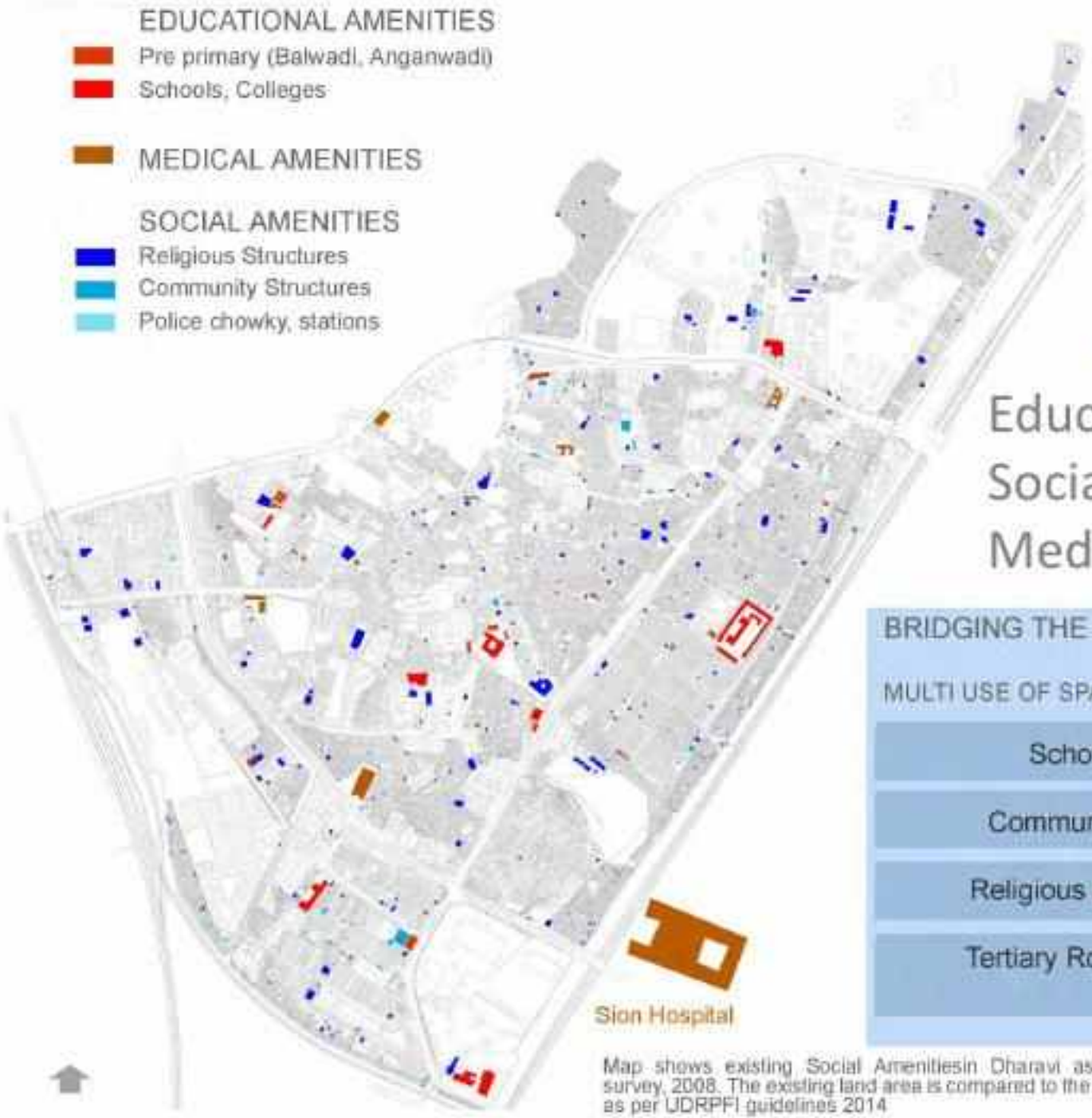


Map showing existing Open spaces in Dharavi as against the requirement from URDPFI 2014 guidelines. The map is from Mashal survey 2008

Details of Dharavi's built fabric with integrated network of chowks, courtyards, neighborhood level yards, community spaces that emerge out of the organic network of streets

http://anarchytect.blogspot.in/

Social Infrastructure



Shortfalls in comparison to URDPFI Guidelines 2014 against Census 2011 population of 3,40,922 people. Exact Deficit is difficult to estimate as lot of spaces are multi-used.

Education – 50.5Ha

Social - 15.4 Ha

Medical – 1234 beds+ 2.32Ha

BRIDGING THE SHORTFALL

MULTI USE OF SPACES

Schools	=	Night Stay Homes
Community Halls	=	Health Clinics
Religious spaces	=	Vocation Training
Tertiary Roads = Social Spaces = Social Infrastructure		

Map shows existing Social Amenitiesin Dharavi as per Mashal survey, 2008. The existing land area is compared to the required area as per UDRPFI guidelines 2014

Physical Infrastructure

Feasibility

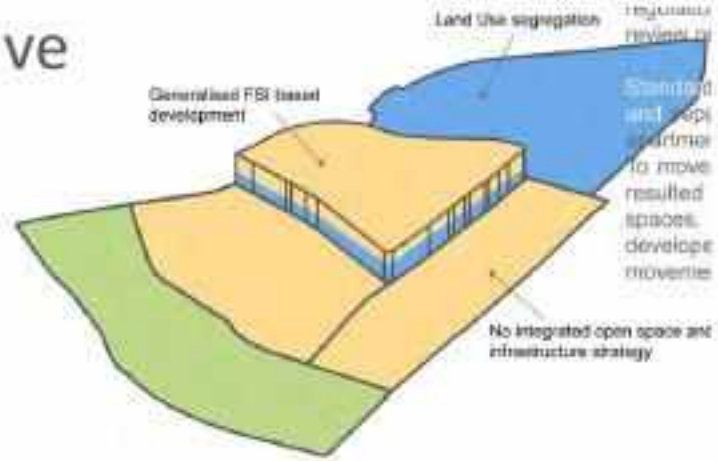
Map of existing road network and percentage of land area occupied from Mashal survey, 2008 and below the proposed connections in the secondary road network

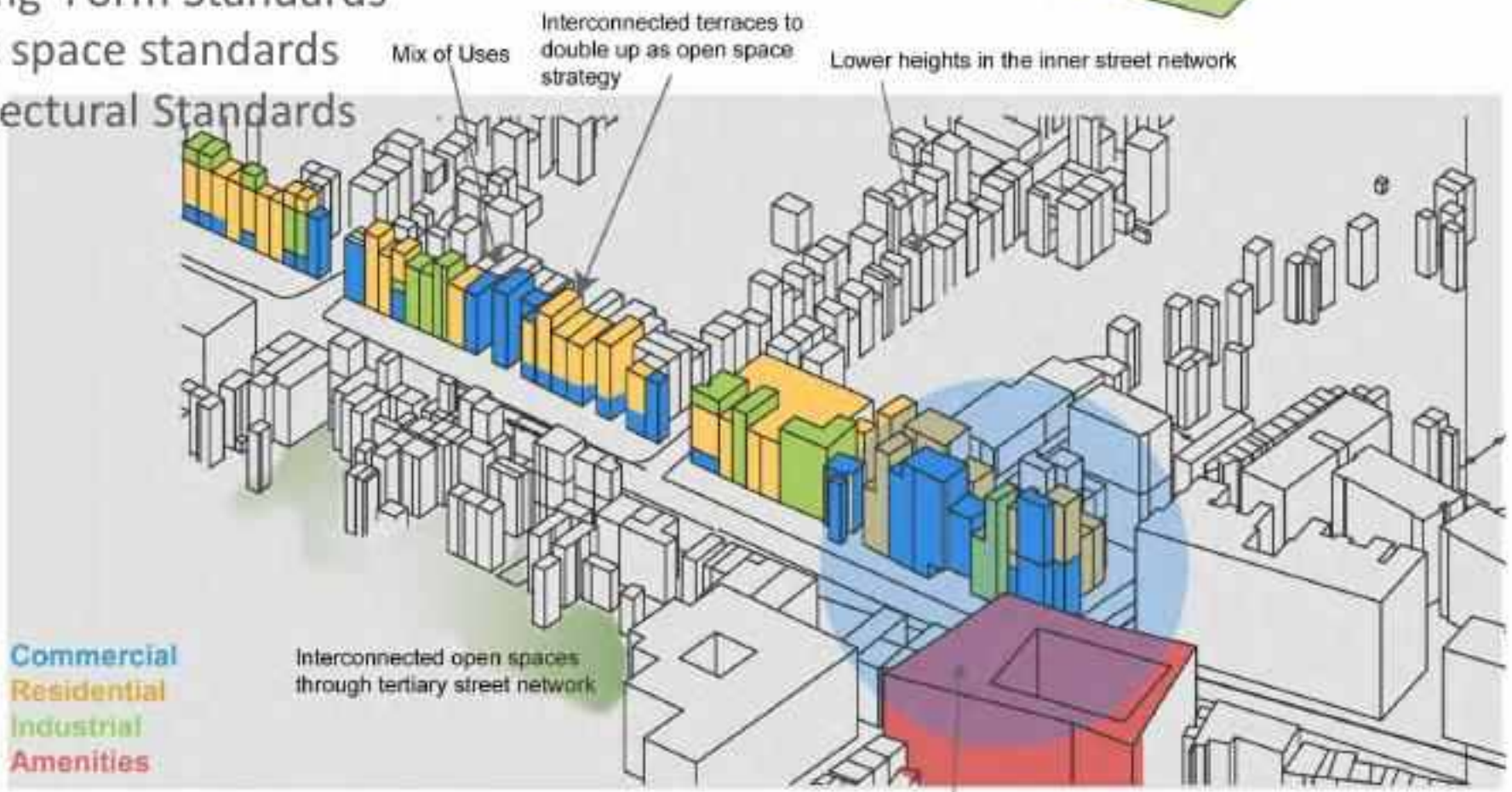
Form Based Code

A form-based code offers a powerful alternative to conventional zoning regulation.

The Components of a Form Based Codes are :

1. A Regulating plan
2. An Urban Design Plan
3. Building Form Standards
4. Public space standards
5. Architectural Standards





PLANNING AND DESIGN GUIDELINES UNDER DCLT VISION PLAN

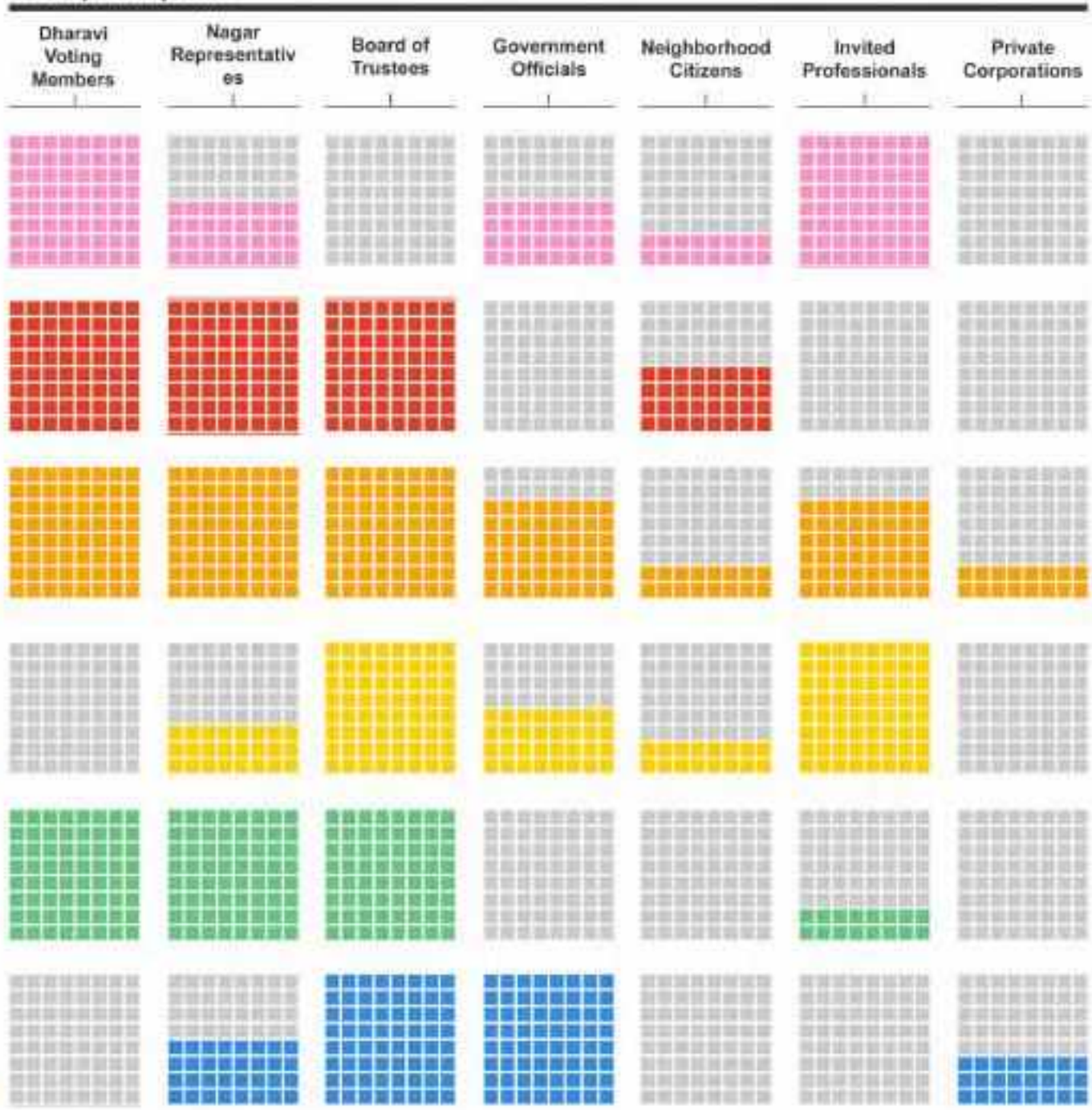
Development of Dharavi under DCLT will not follow the conventional FSI based development control regulation. Instead Form Based Code (FBC) will help generate the Vision Plan to address the LOW RISE HIGH DENSITY concept of the community under the following guidelines.

1. LAND USE PLAN
2. BUILT FABRIC AND TYPOLOGY
3. OPEN SPACE STRATEGY
4. INFRASTRUCTURE PLAN
5. REDEVELOPMENT PLAN

Phasing

Phasing and Implementation of the DCLT model

Who participates



Phase 4 : DCLT Vision Plan Implementation Stages

1. Environmental Impact Assessment Report
2. Small Scale Industrial Zone Feasibility Report
3. Essential Low Cost Rental Housing Component
4. Physical and Social Infrastructure Master Plan
5. Self-Restructuring Program at Nagar Level
6. Form Based Code for Low Rise High Density
7. Sector Level Structure Plans
8. Nagar Level Development Plans
9. Consent wise Construction Phasing
10. Structure Ownership Entitlements

"He let his mind drift as he stared at the city, half slum, half paradise. How could a place be so ugly and violent, yet beautiful at the same time?"

- Chris Abani

Chris Abani, *Graceland*, New York, 2004, p. 7