

ACTIONAID GENERAL ASSEMBLY, NEW DELHI

12th JULY, 2011

**SLUMS REDEVELOPMENT AND
THE HOUSING QUESTION**

P K Das, Architect Activist, Mumbai

1

LAND

2

SURVEY AND MAPPING

3

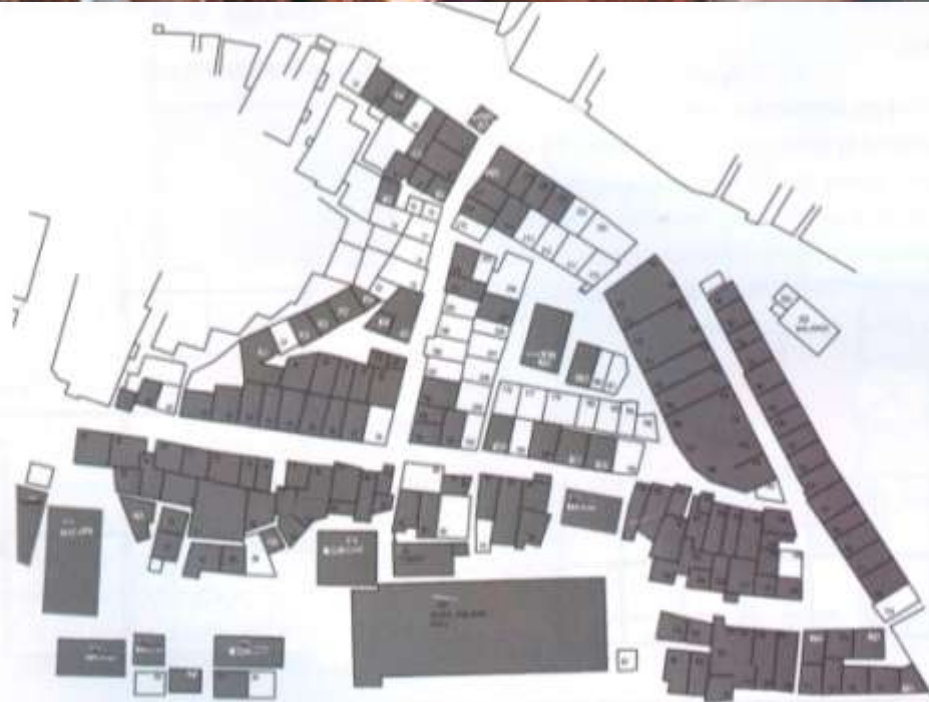
PLANNING AND ARCHITECTURE

4

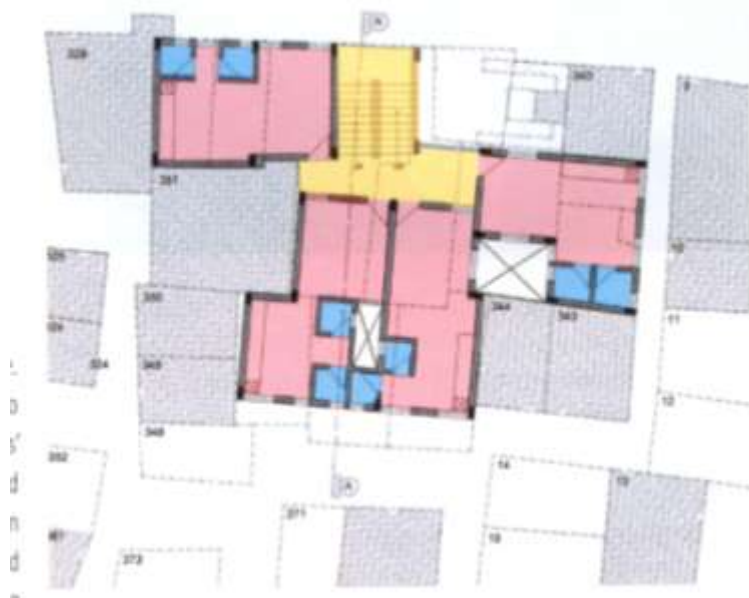
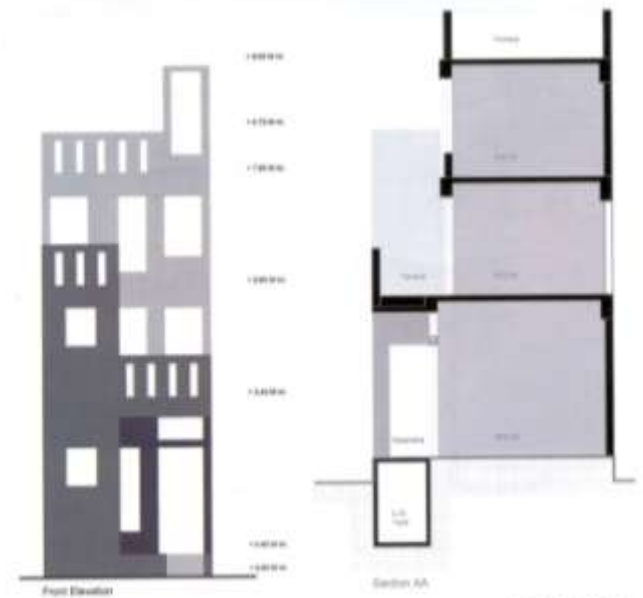
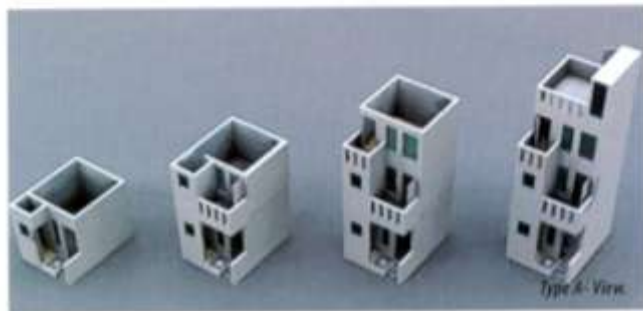
REHAB AND REDEVELOPMENT CASE STUDIES

CASE STUDY 1
BSUP , YERWADA, PUNE

people centric practices



SITE PLAN- SHOWING TEMPORARY STRUCTURES.





Conceptual rendering on site.



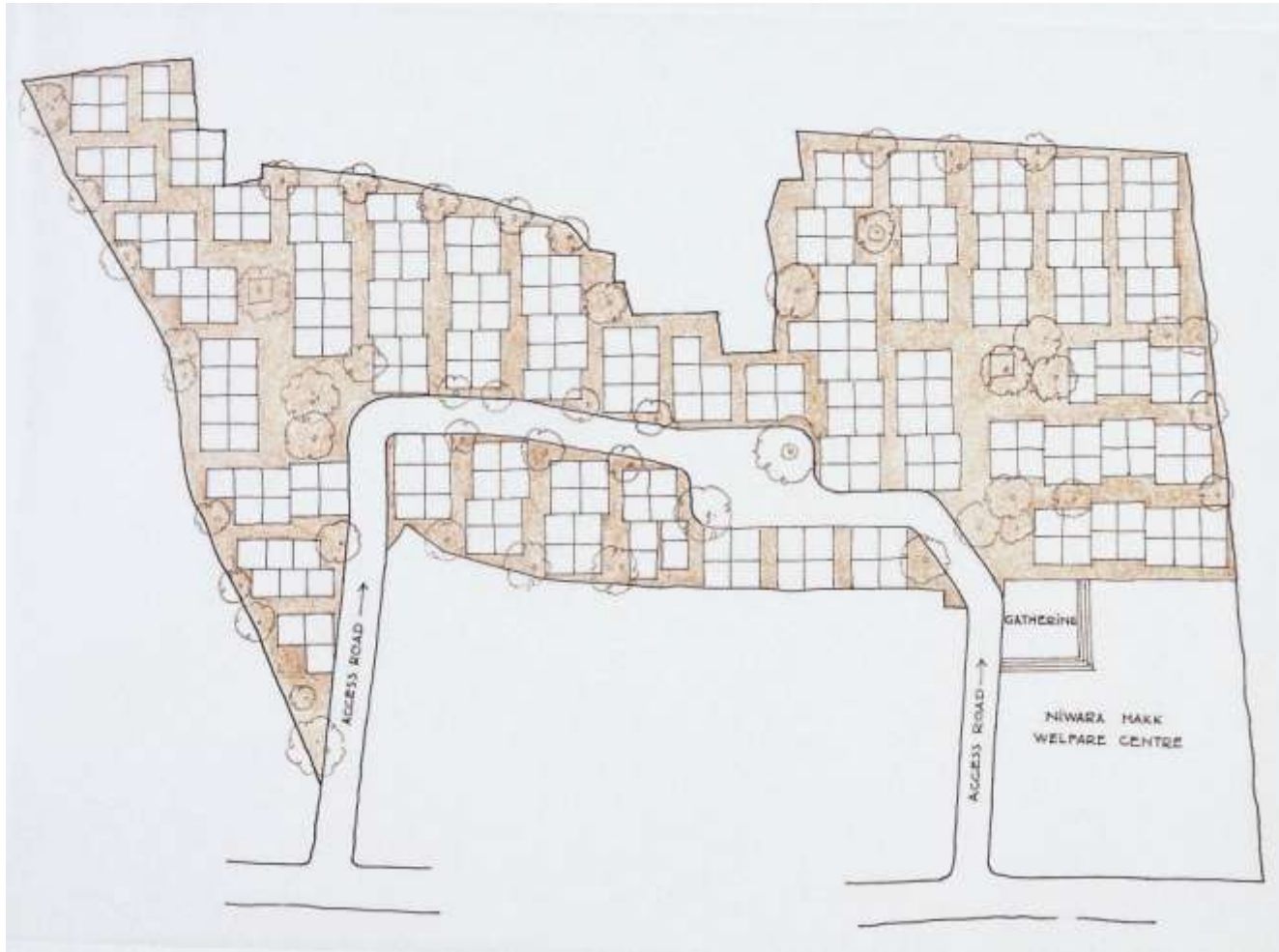
Conceptual rendering of Beroji Nagar.



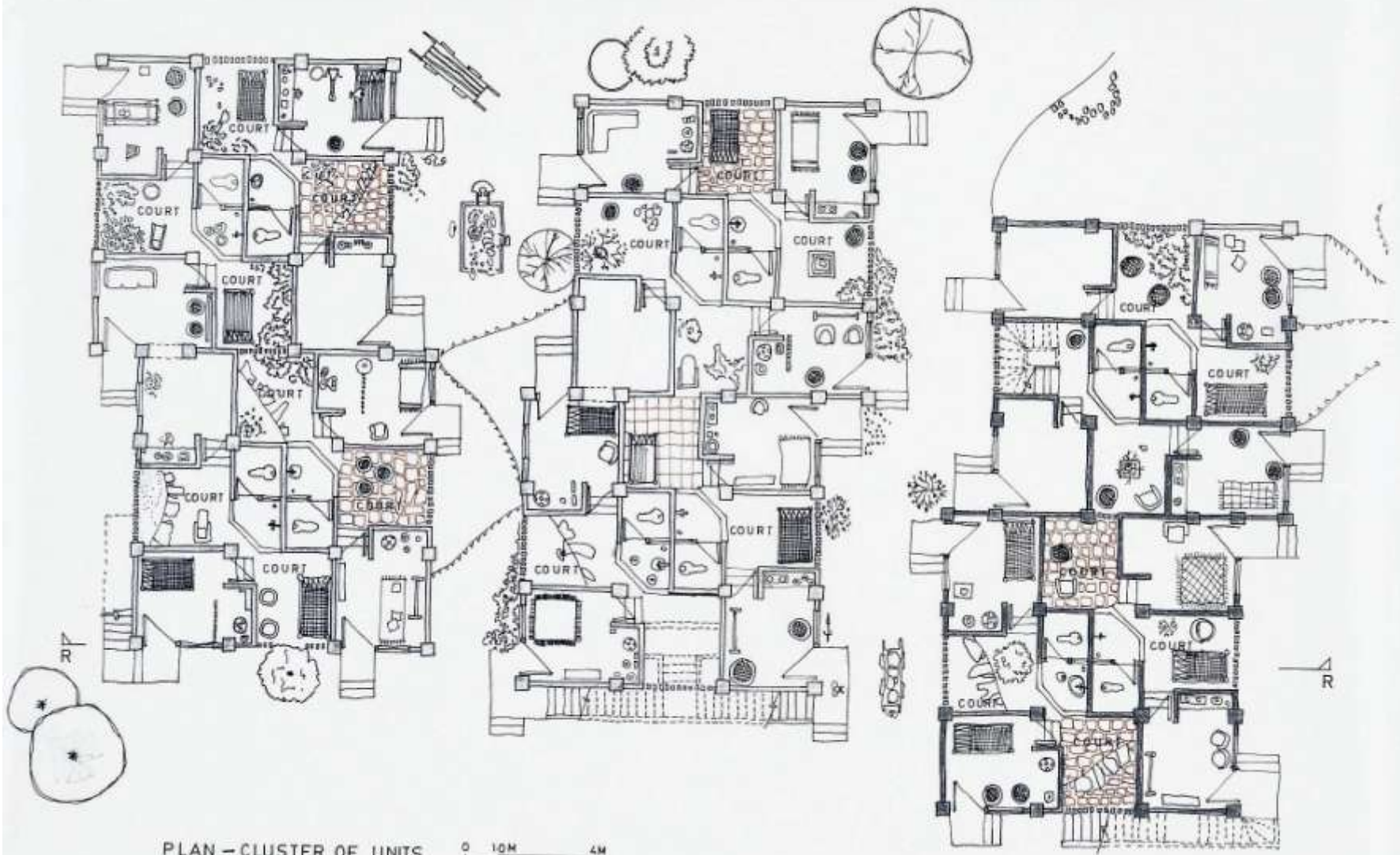
Site under construction.



CASE STUDY 2
SANJAY GANDHI NAGAR, GOREGAON, MUMBAI



TOTAL LAND AREA	3.0 Acres
TOTAL NO OF HOUSING UNITS	284
TOTAL BUILT-UP AREA	12000 SQM
DENSITY	95 UNITS / ACRE



PLAN - CLUSTER OF UNITS

0 10M 4M









CASE STUDY 3
SANGHARSH NAGAR, CHANDIVALI, MUMBAI



80,000 FAMILIES TO BE EVICTED
25,000 FAMILIES ELIGIBLE FOR REHABILITATION
NIVARA HAKK IS THE DESIGNATED NGO

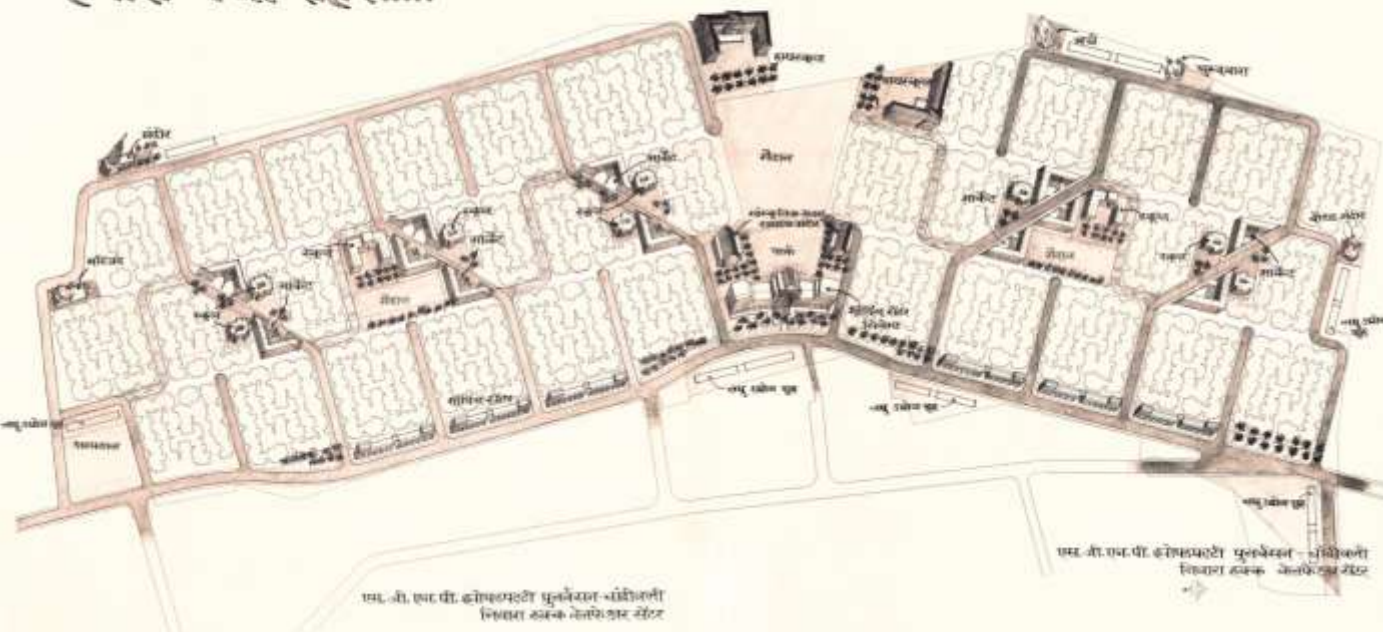
MASTER PLAN

यहाँ हमारे अपने घरों के साथ-साथ खुले मैदान और कई सामाजिक सुविधाएँ होंगी।

- वाडीकी रचना परिचित समूहों और सोसायटियों को कायम रखेगी।
- सार्वजनिक सहभागिता और व्यवस्थापन नियंत्रण इस रचना का मुख्य त्रेणु रहेगा।
- इमारतें सिर्फ पाँच मंजिली होंगी।

हमारा नया शहर.....

- एक बड़ा चार एकर क्षेत्र का मैदान शहर का केंद्रबिंदु होगा, इस के व्यतिरिक्त एक एकर के दो ओर खेल मैदान और हर वाडी में दो चौक होंगे।
- कुल सोलह स्कूल होंगे, जिसमें दो हायरस्कूल, चार सेकेंडरी स्कूल और दस प्रायमरी स्कूल होंगे।
- दो अस्पताल और कई छोटे क्लिनिक और दवाखाने आरोग्य विषयक हर जरूरतों को पूरा करेंगे।
- दो बड़े सांस्कृतिक भवन और कई धार्मिक स्थल सामाजिक और सांस्कृतिक गतिविधियों को बढ़ावा देंगे।
- योजनार उपलब्धी के लिए हमारे शहर में 250 लघु उद्योग गृह बनाये जायेंगे।



Total land area - 3,13,621 sq mt (77.47 acres)

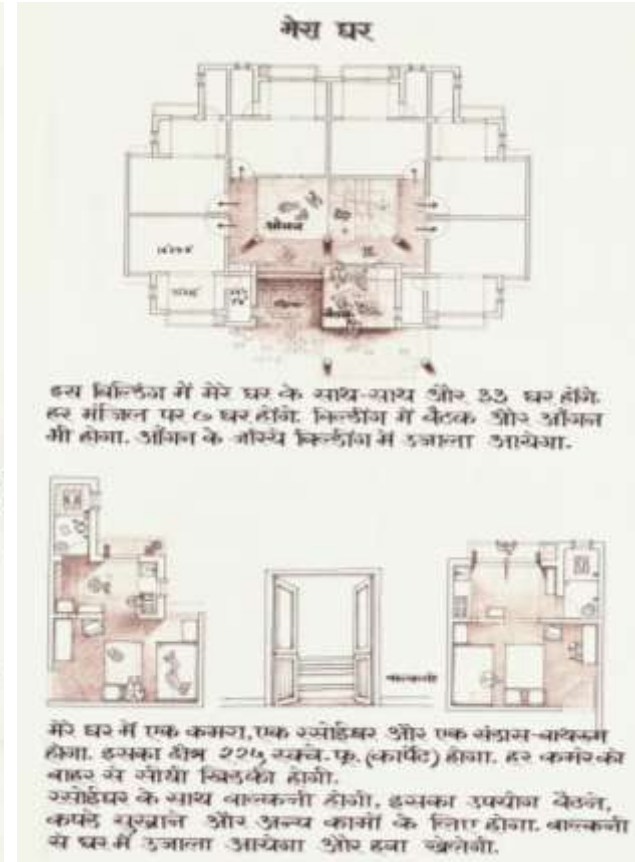
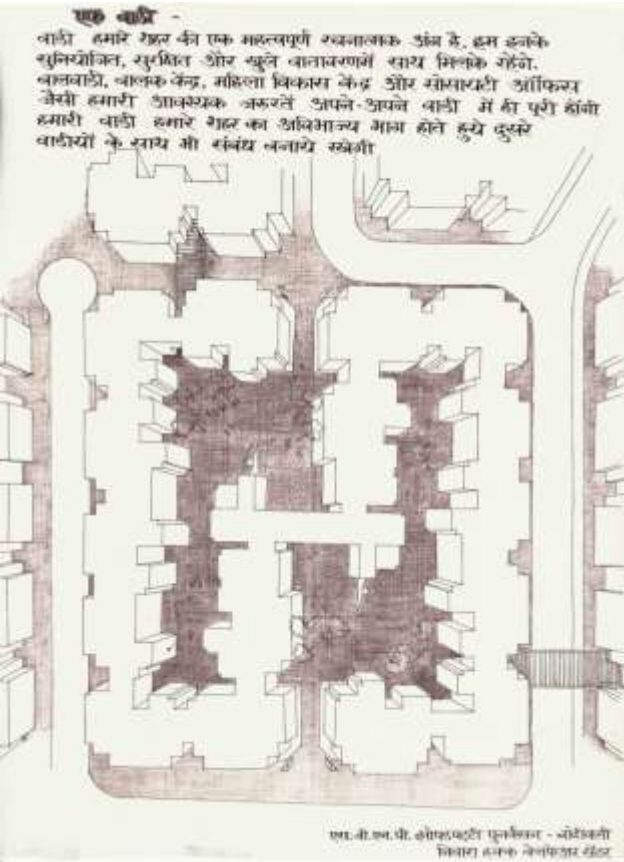
Total built-up area - 6,58,604 sq mt

Density achieved - 550 units/ha

1. Houses -	18,362	(26.62 %)
2. Social infracture -		13.5 %
Primary schools	8	
Secondary schools	2	
High schools	2	
Community halls	2	
Women's welfare centres/creches	180	
Balwadis	80	
Society offices	60	
Religious institutions	4	
3. Facilities		8.6%
Markets	13	(800 shops)
Hospital	1	
Consulting rooms	12	
Clinics and polyclinics	6	
Day care centre/nursing homes	6	
4. Commercial development		6.1%
Shops, banks, post offices, communication centres, restaurants, Cinemas, Industrial estates etc.	19432.83	sqmt
5. Open spaces		15.03%
Central maidan	1	10,250 sqmts
Neighbourhood parks	3	2550x3 sqmts
Courtyards	60	450x60sqmts

POSTER FOR PUBLIC PARTICIPATION & DISCUSSION

REHABILITATION PLANS



Poster 1-TYPICAL CLUSTER

Poster 2-AMENITIES

Poster 3-TYPICAL HOUSE

POSTERS FOR PUBLIC PARTICIPATION & DISCUSSION

VISION OF HOPE



New township raises the bar for slum rehab

Asia's largest slum re-housing project in Chandivli gets its first occupants

Madhurina Nandy
Mumbai, May 1

SAVITA RAO is looking forward to a good night's sleep after three decades of disturbed slumber. She has just moved into a sparkling new studio apartment in Chandivli, 11 km south of her ramshackle tenement bordering Sanjay Gandhi National Park.

"Every night, we would sleep in fear that a leopard would pick up our children," said Rani, 45, who lived on the edge of the forest.

On Tuesday, Rani and other families were re-housed as part of a slum regeneration scheme. Some of them turned emotional, their eyes glimmering with tears as they accepted keys to their flats in a 45-store township that raises the bar for slum rehabilitation projects.

Instead of the unattractive and shoddily constructed buildings that are the hallmark of slum rehabilitation projects, the Chandivli township has been designed from the bottom up with the socio-economic needs of low-income groups in mind (see 'The new design'). In the past, poor design has contributed to slum dwellers selling out and moving back to shanty towns.

If the township, awarded, it would become a model for other

projects. The success of slum regeneration is critical for improving the deplorable living conditions of half the city's residents, and a prerequisite for Mumbai becoming a world-class finance hub. The Chandivli slum re-housing project is also the largest in Asia. By the end of the year, twelve thousand families will have moved to equivalent one-to-four bedroom flats in the city's K ward, comprising of Colaba, Cuffe Parade and Fort. In ten days, one third of them will have shifted.

The township is unique also because groups usually of slum dwellers with one another have out-laboured the government, builder Sioner Corporation, independent architect PK Das and NGO Nivara Hakk Suraksha Samiti.

Nivara Hakk initiated the project eight years ago after environmental groups took legal action to get the slums removed on the grounds that they were encroaching on the park. The NGO has been closely involved with the project to ensure that the quality of construction is good and that the allocation of flats is fair and transparent. Its activists said, "Other slum re-housing projects have been riddled with corruption as these two firms...

...will become a model for other



PHOTO: MANALI PATEL/NT

UNLIKELY PARTNERS



Shabana Azmi
Member of Nivara Hakk Suraksha Samiti



Vinayak Deshpande
Chief Minister of SIA



PK Das
Architect and member of Nivara Hakk Suraksha Samiti



Ramesh Shah
Former law officer, former member of Nivara Hakk Suraksha Samiti

This township is an example where an NGO has helped the government, slum dwellers and the developer to come together to build a township.

The township shouldn't become an improved slum. Workshops should be held to make sure that residents take appropriate care.

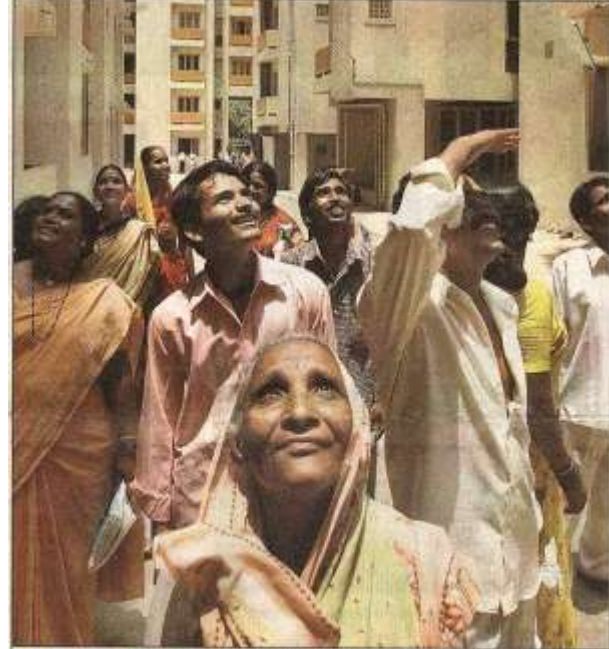
We tried to design the township in a way that would preserve the communal life that people are used to in slums.

It's a very important project for me. I spent three-and-a-half years from morning to night on the site. It is a one-of-a-kind project in India.

The new design

- A township spread over 45 acres in Chandivli
- Very close to the up-market independent Garages in Powai
- 12,000 housing units spread over 15 clusters, with 16 buildings in each cluster
- Four buildings in a sub-cluster, which opens up into a courtyard to enable community bonding
- No dormitory-type corridors, but two flats on each side for good ventilation
- A small foyer in every building, an effort to create more communal space
- Well lit and ventilated flats
- Nicely tiled bathrooms
- Drying balconies
- Central maidens
- Three parks

A NEW BEGINNING: Anis Gini Ganiwani in the balcony of her Chandivli flat.



NEW LIFE IN A HIGH-RISE: Slum dwellers who once resided in the Sanjay Gandhi National Park look skywards at their new multi-storied dwellings in Chandivli on Tuesday. The 30 families were the first of a group of 4,142 households which will be shifted in the next ten days. Reports and more pictures on P 5











CHANDIVALI GOOGLE MAP



KURLA AIRPORT REHAB GOOGLE MAP



TYPICAL DEVELOPMENT



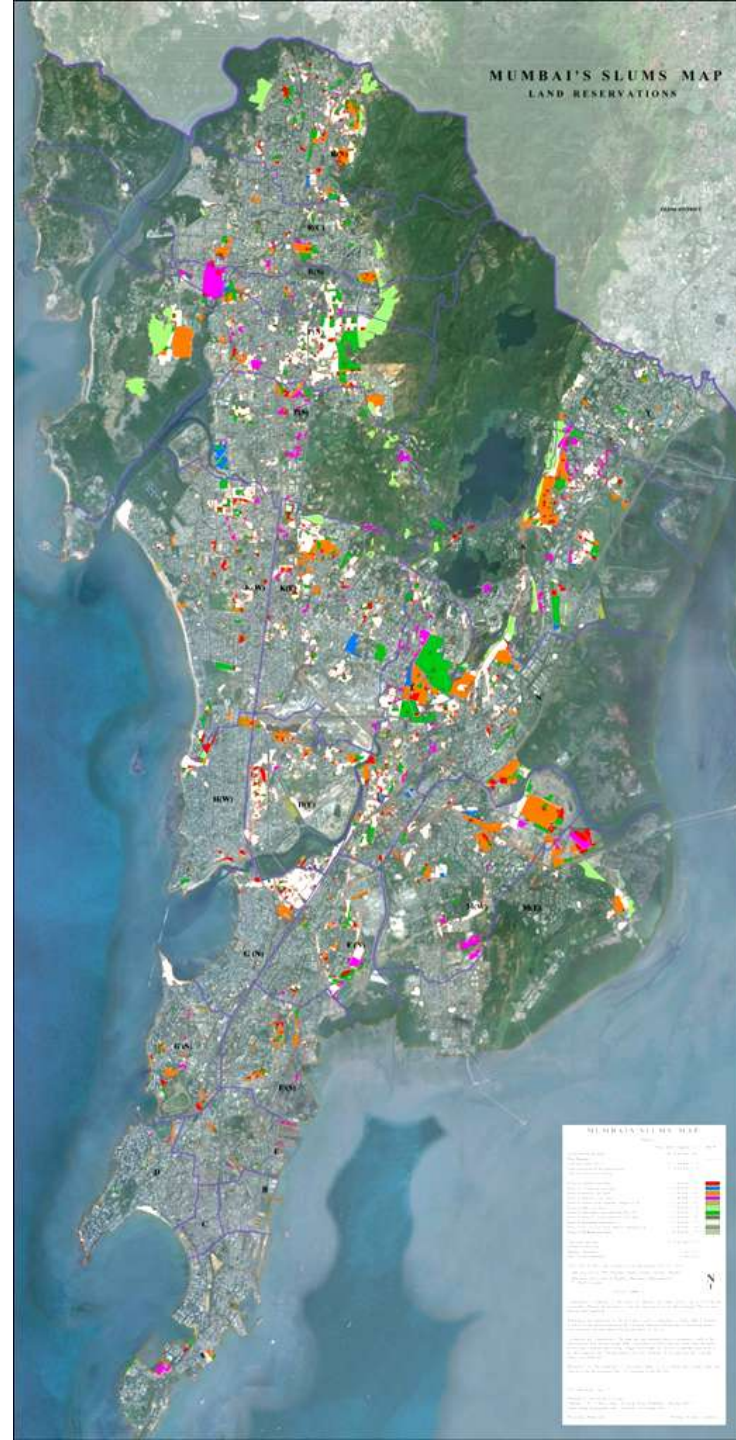
CHANDIVALI EXAMPLE

MUMBAI'S SLUMS MAP



Source: Census of India, 2001. The data is based on the 2001 Census of India, which identified slum areas based on the following criteria: (a) lack of proper housing, (b) lack of basic amenities, and (c) lack of legal status. The map is based on the 2001 Census data and is not updated to reflect changes in the city since then.

MUMBAI'S SLUMS MAP LAND RESERVATIONS



MUMBAI'S SLUMS MAP

Legend

- Slum Land Reservations
- Slum Land Reservations for the Poor
- Slum Land Reservations for the Middle Class
- Slum Land Reservations for the Rich
- Slum Land Reservations for the Very Poor
- Slum Land Reservations for the Very Middle Class
- Slum Land Reservations for the Very Rich

Scale: 1:50,000

Source: Census of India, 2001. The data is based on the 2001 Census of India, which identified slum areas based on the following criteria: (a) lack of proper housing, (b) lack of basic amenities, and (c) lack of legal status. The map is based on the 2001 Census data and is not updated to reflect changes in the city since then.

PRESENT FACTS AND FIGURES

Total area of Greater Mumbai- 482 sq. kms.

Total Slums land area- 42.30 sq. kms (approximately 9%) - As per the 'Slums Map'

Slums area on Housing reservation (MH, PH, H, HD & R)	20.07 sq kms.	47.6%
Slums area on Industrial reservation	2.55 sq kms.	6.0%
Slums area on Commercial reservation	0.72 sq kms.	1.7%
Slums area on services reservation (Depots, substations, etc)	1.02 sq kms.	2.4%
Slums area on amenity reservation	2.37 sq kms.	5.6%
Slums area on open spaces reservation-RG, PG, P, & G	7.47 sq kms.	17.7%
Slums on NDZ	4.22 sq kms.	10.0%
Slums on Natural assets (hills, forests, mangroves, wetlands)	0.32 sq kms.	0.8%
Slums on Airports, railways, ports & defense	0.44 sq kms.	0.4%

Mumbai's population 12.50 million

Slum-dwellers population (being 60%) Say 7.50 million

AFFORDABLE LOW COST HOUSING PRODUCTION

Target = 2.70 million units

- 42.30 sq km slums land area is available for slums rehabilitation and additional low-cost housing.
- With 2.5 FSI we get 105.75 sq kms or 105 million sq meters to build.
- Existing slum dwellers population is approximately 7.5 million or 1.5 million families.
1.5 million families x 30 sq mt. house area = 45 sq mts million FSI area.
- Balance FSI is 105 million sq mts less 45 million sq mts = Say 60 million sq mts (ie 60 sq kms)
- Build additional affordable housing stock with say 50 sq mts average unit area (30,40,50 and 60 sq mts units)

Therefore $\frac{60 \text{ million sq mts}}{50 \text{ sq mts}} = 1.20 \text{ million additional housing stock logistically possible}$

Note: Additional housing stock is required for displaced slums from untenable sites, PAPs, population in-growth and new demands.



THANK YOU