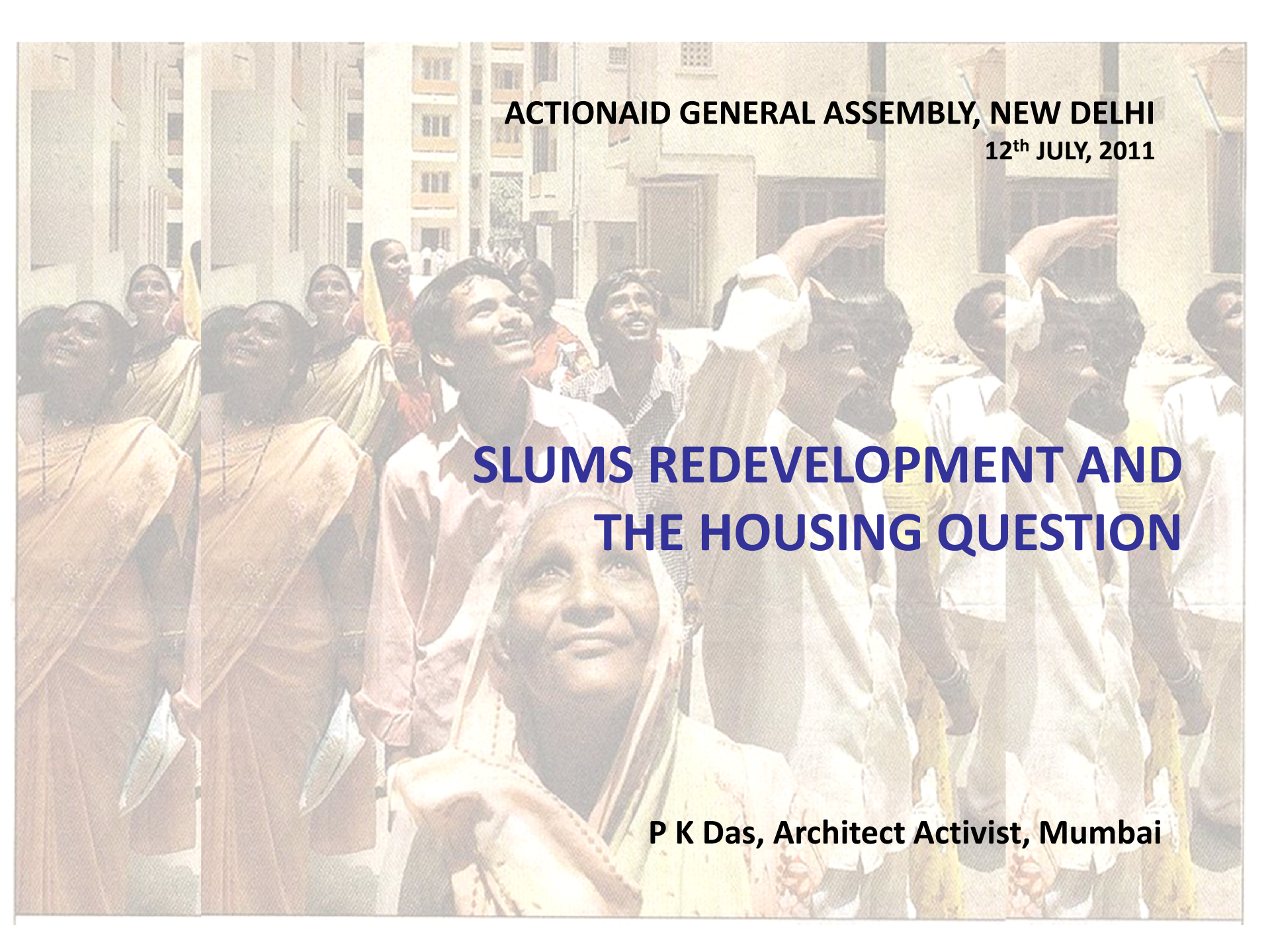




ACTIONAID GENERAL ASSEMBLY, NEW DELHI
12th JULY, 2011

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

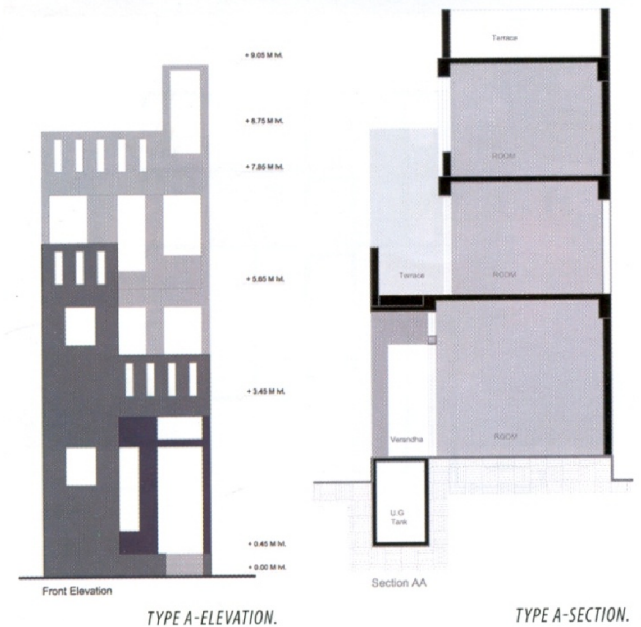
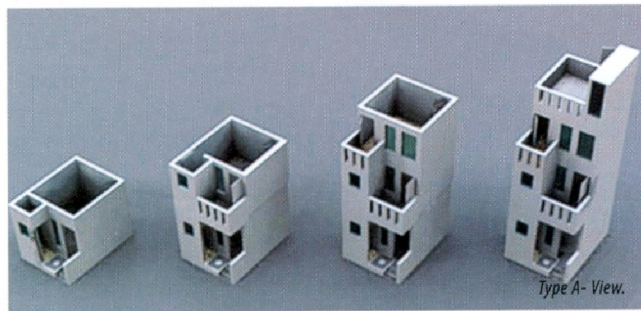
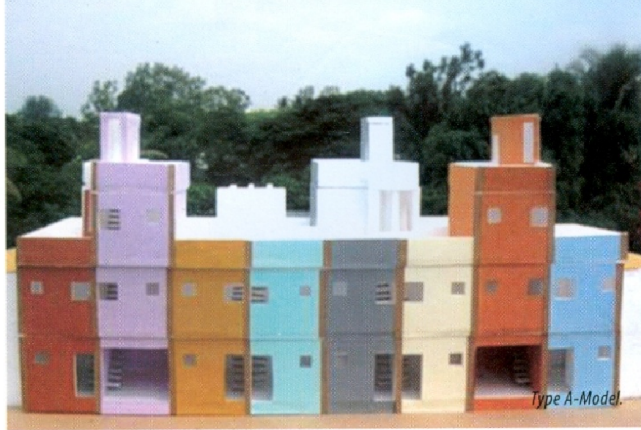
CASE STUDY 1

BSUP , YERWADA, PUNE

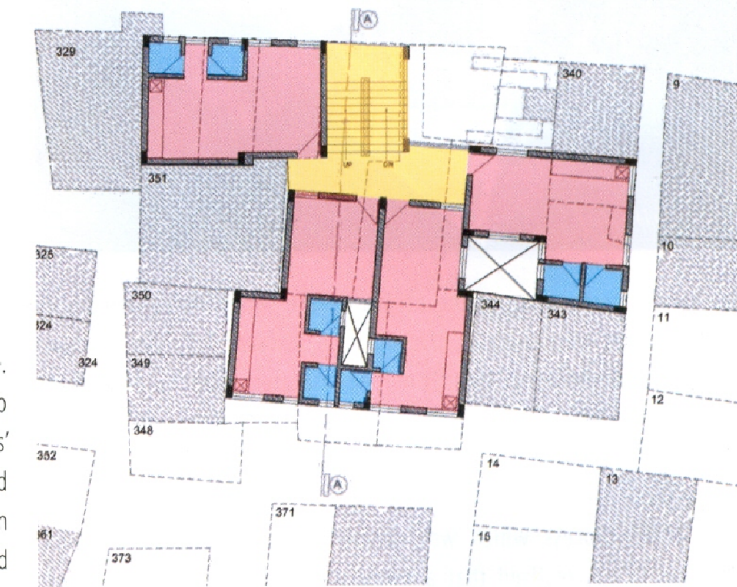
people centric practices



SITE PLAN- SHOWING TEMPORARY STRUCTURES.

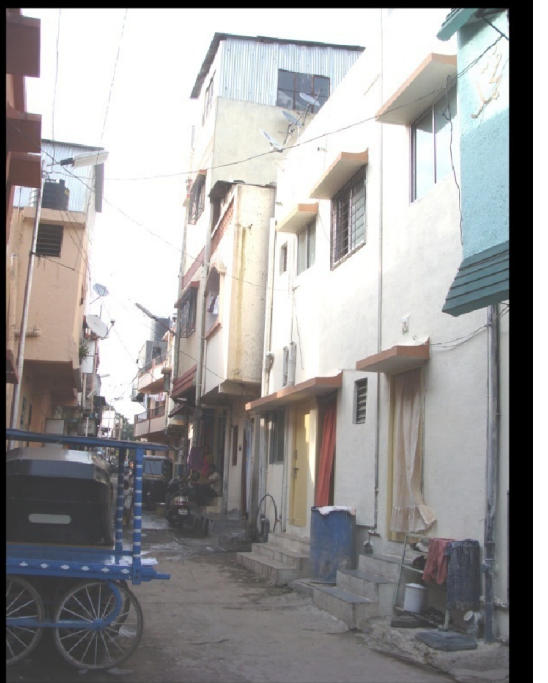


TYPE B-GROUND FLOOR PLAN.



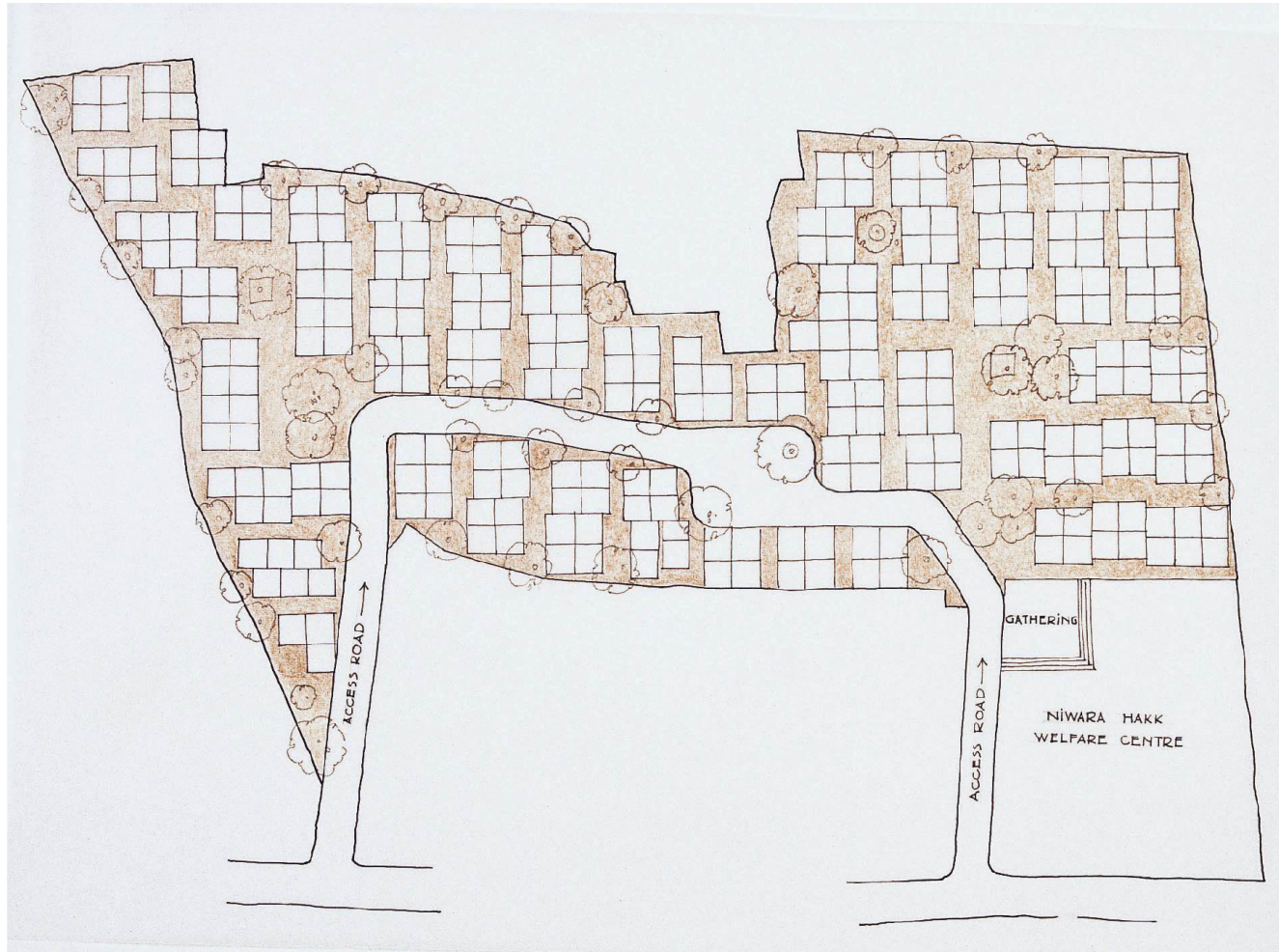
TYPE B-TYPICAL FLOOR PLAN.



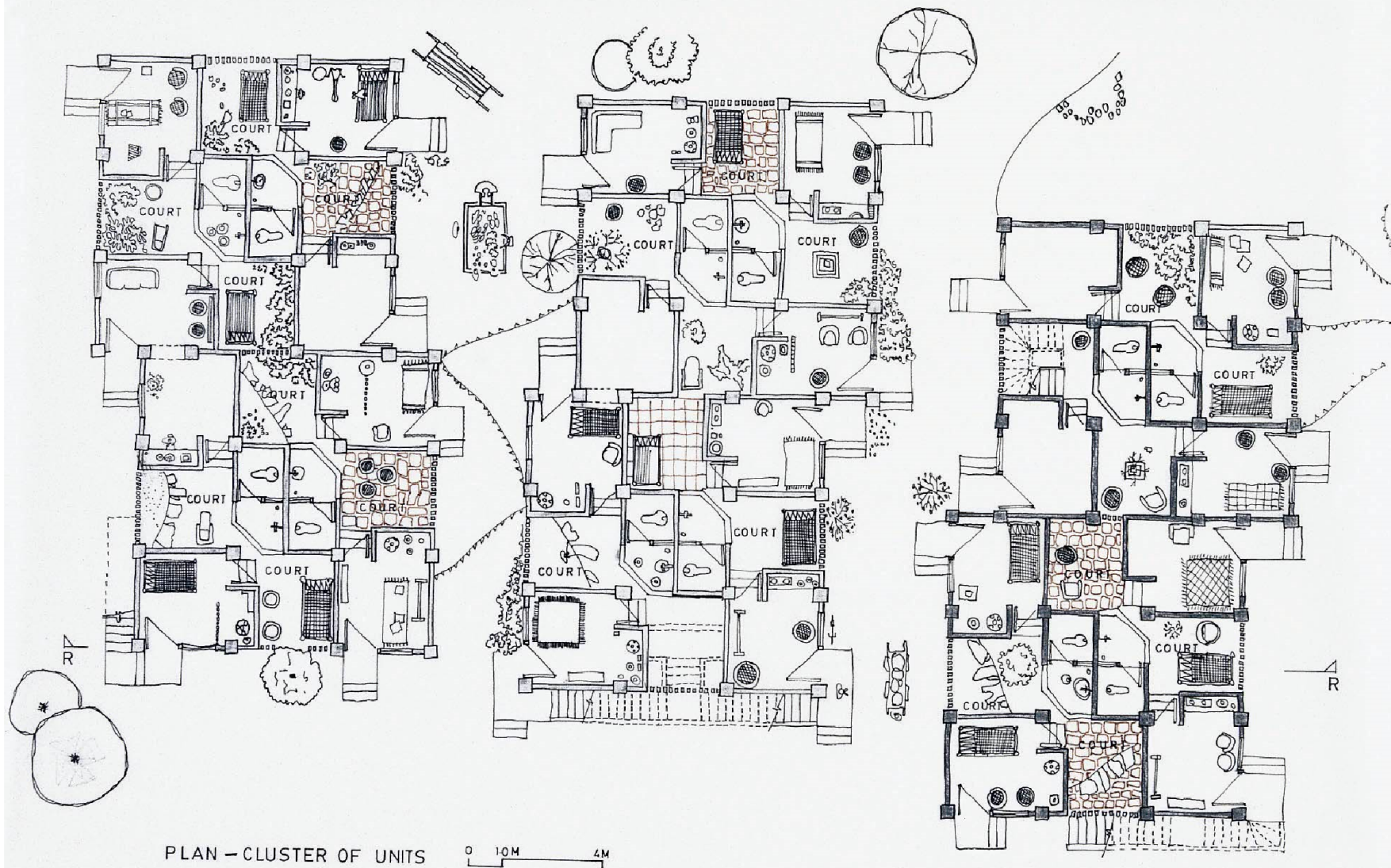


CASE STUDY 2

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











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

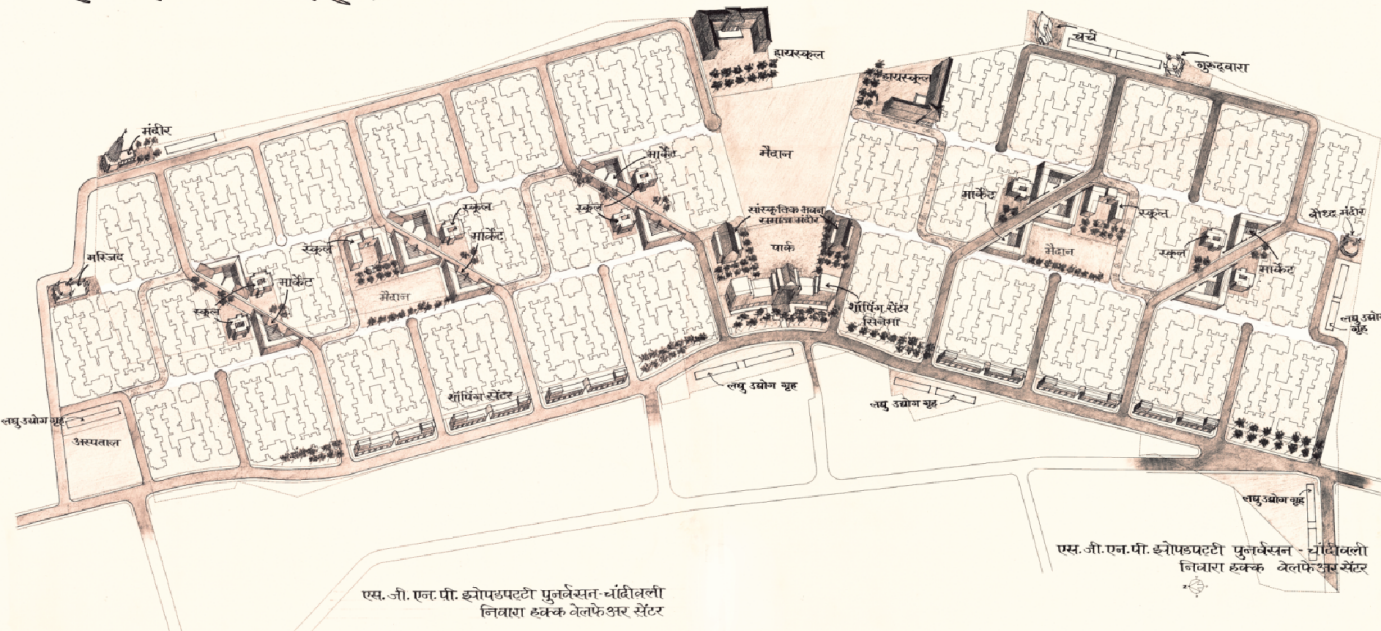
MASTER PLAN

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

- बड़ीकी रचना परिचित समूहों और सोसायटियों को कायम रखेगी.
- सार्वजनिक सहभाग और व्यवस्थापन नियंत्रण इस रचना का मुख्य हेतु रहेगा.
- इमारतें सिर्फ पॉप मंजिली होंगी.

हमारा नया शहर.....

- एक बड़ा चार एकर क्षेत्र का मैदान शहर का केंद्रबिंदु होगा, इस के व्यतिरिक्त एक एकर के दो और खेल मैदान और हर बाड़ी में दो चौक होंगे.
- कुल सोलह स्कूल होंगे, जिसमें दो हायरस्कूल, चार सेकेंडरी स्कूल और दस प्राथमरी 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.
- रोजगार उपलब्धी के लिए हमारे शहर में 250 लघु उद्योग गृह बनाये जायेंगे.



POSTER FOR PUBLIC PARTICIPATION & DISCUSSION

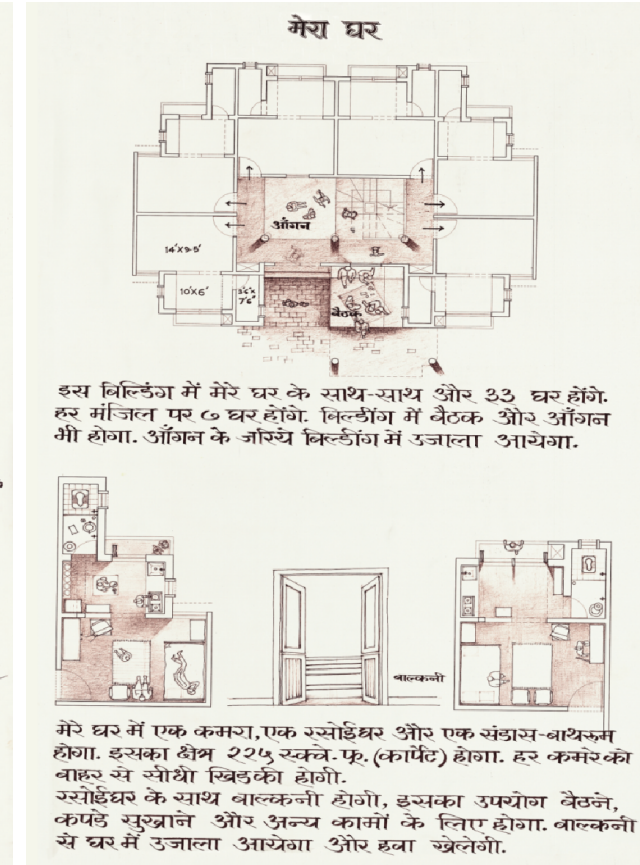
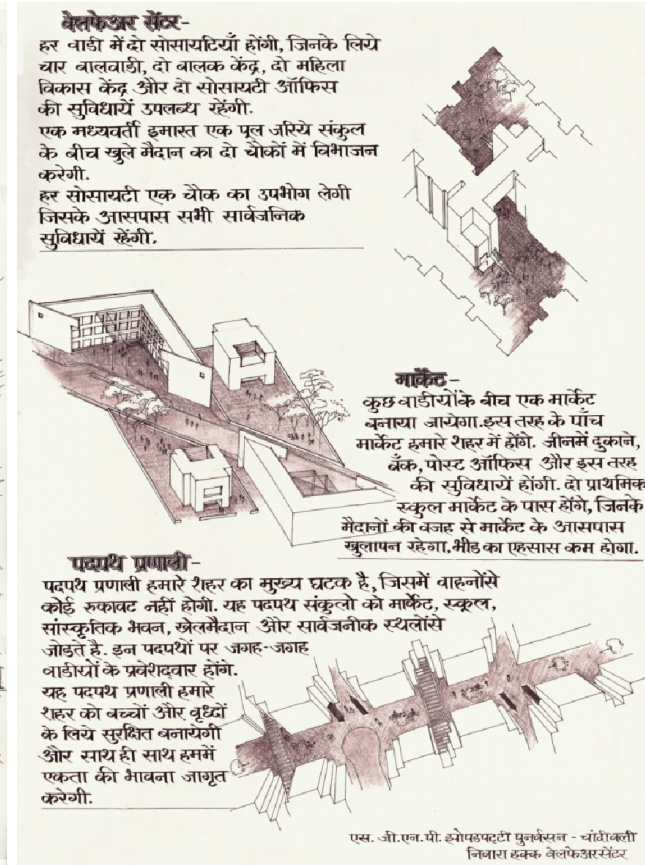
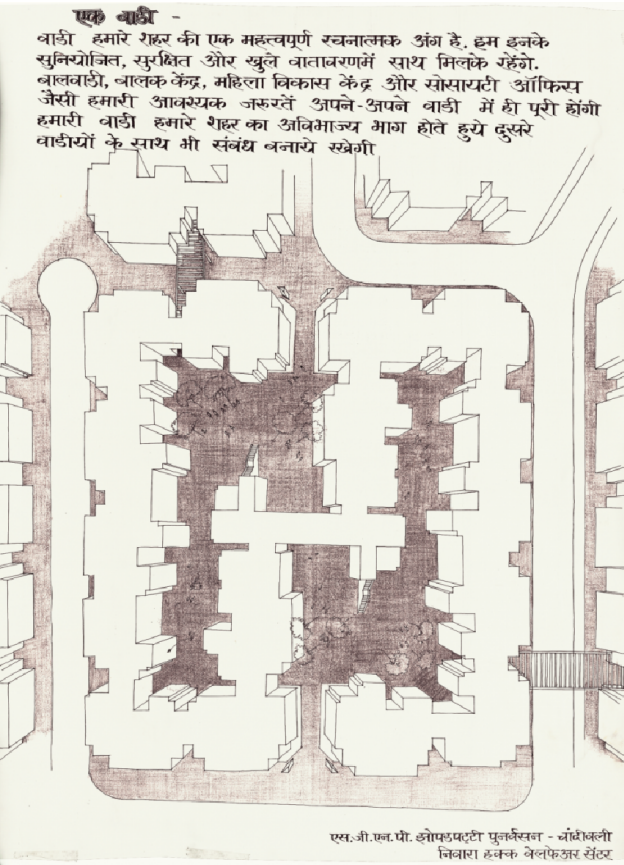
Total land area - 3,13,621 sq mt (77.47 acres)

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

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

Madhurima 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 spanking new studio apartment in Chandivli, 15 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 Rao, 45, who lived on the edge of the forest.

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

Instead of the unimaginative 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 succeeds, it could become a model for other

projects. The success of slum upgradation 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 move in: equivalent to one-fourth the population of the city's K ward, consisting of Colaba, Cuffe Parade and Fort. In ten days, one third of them will have shifted.

The township is unique also because groups usually at loggerheads with one another have collaborated: the government, builder Sumer Corporation, independent architect P.K. 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 that the slum re-housing projects have been ridden with corruption on these two fronts.

madhurima.nandy@industriamail.com



PHOTO: MANOJ PATEL/NT

UNLIKELY PARTNERS



Shabana Azmi
Member of Nivara Hakk Suraksha Samiti

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



Vilasrao Deshmukh
Chief Minister of SRA

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



P.K. Das
Architect and member of Nivara Hakk Suraksha Samiti

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



Ramessh Shah
Partner in Sumer Corporation, a construction firm

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 Hiranandani Gardens in Powai
- 12,000 housing units spread over 15 clusters, with 16 buildings in each cluster
- Four buildings in a sub-cluster, which open out 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, in an effort to create more communal space
- Well lit and ventilated flats
- Nicely tiled bathrooms
- Drying balconies
- Central maidan
- Three parks

A NEW BEGINNING: Asha Giri Goswami in the balcony of her Chandivli flat.

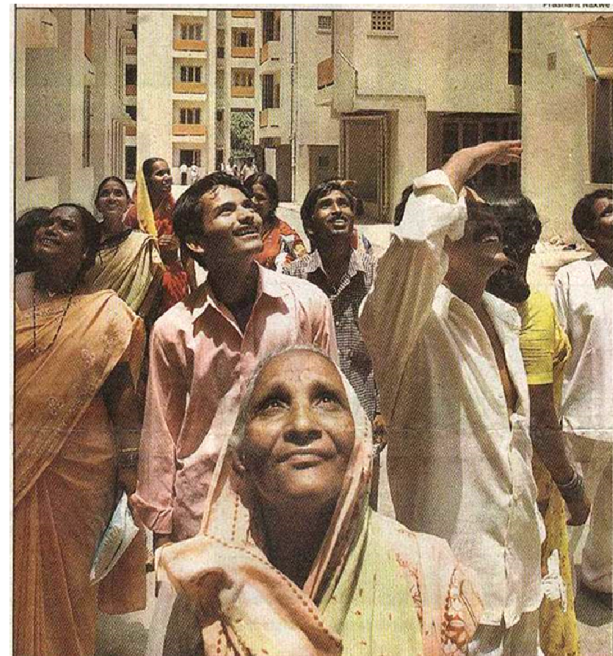
'I'll never give this house up'

Madhurima Nandy
Mumbai, May 1

ASHA GIRI Goswami, 40, has never lived in a high-rise building. After 20 years of living precariously in a shanty town on the fringes of Sanjay Gandhi National Park, on Tuesday she finally entered her home.

"This township was a dream for all of us and we have seen it develop from scratch," she said. An added surprise was that she was allotted a top-floor flat. "I have never lived at such a height before," she said, smiling. "I hope the wind doesn't blow us away!"

Goswami and her husband came to Mumbai 20 years ago from West Bengal. Her husband worked as a plumber and she sold bangles and other costume jewellery that she made at home. Will she eventually sell the house? "Never!" she replied emphatically. "We have struggled for years along with Nivara Hakk to get our own place. We would never give it up."



NEW LIFE IN A HIGH-RISE: Slumdwellers 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

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