

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 X 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 Sumar 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. Other slum re-housing projects have been ridden with corruption on these two fronts.

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PHOTO: MANJU PATIL/HT

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 Gir Goswami in the balcony of her Chandivli flat.

UNLIKELY PARTNERS



Shabana Azmi
Member of Nivara Hakk Suraksha Samiti



Vilasrao Deshmukh
Chief Minister, chairman of SPA



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



Ramesh Shah
Partner in Sumar Corporation, a construction firm

This township is an example where an NGO has helped the government, slumdwellers 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.

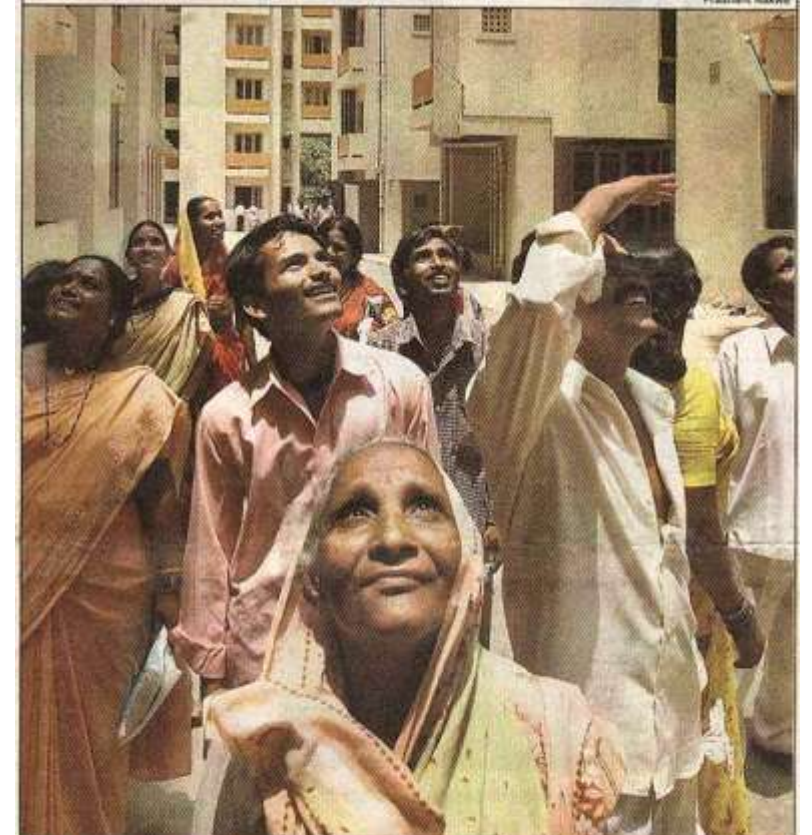
'I'll never give this house up'

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



SANJAY GANDHI NATIONAL PARK BEFORE & DURING DEMOLITION



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

CHANDIVALI REHABILITATION SITE



Location:
Chandivali Village

Surroundings:

- Nahar Amrit Shakti Residential Complex
- Tata Symphony Residential Towers
- Behind Hiranandani Development., Powai.
- Adjacent to Khairani Rd, Ghatkopar (E)
- 15 minutes to Ghatkopar Station.

Land Details:

- Plot CS No.6, part 11, part 12, part16, part 20, part 25, ward-L,
- Land area 305466.35mt (approx 75.46Acres)



MASTER PLAN

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

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

हमारा नया शहर.....

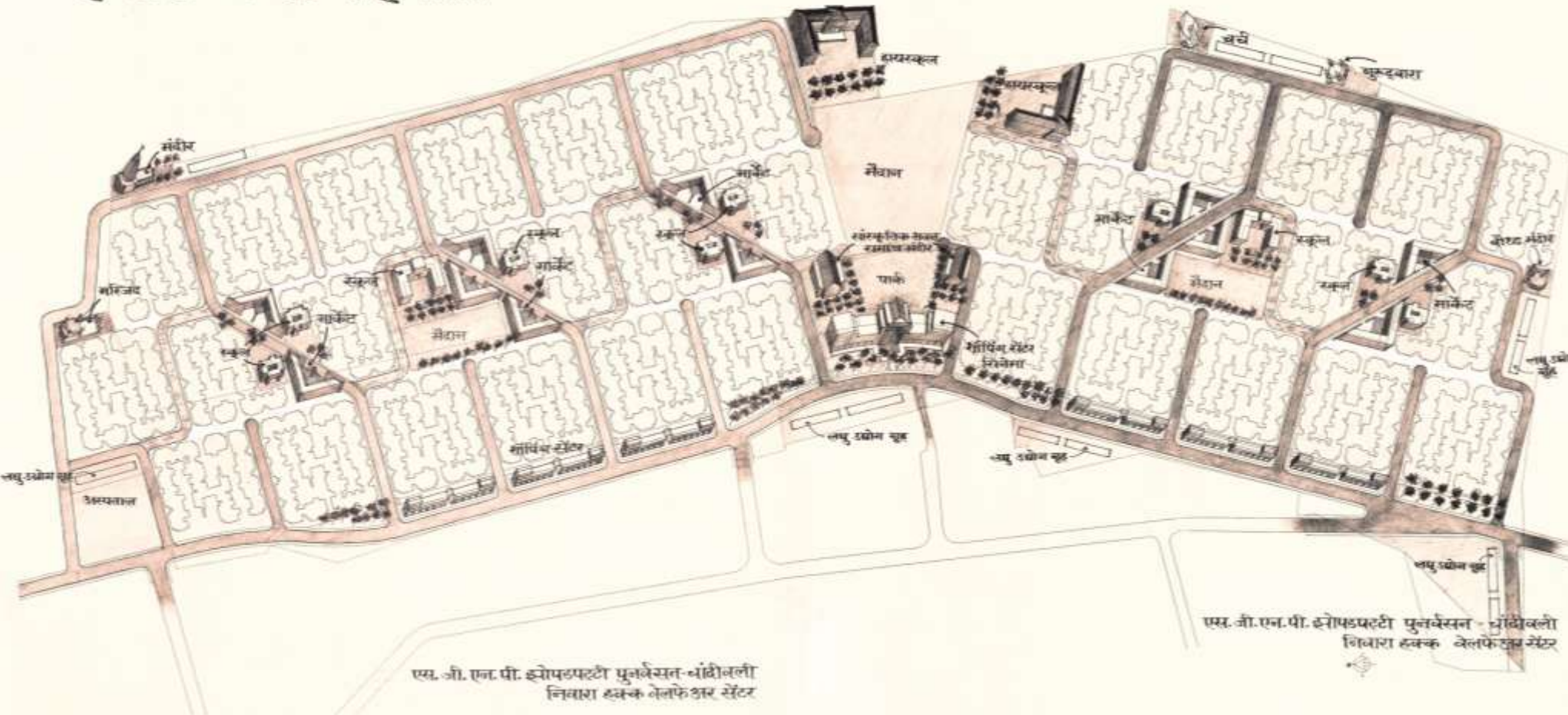
- एक बड़ा चार एकर क्षेत्र का मैदान शहर का केंद्रबिंदू होगा, इस के अतिरिक्त एक एकर के दो और खेल मैदान और हर वाड़ी में दो चौक होंगे.
- कुल सोलह स्कूल होंगे, जिसमें दो हायरस्कूल, चार सेकेंडरी स्कूल और दस प्राथमरी स्कूल होंगे.
- दो अस्पताल और कई छोटे क्लिनिक और दवाखाने आरोग्य विषयक हर जरूरतों को पूरा करेंगे.
- 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 बृह बनाये जायेंगे.

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

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

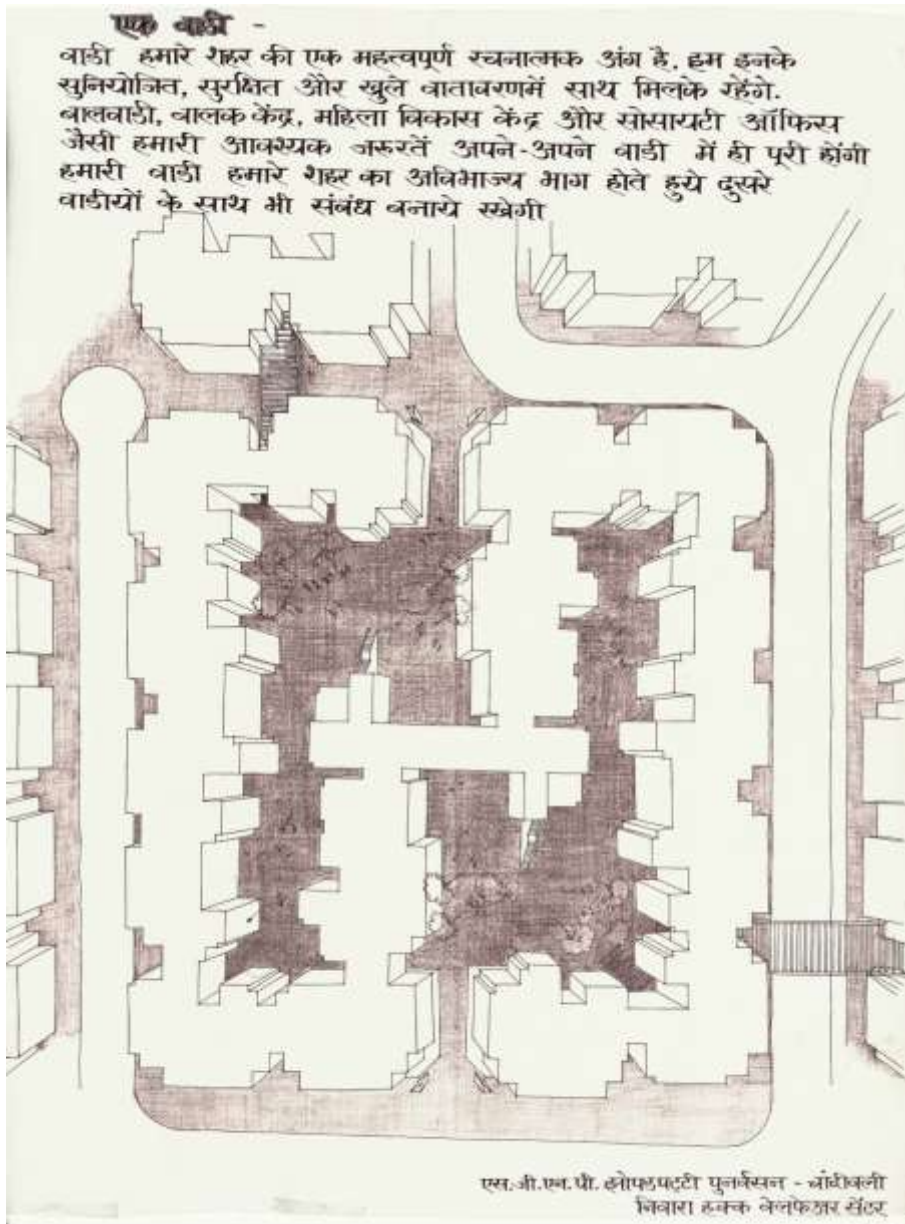
Density achieved - 550 units/ha

1. Houses -	18,362	(26.62 %)
2. Social infrcature -		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

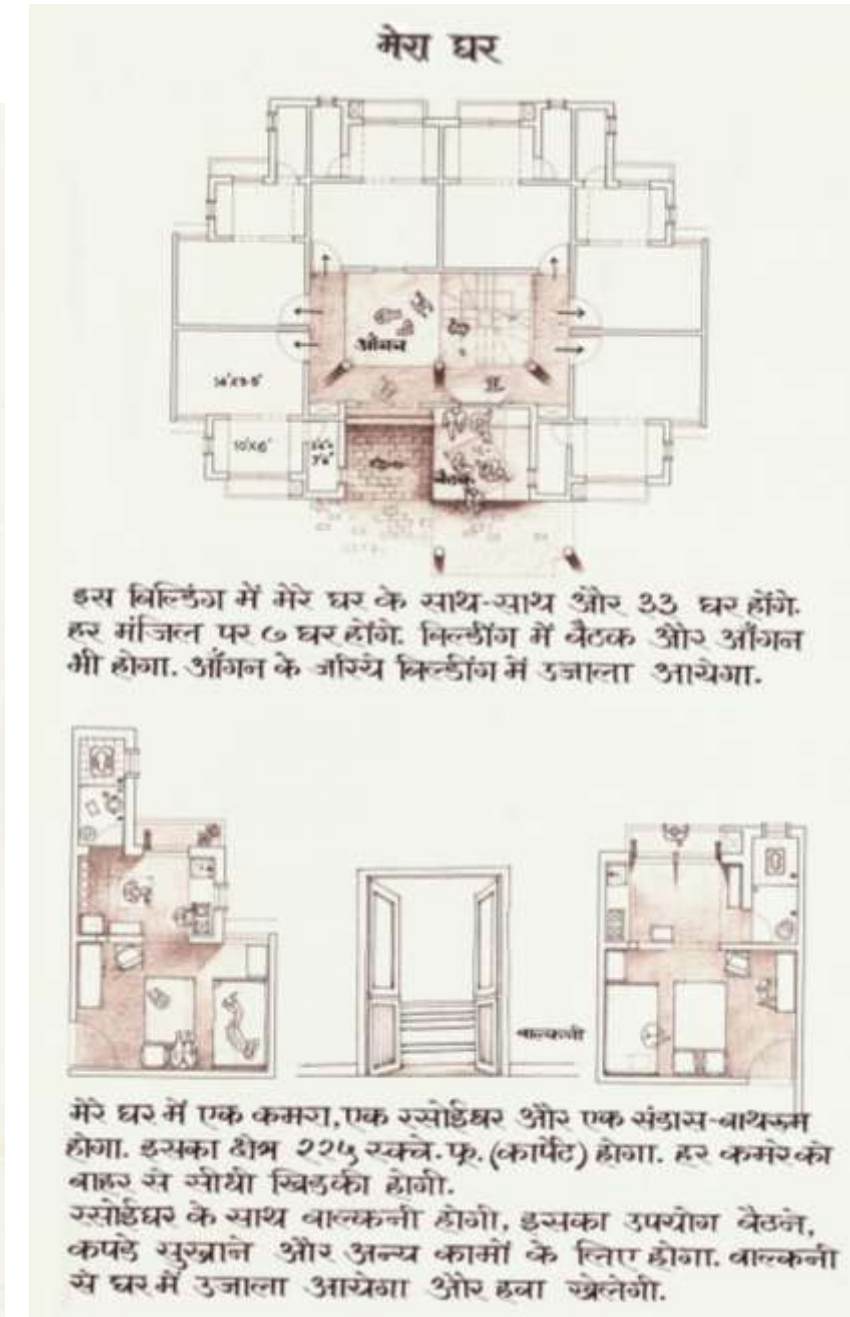
REHABILITATION PLANS



Poster 1-TYPICAL CLUSTER



Poster 2-AMENITIES



Poster 3-TYPICAL HOUSE

POSTERS FOR PUBLIC PARTICIPATION & DISCUSSION



**“SANGHARSH NAGAR”
NATIONAL PARK SLUM DWELLERS REHABILITATION AT CHANDIVILI**

NIVARA HAKK



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NIVARA HAKK

PRESENT SITUATION

10,000 HOUSES BUILT. BUT,

- NO OPEN SPACES
- NO SHOPS & MARKETS ENCOURAGING RESLUMIFICATION
- NO HEALTH CARE CENTERS
- ONE SCHOOL YET TO BE LAUNCHED
- ONE SAMAJ MANDIR BUILT
- POOR QUALITY SERVICES AND LOW MAINTAINANCE
- ACUTE SHORTAGE OF WATER
- POOR QUALITY CONSTRUCTION
- SECOND PHASE APPROVED WITH 24 STORIED TOWER

LESSONS FROM CHANDIVILI

▪ OPEN SPACES STANDARDS

SPACE BETWEEN BUILDINGS, SET-BACKS, PG & RG



TYPICAL DEVELOPMENT

CHANDIVILI EXAMPLE

“SANGHARSH NAGAR”
NATIONAL PARK SLUM DWELLERS REHABILITATION AT CHANDIVILI

NIVARA HAKK

- **CIVIC STANDARDS**

MONITORING COMMON SPACES



- **SHOPS & MARKETS**

NO SRA PROVISION FOR LARGER LAYOUTS

- **EDUCATIONAL FACILITY STANDARDS**

CLUBBING UNITS TO SET-UP BIGGER SCHOOLS

SET-UP MUNICIPAL FACILITY

CRECHE & BALWADI



- **HEALTH-CARE FACILITY STANDARDS**

SET-UP MUNICIPAL FACILITY

DAY-CARE CENTRES

- **SERVICES QUALITY & MAINTAINANCE**

APPOINTMENT OF SERVICES CONSULTANTS

CERTIFICATION OF SERVICES

5 YEARS MAINTAINANCE RESPONSIBILITY BY THE

DEVELOPERS

LACK OF MAINTAINANCE LEADS TO RE-SLUMIFICATION



- **INDIVIDUAL SOCIETY FORMATION**

SRA TAKES OVER ONLY UPON SOCIETY

REGISTRATION IS COMPLETED BY THE DEVELOPER

- **DEVELOPER MUST BE GIVEN THE BENEFIT OF EQUIVALENT AREA/TDR FOR MARKET, HEALTHCARE AND WORKPLACES.**

- **WATER SUPPLY STANDARDS 135 LITRES/PERSON/DAY**

(Chandivali receives 45 lit/person/day)

DIRECT MUNICIPAL SUPPLY TO INDIVIDUAL BUILDINGS



- **‘MAHASANG’ FORMALISATION**

SRA REGISTERS ‘MAHASANGH’ AS SOON AS SUFFICIENT
NUMBERS BUILDINGS REGISTER THEIR HOUSING SOCIETIES.

■ QUALITY OF CONSTRUCTION

SLUMIFICATION DUE TO POOR QUALITY CONSTRUCTION



THE TIMES OF INDIA, MUMBAI * TUESDAY, DECEMBER 29, 2009

TIMES CITY

Lack of water grounds slum rehab

Phase 2 Would Have Resettled 17K Slum Families Of National Park

TIMES NEWS NETWORK

Mumbai: The resettlement project for shifting slum families from the Sanjay Gandhi National Park to the 45-acre Sangharsh Nagar colony at Chandivli in Powai has come to a grinding halt following an almost complete stoppage of water supply by the BMC to the colony. The resettlement process, already delayed by almost a year, was being implemented following the orders of the Bombay high court and meant 12,000 slum families would get to shift to the newly-built seven-storey buildings constructed under the Slum Rehabilitation Authority (SRA) Scheme.

The resettlement process, started by Nivara Hakk, in May 2007 has so far rehabilitated 8,000 families who have shifted to their homes. "Construction delays led to the December 2006 deadline already being stretched. Now fully constructed buildings cannot be occupied as there is no water supply to these clusters," architect P K Das said.

People who have shifted have to stand in queues for tanker water and then carry it up all the way to the seventh floor. Some even say that life in the slums was "easier". Only 2-3 lakh litres are being supplied now.

The remaining 4,000 families who have been allotted homes cannot be shifted and will continue to remain in the national park. As they cannot be moved out, replanting of trees at the wildlife sanctuary has also been delayed, said the architect.

On November 23, in a meeting held between a delegation of the Nivara Hakk led by its chief Shabana Azmi and additional municipal commissioner R A Rajwani, the BMC's hydraulic top brass reportedly assured the people that normal water supply will be restored within a week. However, with their claims holding no water yet, Nivara Hakk said the only option might now be to stage a 'hands' protest or move the high court once again.

Prior to the water stoppage, the civic body was supplying 45 litres of water per person to the resettlement colony, which translated into 20 lakh litres per day and effectively meant a supply of 20 minutes of running water per family. This was 50% of the minimum level of 90 litres per person accepted as the basic human norm by the BMC. When challenged in the Bombay high court, the civic body had filed an affidavit assuring an increase of supply to 90 litres per person from December 2008.

The second phase of the resettlement process from the Sanjay Gandhi National Park involved shifting 17,000 eligible slum families to Chandivli. However, with the state government deciding to postpone permissions for all high-rise towers, Part II of the resettlement project has been delayed indefinitely. "Perhaps, this is a blessing in disguise as it gives an opportunity to re-examine resettlement of slums in enviable high-rise clusters," said Das.

HOWHERE TO GO: A file photo of people who were allotted homes in the first phase of the project at Sangharsh Nagar colony in Chandivli



“ SANGHARSH NAGAR “
NATIONAL PARK SLUM DWELLERS REHABILITATION AT CHANDIVILI

NIVARA HAKK

AFFORDABLE LOW-COST HOUSING FOR MUMBAI

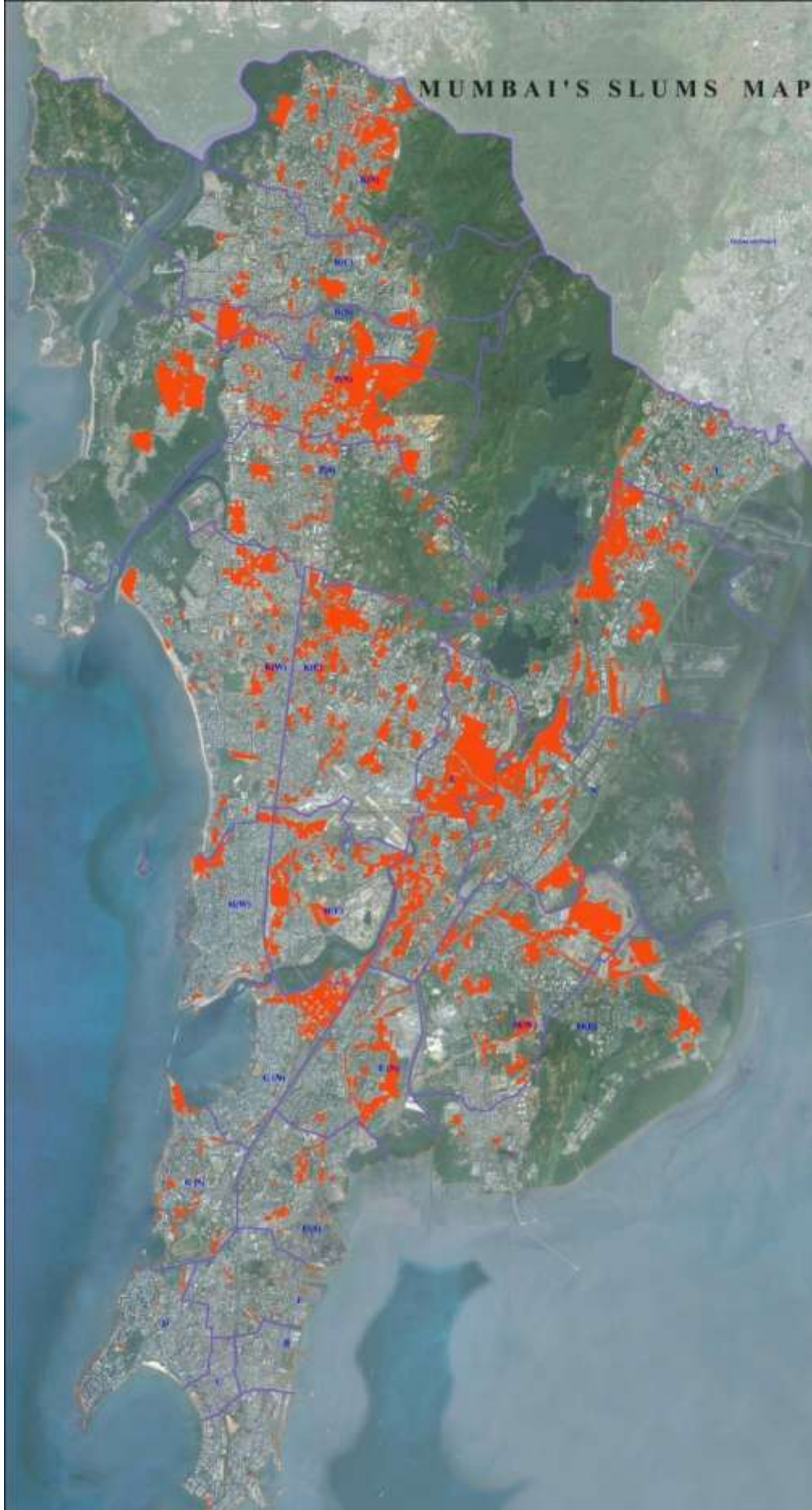
OBJECTIVE:
RESERVE SLUMS LAND FOR AFFORDABLE LOW-COST HOUSING

- Satellite mapping shows nearly 50% of Slum habitations occupy land reserved for housing. These constitute only 9% of the land mass of the city of Mumbai.
- Shortage of land can be solved by reserving all slum occupied land for low-cost housing
- All slum layouts usage should be reserved exclusively for low-cost housing with 2.5 FSI
- Low cost housing land is being lost to SRA projects with upper class construction cross-subsidizing slum rehab. Slum lands should be entirely used for low cost housing to maximize affordable housing stock.

OPERATING PRINCIPLES

1. Increased Government role in Administration, Finance and Price Control.
2. Modified / Amended SRD policy – Redefine private / builders' participation.
3. Slum dwellers financial contribution with soft long term loans facility
4. Empanelment for Architects, Project Management Consultants and Construction agencies.
5. Prepare affordable housing master plan on Town planning principles, on Ward basis to minimize displacement.
6. Restrict FSI to 2.50. L I G housing requires more land and less FSI to balance density.
7. Restrict to G + 7 floors : Considering slums occupied land area as 42.30 sq km. & FSI as 2.5, 21.15 sq km will be available for slums rehab (50-50% for rehab and sale) . This with 2.5 FSI will enable 52.87 million sq mts of construction.
Considering 30% ground coverage and total rehab land as 21.15 sq km, we will fulfill the rehab area requirement in Ground + 7 floors.
6. Target large slums first.

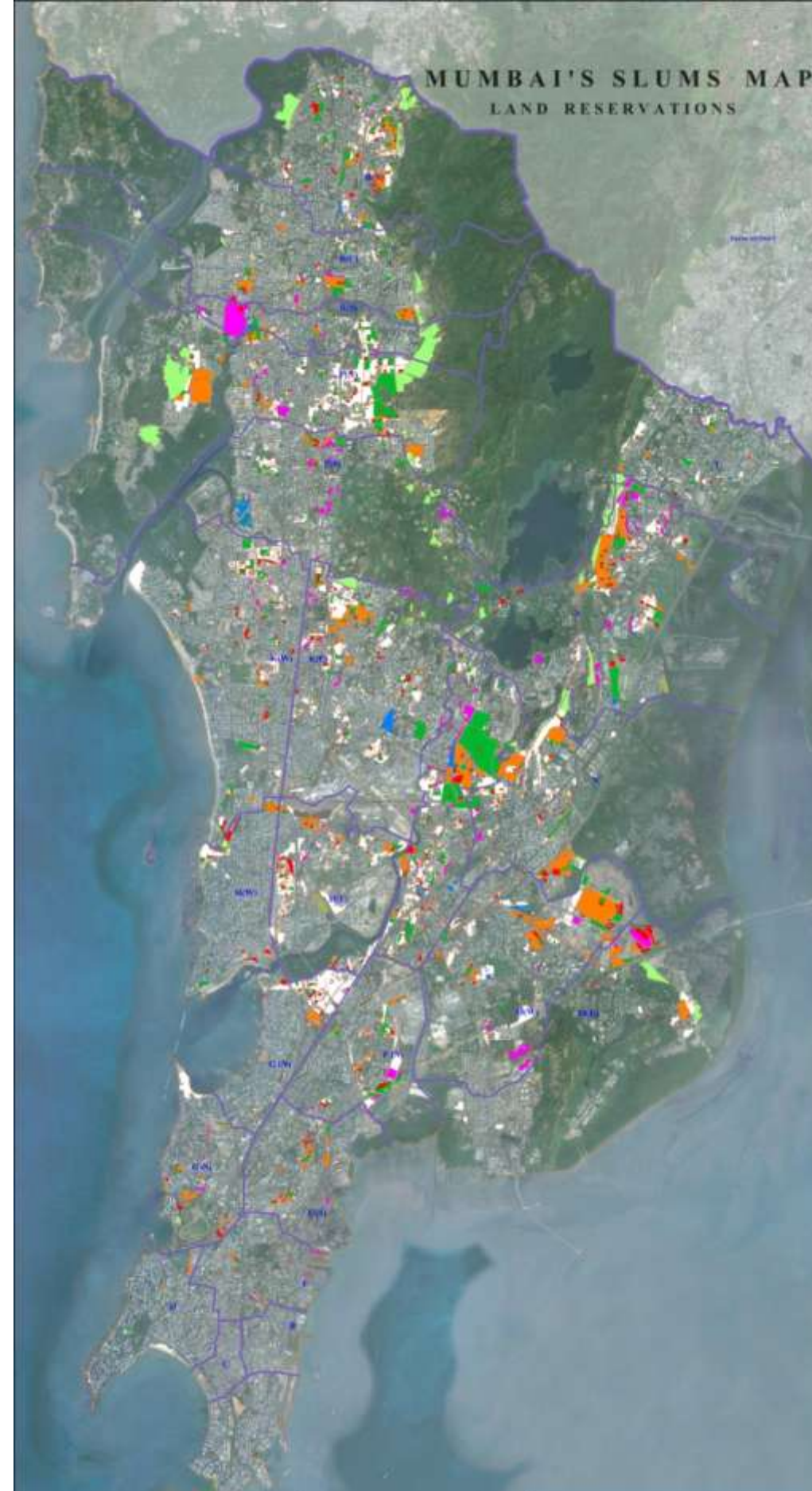
MUMBAI'S SLUMS MAP



Disclaimer: For the preparation of the Slums Map, the data which were brought into and entered in the Information Plan 2011 prepared by the MCGM.
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MUMBAI'S SLUMS MAP LAND RESERVATIONS



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

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