New township raises the bar for slum rehab

Asia’s largest slum re-housing project in Chandivali gets its first occupants

MUNISH KUMAR
Mumbai, May 1

SANTA MAO is looking forward to a good night’s sleep after three decades of disturbed slumber. She has just moved into a newly constructed apartment in Sangharsh Nagar, a slum Rehabilitation project on the outskirts of Mumbai, where 22,000 slum dwellers are being resettled. The project, located in Mahim, is the largest of its kind in Asia. It is expected to become a model for other slum rehabilitation projects around the world.

SANTA MAO, a resident of the slum being rehoused, said, “I am so happy to have a proper place to live now. I used to sleep without a roof over my head. Now I have a proper bed to sleep on.”

The project is expected to be completed by 2023 and will benefit around 22,000 slum dwellers. The slum dwellers will be provided with modern amenities such as electricity, water, and toilets.

UNLIKELY PARTNERS

With the help of the government and NGOs, the slum dwellers have been able to achieve their dream of having a proper place to live.

The project is being implemented by the Government of India in collaboration with the United Nations Human Settlements Programme (UN-Habitat).

The new design

A total of 45 acres of land has been allocated for the project. The land was previously occupied by slums and shanties. The new design of the project includes modern apartments with all amenities.

The slum dwellers are happy with the new design and are looking forward to a better quality of life.

"I’ll never give this house up"

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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

“SANGHARSH NAGAR”
NATIONAL PARK SLUM DWELLERS REHABILITATION AT CHANDIVILI

NIVARA HAKK
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, part 16, part 20, part 25, ward-L,
• Land area 305466.35mt (approx 75.46 Acres)
**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 infrastructure** - 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 - 10,250 sqm
   - Neighbourhood parks - 3 x 2550 sqm
   - Courtyards - 60 x 450 sqm

**POSTER FOR PUBLIC PARTICIPATION & DISCUSSION**

"SANGHARSH NAGAR"
NATIONAL PARK SLUM DWELLERS REHABILITATION AT CHANDIVILI

**NIVARA HAKK**
REHABILITATION PLANS

Poster 1 - TYPICAL CLUSTER
Poster 2 - AMENITIES
Poster 3 - TYPICAL HOUSE

POSTERS FOR PUBLIC PARTICIPATION & DISCUSSION

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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

"SANGHARSH NAGAR"
NATIONAL PARK SLUM DWELLERS REHABILITATION AT CHANDIVILI

NIVARA HAKK
SERVICES QUALITY & MAINTAINANCE

- APPOINTMENT OF SERVICES CONSULTANTS
- CERTIFICATION OF SERVICES
- 5 YEARS MAINTENANCE RESPONSIBILITY BY THE DEVELOPERS
- LACK OF MAINTENANCE LEADS TO RE-SLUMIFICATION

WATER SUPPLY STANDARDS 135 LITRES/PERSON/DAY
(Chandivali receives 45 lit/person/day)

DIRECT MUNICIPAL SUPPLY TO INDIVIDUAL BUILDINGS

INDIVIDUAL SOCIETY FORMATION

- SRA TAKES OVER ONLY UPON SOCIETY REGISTRATION IS COMPLETED BY THE DEVELOPER

‘MAHASANG’ FORMALISATION

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

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

SLUMIFICATION DUE TO POOR QUALITY CONSTRUCTION

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

Mumbai: The resettlement project for shifting slum families from the Sangharsh Nagar colony at Chandivili in Powai has come to a grinding halt following an almost complete drying up of water supply to the 17,000 families. The project, which was going smoothly after the monsoon, is facing difficulties due to the closure of the Bombay high court and water pressure to the slum dwellers had to be reduced by the Brihanmumbai Municipal Corporation (BMC). The affected residences are occupied by Nivara Hakk, who shifted to Powai in 2006 as the December 2006 deadline was approaching. However, the families have not been able to access their water supply for more than a month, as the BMC has reduced the water pressure. The affected families have been living in quarters for the past six months and are suffering from a lack of water supply.

Nivara Hakk, who had moved to Powai in 2006, said, "The lack of water has been a constant problem for the families. Only 20 families are being supplied water, and there is a risk of the entire colony being affected. The families have been living in the colony for more than a year, and they have not been able to access their water supply for more than a month. The BMC has reduced the water pressure, and the affected families are facing difficulties in accessing their water supply."
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.
3. Slum dwellers financial contribution with soft long term loans facility
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.
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’

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

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.
  
  \[
  1.5 \text{ million families} \times 30 \text{ sq mt. house area} = 45 \text{ sq mts million FSI area.}
  \]

- 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)

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

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

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**AFFORDABLE HOUSING FOR MUMBAI**

*NIVARA HAKK*

24 May 2011