

Shelter Associates

Mrs. Pratima Joshi (Executive Director)

The Role of Civil Society in access to energy

Monday 8th MAY 2012, World Bank Offices, Washington DC, U.S.A.

Workshop on energy access for urban and peri-urban poor
Energy Sector Management Assistance Program (ESMAP) and
the Cities Alliance

www.shelter-associates.org

Flat A/17, Sarasnagar Siddhivinayak Society, Shukrawar Peth,
Pune, India. 411 002.



Case study of two cities- Pune and Sangli in the state of Maharashtra, India

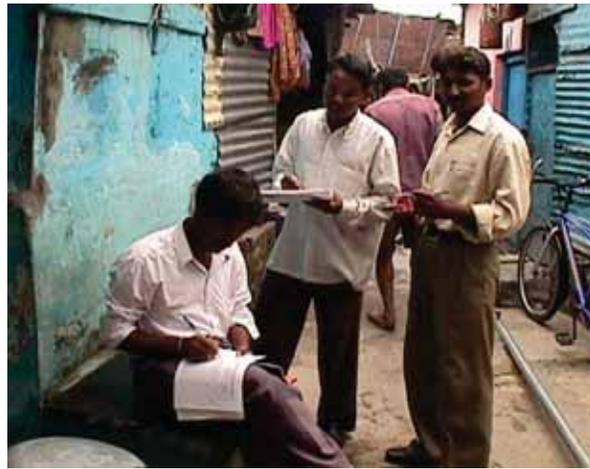


Pune is the 7th largest city in the country with a population of 3.1 million (2011 census).

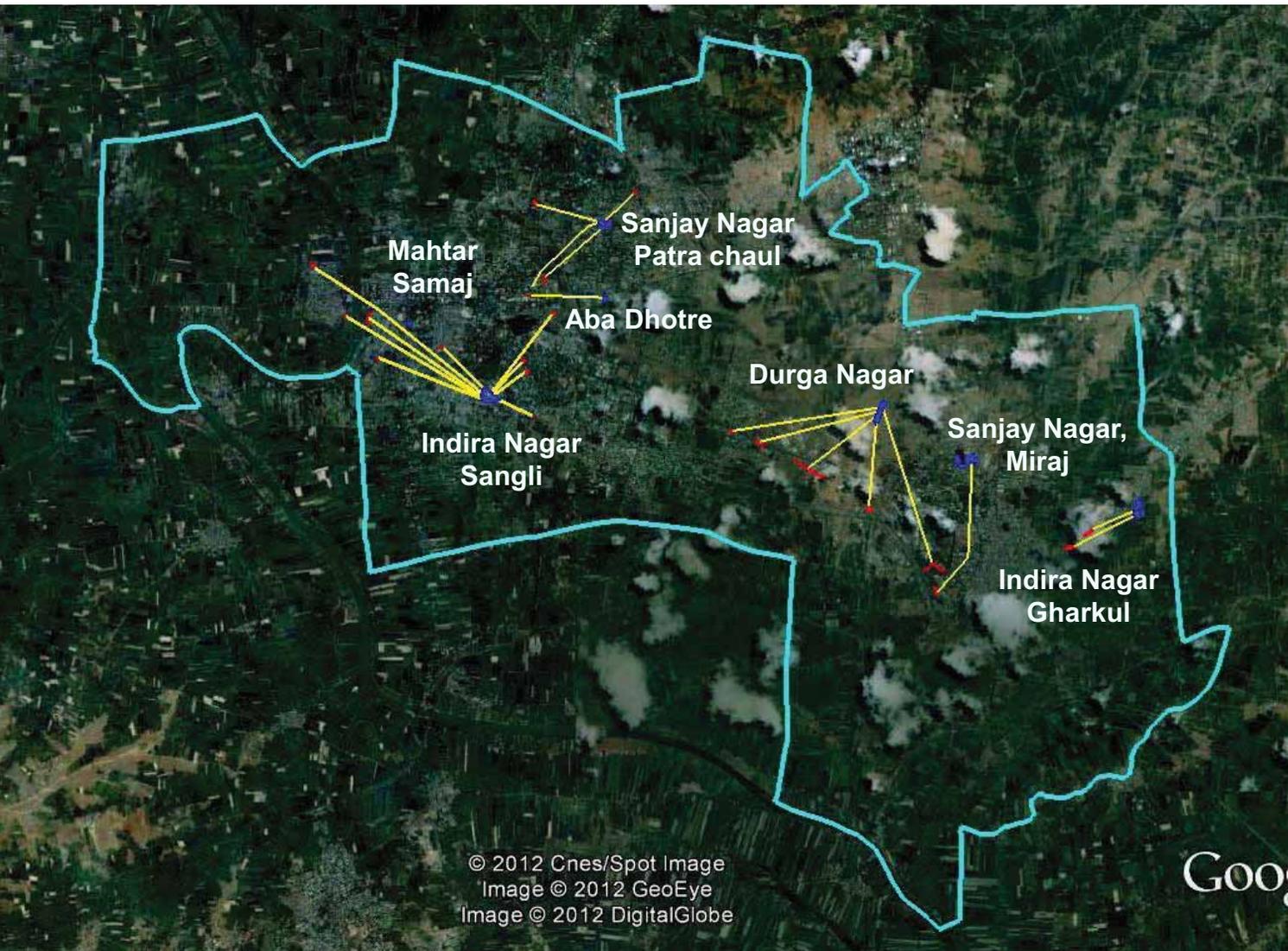
Sangli is 240kms south of Pune with a population of a little of half a million (2011 census). Known as the sugar belt of the state, it has hardly any industrial growth.



- household and settlement level surveys carried out by trained slum dwellers
- plane-table maps of every slum by professional surveyors
- Integration of spatial and socio economic data on GIS software by SA



Inclusive Slum Rehabilitation: IHSDP in Sangli & Miraj



IHSDP: Sangli & Miraj Community Participation

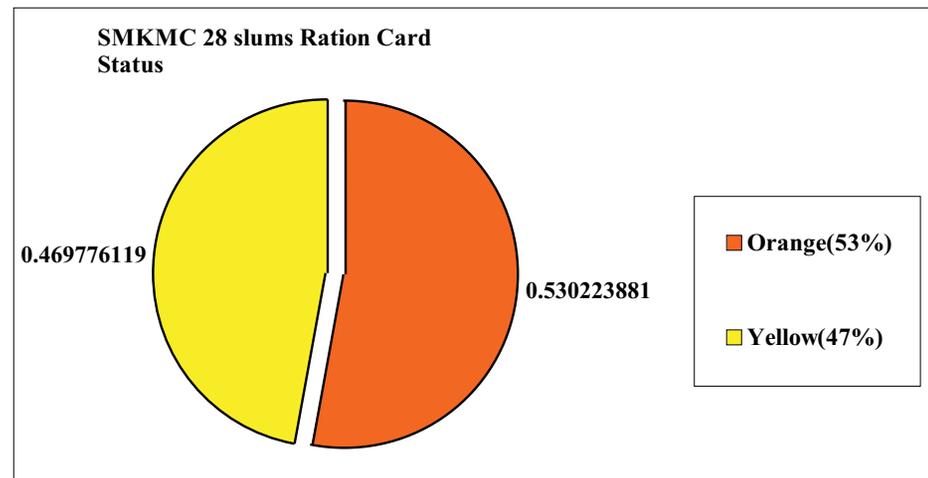
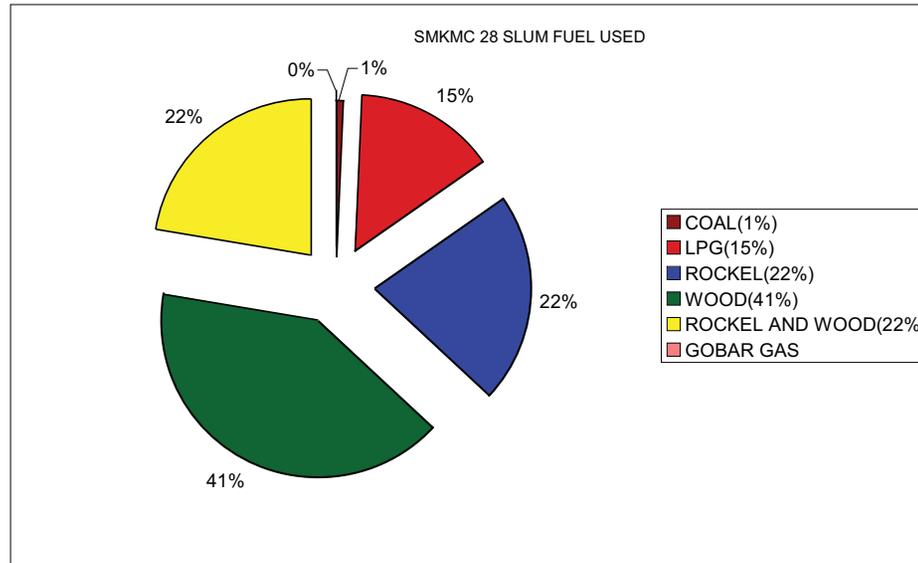


The communities are involved in all stages of the rehabilitation process, including the design of the residential units.

Shelter Associates formed slum committees which assisted with the process of social mobilization and will become the co-operative societies once the buildings are finished.

The co-operative societies will have the responsibility of operating and maintaining the new buildings.

Status of Fuel use distribution and BPL ration cards covering 3470 households across 28 slums

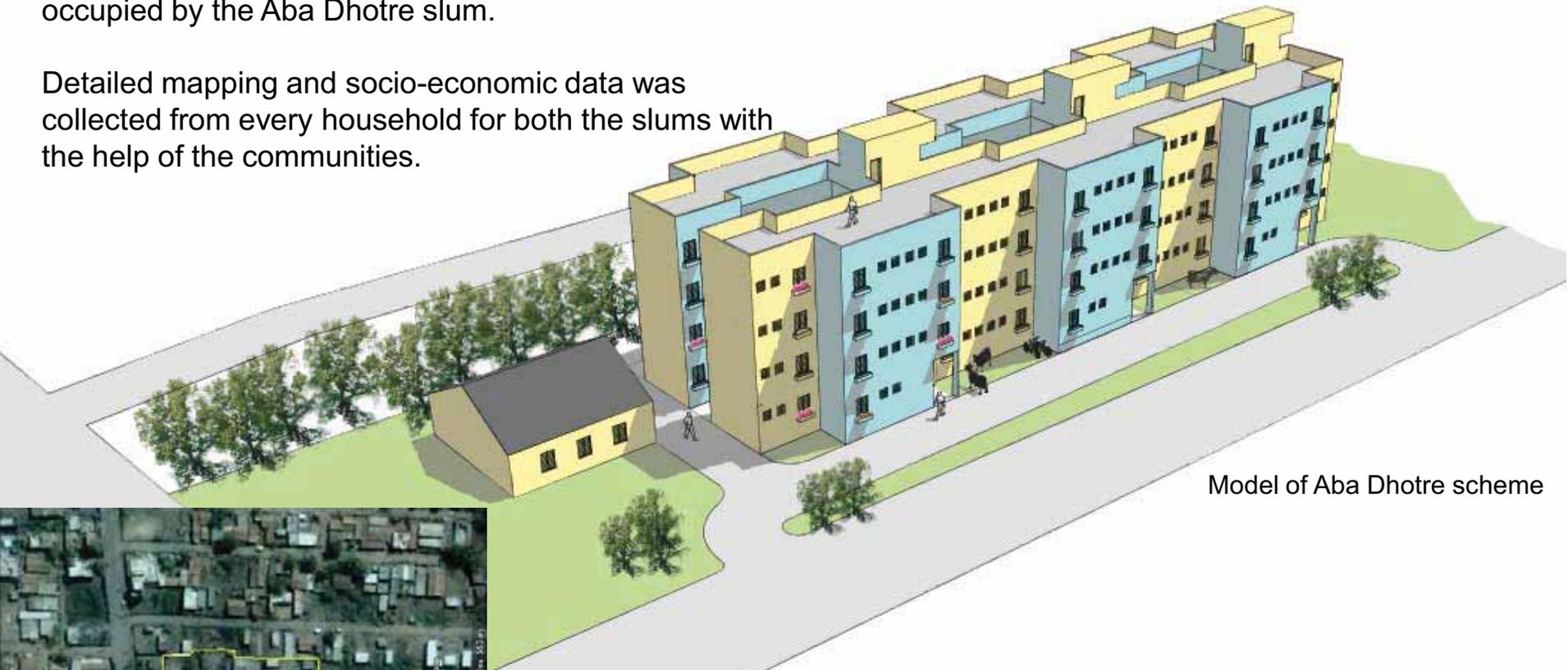


IHSDP: Sangli & Miraj

Aba Dhotre and Chetana slums final rehab design

Two slums will be rehabilitated on this land which was occupied by the Aba Dhotre slum.

Detailed mapping and socio-economic data was collected from every household for both the slums with the help of the communities.



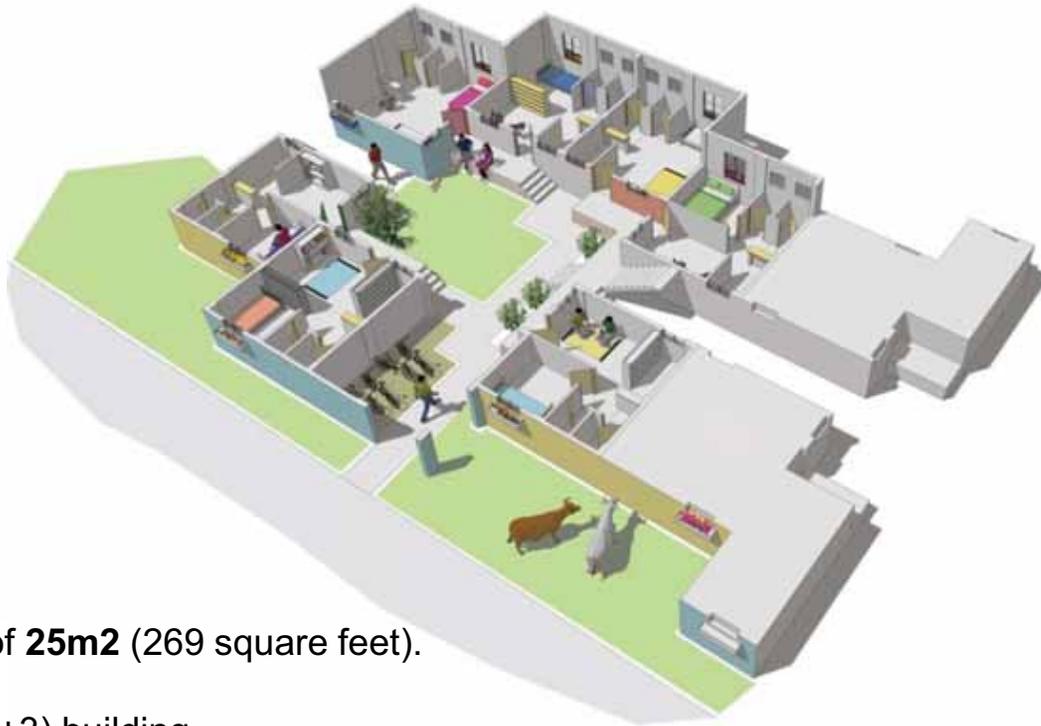
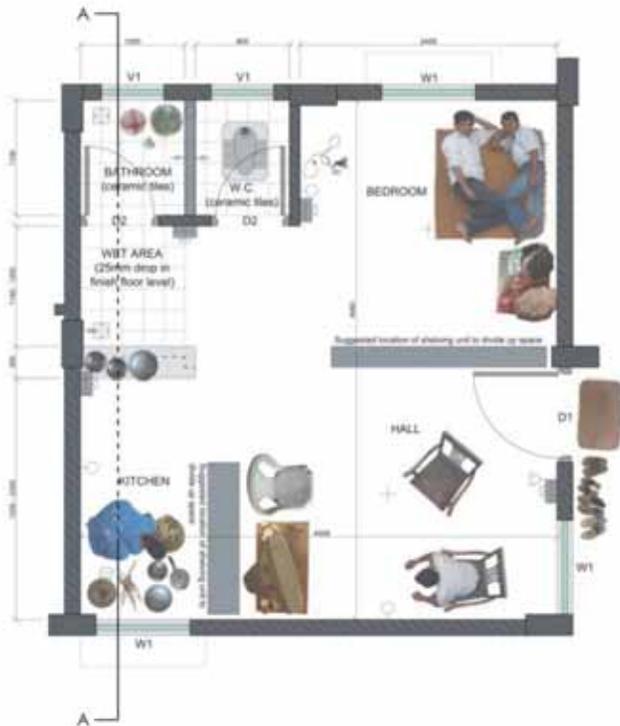
Model of Aba Dhotre scheme



Google Earth image of the Aba Dhotre slum (before construction)

IHSDP: Sangli & Miraj

The Residential Units



Residential Units have a built up area of **25m²** (269 square feet).

There are **31 Residential Units** per (G+3) building.

All Residential Units are arranged around a **central courtyard**.

Space is allocated on the Ground Floor for **two-wheeler parking**.

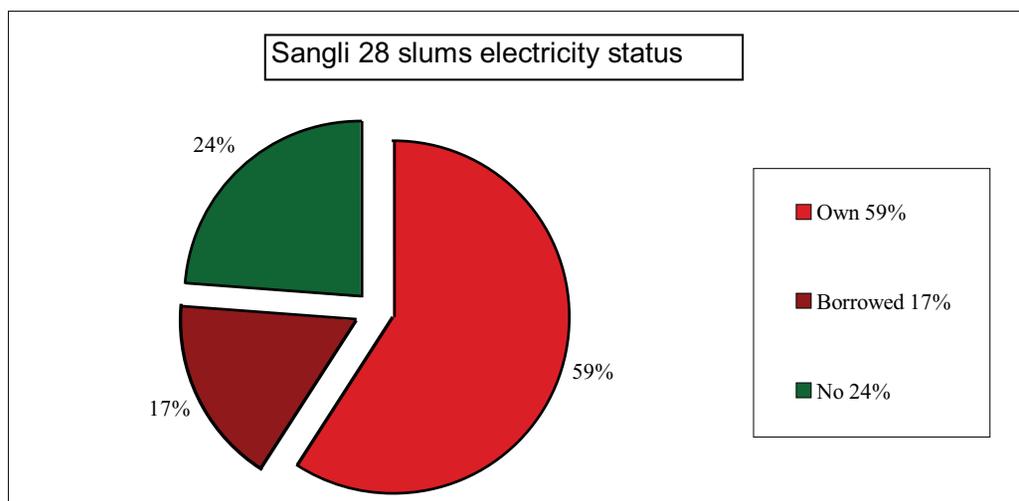
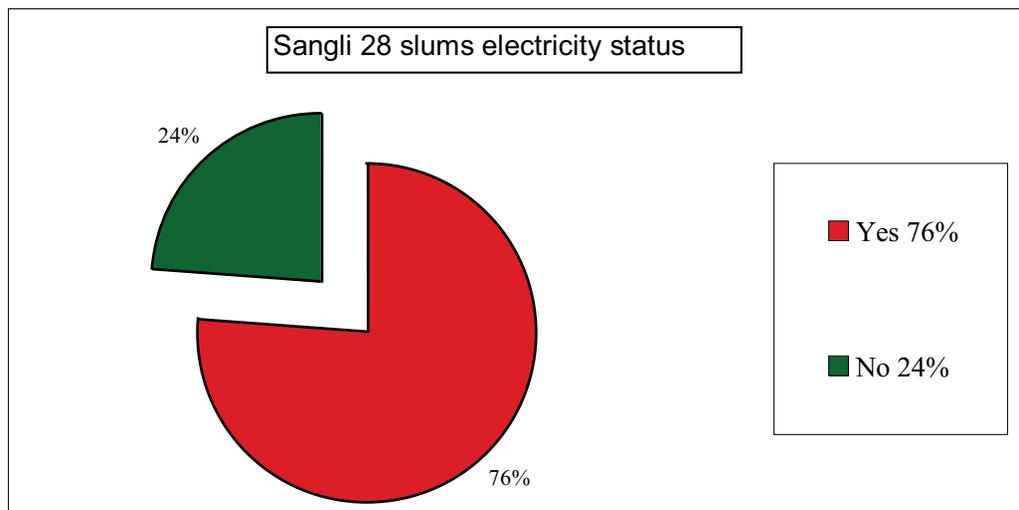
Animals can be accommodated in the recesses of the buildings.

VAMBAY (2003-4): Sangli & Miraj by SMKMC without community involvement



The VAMBAY project implemented in 2003 has been a great example of how a non-inclusive approach and lack of data about communities can lead to disastrous projects. The kitchens in the 14.8 sq. mts. tenements were provided with cooking platforms which were totally unsuitable for women who now spill out on the corridors and cook on traditional chullahs. Hence the introduction of smokeless chullahs was very relevant in this context.

Status of electricity distribution covering 3470 households across 28 slums



Cost of access to electricity and LPG fuel by households residing in slums in Sangli city

It works out to almost Rs.2500 (\$48) per household. But families who own metered connection in 15-20 sq.mts. huts, run moderate bills from Rs. 80 to Rs. 150 on an average and this includes two lights, a fan, a TV and occasional use of grinder.

The capital cost of getting an LPG connection is almost Rs.4500 (\$87) which is very steep for most families whose per capita income is less than Rs. 600 (\$11.5)/ month.

However, it is our finding that the monthly expense on fuel can be higher than an LPG connection if households have to buy kerosene in the open market. The ration card allows them access to barely 4-5 litres of kerosene depending on the family size. On an average a family of five requires 12-15 litres per month and the cost in the open market is Rs40-45/ litre (\$.8) while the ration card subsidized kerosene is Rs. 15/ litre (\$.3)

The organization of data

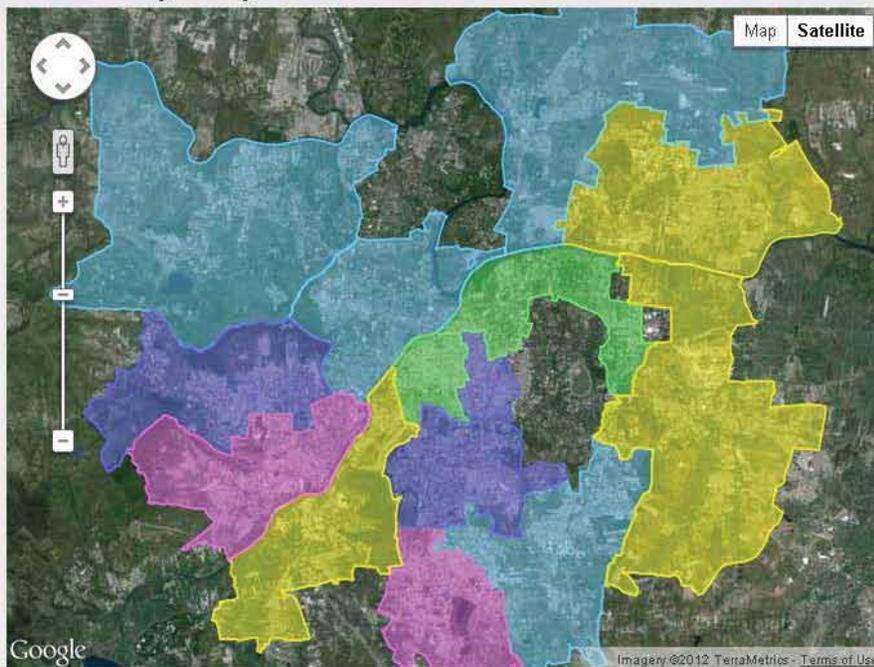
Slum Data Directory for Pune and Sangli



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Wards by City



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Interactive data on slums wardwise of Pune city on SA website

Pune City-The organization of data

Slum Data Directory

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Pune Gholerod administrative ward no.2

This is an administrative ward of the Pune Muncpal Corporation. The area of this ward is 14.5 square Kilometer (according to Google Earth). This ward is divided into 6 electoral wards and has 45 slums in all.This administrative ward under zone no.1 and Mr.Dahibhate is the zone commissioner.

City: Pune

Map Satellite

Google

Ward Office:
Ghole road ward office,Ghole road near Mahatma Phule Museum shivaji nagar pune
Ward Officer: Mr.Vijay Landge Mob.960095311

plot no.15
Data not available

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Start Pune Gholero... 23:01

The organization of data Slum Data Directory

Electoral Ward/Prabhag

www.shelter-associates.org/taxonomy/term/132

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Home >

Electoral Ward/Prabhag No.25

This is electoral ward No. 25 in Gholeroad administrative ward. The area of this electoral prabhag is 0.51 square kilometer (According to the Google Earth)

In this Prabhag there are 7 slums in all.

Elected Representative:
Smt.Nita Manjalkar (Shiv Sena) & Mr.Mukari Algude (Congress) are the elected members of this electoral ward since 16th February 2012.

Municipal Administrative Ward: [Pune Gholeroad administrative ward no.2](#)

Map Satellite

Google

Ramoshi wadi

Ramoshiwadi is a slum in Ghole road ward in Gokhlenagar Pune.It was established in 1922 and covers an area of 25651 sq.mts.It has an estimated population of 4562 and 992 structures.

[Read more](#)

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Start

Electoral War...

23:02

The organization of data Slum Data Directory

The screenshot displays the website for Shelter Associates, specifically the page for Electoral Ward/Prabhag No.25. The page features a navigation menu with links for Home, Who We Are, What we do, Information, Contact us, Cloth Bags, and Donate. The main content area includes a heading for the electoral ward, a description of its location and area, and a list of slums. A map of Ramoshi wadi is shown with a pop-up box providing details about the slum, including its establishment year, area, and population. The right sidebar contains sections for Recent Blog Posts and Contact Shelter, with a Facebook link at the bottom.

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Municipal Administrative Ward: [Pune Gholeroad administrative ward no.2](#)

Ramoshi wadi
Ramoshiwadi is a slum in Ghole road ward in Gokhlenagar Pune.It was established in 1922 and covers an area of 25651 sq.mts.It has an estimated population of 4562 and 992 structures.

- Eastwest

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The organization of data Slum Data Directory

The screenshot shows a web browser window displaying a Slum Data Directory page for Ramshiwadi. The page is organized into several sections:

- Slum Map:** A map showing the layout of the slum with yellow buildings.
- Facts and Figures:**

S.No.	101
Ration ward	Northwest
Land Owner	Private
Topography	Flat
Location	Gokhale Nagar
Survey date	Sept 2009
- Infrastructural Details:**

public toilets	30 units in 3 blocks
water/tapstands	28 taps on 13 standpipes
garbage bins	1
gutters	yes
paving	yes
electricity	yes
- Major Native Places:**

Outside Maharashtra	10%
Inside Maharashtra	90%
- Main Language:**

Language	Percentage
Marathi	54.2%
English	2.4%
Hindi	12.5%
Other	2.4%
Other	0.4%
Other	0.4%
- Slum Information:**

year of establishment	1922
area covered by slum	25051 sq.ft.
number of structures	882
nos of houses	910
Land area	88-123
nos. of occupied houses	824
estimated population	4362
inhabitant density	387 inhab./ac.
legal status	declared
- Occupation:**

government job	37.3%
self employed	32.7%
unskilled construction worker	11.8%
skilled construction worker	7.0%
skilled worker	1.1%
unskilled laborer	0.9%
housewife	1.8%
- Condition of Houses:**

Water	41%
Sanita	47%
Electricity	10%
Walls not recorded	2%
Owner	81%
Tenant	18.81%
Intermediate not recorded	0.24%
- Main Documents:**

Electrol roll	100%
Phone CD	10%
Ration card	10%
- Other Facilities:**

Hospital	Tractor Vaid Hospital
Bus Stop	Jayward Police Chowky Stop
Police Station	Jayward Police Chowky
Market	Gokhale Nagar market
Telephone Booth	In the slum
Nearest school	Agre School
- Analysis:**

Female headed hoes	10%
Household to tap ratio	0:1
male to female ratio	100:00
person to toilet ratio	10:1

At the bottom of the page, it says: **AS SURVEYED BY SHELTER ASSOCIATES AND RAAGHAN**. The footer of the browser shows the Start button, the URL `shelter-associ...`, and the system clock showing 23:06.

Settlements covered under Individual Toilets

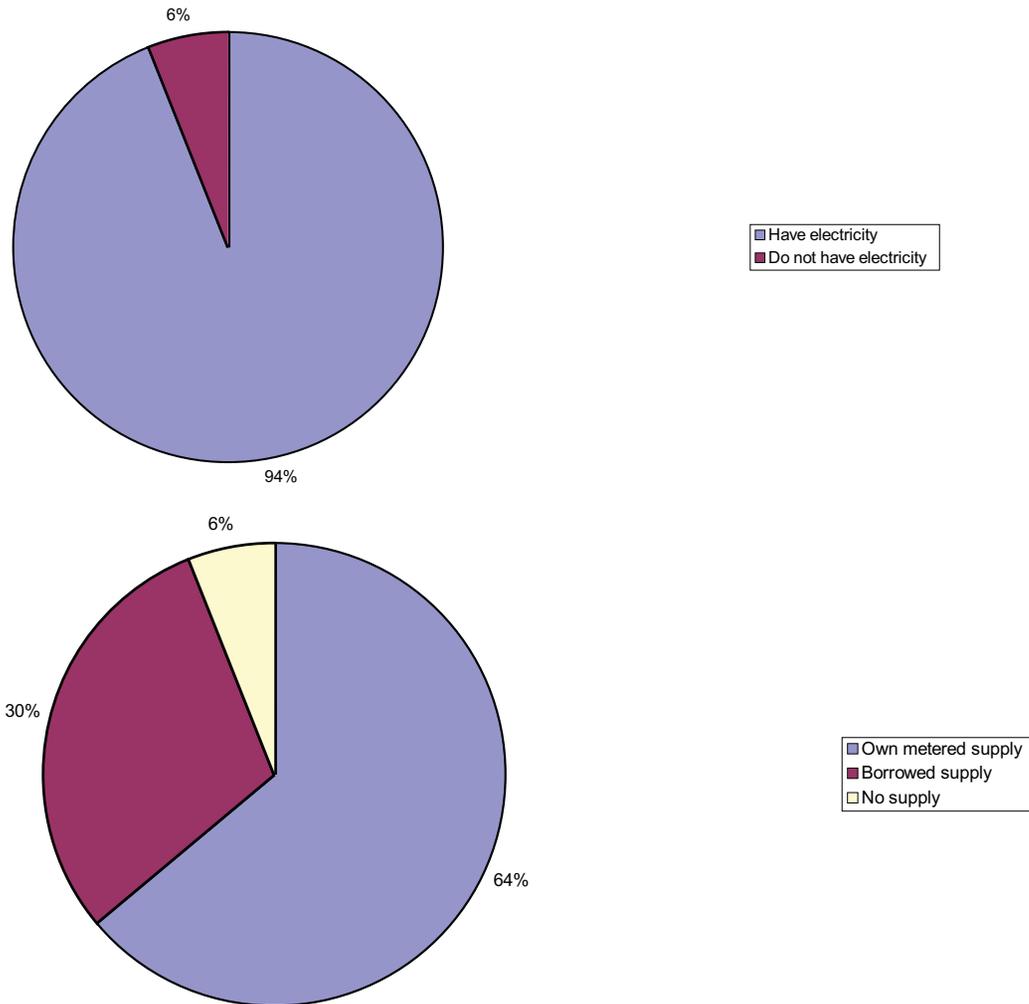


-  Toilets supported by SA
-  Shelke Vasti
-  Samartha Nagar
-  Sargam Chawl
-  Shivrai Nagar
-  Krushna Nagar

340 toilets have been provided under cost sharing basis scheme across these five settlements

Pune Slum Census using GIS (2000/2001)

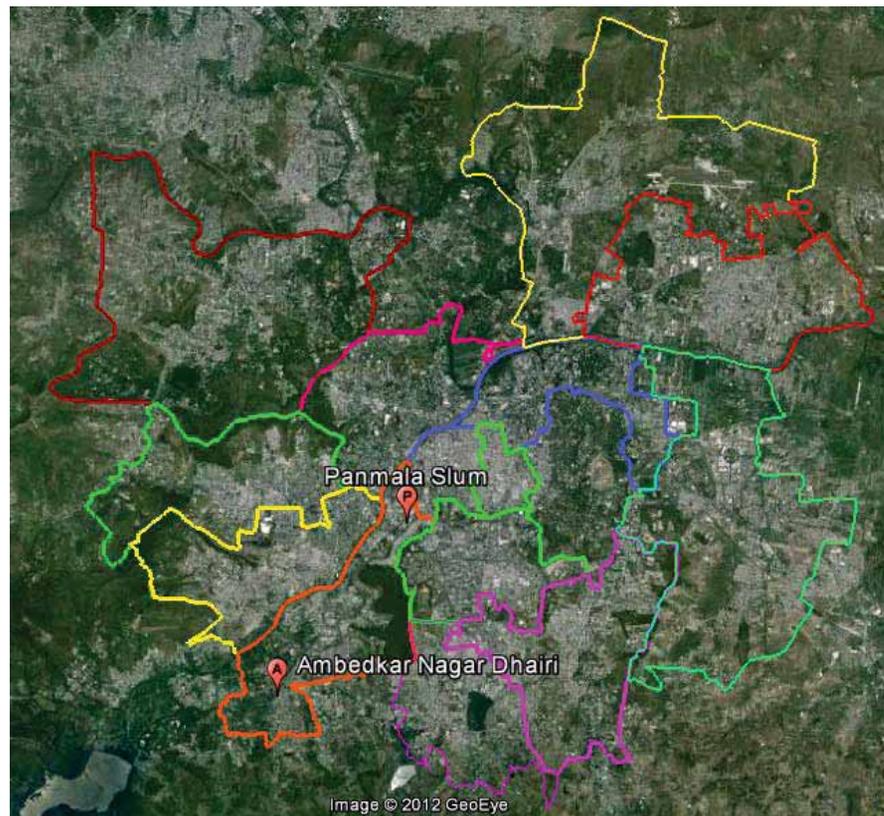
Percentage of households with electricity



Pilot Project: Dhayari (2002)

Methodology

- Ambedkar Nagar (a.k.a. Dhayari) and Panmala in Pune were used as case studies for the pilot. A **survey form** was created with the help of the MSEB.



Pilot Project: Dhayari (2002)

Methodology

- Each slum house was assigned a **unique number** which corresponded with the digital map and the survey form.

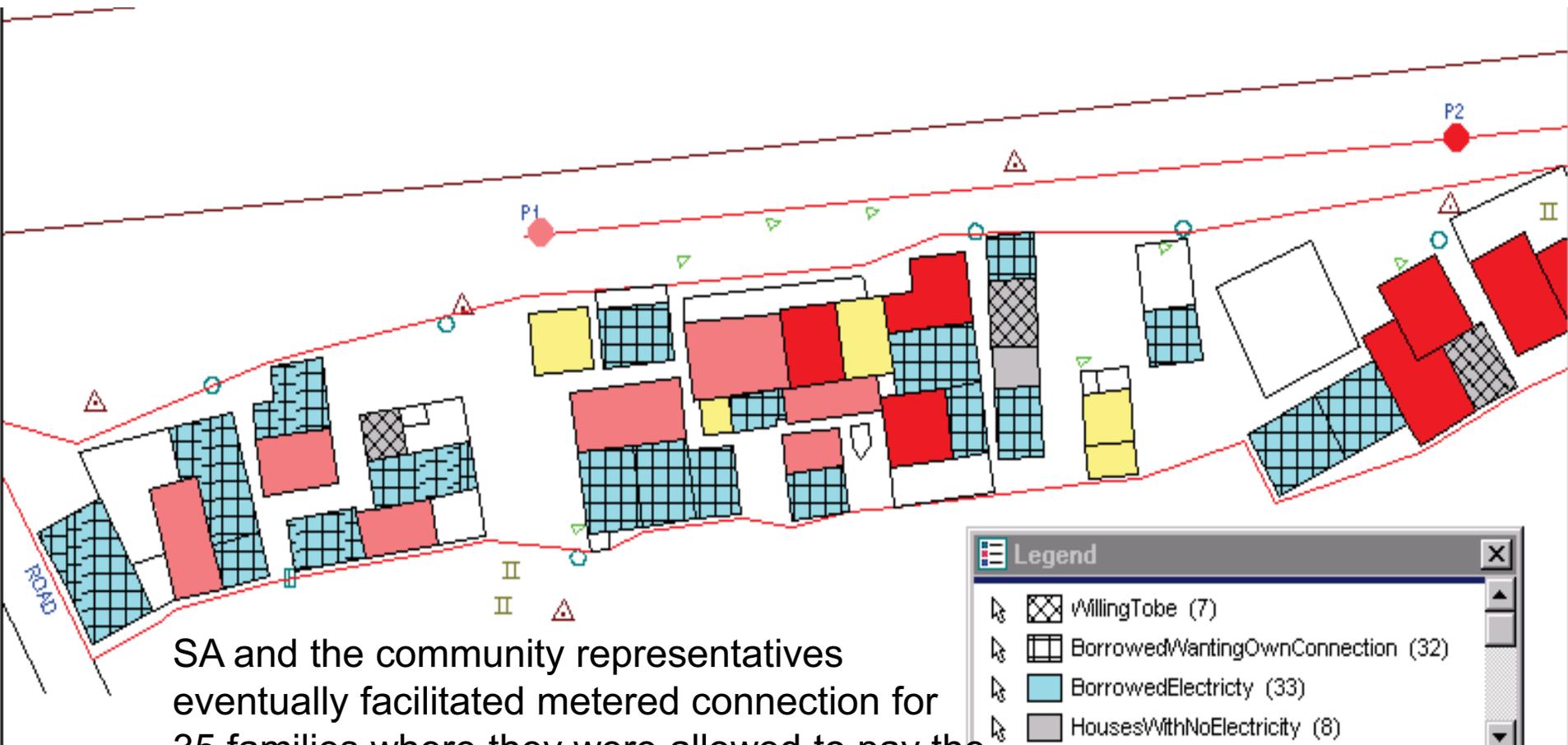
The screenshot displays a GIS application window titled "Join of Dhayari and Structure Properties". The window has two tabs: "General" and "Attributes". The "Attributes" tab is active, showing a table of data for a selected house (number 39). The table has two columns: "Name" and "Value".

Name	Value
Hsenr	39
NameofSurveyor	Sambhaji Mandake
DateofSurvey	5/9/2002
NameoftheHeadofFa	Dupargude, Suvarna
ElectricityBorrowedor	own meter
NameoftheMeterHok	Dupargude, Dayana
ConsumerNo	170487736735
PCCycleroute	6/28-6015-5310/300
MeterTestingNo	10887609
MeterFrameNo	6-32526
Company	Jaipur meter and elec
MeterCapacity	2.5-10
MeterReading	00983
DateofMeterReade	not recorded

The background map shows a slum area with yellow buildings numbered 19 through 58. A red line indicates a boundary or road. A blue dot labeled "P2" is visible on the map. The "SHELTER ASSOCIATES" logo is in the bottom right corner.

Pilot Project: Dhayari (2002)

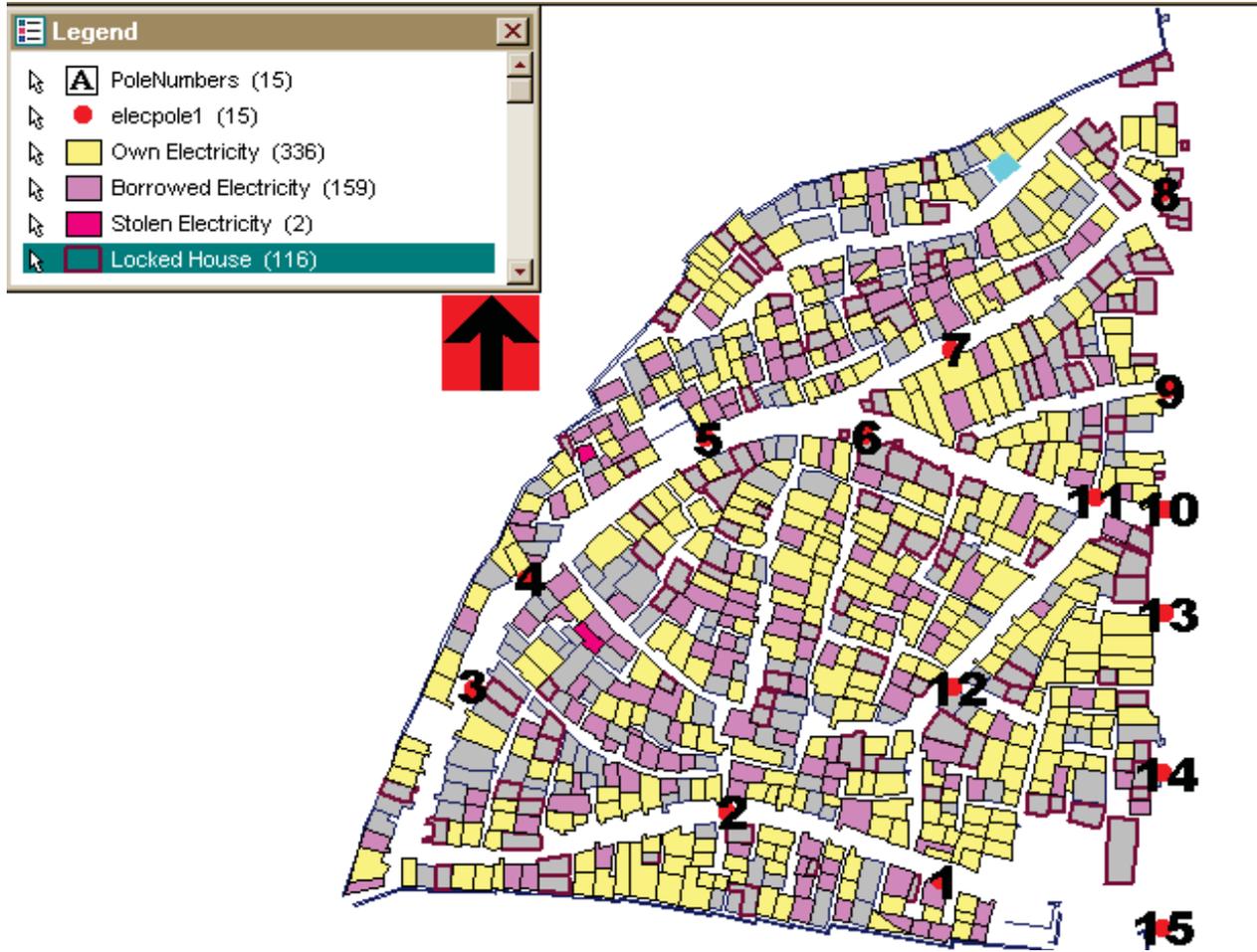
Queries



SA and the community representatives eventually facilitated metered connection for 35 families where they were allowed to pay the capital cost in 2 installments

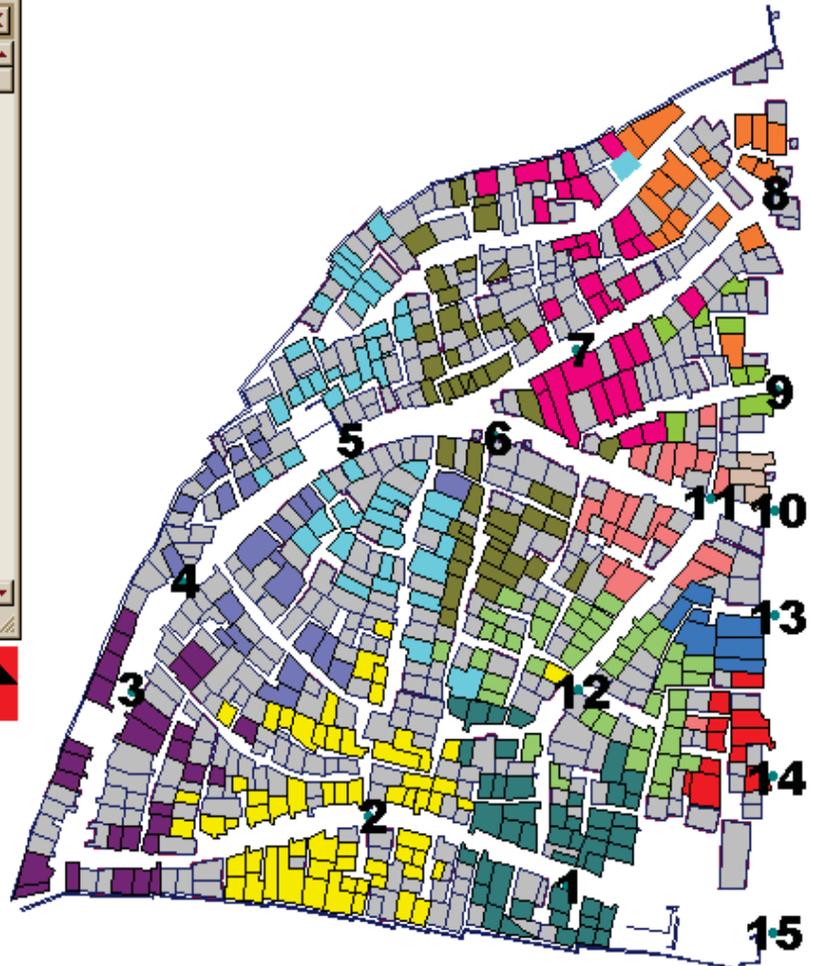
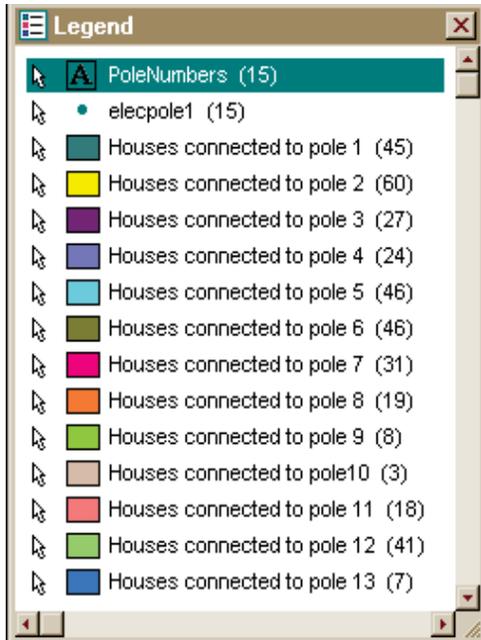
Pilot Project: Panmala (2002)

Electricity Supply Type Query



Pilot Project: Panmala (2002)

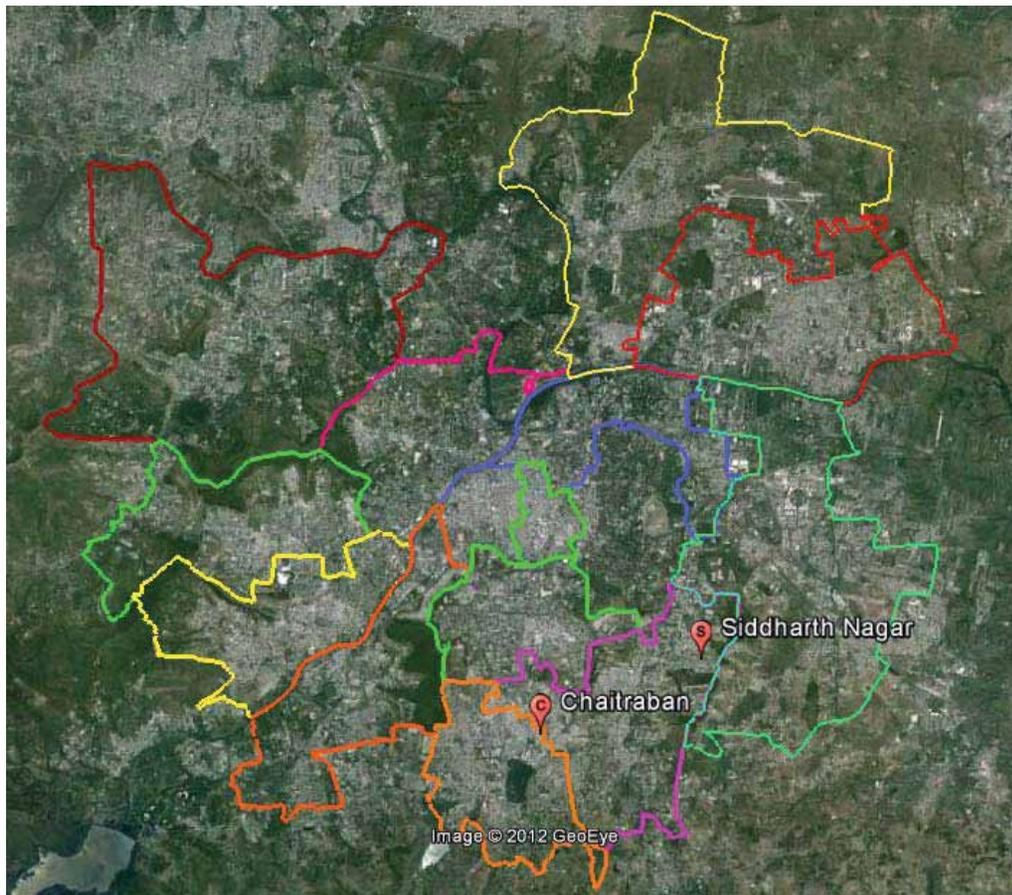
Electricity Pole Connection Query



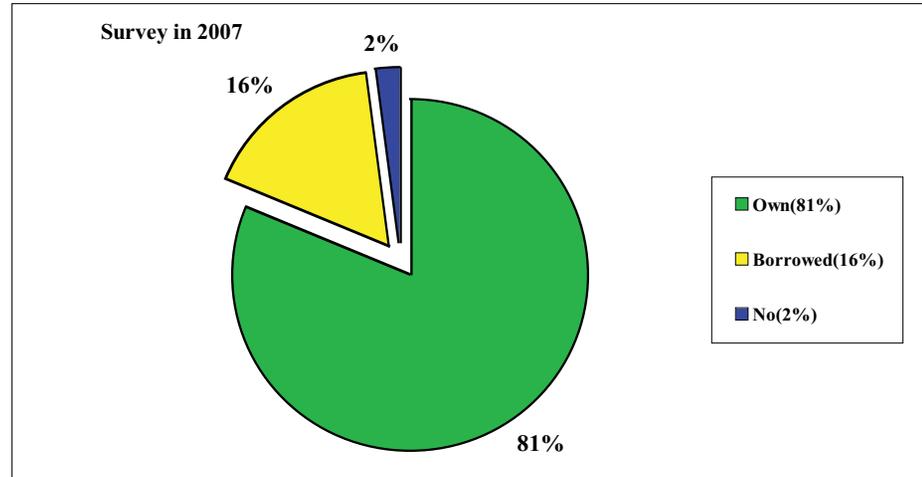
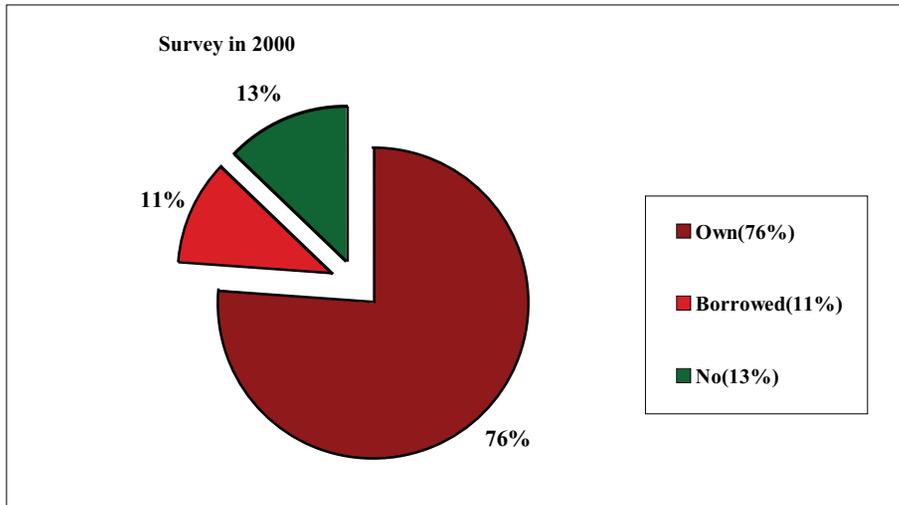
Pune Slum Surveys (2007)

Chaitraban & Siddharth

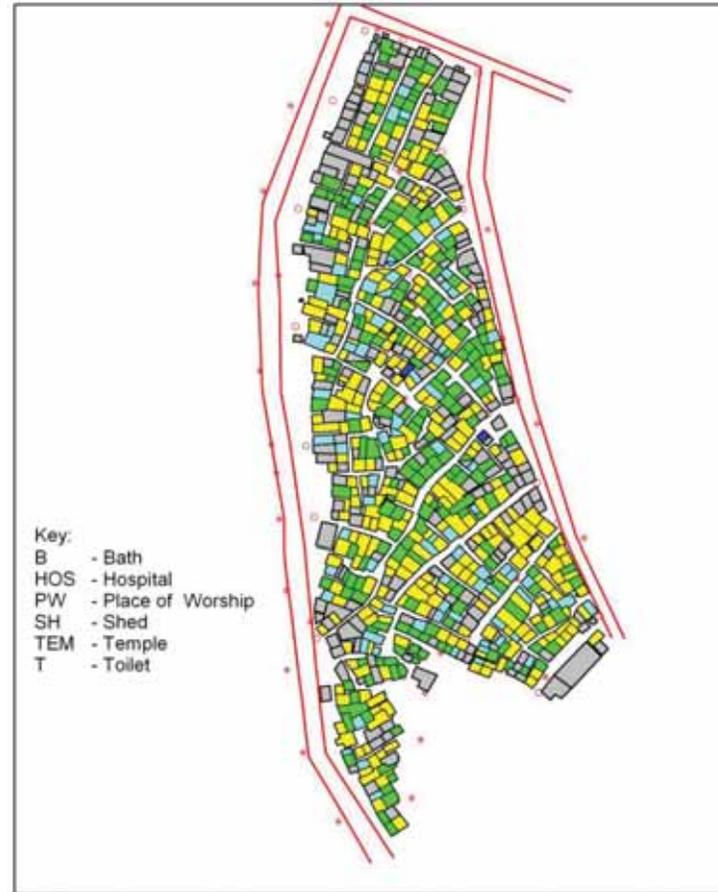
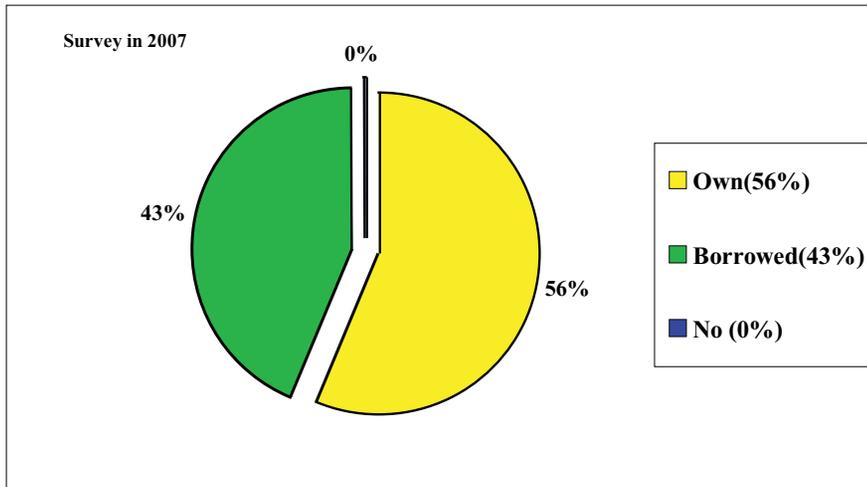
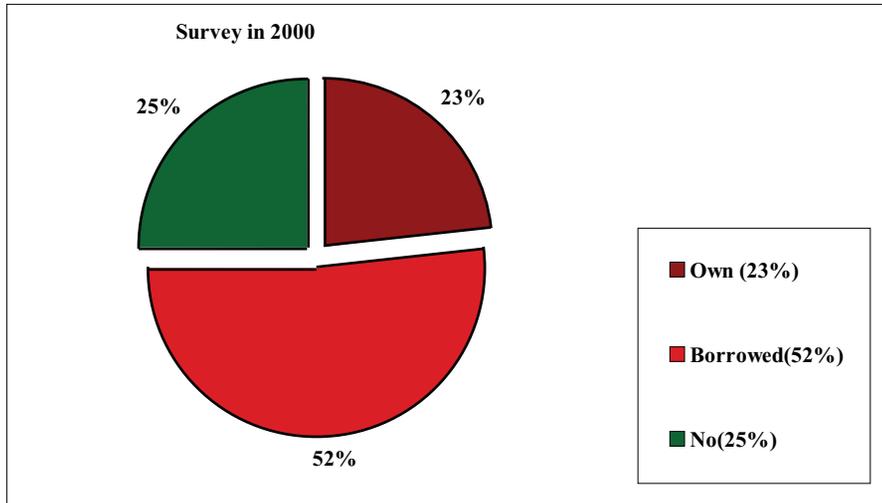
- Shelter Associates resurveyed two slums in **2007** as part of another research project. This survey included **2 slums** (1153 households).



Siddharth Nagar Slum, Pune.



Chaitraban Slum, Pune.



Computerization effort and improvement in service provision by MSEB since 2006

Since 2006-07 electronic meters have been introduced. There is a security deposit of approximately \$10 that is paid for acquiring a meter. The total cost of installation including deposit and wiring is approximately \$48 but can vary depending on the wiring distance to the hut from the distribution pole.

MSEB has contracted out the bill distribution system

Meter readings are photographed every month and the jpeg image is included as part of the bill. This service is also contracted out. The billing is computerized and payments can be made online.

There are periodic checks carried out by MSEB squads to check on the borrowers in slums. They are encouraged to get their own meters.

However use of GIS technology for provision and monitoring supply of electricity is yet to be institutionalized.

Tariff and procedure for new electric connections in Maharashtra state

Documents required are: a) filled out application form (b) corporation tax receipt (c) Ration card/ photo Id provided by the government (d) a test report from an authorized electrician (e) an affidavit on a Rs. 100 stamp paper stating that you have never owned a meter previously.

For normal residential purpose the rate per unit is Rs. 2.57 for a slab up to 100 units consumption. It increases to Rs. 4.55 per unit for consumption of units between 100-300 units

. There is a special rate for BPL families of Rs.1.5 per unit and max units allowed is 30. However nobody can avail of this in the urban areas as the first requirement is that families should be legal owners of their homes.

CITIES ALLIANCE/ESMAP/DONORS CAN HELP:

Help cities institutionalize the use of GIS technology so that all govt. departments are on one platform

Fund pilot projects to test and develop new models e.g

Installment pay based meters,

Shared meters

Bulk piped gas supply

Energy efficient lighting and appliances

Lend support to slum upgradation projects

in situ conversion from shanties to proper structures with title to obtain official "grid" connection and cooking gas supply

Link financial support to undertaking pilots at city level in developing countries with energy and clean fuel access

for underprivileged **connections in a few states of**

India

