Research Study Series
Number 90

Status of Urban Poor in Surat
A Benchmark Study

Sponsored by
Financial Institutions' Reform and Expansion (FIRD-D) Programme,
USAID Grant No.386-A-00-99-00075-00, New Delhi

National Institute of Urban Affairs
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March 2002

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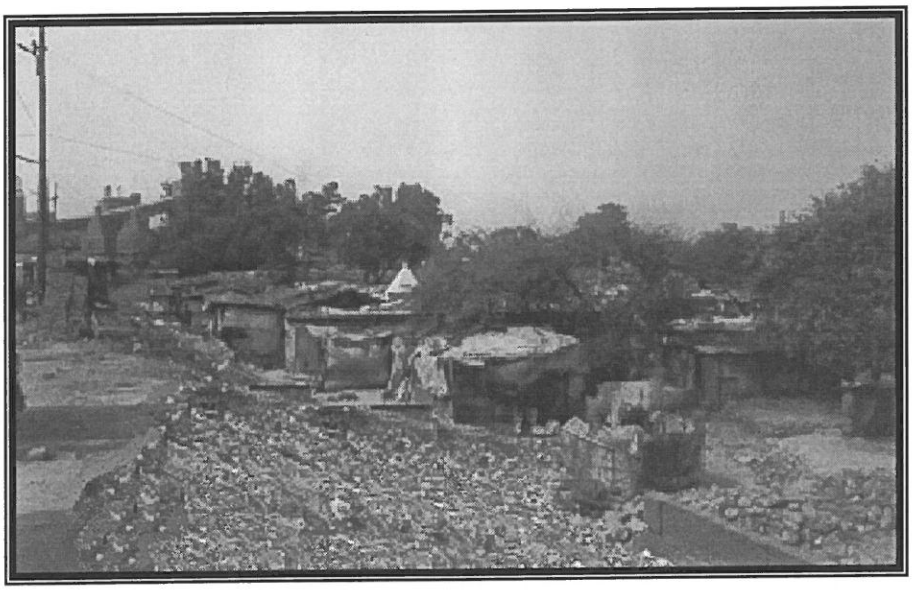

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Preface

Rapid urbanisation without adequate investment in infrastructure facilities has been the main reason for the widening gap between demand and supply of services in urban areas. In particular, inequity in the provision of services has resulted in large areas in cities being deprived of basic services. Poor, who are unable to afford better quality shelter, generally live in under serviced areas in environmentally threatening conditions carrying an enormous health burden that pushes them into a recursive cycle of poverty. In order to effectively target basic services to the poor and the deprived in cities, some of the urban local bodies in the country are beginning to invest in infrastructure with distributional equity to improve the lives of the poor.

This exercise of carrying out a Benchmark Study on Health Status of Urban Poor in Surat is the second in the series, the first one being done for the city of Nagour. The study has been done primarily to measure the impact of improved access of urban poor to basic services in the city of Surat. The objective of the Study was to enable the Surat Municipal Corporation to identify service gaps, understand issues of concern and to develop a city strategy that can help improve access of urban poor to basic services.

The study has been done in partnership with the Centre for Social Studies at Surat. CSS was responsible for data gathering, data entry and preparation of the draft report. The team at CSS included Dr. Vidyut Joshi, Director, Dr B. Kazi who coordinated the project and Purendera Prasad. Their significant contribution to the development of the Benchmark data is gratefully acknowledged.

Sampling and data gathering instruments have been built upon the Multi Indicator Cluster Survey design and formats developed by UNICEF and with the support of Dr. Balaji, Dr. Chandrashekharan and Dr. Jayachandran. These were suitably modified to make them more relevant to the urban setting. Support of the UNICEF team in this effort is deeply appreciated.

At the National Institute of Urban Affairs, the report was finalised by Ms. Renu Khosla, Associate Professor and Coordinator of the Project, Ms. Promila Jain, Research Analyst and Ms. Indu Senan, Assistant Programmer. They have made significant contributions in bringing out the final report.

The study was undertaken as part of NIUA's activities under the Financial Institutions Reform and Expansion (FIRE) Project. Mr. N. Bhattacharjee of RUDO-USAID, Mr. Lee Baker and Mr. Chetan Vaidya of TCGI-PADCO team provided valuable suggestions during the preparation of the survey tools.

Vinod Tewari
Director

March 2002

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Abbreviations

ANC	Ante-natal Checkups
ARI	Acute Respiratory Infection
CSS	Centre for Social Studies
FIRE	Financial Institutions' Reform & Expansion
HH	Household
ICDS	Integrated Child Development Services
IMR	Infant Mortality Rate
lpcd	Litre per capita per day
MLD	Million Litre Daily
NIUA	National Institute of Urban Affairs
PHC	Primary Health Centre
PSE	Pre-school Education
SC	Scheduled Caste
ST	Scheduled Tribe
SMC	Surat Municipal Corporation
WHH	Women Headed Household
EIUS	Environmental Improvement of Urban Slums

Executive Summary

Surat: The city

Surat city has a population of 2.8 million spread over 113 square kilometers of area and a city sex ratio of 835 as per the 2001 Census. It has 307 under-served settlements according to the Municipal Corporation account for 30 percent of this total urban population or 1.12 million, divided into six Zones and 54 wards. Its history is dotted with floods and the recurrence of plague that has influenced its economy adversely. To address the unexpected health attack, the city has aggressively managed its environmental and public health problems through a more efficient urban management system and citizen partnership. While water supply services in the city seem adequate, Surat's sewerage facilities seem to be somewhat inadequate.

The National Institute of Urban Affairs (NIUA), New Delhi in partnership with the Centre for Social Studies (CSS) has undertaken a benchmark survey to study the health status of urban with the objective:

1. To collect information on the health status of urban poor in the project areas and to prepare benchmark against which to measure future impact;
2. To hinders land links between availability of infrastructure and health status, if any through the data generated;
3. To understand people's perceptions about availability and access to basic services;
4. To recommend strategies for a demand driven programme that could improve access of urban poor to basic services.

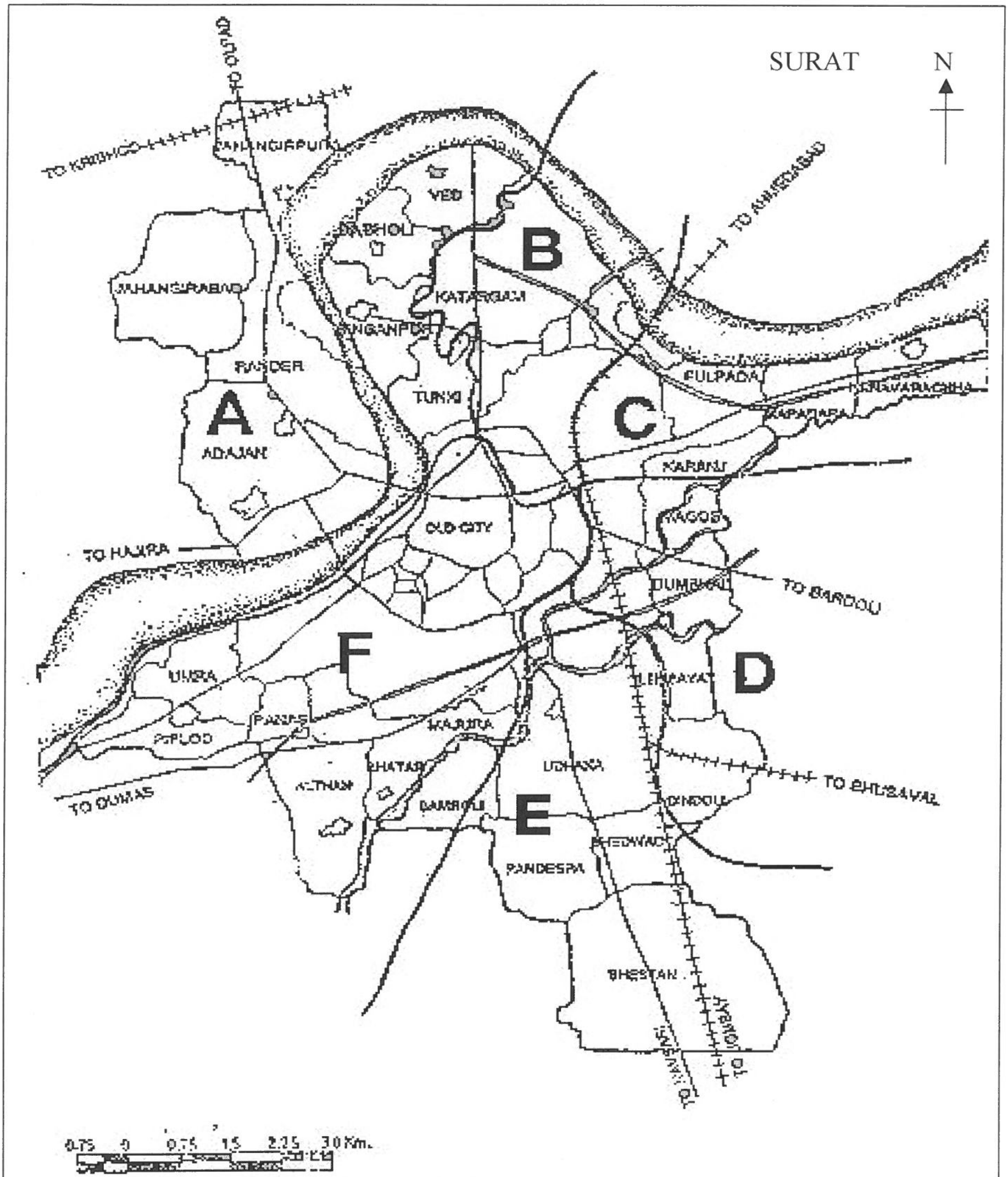
Using the concept of the healthy city the study examined variables of access, availability, affordability, and quality of services, health practices and health awareness.

Sample universe comprised all urban poor settlements in the city. Selection of settlements and households was done using the Probability Proportional Sampling (PPS) technique. The final sample comprised 38 under-served *bastis*. Primary data was collected from 1141 households through focus group discussions and community meetings.

The Findings

Demographic Profile

Urban poor settlements in Surat lacked legal land tenure. Only 7.6 percent houses were pucca. Owned houses comprised about 60 percent with 32 percent poor living in rental housing. Majority of renters (67%) lived in semi-pucca dwellings paying on an average Rs.100-Rs.500 as monthly rent.



Map 1.1 SIX DIVISIONS OF THE CITY BY BLOCKS

per month with greater clustering around the poverty line. Number of BPL households increased from 35.41 percent to nearly 40 percent.

Household expenditures ranged between Rs.100 and Rs.10000 with about 60 percent reporting expenditure between Rs.1501 and Rs.3500 per month. Major portion of the income was spent on food (47%) followed by rent (10%), education (8%), basic services, clothing (5%) health (7%), and on accessing basic services (7%).

Households (3.1%) accessed loans from banks, government agencies, neighbours or family largely for shelter repair or up-gradation, sanitation needs, and for income generating activities.

Gender Based Poverty

Women dependent households constituting 3 percent of the sample comprised of widows or women who had been deserted or whose men were unemployed had an average household income of Rs.1842, way below the state poverty line and much lower than the all male household income. Although women dependent households were poorer in comparison with others level of services in these homes was better with 50 percent owning private taps and private toilets.

Infrastructure Facilities

Water Supply

Over three quarter households (78%) accessed water from taps, with 42.2 percent using household taps and 36 percent using public taps. Tap water supply was complemented by water from hand pumps, rivers, canals, streams or tankers, especially during summer due to low water pressure. Average distance of water source from the residence was 20 meters with maximum distance being nearly 30 meters. Total time spent on water collection activity per household per day was 112 minutes or 2 hours a day, and varied according to season, water pressure and number of people at each tap.

Water supply duration varied between 24 hours to less than one hour supply daily. Households reported purchasing drinking water from neighbouring colonies. Discussions with women indicated that they were willing to pay user charges to SMC for individual/more efficient water supply to their areas.

Sanitation

About half (47%) households had private toilets and 35 percent had access to community toilets. Open defecation declined in areas where individual toilets had been constructed. However, in zone six, despite availability of community and personal toilets use of open space for defecation was significantly higher because of inadequate water supply and inadequate number of seats. About 5 percent households paid a weekly/monthly user charge. Over half all male households defecated in the open.

Drainage

Drainage facilities varied with a mix of covered, uncovered and no drains in settlements. Nearly 63 percent households reported covered drains, 21.6 percent had open drains with only 16 percent households not serviced by any drains. About 25 percent of households reported that the municipal sweeper cleaned drains only once every three months.

Solid Waste Disposal

About 69 percent households generated a small plastic bag of waste daily, 26.4 percent generated a medium plastic bag and the remaining 5.1 percent, a large plastic bag. Nearly 32 percent households said that a sweeper collected the waste from the locality.

Electricity

Most households had electricity, although it is illegally drawn from the poles and without a metered connection.

Status of Women

The benchmark study collected data on 1210 women between 15 and 49 years on a range of indicators relating to their health, education, economic and social status. Nearly half the women availed antenatal, natal and postnatal services at government hospitals and received the tetanus immunization. Forty percent women went to a trained birth attendant or went to government/ private hospitals. Out of the 208 children (who keep record of weight), nearly 30 percent weighed less than 2.5 kilograms and were low birth weight babies.

Health Practices

Hand washing practices indicated that 69 percent women washed hands before and after cooking, eating, feeding children etc. However, only about 25 percent indicated that they washed hands after cleaning the stools of children due to lack of water/awareness.

Children Under 5 years

Fully immunised children accounted for only 10 percent of the child population among the urban poor, with 85.2 percent being partially immunized and 5.3 percent not being immunized at all.

Diarrhoea was the most frequent problem among children in under serviced settlements due to poor sanitation, lack of hygiene and potable water in. 12.5 percent children had a diarrhoeal episode in the two weeks preceding the survey and 29 percent an episode in the past one year. Incidence of skin infections and jaundice was rare at 6 percent and 0.9 percent respectively. Almost fifty percent children with fever or ARIs visited a clinic for medical advise.

Preschool Education

Only one-third children (29%) children were attending a preschool center with most going to Anganwadis or Balwadis or ECD centers run by NGOs.

Children 5-14 Years

Education

Study indicated that 81 percent children were enrolled at school and the drop out rate was low at 12 percent. Among the drop outs almost 65 percent left school before completing the fifth grade. More boys (58%) than girls (34%) were enrolled at school. Most children were enrolled in government schools, about 37 percent in schools run by the local body with 7 percent attending private schools; though preference for private schools was quite evident as these were seen to offer better quality of learning.

School attendance patterns indicated that 64.5 percent children participated regularly. 15.1 percent children remained absent on all three days, which when added to children never enrolled and drop-outs indicates that almost half the children from poor settlements were missing school. More boys (17.4%) than girls (12.7%) remained absent from school.

Working Children

Being an industrial city, Surat offers a range of home-based activities to generate income. About 5 percent children were engaged in both paid and unpaid work. About 16 percent children worked for more than 80 hours every week or nearly 12 hours a day, and 45 percent children worked between 35 and 80 hours per week. Girls were found to work more hours than boys among children who worked 35 hours a week (Boys: 30% Girls: 55%).

Recommendations

Investing in Physical Infrastructure

Of all basic services made available in poor settlements of the city, water, waste management and provision of covered drains seem to have been better managed than sanitation and electricity provision.

Water supply problems included distance to water source and over all quality of supply. Since water seemed to be in sufficient quantity, inequity in distribution and provision of metered/individual water supply needed to be addressed. While estimating overall city requirements for water and investments, calculations need to be based on individual supply requirements. City governments may consider linking up to the existing schemes of NSDP and VAMBAY, Nirmal Bharat to improve quality of services in the settlements/ provide individual services. Since poor are willing to pay a user charge, SMC may consider cost recovery through pricing water service in poor settlements/provision of individual metered connections.

Sanitation: With only half the population having individual toilets and several areas under serviced by community toilets/ rundown conditions of poorly managed community toilets provision of sanitation services needs to be examined urgently with the overall objective of universal outreach. Settlement with low population density should be serviced through provision of individual toilets by drawing upon schemes such as Nirmal Bharat, Low Cost Sanitation and Liberation of Scavengers. Dense settlements may be provided individual toilets in consultation with communities and after community management systems are in place.

Drainage: Although settlements in Surat are better serviced with drains, largely covered, some settlements are still not fully reached with covered drains. Community mapping and plain table surveys may be done to create an information base on within settlement coverage. Awareness drives can help focus attention on the need to keep drains free of waste.

Provide Land Tenure

In order to provide individual connections to poor households both for toilets and water taps, the city government must provide tenure to these settlements. This would enable people to invest in their own housing and increase willingness to pay user charges.

Income Generation Programmes

Despite more guaranteed incomes and continuity of employment, income levels among squatter households appear to be lower than the state poverty line. Employment potential of the city needs to be further explored in the context of SJSRY, with identification of trades liked to the industry of the city, to enable the poor to improve their incomes.

Addressing Child Labour

Although data in the study has indicated only 5 percent of children as being engaged in productive-paid activities, Surat's industrial economy and out sourcing to small home based units, there is perhaps a high level of hidden child labour that could not be captured in the present study. There is a need to redefine child labour in the context of Surat and to identify children who may be engaged in unpaid activities.

Health Awareness

Health programmes need to be better targeted and focused on specific health issues rather than being generic in nature. These need to be linked to food security programmes in the city inn view of the high incidence of low birth weight babies.

Education Intervention

Attention on improving outreach of schools in poorer areas of the city, mainstreaming children into formal schools, attaining minimum learning levels and ensuring better school participation is desirable.

Benchmark Indicators

The research project was designed to provide a better understanding of the problems of urban poor settlements and people in Surat. The benchmark table below gives the status of urban poor with regard to basic services in the city.

Social and Cultural Indicator			
A	**Social/ cultural/ religious identity**		
	a.1	Number of poor settlements in the city	307
	a.2	Percentage of poor in the city in 1999 as per city's own estimate	43
	a.3	Percentage of schedule caste among the poor	11
	a.4	Percentage of schedule tribes among the poor	16
B	**Status of women**		
	b.1	Sex-ratio among the poor (female '000 male)	742
	b.2	Percentage of illiterate women (+ 5 years of age)	35
	b.3	Percentage of women completed less than 5 years of schooling (+5 years of age)	29
	b.4	Percentage of women in workforce	17
	b.5	Percentage of female dependent households	3
C	**Status of children**		
	c.1	Percentage of Child population among the poor (0-14yrs.)	34
	c.2	Average number of children (0-14 yrs.) per family	3

Health

c.3	Percentage of children suffering from diarrhoea (in last 2 weeks of survey)		13
c.4	Percentage of children suffering from Fever (in last 2 weeks of survey)		36
c.5	Percentage of Household income spent on health care		5
c.6	Percentage of HHs that have incurred debt for health care		3

Education

c.7	Percentage of school age children (5 – 14 years)		21
c.8	Percentage of children enrolled in schools compared with total number of school age children		80
c.9	Percentage of dropout children	Male	5
		Female	30

Child Labour

c.10	Percentage of child workers (paid & unpaid) in the age group 5-14 years.		5

Economic Indicators

A Economic status

a.1	Percentage of HHs with income below the official state poverty line (Rupees 475/- per capita for a family with 5 persons)	35
a.2	Percentage of HHs i.e. transitional poor whose income is above the poverty line (between Rs 2375-3562)	30
a.3	Percentage of HHs with high dependency ratios (>5 members of family)	33

B	**Employment**	
b.1	Percentage of persons in self employment	25
b.2	Percentage of persons in causal employment	21
b.3	Percentage of HHs with more than one earning member	52
b.4	Percentage of women in regular employment in female dependent households	26
b.5	Percentage of women in Self-employment in female dependent households	6
b.6	Percentage of women in casual employment in women headed households	2
Land and Housing Indicators		
A	**House/ shelter type**	
a.1	Percentage of pucca houses	8
a.2	Percentage of HHs in rented accommodation	32
Water Supply & Sanitation Indicators		
A. Water		
a.1	Percentage of HHs with individual water connections	42
a.2	Percentage of HHs using community sources of water	36
a.3	Percentage of HHs getting water more than average supply (7 hours) a day	8

B. Toilet Facility		
b.1	Percentage of households having individual toilets	45
b.2	Percentage of households using community toilets	35
b.3	Percentage of households using shared toilets	1
b.4	Percentage of households defecating in the open	19
C. Community toilets		
c.1	Average distance of community toilet to HH (meters)	8
c.2	Percentage of community toilets poorly maintained and/ or lacking water	100
D Drainage		
d.1	Average frequency of drain cleaning	Once in three months
E Waste disposal		
e.1	Average frequency of garbage collection	Irregular
Health Indicators		
A Reproductive and Child Birth		
a.1	Percentage of children with low birth weight (below 2.5 kg)	31
a.2	Percentage of deliveries attended by trained persons	38
a.3	Percentage of women accessing ANC/ RCH and other services	48

Chapter I
Introduction

Surat, an important textile centre of Gujarat is located on the banks of River Tapti (latitude 21.15' N and 71.52' E), occupying a pivotal /midway position on the Ahmedabad- Mumbai corridor. It is among the first fifteen most populated cities in the country. As per the 1991 census it was the second fastest growing city. Census 2001[1] records the city population at 2.8 million population, occupying an area of 113 square kilometres. Population projections for Surat for 2011 and 2021 suggest that its population is set to nearly double in the coming decades (2011: 3.52 millions and 2021: 4.36 millions). City sex ratio stands at 835, a reduction of 60 from 1991.

Surat has a long history. During the seventeenth century, Portuguese, English and Dutch established trade and also ruled the city. Since then Surat is known for its gold based *Jari* (yarn) weaving and trades. Surat also developed into a major textile centre since 1861, with the founding of its first textile mill. In recent decades chemical and pharmaceutical industries have been steadily developing in and around the city. Besides the textile industry, the city boasts of its development through diamond (cutting and polishing) industries. With its wide range of economic opportunities, the city is attracting workers from all over Gujarat and other parts of India.

Narmadshankar, a son of Surat, made significant contributions in the field of social reform and literature. Since, the establishment of Sarvajanik Education Society, Surat developed into a major centre for higher education. Presently it has around 300 schools, 15 colleges, one regional engineering college and also houses the South Gujarat University. Since the publication of *Surat Mitra* in 1853, nearly fifteen newspapers (13 Gujarati, one Hindi, one English and one Marathi) are published, distributed and read in Surat.

Surat also has a history of floods (in 1822, 1835, 1837, 1843, 1849, 1994 and 1997). A virulent disease, identified as plague struck the city in August-September 1994 following severe floods and causing 59 deaths. Even as the city reeled under this unexpected health attack, it made the city aggressively address its environmental and public health problems and introduce many urban management programmes with clear and overwhelming support from a majority of citizens. These changes have helped to make the city clean and healthy and it is now regarded as one of the cleanest cities in the country.

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[1] www.censusindia.net.in

Surat Municipal Corporation

Municipality of Surat was established in 1852. In 1944 it was suspended by the people themselves as part of an agitation against the British and re-established in 1946. In 1966 it had grown into a Municipal Corporation.

Current focus of SMC has been on slum improvement through provision of basic infrastructure services of community latrines, drainage, internal roads and streetlights. 307 under-served settlements comprise 30% of the total urban population in Surat that was estimated at 433,496 in 1993. According to the Surat Municipal Corporation (SMC) by mid 2000 population of people living in low-income settlements had reached a figure of 1.12 millions (250,000 HHs).

Water Supply

River Tapti is the only source of water available to the city. SMC supplies around 320mld. (million litres per day) water to the city population for domestic consumption (298mld.) industrial use (15.5mld.), commercial use (5mld.) institutional use (0.5mld.), and stand-posts (1mld.). With current demand calculated at 460mld. there is an estimated gap of 140mld. between supply and demand. Taking into account a population projected at 4.4 millions, the expected demand for water was calculated at 1480mld. Based on these estimates SMC prepared a water supply master plan to address the long-term demand of Surat citizens till the year 2021. Its primary purpose is to supply sufficient quantity of potable water to citizens through a piped network with sufficient pressure, at their doorstep. In 1999, the SMC spent Rs.1676 thousand (8.7% of the total SMC expenditure) on provision of water and Rs. 323 thousand (18.3% of the departmental budget) on staff salaries of the water department.

Sanitation Services

Citizen access to sewerage facilities is inadequate. Out of the total city area of 113 square kilometres only 41.54 square kilometres (36.81[2]) covering 65% of the population is served with a comprehensive sewerage system (length of sewerage lines being 341.5kms.). Drainage Department of SMC that is responsible for the comprehensive sewerage network has eight

[2] Unless specified otherwise figures in parentheses are percentages to the respective total all over the document.

different area-wise schemes: Rander-Adajan Scheme, Navagam Drainage Scheme, Piplod Drainage Scheme, Umra South drainage Scheme, Katargam Drainage Scheme, Umarwada Drainage Scheme, Bhatar Drainage Scheme and Karanj Drainage Scheme. In 1999, The SMC spent Rs.717 thousand (3.7% of the total SMC expenditure) on liquid waste management and Rs.3240 thousand (45.2% of the departmental budget) on salaries of departmental employees. Real challenge for sewerage management in the city is to provide sewerage services to its ever-increasing number of under-served settlements in the city.

Waste Management

Suart city, divided into six Zones and 54 wards, generates about 1100 metric ton solid waste per day, averaging 450 grams per capita per day. Out of these, 960 metric tons are reportedly collected by the SMC. 805 dustbins and 650 intermediate collection centres have been provided all over the city, and waste is reportedly collected twice a day. Collected waste is dumped at; 1) a five hector area in Bhatar region, and 2) a two hectare area in Katargam region in the city. In 1999, the SMC spent Rs.223 thousands (1.2% of the total SMC expenditure) on solid waste management and Rs.1350 thousand (60.5% of the departmental budget) on staff salaries.

Rationale for the Benchmark Survey

The FIRE II project envisages establishing a framework for efficient delivery of urban environmental infrastructure with particular emphasis on improving access of poor to basic services. It was envisaged that improved access to basic urban services would have a positive impact on the life of the poor.

With technical support from the Indo-US project, the Surat Municipal Corporation (SMC) has instituted a number of steps to improve the efficiency and effectiveness of its urban management system. These steps include improving infrastructure amenities in under-served settlements of Surat and construction of sewage treatment plants at Anjana and Bhestan.

In order to assess improvements in access of basic services in under served settlements and their long-term impact on the health of the poor under these and other infrastructure projects, National Institute of Urban Affairs (NIUA), New Delhi, within partnership with the Centre for Social Studies (CSS), planned a benchmark survey of urban poor in the city.

Objectives of the Study

The benchmark study proposed to study the health status of urban poor in Surat in terms of their availability and accessibility to infrastructure amenities. Findings of this study are expected to help assess output, outcome and impact of project interventions in the city on the poor.

The study was confined to the whole city group into six zones. Under the general objective the specific aims of the study were:

- To collect information on the health status of urban poor in the project areas and to prepare benchmarks against which to measure future impact.
- To understand people's perceptions about availability and access to basic services.
- To understand links between availability of infrastructure and the health status, if any through the data generated.
- To recommend strategies for a demand driven programme that could improve access of urban poor to basic services.

The study used the concept of the healthy city to examine issues of health and explore linkages between health and infrastructure on the quality of lives of the poor. It examined variables related to access, availability, affordability and quality of services as also health practices and health awareness among the selected communities.

Approach and Methodology

The study was designed as a survey with quality information gathered using range of Participatory Learning and Action (PLA) instruments.

All urban poor settlements in the city formed the sample universe. Selection of settlements and households for the survey was done using the Probability Proportional Sampling (PPS) technique described below. The final sample comprised 38 under-served *bastis* grouped in 30 clusters sampled from amongst 307 slums across six zones in Surat city.

Probability Proportional Sampling Technique

Process of sampling followed the following steps:

1. Preparation of a list of all poor settlements (arranged alphabetically) by zone (including number of households in the poor settlement);

2. preparing cumulative household numbers as a new column in the table;

3. generating a random number (z), selecting the value of cumulative households that corresponded to (z);

4. determining the value of the constant (k) = total number of households/number of poor settlements to be sampled (in this case 30);

5. choosing the first poor settlement = to z value. Next poor settlement was where the cumulative household total corresponded to z + k. The third z+k+k and so on.

A similar method was used for selecting the households.

A structured questionnaire adapted from UNICEF's Multi Indicator Cluster Survey Format was used for the survey. Qualitative data was gathered using participatory methods like seed technique, preference-ranking matrices, flow diagram and community mapping. Focus group discussions and community meetings were also held to understand perceptions of the community.

A field team was trained in the use of the above instruments. They pilot tested the tools in three slums. Problems encountered, both in terms of collective and individual responses were addressed through brain storming sessions. This minimised error at the data collection stage itself besides ensuring greater inter-rate reliability.

The Sample

Primary data was collected from 1141 households. Although the total sample was expected to cover 1200 households, only 1141 households provided complete information and could be used for analysis.

Additionally, all available data on urban poor in Surat was collected and reviewed and used while interpreting the present survey results.

Table 1 provides the dispersion of low-income settlements and their population across the zones.

Table 1: Profile of Sampled Households

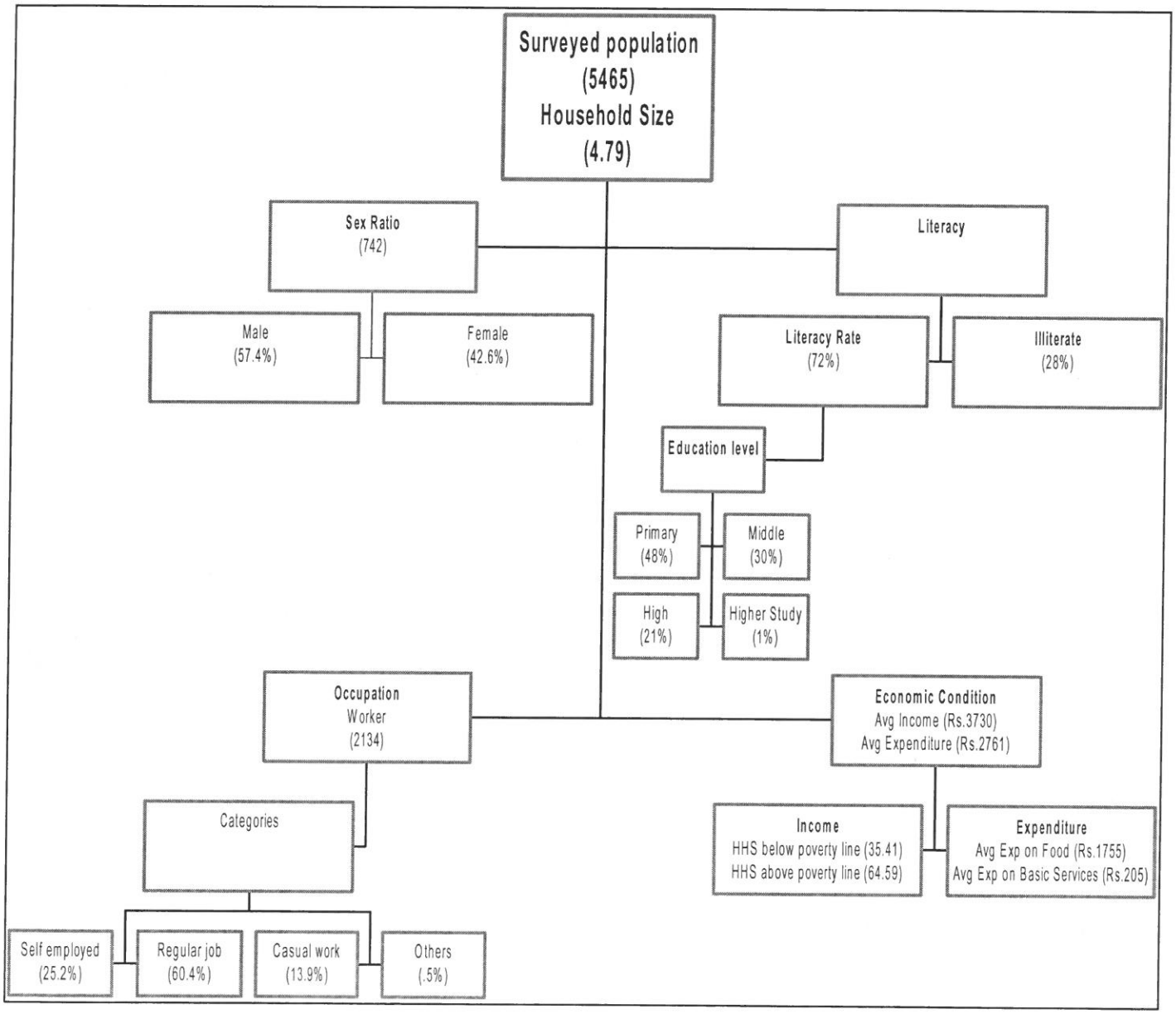
Zones	Number of Slums	Number of Households	Population Surveyed
1	2	77	367
2	4	189	799
3	14	530	2526
4	2	73	379
5	4	153	728
6	3	119	625
Total	**30**	**1141**	**5464**

Chapter 2

Profile of the Urban Poor in Surat

This section presents the analysis of the primary data gathered for the study.

DIAGRAM



The 307 bastis comprises slum population (30% to the total) in Surat, which was estimated in 1993 to be 433,496. According to SMC by mid 2000 this population has reached a figure of 1.12 million.

Due to non-availability of data from low-income settlements it is difficult to estimate density in these areas, but densities seems to be extremely high in inner city settlements, though probably lower in the outskirts.

Housing

Most poor living in these areas lack legal land tenure and Lack of tenure has resulted in high levels of insecurity among the poor.

Ownership of the house, despite lack of legal land tenure largely rested with the people (about 60%) although a significant number were tenants in the sample (32%). More tenants were found to live in zones 2 and 3. Amount of money paid for rental varied across different areas ranging from Rs.50-Rs.500. About 3 percent of the rent paying households paid less than Rs.100 as monthly rent for their dwellings. Rental value was high in settlements located near industrial /factory areas when compared to those near residential colonies. Very few (7.40%) households are also owners as there structure is on the government/private land (may be encroachment cases) and only 1.10 percent falls in the category of others.

Table 2: Ownership of the Houses

Status	Number of Household	Percentage
Owned	679	59.51
Rented	365	31.99
Owned on govt. land	84	7.36
Others*	13	1.14
Total	**1141**	**100**

* *Others stands friend/relatives house.*

Most sample households lived in two room sets with an average of 2 to 3 persons per room. Smaller units had higher density and more problems.

Table 3: Structure of the Houses

Status	Number of Household	Percentage
Pucca	87	7.63
Semi-pucca	734	64.33
Katcha	320	28.04
Total	**1141**	**100**

Majority of households (64.4%) were semi-pucca structures with roofs made of Mangalore tiles, tin sheets or bamboo and walls from half burnt bricks or lime mortar. About 28 percent were kutcha structures with plastic and shingle roofing. Pucca housing, an indicator of economic well being, was a mere 7.6 percent of total housing. Since land tenure was illegitimate, people were disinclined to invest in building pucca houses with adequate facilities.

Correlating the nature of shelter and occupancy status indicated that only 8.4 percent of owned houses were pucca structures. Majority of renters (67%) lived in semi-pucca dwellings indicating low affordability among these households to rent better serviced accommodation. Possibly many of these households were very poor, seasonal or casual workers.

Demography

Women out numbered men in the age groups below 15 years although there were more men in the older age expect over 50 years of age. At the city level 43 percent of poor were female whereas 57 percent were male. Gap between male-female population sizes could be attributed to death and migration of men to cities. Generally men make the first move followed by their wives and families.

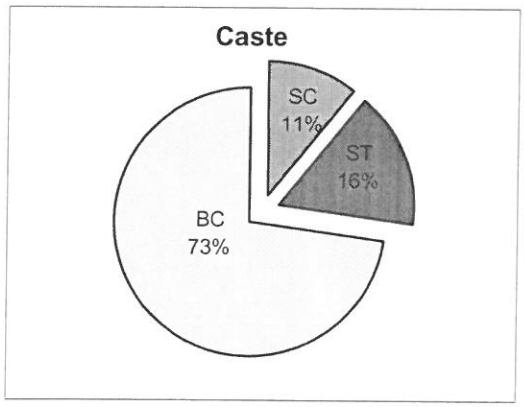
Table 4: Population By Sex And Age

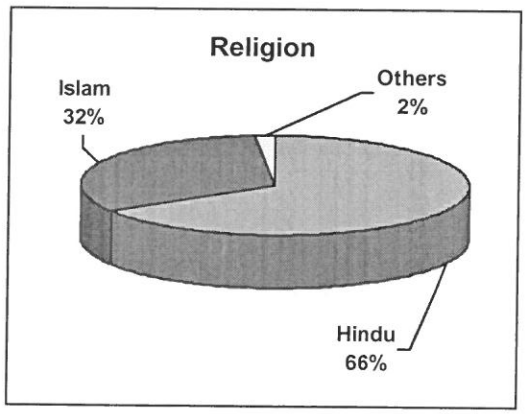
Sex	< =5 yr.	5-14 yr.	15-19 yr.	20-34 yr.	35-49 yr.	50-65 yr.	> 65 yr.	Total
Male	464 (14.8)	520 (16.6)	385 (12.3)	1107 (35.3)	490 (15.6)	147 (4.7)	24 (0.8)	3137 (100.0) (57.4)
Female	420 (18.0)	475 (20.4)	234 (10.1)	678 (29.1)	336 (14.4)	161 (6.9)	24 (1.0)	2328 (100.0) (42.6)
Total	**884 (16.2)**	**995 (18.2)**	**619 (11.3)**	**1785 (32.7)**	**826 (15.1)**	**308 (5.6)**	**48 (0.9)**	**5465 (100.0) (100.0)**

Note: Figures in parenthesis are in percentages.

School aged children comprised 18.2 percent of the population and the elderly 0.9 percent. Nearly half (48%) the sampled population were in the productive age group (20-49 years). Work participation rate based on people at work between the ages of 14 and 65 years was 40 percent and dependency ratio is as high as 1:2.

Religion and Caste





Most poor families in Surat were Hindus, followed by Muslims. Small percentage of communities also comprised Buddhists.

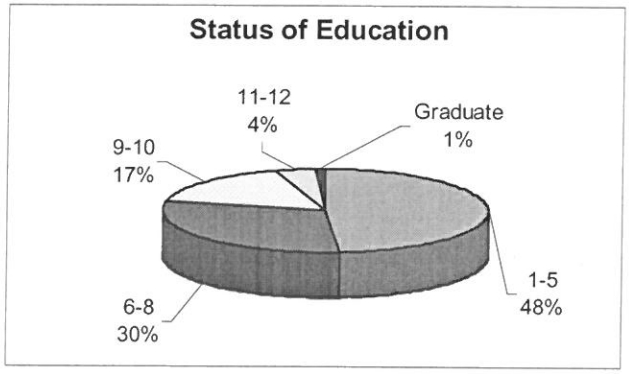
All poor living in Surat settlements were either from other backward castes (73%) or Scheduled Castes and Scheduled Tribes (27%).

Language spoken by the people indicates their ethnicity. Most respondents spoke more than one language i.e. Hindi and Gujarati. Hindi speaking people were concentrated in zone 2. Zone 3 had 30-35 percent Urdu speaking populations or Muslims. Being an industrial city, it had also attracted workers from different states in the country particularly Orissa and Maharashtra with a significant number speaking Oriya and Marathi.

Size of the Household

Household size was 4.78, surprisingly slightly lower than the city average of 5 members as per the 1991 Census. Possible reason could be the migratory status of these families plus the fact that a large number of households were found to be all male households.

Education profile



Although level of literacy among the poor was high (72%), fewer females among the poor were educated in contrast to males, with the gap widening as one moved up the education ladder, particularly from class 3 onwards. Proportion of women who studied beyond class X was insignificant as compared to men (**Table 5).** With one-third poor being illiterate and majority being women, this is an area that calls for urgent attention in the city.

Fifth standard appeared to be the first education watershed with a majority of people not studying beyond primary school (48%). The second breaking point is in the 7th grade after which another 30 percent people discontinue their schooling. Only 22 percent people studied beyond class ninth.

Mean number of years of complete schooling by sex indicated that boys tended to study on an average one year more than girls. Reasons for girls opting out of education were largely socio cultural, and related to their attainment of puberty that is associated with early marriage. Increased distance between the settlement and the high schools is an added reason for girls stopping schooling, as parents fear sending young girls too far. Boys discontinue education largely after completing school when they realise that education does not add value to their job market.

Table 5: Schooling Status of the Sample Population (+5 pop)

Years of schooling	Male	Female	Total
1	2.02	3.62	2.69
2	4.79	5.25	4.98
3	5.98	4.72	5.46
4	6.36	5.25	5.89
5	7.81	5.82	6.99
6	3.93	3.67	3.84
7	7.81	5.19	6.72
8	6.92	3.04	5.30
9	4.97	1.42	3.49
10	8.07	1.99	5.54
11	1.23	0.10	0.76
12	2.02	0.26	1.29
13	0.79	0.26	0.57
14	0.00	0.10	0.04
Religious Education	0.04	0.26	0.13
Number of literates	14.88	23.66	18.53
Illiterates	22.39	35.36	27.79
Total	**100.00**	**100.00**	**100.00**
Mean year of schooling	**6.45**	**5.39**	**6.11**
Median year of schooling	**6**	**5**	**6**

Economic Condition

Social capital in Surat squatter settlements was not only a mix of castes, religions and regions, but constituted a diverse and complex economic set up. Because of lower educational levels and skills, workers from squatter settlements tended to be engaged in low paid unskilled work in Surat, such as working in the textile mills as loaders, rickshaw-pullers, cooks and construction workers. They were also employed at the lower end of the economic chain in public undertakings, semi-government agencies and private offices as peons or watchmen. Trends indicated that while scheduled caste families were predominantly engaged in primary sector economic activities such as sorting, animal husbandry, higher caste families were employed in tertiary sector tasks such as Anganwadi workers, municipal employees, nurses etc. Being an industrialised city, most workers (60.4%) were engaged in the textile mills in regular employment. Others were self-employed in petty trades or in casual labour. Appendix shows the range of occupations in which people were engaged in Surat.

Table 6: Employment Status of Workers

Status	Number of worker			Percentage
	Male	Female	Total	
Self	477	61	538	25.21
Regular	1051	238	1289	60.40
Casual	239	57	296	13.87
Others	7	4	11	0.52
Total	**1774**	**360**	**2134**	**100.00**
%age	**83.13**	**16.87**	**100.00**	

Of all workers, 17 percent were women in contrast to 83 percent men. Greater male employment is further underscored confirmed by the presence of about 16 percent households with only male members in the city (n=180). These households were of migrants who lived in the city and worked there but had their families in their native homes.

Of the total sample, 39 percent people were found to be working, a work participation rate higher than the city's rate of 34.1(census1991).

Low female work participation in the city, in spite of its industrial nature, is possibly because self-employment is primarily a home based occupation, which engages women and children. However, their participation remains invisible and unrecorded.

Table 7: Occupational and Income Status of the worker

Occupation	Percentage of worker	Percentage contribution of workers' income to total income
Self	25.21	27.17
Regular	60.40	63.37
Casual	13.87	8.93
Other	0.52	0.53
Total	**100.00**	**100.00**

Regular labourers in the textile and diamond industry, Corporation employees etc. contributed 63.37 percent of the total income of the settlements. Self-employed persons, generally shop owners, vegetable and food sellers and women engaged in home-based occupations contributed one third of the income share at 27.17 percent. Casual employment such as jari works (city's traditional saree embroidery work), handwork, and construction labour accounts for only 9 percent of the income share. The 0.53 percent of the income generated from other sources includes pensions, bank interests etc.

Income

Monthly household/per capita income was used as an indicator of economic well being of households and their level of poverty.

Table 8: Income Status of the Households

Number of earners	Percentage of Households	Income (in Rs.)	Average household income (in Rs.)
1	47.85	1315983	2410
2	25.33	1052468	3642
3	14.64	871733	5220
4	5.70	483857	7444
5	2.02	226411	9844
6	0.61	88455	12637
7	0.44	97525	19505
8	0.18	31800	15900
9	0.26	65800	21933
10	-	-	-
11	0.09	22000	22000
No earner	2.37	-	-
Not answered	0.53	-	-
Total	**100.00**	**4256032**	**3730**

Almost all households (97%) had at least one person in regular or casual employment, though not necessarily the head of the household. The rest of the households (3%) generally comprise of the retired or disabled, unable to work.

While about half the households (48%) had a single earning member, one forth had two income earners with the rest reporting three or more earners per family. Average dependency ratio was 1:2.5.

Household incomes ranged from Rs.100 to more than Rs.10000 per month, with the average household income being Rs.3730 per month (Table 8). Seventy three percent of households earned less than the average income in total sample. In fact 3 percent households reported no source of income in the survey.

Table 9: Households by Income Range

Income Range (in Rupees)	Number of Households	Percentage
Upto 1000	43	3.77
1001-2000	280	24.54
2001-2374	48	4.21
2375	**State Poverty Line**	
2376-3000	258	22.61
3001-5000	259	22.70
5001-10000	168	14.72
10000+	52	4.56
No Income	**33**	**2.89**
Total	**1141**	**100.00**

According to the State poverty line, (Planning Commission, 1999-2000) the average per capita income below which families are deemed to be poor is Rs.475 per month. Using the average household size of 5 members, a monthly income below Rs.2375 would be considered below subsistence levels. Despite a high average income among the poor (Table 9), 35.41 percent households had incomes below the poverty line with nearly 87 percent of these families being core poor with income ranging between Rs.100 and Rs.2000. Although about 65 percent families lived over the official poverty line, 22.61 percent were marginal poor, at risk of slipping into

poverty, being clustered just above the poverty line. Households that fell below the poverty line were largely those in casual or self-employment and dependant upon the local economy.

Income levels were inequitably distributed across zones due to the varied nature of occupations of people living in the different zones.

Reasons for high average income among the poor in the city is because of the presence of a large number of all male households, comprising migrants from Orrisa, Mahashtra and Uttar-pradesh. These male migrant groups live together and work mainly as weavers, spinner and dyers. They cook together in the same kitchen and hence are treated as a single household. That is also the reason for the large number of workers per household.

Of the total families surveyed, 180 households (16%) were found to be all male households with ages ranging between 20 and 45 years, or in the active workers age group. These families pooled resources for food and other basic necessities. Average income of these households was naturally much higher than the average income of poor in Surat at Rs.6936.

Such male households are essentially parts of rural households that have migrated to the city and are attempting to live together in order to economize on costs of livings, thereby increasing savings for remittances home. Cumulative totals of individual male incomes of such households can thus be deceptive as these earnings are both individually owned and utilized in ways and means that vary from individual to individual, with almost all remitting money home in order to provide for their families in their villages. Since pooling of incomes of the large presence of migrant male households in the city tends to skew the income distribution, it was decided to filter these families from the total surveyed population for purposes of future analysis.

Table 10: Income Status of Male Households

Income Range (in Rupees)	Number of Households	Percentage
Upto 1000	4	2.22
1001-2000	21	11.67
2001-2374	3	1.67
2375	**State Poverty Line**	
2376-3000	23	12.78
3001-5000	33	18.33
5001-10000	56	31.11
10000+	40	22.22
Total	**180**	**100.00**

Of the 180 male households, only 16 percent had earnings that fell below the poverty line. These households were responsible for 30 percent share of the total income in the sample. Since a large proportion of this income is not spent in the city, the city is loosing money from its worker's productivity.

Table 11: Average income of Male Households

Ranges	Number of Households	Income (in Rs.)	Average Income (in Rs.)
<=1000	4	1,600	400
1001-2000	21	35,700	1,700
2001-3500	33	95,450	2,892
3501-5000	26	108,400	4,169
5001-7500	40	247,300	6,182
7501-10000	16	138,600	8,662
10001-15000	22	270,400	12,290
>15000	18	351,100	19,505
Total	**180**	**1,248,550**	**6,936**

Revisiting income data after filtering the income earned in the 16 percent all male households reveals a different picture. Average household income of the remaining 961 households dropped by about Rs.600 to Rs.3129, with greater clustering of these families around the poverty line. Number of households that fell below the poverty line increased from 35.41 percent to nearly 40 percent.

While the city due to the nature of its economic activities is able to provide earning opportunities to its residents, these are not able to provide sufficient income to the slum dwellers with nearly 40 percent subsisting below the income poverty line, clearly building a case for a more focussed economic intervention for the poor.

Opportunities under the SJSRY programmes for income generation need to be explored in the city. Linkages could be established in partnership with the private economic sector in the city, using the Kerala SJSRY model, for both individual loans and DWACUA group loans. Project identification could be done in consultation with private agencies.

Expenditure

Expenditure patterns of households were also seen as indictors for assessing the 'poverty economy'. Average monthly expenditure of all HHs in the sample was Rs.2761, suggesting that families were able to save after meeting their living costs. Expenditures ranged between Rs.100 and Rs.10000. A majority of households (about 60%) reported expenditure between Rs.1501 and Rs3500 per month (Table 12). A small percentage (about 15 %) reported total monthly expenditure under Rs.1500 and very few number reported expenditure above Rs.5000 per month. Not much variation across zones is evident.

Table 12: Households By Expenditure

Range	Number of Households	Percentage
<=100	nil	nil
101-500	4	0.35
501-1500	166	14.55
1501-3000	684	59.95
3001-5000	242	21.21
5000+	42	3.68
Not Answered	3	0.26
Total	**1141**	**100.00**

Of the total household expenditure, that on food constituted the major expense. Other costs included rent, education, basic services, clothing and health. Surprisingly, families were seen to spend the least on health care.

Table 13: Average Monthly Expenditure

Items	Percentage of HHs	Average Expenditure (in Rupee)
Food	100.0	1754
Basic Services	89.65	205
Clothing	86.15	195
Health	72.39	184
Rent	33.12	361
Education	20.42	222
Others	18.14	353.56

Share of food in the total household consumption was Rs.1755 per month, constituting nearly 47 percent of the total average household income. Food costs however ranged between Rs.58 to Rs.8000, with nearly half the households spending between Rs.1000 and Rs.2000 on purchase of food items. **Total expenditure on food in the all male households was also between Rs.1000 and Rs.2000.** While no zonal variation was evident, 46.3 percent HHs spent more than half their income on food.

Some families (378 HHs 33.12%) also spent a large chunk of their incomes on renting the shelter. With an average monthly expenditure of Rs.361 (range being Rs.4 to Rs.1300), expenses on rent accounted for about10 percent of the total income. Of the HHs paying rent, nearly one-third paid a rent between Rs.100 and Rs.500 every month), 15.3 percent paid between Rs.501 and Rs.1000. (see annex)

Clothing is another item on which the families spent Rs.195 or about 5 percent of the total monthly income. Actual expenditures ranged between Rs.10 and Rs.2000, with most households (50%) spending between Rs.100 and Rs.500 on clothing (**annex 3**). One-third families (29.3%) reported expenditure less than Rs.100 while 13.8 percent said that they spent no money at all on clothing. Proportion of latter families 158 HHs was more in zone three & one as compared to others.

Education is the third major cost for a household on which families spent Rs.223/- or 8 percent per month. Again the actual amounts spent by families varied from Rs.8 to Rs.3000. Low priority assigned to education is evident from the fact that nearly 50 percent respondents spent less than Rs.100 per month on education costs and only one percent spent over Rs.1000. Families with low or no education expenses belonged to zones three and six about 75 percent spent nothing on education. Possibly free education that is provided by the city has kept costs on education low for the families.

Whereas **health** costs among the poor are generally seen to be high, in the case of Surat, 27.6% respondents reported that they had spent no money on health on a monthly basis (Table 2.9). Since Surat is considered the cleanest city following the plague, this is not very surprising. For the other 72.4 percent HHs, average health expenditure was Rs.185 or about 7 percent of the total household expenditure. It varied across families and ranged between Rs.6 to Rs.3000. Over half the families (53%) spent less than Rs.100 per month, 44 percent between Rs.101 and Rs.500 and 2.8 percent over Rs.500. Variation across zones is not visible. Problems indicated by people related to their poor access to government health care services and programmes.

Surat poor also spent 5 percent of their total income on accessing **basic services**. Average expenditure was Rs.205 per month, which is 7 percent of the average expenditure. Generally migrants to the city or renters avoid spending money on improving basic services in their shelters. However, the fact that poor do spend money on accessing services such as water etc. suggests that poor are capable of paying for regular /better quality services. User charges to the poor can enable the city government to recover costs on infrastructure provision in poor areas.

Access to Credit

Only 3.1 percent households indicated that they had taken loans, although this may not be a very reliable estimate as households were reluctant to respond to this question. Loans had been accessed from banks/government agencies (34.1%) or neighbours / family members.

Table 14: Source and Purpose of Loan

Purpose → / Source ↓	House	Income Generation	Health	Social event	Other	Total
Bank/Govt. Agency	6	4	-	1	1	12 (34 3)
Moneylender	2	1	-	-	1	4 (11.4)
Neighbour/ relative	1	2	1	1	1	6 (17.1)
Co-operative society	-	-	-	1	-	1 (2.9)
Informal sources	-	-	-	-	2	2 (5.7)
Other	-	3	-	3	4	10 (28.6)
Total	**9 (25.7)**	**10 (28.6)**	**1 (2.9)**	**6 (17.1)**	**9 (25.7)**	**35 (100.0)**

Reason for borrowing money as indicated by 26 percent of borrowing households was to improve, repair or upgrade their shelter. An equal number had accessed credit to address their sanitation/drainage needs. Others (17%) borrowed for emergencies/occasions such as marriages, festivals or disasters. A large percentage (29%) had also accessed credit to increase their incomes and invest in income generating activities. Credit takers were concentrated in zones three and five.

The very small percentage of households investing in shelter upgradation or infrastructure improvements suggests that as renters, migrants, all male dwellers or because of the illegal nature of their settlements, people hesitate to invest in infrastructure or shelter.

Gender Based Poverty

Women are generally engaged in work both within and outside the house, in paid or unpaid/ valued or unvalued activities. Women's work is generally invisible because they are closely linked to the domestic domain; their domestic work as housewives and 'homemakers' being considered natural. On the other hand male participation in work is regarded productive.

Table 15: Income Status
(Female Headed Households)

Zone	Number of households	Income (in Rs.)	Average household income (in Rs.)
1	3	2700	900
2	3	3200	1067
3	13	29646	2280
4	5	9450	1890
5	7	10850	1550
6	6	12300	2050
TOTAL	**37**	**68146**	**1842**

Women headed households constituted only 3 percent of the total sample, were generally of widows, women who had been deserted or whose men were unemployed. Average household income of female headed households was Rs.1842 way below the state poverty line and much lower than the all male household income. Even though more than half the women earned above Rs.2000, their total earnings were still below the poverty line. Majority of women were either domestic workers or self-employed in activities such as vegetable vending, grocery selling etc.

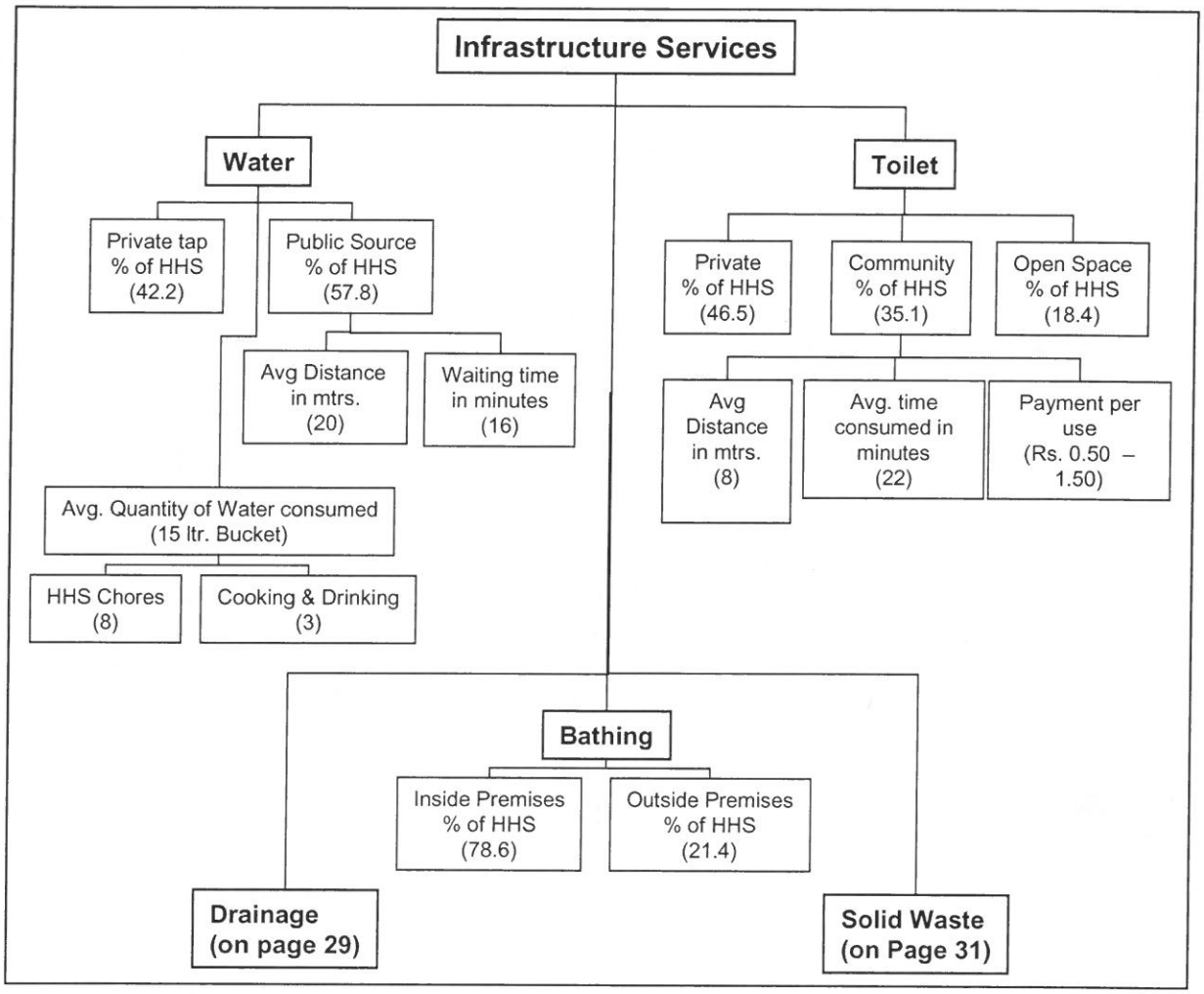
Table 16: Status of Infrastructure Facilities
(Female headed households)

Facility		Sample 'average	City's average
Water	Private Tap	48.65	42.16
	Public Tap	35.14	35.76
Sanitation	Private toilet	54.05	45.22
	Open defection	24.32	18.4

Although women headed households were poorer in comparison with others, level of services in these homes was better, suggesting that services such as water and sanitation are essentially female concerns and women tend to invest in these to save time, energy and security. Nearly 50 percent of female-headed households had private taps, others depending upon public taps, wells etc. More than fifty percent had private toilets, about 25 percent used the community toilet and the rest used open spaces for defection.

Chapter 3

Section I
Infrastructure Facilities



Water Supply

Source of water supply in these squatter settlements included individual taps, public taps, wells, rivers etc. Over three quarter households (78%) accessed water from taps in all zones, with 42.2 percent using household taps and 36 percent using public taps. Other sources included hand pumps (3.2%) shared taps (3%), and tube wells (3.2%). Water supply by taps is partially augmented by hand pump supply particularly in zone 3 settlements. However, even pump supply reduces during summer and water has to be pulled up manually, demanding frequent repairs and causing water scarcity.

Zone 6 was well provided for vis-à-vis water supply. Not only the maximum number of households in this zone had access to taps, these were easily accessible and close to the homes. In contrast, zone 4 had access to tap water supply, however, these were located at a distance and women had to walk over long distances to get water. Zone 2 households had both private and public tap supply, but needed to supplement this with water from the river/canal/stream to meet their water needs. In all zones households had to rely on other sources such as tankers, cans, etc, especially during the summer due to low water pressure in the taps. Most households complained of low water pressure throughout the year, which got aggravated during the summer season.

Table 17: Source of Water

Source	No of household	Percentage
Private tap	481	42.2
Public tap	408	35.7
River/canal	75	6.6
Shared tap	34	3.0
Hand pump	37	3.2
Others	106	9.3
Total	**1141**	**100.0**

Quantity of water available to a household serves as an indicator of general cleanliness and health practices of families such as bathing, washing hands/clothes etc. The premise being that closer the source of water, easier would be the access to water with positive benefits to family and community health (**annex 4).**

Average distance of water source for over 68 percent families who do not have individual water taps is 20 meters from the residence. Distance varies across zones with some zones (3 & 4) having households, albeit a small number, that walks nearly 30 meters to fetch water.

Time spent in making one trip was an average 16 minutes with an average 7 trips a day. Total time spent on water collection activity per household per day was therefore 112 minutes or 2 hours a day and varied according to the season, water pressure and number of people standing at each tap.

Water timings differ across zones. While a small percentage (2.5%) particularly from zones 2,3 & 6 indicate 24 hour water supply, others report less than one hour of daily supply. These differences were noted within a settlement with those living at the beginning of the distribution chain receiving more and continuous water supply in comparison to those that were at the end of the distribution network. On an average, the supply varies between 1 to 5 hours daily (82%). In zones 1 and 2 households reported supply between 11 and 24 hours a day.

Households also reported purchasing drinking water from neighbouring colonies. This practice was noted in Jaisantosh nagar and Pratap nagar in zone 3. Discussions with women indicated that they were willing to pay user charges to SMC for individual/more efficient water supply to their areas. Communities like Shivnagar in zone 6 and Patelwadi in zone 1 had fewer numbers of taps that were unable to meet the demands of the large settlement. In many communities pipelines for water supply had been laid, but water was not being supplied because of broken lines/unfinished pipe laying.

Requirement of water was estimated on the basis of number of buckets of water used by the households. Almost half (45.1%) the residents used six to ten bucket (of 15 liters each) of water daily for all their household chores except cooking and drinking. About 4 percent households consumed more than 16 buckets of water.

Per capita water consumption too varied across zones. In zones 1 & 4 where water supply was for nearly 24 hours daily, the per capita per day consumption was quite high. These were also the communities where there was high water wastage, and the communities had approached the authorities to regulate the flow to prevent losses. In contrast per capita per day consumption in zone 3 was extremely low which was due to broken supply lines. In some zones, large amount of underground water is tapped through hand pumps, Wells, bore wells and tube wells. Settlements situated on the bank of Tapi river apart from piped water supply use river water for other basic needs.

More than 60 percent male headed households depended on public taps, river, canals etc. with 33 percent having private or shared taps. Male-headed households do not appear to have a great need for basic services despite having high levels of income.

According to the people water should be supplied twice a day, in the morning and evening; pressure of water should be improved so that people can fill up quickly; damaged pipes etc. must

be immediately replaced, community taps should be located at central points to enable all households to have equal access to water supply as also minimizes collection time.

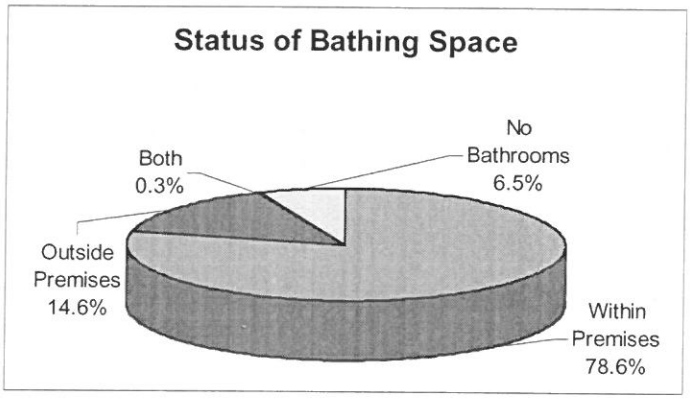
Surat Municipal Corporation is the agency responsible for provision and maintenance of water supply to the city. A recent study on infrastructure services undertaken by NIUA (as mentioned in footnote number 3 above) indicates that using the per capita national norm for water supply i.e. 140 lpcd, city's present water demand is estimated at 322 MLD. The city is able to supply 320MLD of water to its residents, indicating a shortfall of only 2 MLD/or a per capita supply of 139 lpcd. However, there is also an inequity in distribution across the city.

During summer demand for water goes up considerably which the SMC finds difficult to meet. City needs to revisit its distribution network and ensure greater equity in distribution and regularisation of water supply. Stress must be on managing water as a commodity and on cost recovery basis so that services can be better maintained, operated and there is sufficient finance for capital investments. Since poor are willing to pay a user charge, SMC may consider cost recovery through pricing water service in poor settlements/provision of individual metered connections.

Bathing Space

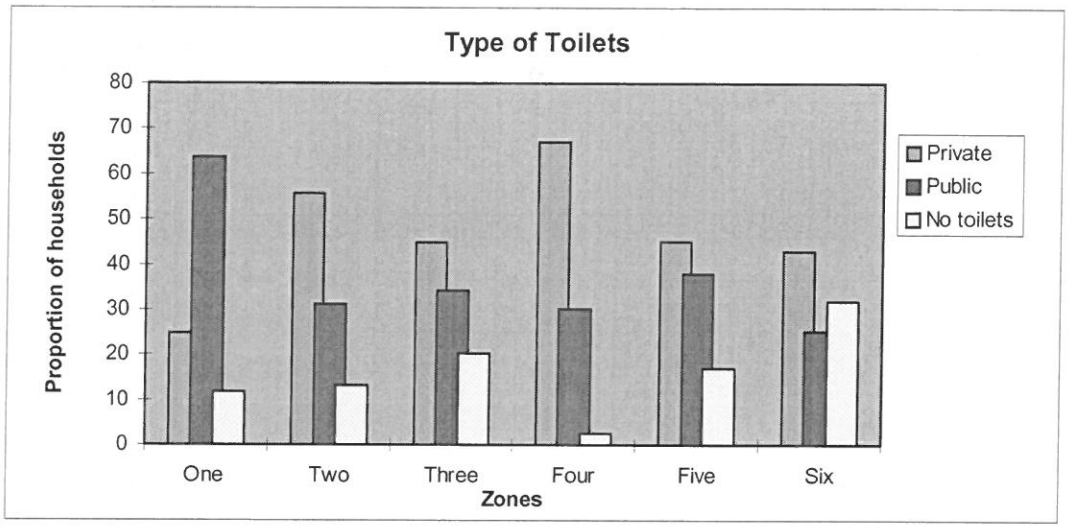
Most households78.6 have built bathing enclosures attached to their huts, in back or front yards, that are made out of jute, plastic sheets, flattened out metal sheets from waste drums, bamboo or stick mats. Others 21.4) bathe in the open.

Generally space used for bathing inside dwellings is an extension of the cooking corner, which has an outlet for draining out used water. Women generally bathe inside the huts while men bathe outside at community taps or riverfront.



Toilet facility

Absence of adequate sanitation services seems to be a common problem in all-poor settlements, and open defecation was common, even though it was both unhygienic and unsafe, especially for women. Settlements located near the railway tracks tended to squat along the railway lines and were constantly harassed by the railway police and even had to pay a penalty.



About half (47%) households had individual toilets, and another 35 percent had access to community toilets (annex 4c). Availability of private and community toilets varied across zones as can be seen in above Graph. Use of community toilets was highest in zone one and lowest in zone six. Community toilet provision and use of open space declined in areas where individual toilets had been built by people in their own shelters. However, in zone six, despite availability of community/personal toilets, use of open space for defecation too was significantly higher. Reason being assigned for this was inadequate water supply in the toilets and the fact that several settlements in this zone had not been provided with any toilet facility.

On an average, seats in the community toilets ranged from 2 to 16, with a majority having 5-8 seats. These according to 40 percent respondents were quite inadequate in addressing needs of the people. Over half the respondents (62%) also indicated that these community toilets were at a distance of 5-10 meters from their homes and average time spent in using a public toilet was 22 minutes, including waiting for one's turn.

Community toilets are provided in low-income settlements under the EIUS and other poverty alleviation schemes. However these according to people are poorly maintained, have serious overflow and choking problems and are in dilapidated conditions. Pit toilets get choked within 5-6 months because the pits are not deep enough and remain un-flushed. Superstructures are generally made of substandard material that is unable to weather the use. Often the first causalities are doors, followed by pits and steps. No provision for dustbins and wastebaskets in women's toilets suggests a lack of gender sensitivity in planning of sanitation schemes.

Pay and use system has been started in some settlements. Respondents (43.2%) reported that payment was on generally on per use basis. Few households about 5 percent paid a weekly/monthly user charge. People complained that they were being overcharged and was another reason responsible for the continued practice of open defecation. User rate varied from 0.50 paise to Rs.1.50 per use across the zones.

Table 18: Status of Toilet

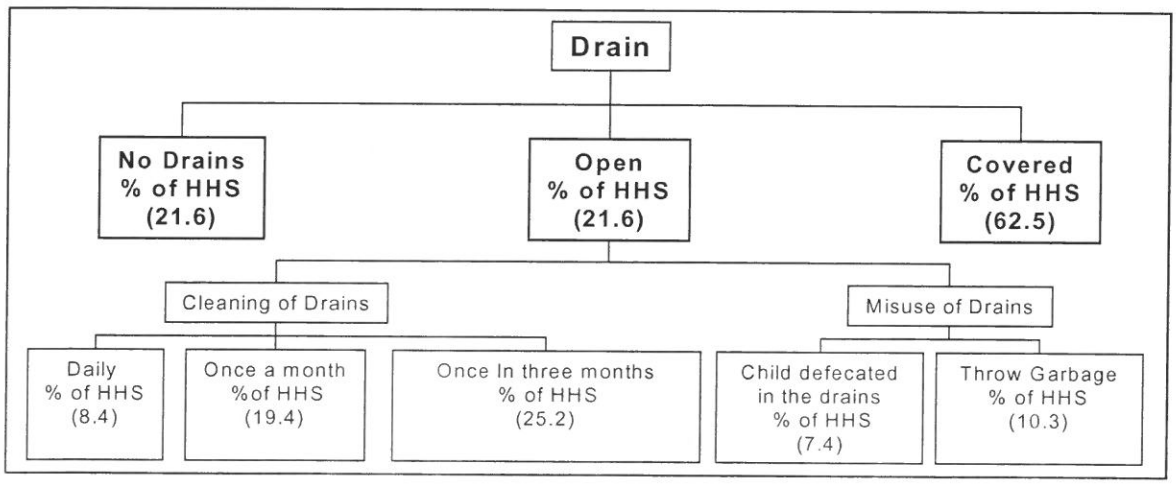
(Only Male HHs)

Status	Percentage
Private	41.11
Shared	2.22
Community	31.11
Open space	25.56
Total	**100.00**

Of the 180 male households, more than half (56%) used community toilet or defecated in the open in an effort to save money on such services. The rest who had private toilets were possibly old resident in the settlements.

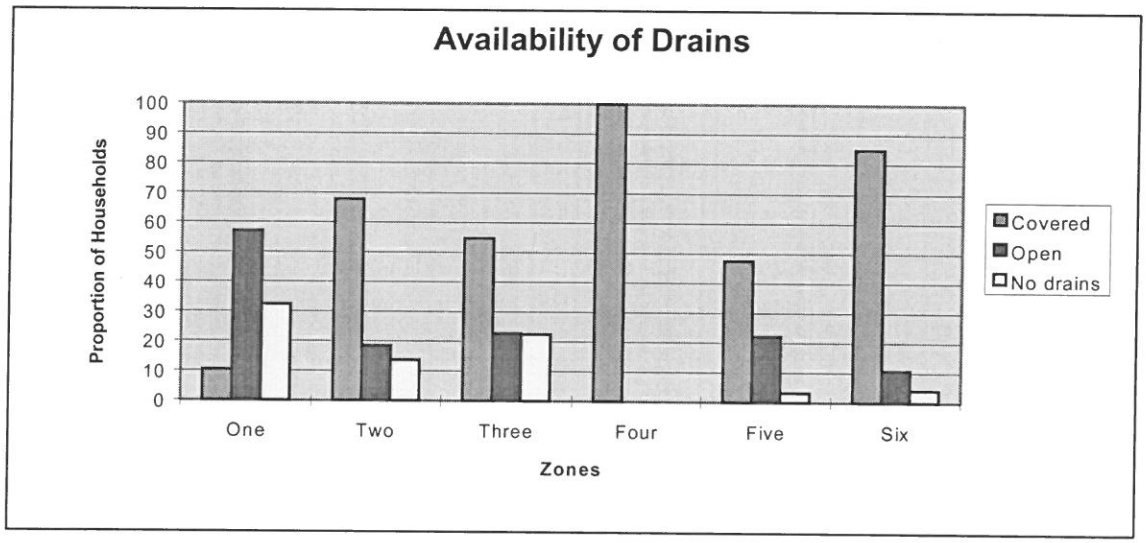
As observed during surveyed the user –lavatory ratio is not quite favourable. Overall indication is very high pressure of population on sanitation. The situation becomes worse in the monsoon season.

Drainage System



Drainage systems in squatter settlements are either absent or inadequate and the cause of slummy conditions in these settlements. Lack of sewerage facilities leads to water draining on to open grounds both from community taps and households, converting these lands into breeding grounds for diseases, besides polluting the air.

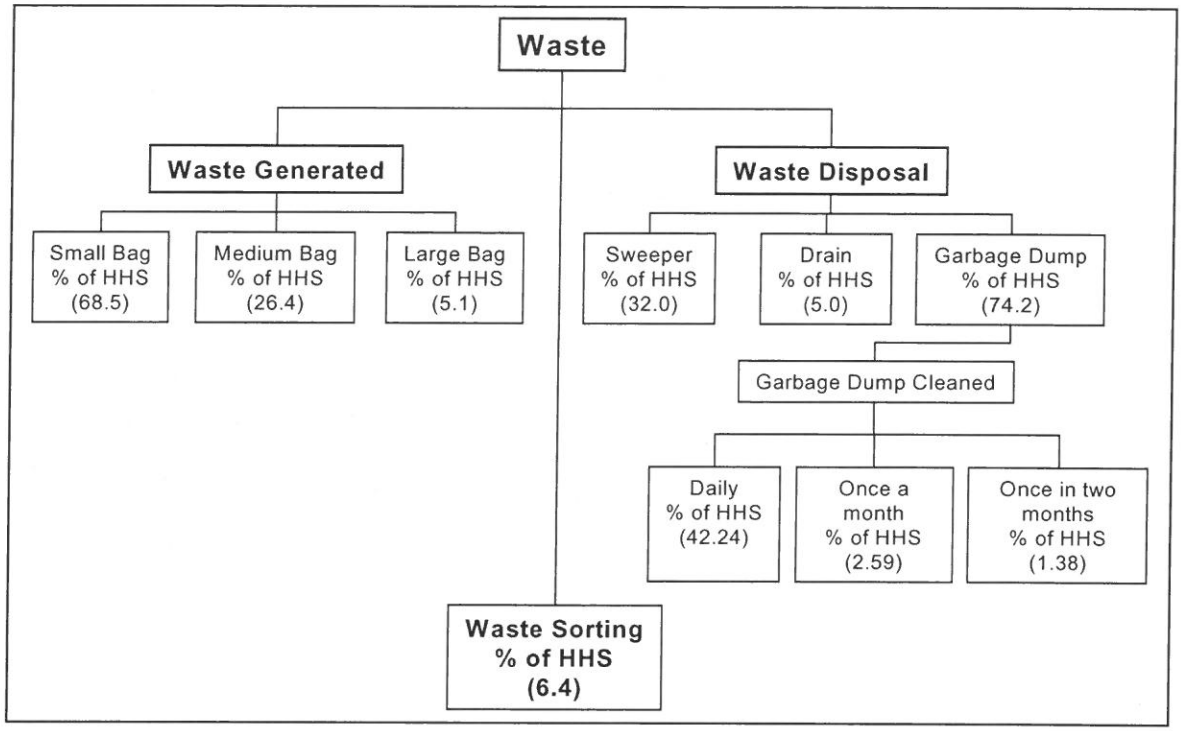
Drainage facilities vary across zones, with a mix of covered, uncovered and no drains in the settlements. Drains, particularly open drains, were overflowing, due to absence of regular cleaning and silting. Condition of settlements worsens during the rainy seasons with low-lying areas getting waterlogged due to bad drainage. Water enters dwellings during the monsoons and the lanes become slushy and un-passable.



Nearly 63 percent households reported presence of covered drains in their areas, 21.6 percent had open drains and only about 16 percent reported complete absence of any drains in their settlements. Settlements in zone four had been provided with covered drains that covered the settlement fully, whereas in others only parts of the settlements were provided covered drains.

People do not feel a sense of responsibility in keeping their settlements clean. Drains are often choked with garbage that is chucked into them by the families. About 25 percent of households reported the municipal sweeper cleaned that drains only once every three months. Families therefore jointly hired a private sweeper once a month and got the drains cleaned. This suggests that people will be willing to work out systems for waste disposal from the community.

Solid Waste



Women are usually responsible for waste management at the household level but hesitate to carry garbage to bins located far away from the settlements. As a result, waste is generally not disposed off and tends to accumulate within the community itself, influencing adversely the sanitary conditions of the settlement. A large amount of garbage was found strewn in parks, in nallas, etc. Cattle and pig breeding by people adds to the solid waste that is generated at the community level. Inefficient disposal creates health threats for the residents because of the foul smell/ mosquitoes.

Table 19: Frequency of Sweeper

Frequency	Number of Households	Percentage
Daily	434	38.04
Once in two day	53	4.65
Twice a week	39	3.42
Weekly	48	4.21
Irregular	118	10.34
No practice of sweeper	449	39.35
Total	**1141**	**100.00**

Of the total sample, 68.5 percent HHs generated a small plastic bag of waste daily. About 26.4 percent generated a medium plastic bag and the remaining 5.1 percent, a large plastic bag **(Annex 4)**. This trend was found to be common across all zones except in zone four where an equal proportion of small and medium bags were generated.

Around two-third (74.2%) respondent HHs disposed of the waste into garbage dump and 5 percent threw it in the drains. Few respondents also indicated that they threw garbage/waste in open spaces inside the community. Nearly 32 percent households said that the sweeper collected the waste from the locality and dumped into the garbage dump. An equal number of residents also complained about lack of sweeping inside the community, a complaint that was common across the zones.

One-third respondents (36%) reported that garbage dumps were cleaned daily; 17.3 percent reported that these were cleaned twice a week; and 16.3% indicated weekly cleaning. Very few responded said that it was cleaned only once a month, which suggests that some of the practices that were institutionalised following the plague in the city have persisted.

Consciousness about their own environment had inspired a small proportion (6.1%) of the families to separate household waste into biodegradable and non-biodegradable before disposal. Proportion of such HHs was higher in Zone two (19.8) and Zone five (16.5) in comparison to the other Zones (Table 5.6).

Most people still felt that the job of keeping the neighbourhood clean was that of the municipal corporation and not theirs. To ensure public participation and cooperation, awareness drives would need to be organised seeking people's participation and consultations held with them to understand their views and prepare action plans to keep their wards clean. People need to be consulted on location of dustbins, frequency of cleaning, and strategy for disposal to evolve a sustainable, self-reliant mechanism in the community for waste disposal. Awareness programmes should demonstrate habit formation and waste management at the household level.

Electricity

Most households (81%) had electricity, although this is illegally drawn from the poles without any metered connections. Such tentative arrangements are generally dangerous and the reason for electrocution/or fires in the areas.

Zone wise distribution indicates that in zones 1 and 6, most households had metered connection, which they shared with their neighbours. In contrast in zone 4 25 percent households managed an illegal connection through a local tout. In zone 3, people preferred to pay their neighbours for a legal electricity connection.

Availability of electricity was not an issue with the people, with nearly 90 percent claiming a 20-24 hour supply and the rest, 10-20 hours a day.

Households without electricity connections mainly used kerosene lamps (93%). Some used lanterns or candles as well.

Table 20: Substitute for Electricity

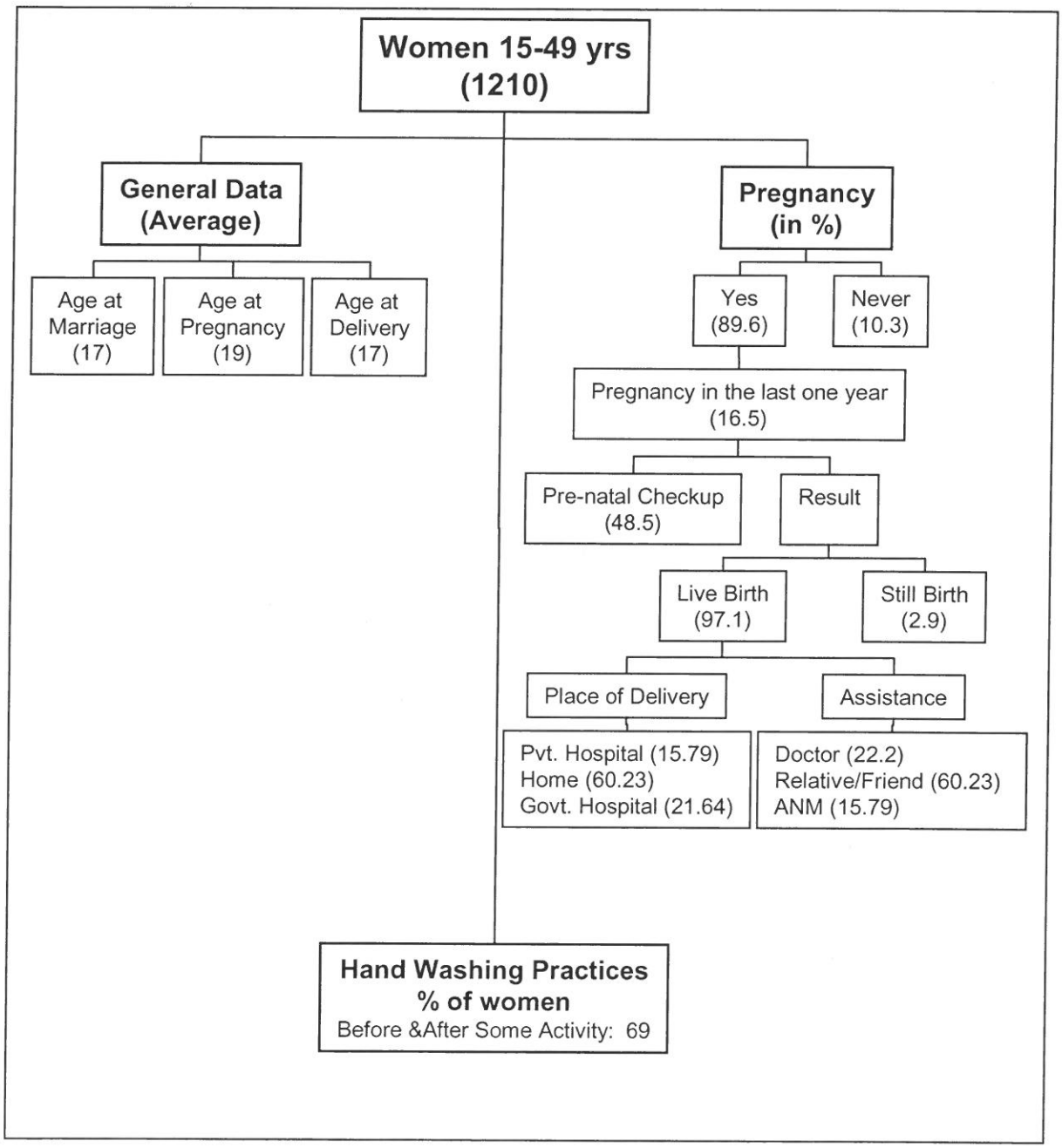
Source	Number of Households	Percentage
Lantern	8	4.79
Kerosene	156	93.41
Candle	2	1.20
Other	1	0.60
Total	167	100.00

Note: 45 households not answered

Discussions with people using PLA tools indicated three main problems with regard to electricity, unsafe electric poles and wiring, irregular power supply in some zones and lack of street lighting, with some households indicating that in some central zone settlements it was difficult to walk through the lanes even during the daytime because of the darkness. As people did not possess ration cards they could not apply for metered connections and expressed readiness to pay legal electric connections.

Section II

Status of Women



Women constitute nearly half the population of a city; yet suffer from tremendous disadvantages that accrue from their low cultural status and lack of empowerment. Poor women's disadvantages are exacerbated by their lack of incomes and inequity in household distribution. Lack of adequate nutrition, low priority to their health care and the burden of economic and household activities deepens their vulnerability.

The benchmark study collected data on women between 15 and 49 years. 1210 women were interviewed in the study on a range of indicators relating to their health, education, economic, and social status.

Nearly half the women (53%) were married before they attained the age of 18 and delivered their first baby by age of 19 years, largely at home (60%). Others were attended by trained birth attendants that were as high as 38 percent.

Table 21: Delivery Assisted By

Person	Number of Delivery	Percentage
Doctor	38	22.22
ANM/Nurse	27	15.79
Traditional Dai	3	1.75
Relatives/friends	103	60.23
None	0	0.00
Total	**171**	**100.00**

About half the women (48%) availed antenatal, natal and post- natal services offered at the government hospitals. Others were unable to benefit from these services due to inadequate infrastructure in the hospitals or non-availability of services close to some of the settlements. Most pregnant women reported that they had received the tetanus immunization in all the zones.

Table 22: Place of Delivery (in last one year)

Place	Number Of cases	Percentage
Government hospital	37	21.64
Private Hospital/ Nursing home	27	15.79
PHC sub centres	2	1.17
Home	103	60.23
Not Answered	2	1.17
Total	**171**	**100.00**

Child-birth

Of the 208 children whose weight was recorded, nearly 30 percent weighed less than 2.5 kilograms, or were low birth weight babies. Incidence of low birth weight babies was highest in zones 3 and 5 and lowest in zone 4, closely followed by zone one.

Table 23: Child Weight at birth

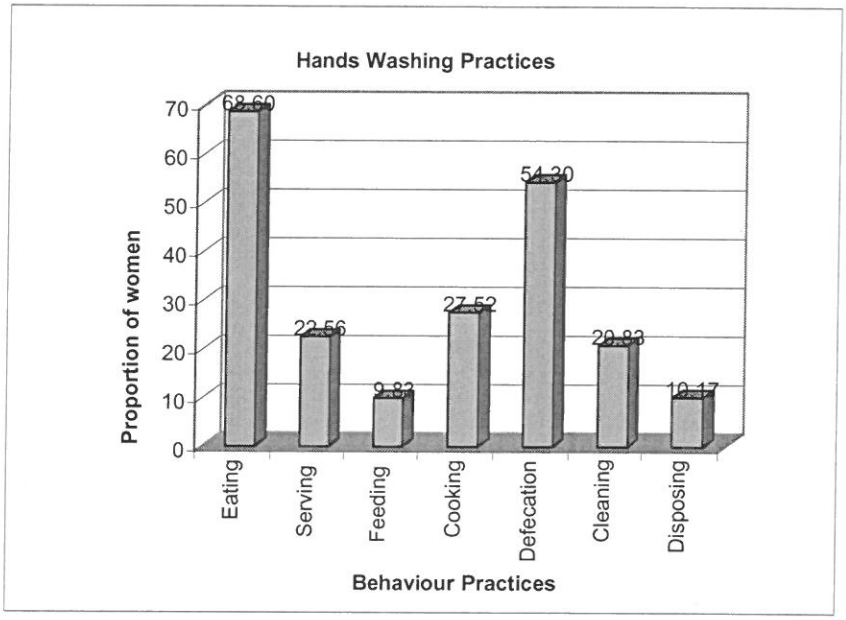
Weight	Number of children	Percentage
>=2500 gm	144	69.23
< 2500 gm	64	30.77
Total	**208**	**100.00**

Low birth weigh babies are more susceptible to infections and have a high infant mortality rate. Survivors generally experience the impact of poor nutrition throughout their life in the form of retarded physical and mental development and increased susceptibility to diseases. Reason for low birth weight is generally poor nutritional status of mothers, due to their low incomes and lack of awareness, as also fallacies that dictate lower intake in the third trimester of pregnancy to ensure smaller babies and easy childbirth. Mothers suffering from nutritional anemia generally give birth to babies with low birth weight.

However, of the total births in the year, only 5 were still births is 171 live births and only 5 indicating a low Infant Mortality Rate, due primarily to increased awareness and utilization of maternal health services.

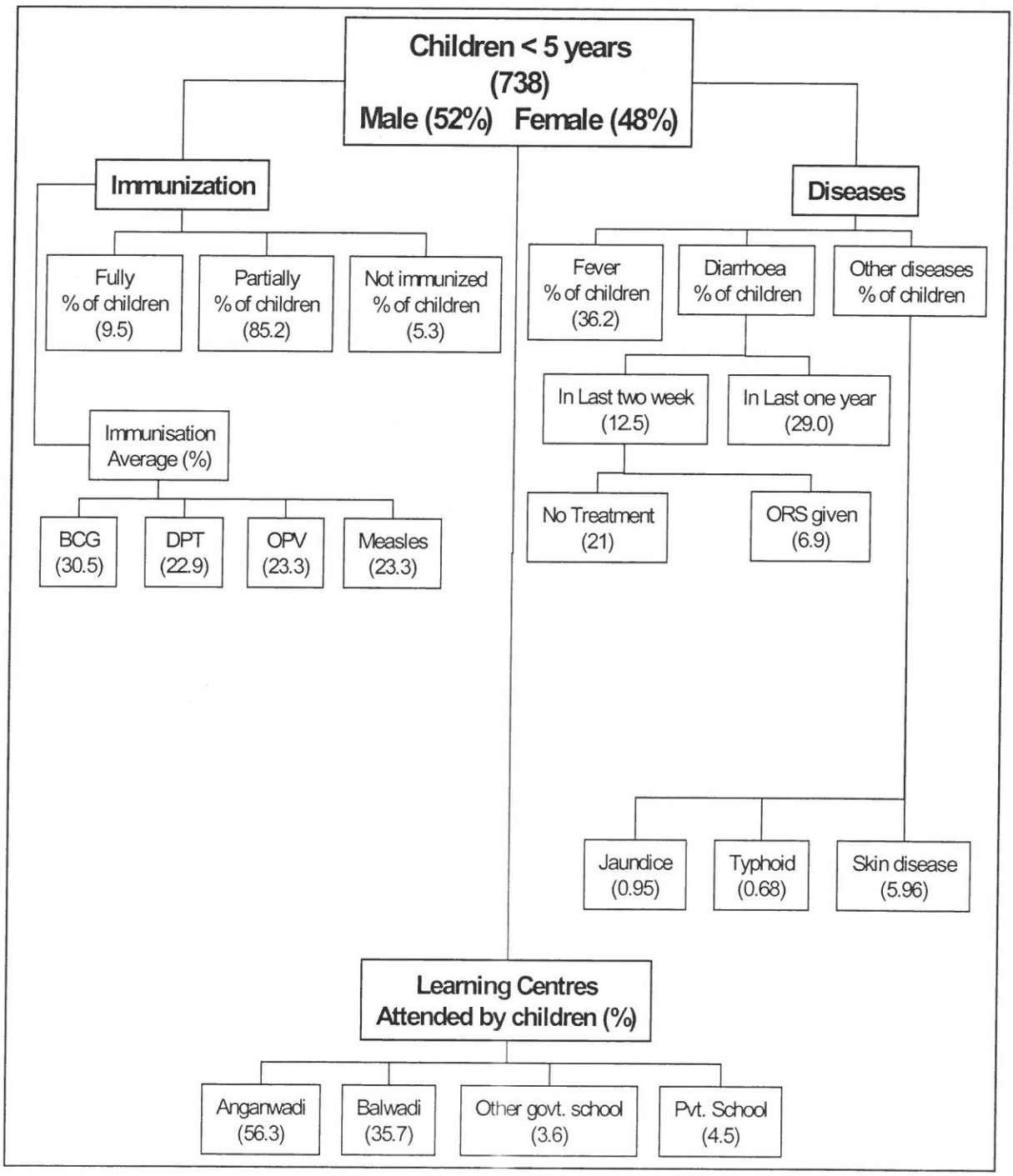
Health Practices

Hand washing practices of women and children observed during the survey indicated that 69 percent women washed hands before and after activities such as cooking, eating, feeding children etc. However, only about 25 percent indicated that they washed hands after cleaning the stools of children. Reasons for not washing hands were low access to water source and lack of awareness. Women also indicated during discussions that bathing was not a regular habit among the households.



Section III

Children Under 5 years



India is committed to the goal of Health for All. Comprehensive family welfare programmes have been launched by the Government to meet the target and to address the needs of vulnerable sections of the population, i.e. women and children. Despite that one in every ten child dies before reaching the fifth birthday from preventable causes such as malnutrition and health disorders. In order to explore the relationship between mortality and health practices, data was collected on indicators such as immunization and incidence of diseases.

Immunisation

As per the immunisation schedule, all children must be fully immunised by the age of one year with measles being the last of the immunisation vaccines to be administered to children. Immunisation status of children between 0 and 5 years was examined. Break up of children by age and sex is presented in Table 24 below.

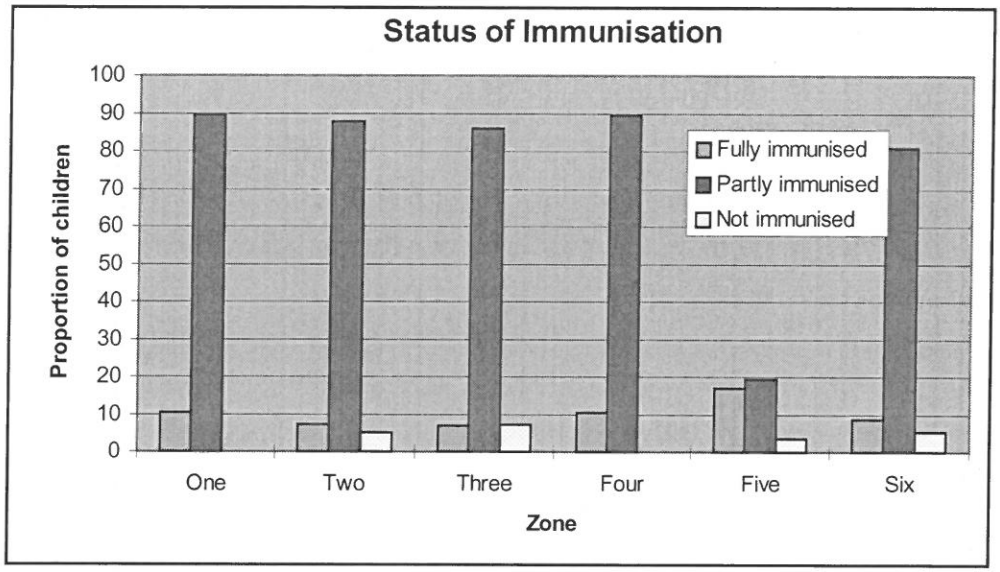
Table 24: Children by Age and Sex

Age	Male	Female	Total
< 2 year	175 (52%)	162 (48%)	337 (46%)
2-5 year	209 (52%)	192 (48%)	401 (54%)
Total	**384(52%)**	**354 (48%)**	**738 (100%)**

Fully immunised children accounted for only 10 percent of the child population among the urban poor, with 85.2 percent being partially immunised i.e. missing one of the following vaccinations: BCG, DPT, OPV or measles.

5.3 percent children had not received any of the vaccines. In addition immunization status of nearly 10 percent children could not be confirmed suggesting that a much higher percentage of children are likely to un-immunised. Proportion of fully immunised children was highest in zones 3 and 5.

Of the children immunised, partially and fully, incidence of BCG vaccination was the highest (30.5%) partly because BCG is administered at the hospital itself in case of institutional deliveries. Only 23 percent had received all three doses of DPT and polio vaccine. About 40 percent children in the age group of 9-12 months had received Vitamin A along with the measles vaccination or separately. An equal percentage (39.8%) had not been administered Vitamin A drops.



Zones 1 and 4 had maximum immunisation coverage with least coverage reported from zone 5.

Diseases

Young children are also susceptible to several diseases. Common illnesses include diarrhoea, fever and Acute Respiratory Infections.

Diarrhoea

Diarrhoea is one of the most frequently occurring problems among children living in under serviced settlements due to poor sanitation, lack of hygiene and potable water in these areas. 12.5 percent children were found to have had a diarrhoeal episode in the two weeks preceding the survey; with the highest incidence about 47 percent being reported from zone 3 and the lowest from zone 1. Data also indicates that 29 percent children had suffered from diarrhoea over a one year period, with high incidence being reported again from zones 3 and 6.It shows that in zone 3 and 6 quality of water is quite poor.

Fever and Acute Respiratory Infections (ARI)

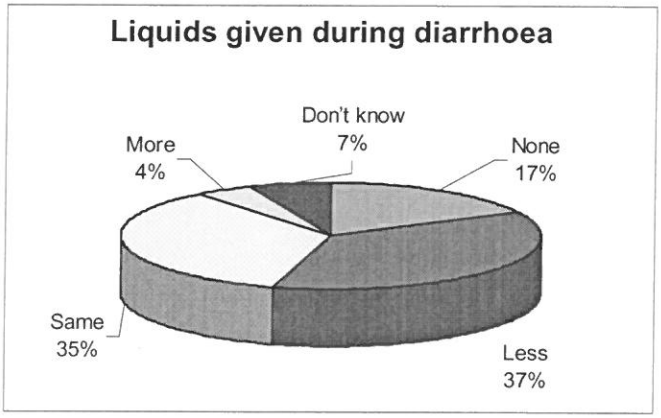
ARI is the next most commonly occurring problem among young children. One-third children under five years were reported to have suffered from fever and cough during the two weeks preceding the survey (**annex 5)**, the maximum incidence being noted in zone 3 (47%) and least in Zone 1 (4%). Incidence of fever is more in zone 2 & 5 as compared to zone1 **(annex 5)**. Incidence of skin infections and jaundice was rare at 6 percent and 0.9 percent respectively.

Health Care Practices

Diarrhoea is known to cause dehydration due to rapid loss of water and salt, giving rise to life threatening conditions. Mostly this is due to poor health practices or care during the problem.

Survey results indicate that as many as 21 percent children did not receive any treatment during diarrhoea, and only 7 percent were administered ORS in the 15 day recall period. Strangely, 30 percent children were reported to have been administered ORS in the one year recall period. Since one-year recall is less reliable due to memory lapses, this information may be attributed more to knowledge than actual practice.

In nearly 37 percent cases quantity of fluids was decreased based on traditional beliefs. However, nearly 70 percent continued to be breast-fed, 21 percent received other milk supplements, and nearly 25 percent were given gruel and home maid fluids. Fluid intake was reported to have increased in 5 percent cases (**annex 5)**



More boys were found to suffer from illnesses/health problems in comparison to girls and were taken for treatment to private practitioners in comparison to girls.

Table 25: Place Of Treatment (Sex wise) (MRT)

Source	*Boys (N = 145) (55.1)*	*Girls (N=118) (44.9)*	*Total (N=263)**
Hospital	3 (42.8) (2.1)	4 (57.2) (3.4)	7 (100.0) (2.7)
PHC	18 (56.2) (11.7)	14 (43.7) (11.0)	32 (100.0) (12.2)
Dispensary	11 (55.0) (6.2)	9 (45.0) (5.9)	20 (100.0) (6.1)
Private physician	115 (56.9) (84.1)	87 (43.10 (78.0)	202 (100.0) (76.8)
Sub-Centre	4 (44.4) (1.4)	5 (55.6) (1.7)	9 (100.0) (3.4)
Chemist	2 (50.0) (0.7)	2 (50.0) (0.8)	4 (100.0) (1.5)
Friend / Neighbour	0 (0.0) (0.0)	4 (100.0) (3.4)	4 (100.0) (1.5)

* *399 children did not suffer from the diseases. 76 did not respond.*

In most instances, children are taken to private doctors only when a disease is in an advanced stage, largely due to lack of awareness, fear about additional expenditure and the feeling that medicines reduce body resistance. Visit to doctors in case of diarrhoea are therefore fewer than for other illnesses. Almost fifty percent children who suffer from fevers or ARIs do tend to visit a clinic, highest incidence being reported from zone 6 (70.8%) and lowest from zone 4 (38.9%). In the case of jaundice, skin diseases or typhoid, treatment is generally sought at the hospitals.

Education

Preschool education is known to have significant impact on development of young children, improving their comprehension and learning abilities. It also improves school enrolment and participation. Data on the extent of preschool participation has been collected as part of the survey. Data with regard to 401 children falling in the age group 2-5 years was analysed. Only one-third children (29%) children were attending a preschool centre.

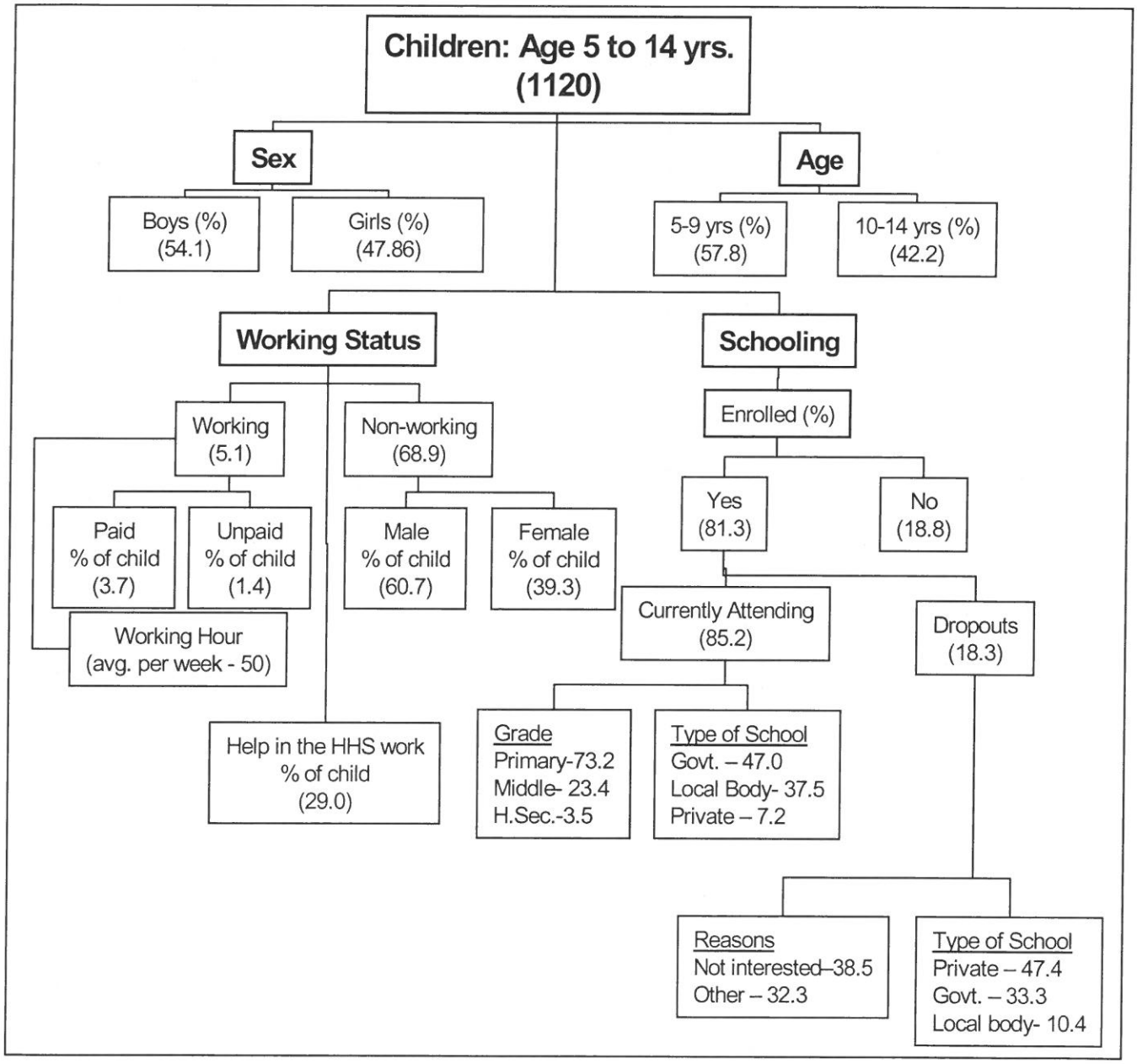
Table 26: Children Attended Learning Centres (Age 2-5 yrs)

Centre	Number of children	Percentage
Anganwadi centre	63	56.25
Balwadi/ ECD centre	40	35.71
Other Govt. Pre-School	4	3.57
Private Nursery pre-school	5	4.46
Total	**112**	**100.00**

Of the children who attend preschool centres, over half (56%) go to Anganwadis supported under the ICDS programme, one third go to Balwadis or ECD centres run by NGOs, a few attend government schools and the rest are in private run nursery schools.

In zone 4 children were attending Balwadis (see annex) whereas in others children went to Anganwadi centres. In some of the basties (Dharatinagar, Mahakalinagar, Vivekanandnagar, Jaisantoshima Nagar) primarily in zones 2 and 3 no preschool centres were available. While parents expressed willingness to send their children to preschools, poor accessibility meant that parents would have to accompany these young children to centres outside the bastis, which they were reluctant to do. Besides, parents were of the opinion that most preschool centres ran poor quality programmes due to lack of qualified/well-trained teachers and children were unenthusiastic about participating in these programmes.

Section IV
Children 5-14 Years



Education

Another national goal is to ensure universal primary education. Despite a proposed commitment and recognition of education as significant for the growth of the children, there are tremendous gaps in provision of education due to a range of reasons. Up until now, share of resources allocated to primary education has been far lower than on higher education. In addition, distance of schools, poor quality of teaching learning processes and inadequate infrastructure in the settlements have been responsible for low education interest.

Table 27: Status of Schooling by Sex

School Status	Boys	Girls	Total
Currently attending	396	379	775
Drop-out	72	63	135
Never attended	116	94	210
Total	**584**	**536**	**1120**
%age	**52.14**	**47.86**	**100.00**

Data with regard to the education status of 1120 children between 5 and 14 years in the sample indicated that 81 percent children were enrolled at school. Drop out rate was low at 12 percent. zone 2 and 3, with least number of dropouts being witnessed in Zone 6. Among the drop outs almost 65 percent left school before completing the fifth grade, largely from zone 2 and 3, with least number of dropouts being witnessed in Zone 6.

Sex differentials were evident in school enrolment and participation. More boys (58%) than girls (34%) were enrolled at school. Nearly twice the number of boys (65%) vis-à-vis girls (35%) were attending school. Zone 4 had most children at school, followed by zones 6 and 1, whereas zone 2 had the least proportion of children in schools.

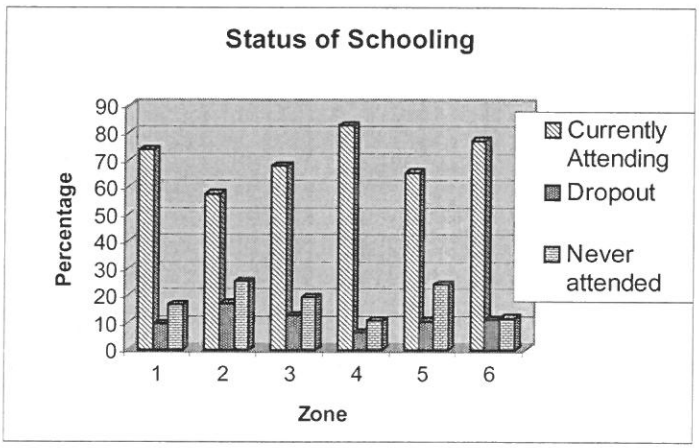


Table 28: Drop out of children by Sex

Grade	Male	Female	Total	Percentage
Primary	45	42	87	64.44
Middle	19	19	38	28.15
High school	0	1	1	0.74
Pre-school	9	0	9	6.67
Total	**73**	**62**	**135**	**100.00**

Sex difference in drop out rates were also visible with many more boys dropping out of school (54.07%) as compared to girls (45%) indicative of the fact that young boys get sucked into the labour market at an early age.

Most children were enrolled in government schools, about 37 percent in schools run by the local body and 7 percent were attending private schools; though preference for private schools was quite evident as these were seen to offer better quality of learning.

Table 29: Type of School

Type of School	Number of children	Percentage
Local Body Rural	4	0.52
Local Body Urban	291	37.55
Govt. School	364	46.97
Pvt. School	56	7.23
Non Formal Education	3	0.39
Balwadi/ Anganwadi/ Preschool Nursery	40	5.16
Others	17	2.19
Total	**775**	**100.00**

Analysing the data using religion as a filter indicated that more children among the Muslims were never enrolled when compared to other religious communities.

School attendance patterns on last three school working days found only 64.5 percent children to be participating regularly. 15.1 percent children remained absent on all three days, which when added to children never enrolled and drop-outs indicates that almost half the children from poor settlements are missing school. Proportion of those absent on all three days was highest in zone 1 (38.7%) and needs to be closely examined. More girls (67%) than boys (62.1%) were seen to attend school regularly. Conversely, more boys (17.4%) than girls (12.7%) remained absent from school.

In order to improve literacy rates through improved access to education for children who have never attended a formal school or have dropped out, the city government provides an alternative in the form of non-formal centres, with flexible timings that respond to the needs of these children. However, not many parents preferred the non-formal school programme.

Non enrolled/ drop out children remained out of schools because they were needed at home to do the household chores particularly where both the parents were employed, these families did not value education due to perceived low returns through improved earnings and social attitudes towards educating the girl child. Poverty, which has been offered as a key reason for lack of schooling among the poor has been seen to be responsible for these children's lack of schooling. Most of the families of out of school kids indicated that they were unable to afford the fees or the hidden costs involved in educating children. Free education in government schools is not an attractive option because of over-crowding in these schools, poor school infrastructure and facilities and poor quality of learning in the classrooms.

Several other reasons that were responsible for children missing school included, lack of interest in studies and availability of opportunities for children to earn in the city and supplement family income. Muslim communities in Surat preferred to send their children to Urdu medium schools, but as these were far off, they opted for the more conveniently located ***Madrases***, where children learnt to read and write in Arabic and reciting of Koran. Muslim households due to the ***purdah,*** were not welcoming of mothers going to drop and pick up children from schools. Consequently the men were responsible for ferrying children to and from school.

Medium of instruction in schools was also a factor that was responsible for out of school children. Migrants with different languages preferred schools where their mother tongue was the medium of instruction as they were unsure of the duration of their stay in the city.

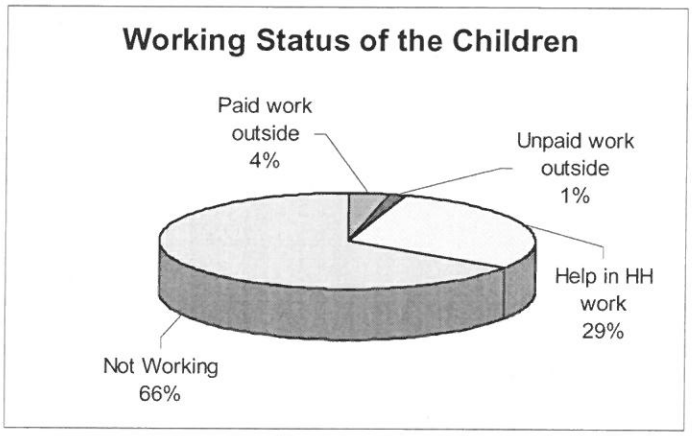
Above all inadequate availability of infrastructure, very little open space in schools for children to enjoy learning keeps children at home.

Working Children

Child labour has been recognised as a serious problem that denies children their right to education and development. Child labourers suffer multiple deprivations. Learning deprivation means that they grow up to be illiterate and unskilled adults with low productive capacity, perpetuating the poverty cycle.

Although the Child Labour Act, 1986 prohibits employment of children under age fourteen in hazardous occupation and limits working hours of children to 36 per week, the high percentage of children missing school may mean that they may be engaged in various informal sector activities both at home and in paid labour.

Of the 1120 children in the 5 to 14 years age group, 57 (5%) were reported to be working. Being an industrial city, Surat offers a range of household based activities that generate income such as cut piece businesses, embroidery and beads work. While it is the parents or women who undertake these activities along with their household work children too are pulled in to increase the output and augment the income. Surat city is therefore likely to have large number of invisible child workers.



More children from Hindu families were found to be involved in both paid and unpaid work. About 16 percent children worked for more than 80 hours every week or nearly 12 hours a day **(annex 5)** and 45 percent children worked between 35 and 80 hours per week. Girls were found to work more hours than boys among children who worked 35 hours a week (Boys: 30% Girls: 55%). In the 36-80 hours category, more boys (45%) as compared to girls (25%) worked.

Gap between the number of children reported at work and children out of school however, needs further exploration in order to understand the daily routines of these children and reasons for their being out of school so that these issues could be addressed. There is a need to redefine child labour in the context of Surat and to identify children who may be engaged in unpaid activities.

Chapter 4

Recommendations

This section proposes to examine the challenges in providing basic services to poor settlements in Surat and offer suggestions in improving their access to basic services.

Investing in Physical Infrastructure

Of all basic services made available in poor settlements of the city, water, waste management and covered drains seem to have been better managed than sanitation and electricity provision.

Water Supply

Although water supply was available in all settlements, both as individual and community connections and in adequate quantities, distance to water sources and over all quality of water supply continued to be issues of concern. Almost two hours were being spent in fetching water from public stand posts by women, cutting into their time for home based/ formal income generation activities/ other house keeping /child care tasks.

Data also indicates that at a city level there is sufficient quantity of water available for consumption of the entire city. However, distributional inequities may need to be addressed in view of the fact that water supply duration varies between 1 and 24 hours in the poor settlements. End of chain distributional problems need management in order to improve the supply network/plug leakages and wastage of water.

Although according to figures supplied by the SMC, water demand appears to have been estimated on the basis of per capita national consumption norms at 140lpcd, it is not certain if in assessing city requirements, entire population of the poor has been accounted for, as settlements on illegally occupied land are generally missed for provision of basic services. Only about half the poor households in the study were found to possess individual connections. While estimating overall city requirements for water and investments, calculations also need to be based on individual supply requirements.

While planning for individual connections, there would be need to examine issues of connection and user charges as almost half the population living in these settlements was earning below the official poverty line. Self-help groups may need to be established up front to improve access to affordable credit for one time connection charge. City governments may consider linking up to the

existing schemes of SJSRy, NSDP and VAMBAY to improve the quality of services in the settlements.

Sanitation

With less than half the population owning individual toilets and several areas under serviced by community toilets/ rundown conditions of poorly managed community toilets provision of sanitation services needs to be examined urgently with the overall objective of universal outreach.

Cities like Surat where overall settlement density may be less than that in metros and mega cities, the primary option should be provision of individual toilets by drawing upon schemes such as Nirmal Bharat, Low Cost Sanitation and Liberation of Scavengers.

In overcrowded settlements, where individual sanitation options are not possible, community toilets must be preceded by community organization processes and building of toilet management committees to oversee their maintenance and decide on the user charges. Management of these toilet complexes must be handed over to these toilet committees, preferably of women or DWACUA groups formed under the SJSRY programme.

A critical issue that may need to be addressed is the lack of interest among the large percentage of all male households in payment of user charges for pay and use toilets and resorting to open defecation. Awareness drives would need to be undertaken specifically targeting such households to encourage use of toilets.

Drainage

Although Surat's poor settlements are better serviced with drains, largely covered, that have been provided following the outbreak of plague in the city, some settlements are still not fully reached with covered drains. Community mapping and plain table surveys would help to create an information base on within settlement coverage. Awareness drives would further focus attention of the poor households about the need to keep drains free of waste.

Land Tenure

In order to provide individual connections to poor households both for toilets and water taps, the city government may need to address the issue of tenure to these settlements. While this study does not provide information on the ownership status of the settlements, a large number of settlements across the cities of Gujarat are generally on private or government land, with ownership being restricted to the superstructure rather than the land. Although communities do

not feel insecure and are not threatened by eviction/relocation, personal investment in shelter and environmental improvement is often not forth coming because of lack of land tenure.

City authorities need to examine their laws with regard to granting of tenure to enable the poor to upgrade their shelter and invest in individual services, which in turn will reduce the load on the SMC for maintenance of these facilities. Further study would be needed to understand the nature of tenure that exists in the city to identify strategies for grappling with legal/tenure issues.

In order that the poor are able to upgrade their own shelters, they would need access to affordable credit. NGO windows that have been created for credit assistance to the poor for housing through the HUDCO need to be tapped by the city authorities to provide shelter loans to the poor. Resources available under schemes such as VAMBAY too need to be drawn upon by SMC for housing up-gradation.

The city may like to draw from the experiences of the Parivartan project in Ahmedabad where slum dwellers have been provided limited tenure and access to credit through SEWA Bank to network with the city systems for an improved package of basic services.

Income Generation Programmes

Surat being an industrial city, employment does not seem to be a major issue with a large majority of poor in regular employment. However, despite more guaranteed incomes and continuity of employment, income levels among the squatter settlements appear to be lower than the state poverty line. Since most jobs in the city are in the private sector, the possibility of regular low wage employment exists.

Income data also indicates that a large cohort of families who are above the poverty line tend to cluster at the cutting edge of poverty and are likely to slip below the poverty line in the event of an emergency or shock. Programmes for the poor therefore need to help build safety nets for the people to fall back upon in case of disaster.

At the same time, schemes such as SJSRY and DWACUA have tremendous potential for successful linkages with city's economic activities. Employment potential of the city needs to be explored in the context of SJSRY to enable the poor to improve their income and afford better-serviced housing in the city.

Addressing Child Labour

Although data in the study has indicated only 5 percent of children as being engaged in productive-paid activities, Surat's vibrant economy with saree weaving being out sourced to small home based units, there is perhaps a high level of hidden child labour that could not be captured in the present study. Other reasons for low reporting may be that industrial units, both big and small, may be aware of the rules with regard to child employment and hence keep these off records. Parents too may be conscious of the illegality of child employment and may have refused to provide true answers.

Nevertheless, child labour issues would need to be addressed in any city development strategy that aims at reducing poverty in the city.

Health Awareness

According to data gathered in the study, level of health awareness is high among the people, most probably due to the intensive sanitation drives in the city following the spread of the plague. However, utilization pattern of the existing health infrastructure indicates low usage. For example, hospital deliveries account for only half the total number of deliveries in the city. Or health practices exclude washing hands after defecation or cleaning the child's faces is not a regular habit among the poor and the cause of several diseases among children. Immunization levels also appear to be low with only 10 percent children being fully immunised. Immunization drives must be better targeted to ensure full coverage under the programme.

Health programmes need to be better targeted and focused on specific needs that have been identified in the study rather than being generic in nature. These must also be linked to food security programmes in the city as data indicates one in every three children being born with a low birth weight.

Education Intervention

While enrolment is high in the city, it appears that only very few tend to complete all twelve years of schooling and tend to drop out after the fifth or seventh grade. Lack of education is a key reason that keeps families engaged in low skilled-low paid-exploitative employment. It pushes the family into a recursive poverty cycle that is difficult to transcend. Attention on improving outreach of schools in the poorer areas of the city and mainstreaming children into formal schools for attaining minimum learning levels is desirable.

Annexures

Annex 1

Table 1.1: Distribution of Household by Type of Structure

Zone	No. of Basties	Pucca	Semi-pucca	Katcha	Total
One	2 (1-2)	-	31	46	77
Two	5 (3-7)	8	148	33	189
Three	14 (8-21)	49	312	169	530
Four	2 (22-23)	8	46	19	73
Five	4 (24-27)	7	107	39	153
Six	30 (28-30)	15	90	14	119
Total %age	**30 (1-30)**	**87 (7.6)**	**734 (64.4)**	**320 (28.0)**	**1141 (100.0)**

Table 1.2 : Distribution of Households by Occupancy

Zone	No. of Basties	Owned	Rented	Owned but on govt. land	Others	Total
One	2 (1-2)	54	7	14	3	77
Two	5 (3-7)	86	74	25	4	189
Three	14 (8-21)	298	198	30	4	530
Four	2 (22-23)	57	16	-	-	73
Five	4 (24-27)	95	46	10	2	153
Six	30 (28-30)	89	24	5	1	119
Total %age	**30 (1-30)**	**679 (59.5)**	**365 (32.0)**	**84 (7.4)**	**13 (1.1)**	**1141 (100.0)**

Annex 2

Table 2.1: Distribution of Male Population by Age

Zone	No. of Basties	< =5 *yrs*	5-14 *yrs*	15-19 *yrs*	20-35 *yrs*	36-49 *yrs*	50-65 *yrs*	> 65 *yrs*	Total
One	2 (1,2)	26	40	29	51	41	8	-	195
Two	5 (3-7)	71	61	43	263	81	27	2	521
Three	14 (8-21)	214	246	180	515	215	59	10	1439
Four	2 (22,23)	39	43	15	68	29	14	3	211
Five	4 (24-27)	69	62	63	144	64	19	4	425
Six	3 (28-30)	45	69	55	93	59	20	5	346
Total %age	**30 (1-30)**	**464 (14.8)**	**521 (16.6)**	**385 (12.3)**	**1107 (35.3)**	**489 (15.6)**	**147 (4.7)**	**24 (0.8)**	**3137 (100.0)**

Table 2.2: Distribution of Female Population by Age

Zone	No. of Basties	< =5 yrs	5-14 yrs	15-19 yrs	20-35 yrs	36-49 yrs	50-65 yrs	> 65 yrs	Total
One	2 (1,2	20	42	16	40	35	18	2	173
Two	5 (3-7)	44	50	26	99	36	20	3	278
Three	14 (8-21)	227	245	111	325	151	59	9	1127
Four	2 (22,23)	25	36	19	47	22	18	2	169
Five	4 (24-27)	61	55	29	89	42	23	3	302
Six	3 (28-30)	43	47	33	78	50	23	5	279
Total %age	**30 (1-30)**	**420 (18.0)**	**475 (20.4)**	**234 (10.1)**	**678 (29.1)**	**336 (14.4)**	**161 (6.9)**	**24 (1.0)**	**2328 (100.0)**

Table 2.3: Distribution of Persons by Religion

Zone	No of Basties	Hindu	Islam	Others	Total
One	2 (1,2)	368	-	-	368
Two	5 (3-7)	793	-	6	799
Three	14 (8-21)	1273	1225	58	2566
Four	2 (22,23)	265	110	5	380
Five	4 (24-27)	54	167	16	727
Six	3 (28-30)	352	264	9	625
TOTAL %age	**30 (1-30)**	**3595 (65.8)**	**1776 (32.5)**	**96 (1.7)**	**5465 (100.0)**

Table 2.4: Distribution Persons By Caste

Zone	No of Basties	Scheduled caste	Scheduled tribe	Others*	Total
One	2 (1,2)	45	180	143	368
Two	5 (3-7)	148	134	517	799
Three	14 (8-21)	261	164	2142	2566
Four	2 (22,23)	67	144	169	380
Five	4 (24-27)	17	158	552	727
Six	3 (28-30)	60	103	462	625
Total %age	**30 (1-30)**	**597 (10.9)**	**883 (16.2)**	**3984 (72.9)**	**5465 (100.0)**

** others includes OBC*

Table 2.5: Status Of Education (5 + pop)

Zone	No. of Basties	Illiterate	Literate	Primary 1-7	Middle 8-10	Higher Study 10+	Total
One	2 (1,2)	102	62	128	29	1	322
Two	5 (3-7)	162	150	221	125	26	684
Three	14 (8-21)	619	394	771	287	54	2125
Four	2 (22,23)	78	48	135	47	10	316
Five	4 (24-27)	169	105	197	104	22	567
Six	3 (28-30)	143	92	230	65	7	537
Total %age	**30 (1-30)**	**1273 (27.8)**	**849 (18.5)**	**1682 (36.7)**	**657 (14.3)**	**120 (2.6)**	**4581 (100.0)**

Annexure 3

Table 3.1: Occupational Status Of Worker

Zone	No. Of Basties	Self employed	Regular	Casual	Other	Total
One	2 (1-2)	16	84	41	1	142
Two	5 (3-7)	86	257	40	1	384
Three	14 (8-21)	232	576	111	4	923
Four	2 (22-23)	38	89	20	1	148
Five	4 (24-27)	89	176	56	1	322
Six	30 (28-30)	77	107	28	3	215
Total	**30 (1-30)**	**538**	**1289**	**296**	**11**	**2134**
%age		**25.21**	**60.40**	**13.87**	**0.52**	**100.00**

Table 3.2: Distribution of Households by Income

(in Rupees)

Zone	No. of Basties	No Income	Upto 1000	1001-2000	2001-2374	2375	2376-3000	3001-5000	5001-10000	10000+	Total
One	2 (1-2)	1	4	20	4	State Poverty Line	18	27	2	1	77
Two	5 (3-7)	5	6	39	3		34	44	42	16	189
Three	14 (8-21)	17	17	148	25		124	101	78	20	530
Four	2 (22-23)	0	2	14	4		21	22	8	2	73
Five	4 (24-27)	4	9	36	7		32	32	22	11	153
Six	30 (28-30)	6	5	23	5		29	33	16	2	119
Total	**30 (1-30)**	**33**	**43**	**280**	**48**		**258**	**259**	**168**	**52**	**1141**
% age		**(2.89)**	**(3.77)**	**(24.54)**	**(4.21)**		**(22.61)**	**(22.70)**	**(14.72)**	**(4.56)**	**(100.00)**

Table 3.3: Households Accessed Loan

Zone	No. of Basties	Yes	No	Total
One	2 (1-2)	4	73	77
Two	5 (3-7)	5	184	189
Three	14 (8-21)	9	521	530
Four	2 (22-23)	4	69	73
Five	4 (24-27)	8	145	153
Six	3 (28-30)	5	114	119
Total %age	**30 (1-30)**	**35 (3.1)**	**1106 (96.9)**	**1141 (100.0)**

Table 3.4: Purpose of Loan

Zone	No. of Basties	Housing	Income Generation	Health	Social Functions	Other	Total
One	2 (1-2)	1	-	-	2	1	4
Two	5 (3-7)	2	-	-	1	2	5
Three	14 (8-21)	3	-	-	2	4	9
Four	2 (22-23)	1	3	-	-	-	4
Five	4 (24-27)	1	5	-	1	1	8
Six	3 (28-30)	1	2	1	-	1	5
Total %age	**30 (1-30)**	**9 (25.7)**	**10 (28.6)**	**1 (2.9)**	**6 (17.1)**	**9 (25.7)**	**35* (100.0)**

* *1106 did not take any loans.*

Table 3.5: Distribution of Households by Expenditure Range

(in Rupees)

Zone	No. of Basties	<=100	101-500	501-1500	1501-3000	3001-5000	5000+	Not Answered	Total
One	2 (1-2)	Nil	1	14	54	6	2	-	77
Two	5 (3-7)		1	34	98	48	6	2	189
Three	14 (8-21)		1	70	326	115	17	1	530
Four	2 (22-23)		1	11	38	21	2	-	73
Five	4 (24-27)		-	26	91	27	9	-	153
Six	3 (28-30)		-	11	77	25	6	-	119
Total %age	**30 (1-30)**		**4 (0.35)**	**166 (14.55)**	**684 (59.95)**	**242 (21.21)**	**42 (3.68)**	**3 (0.26)**	**1141 (100.00)**

Table 3.6: Expenditure on Food by Households

(in Rupees)

Zone	No. of Basties	< 500	500-1000	1001-2000	2001-4000	4000+	Total
One	2 (1-2)	3	15	48	11	-	77
Two	5 (3-7)	4	62	73	43	7	189
Three	14 (8-21)	14	138	267	100	11	530
Four	2 (22-23)	2	18	32	20	1	73
Five	4 (24-27)	9	39	77	22	6	153
Six	30 (28-30)	1	26	63	25	4	119
Total %age	**30 (1-30)**	**33 (2.9)**	**298 (26.1)**	**560 (49.1)**	**221 (19.4)**	**29 (2.5)**	**1141 (100.0)**

Table 3.7:Expenditure on Basic Services by Households

(in Rupees)

Zone	No. of Basties	<100	100-300	301-500	> 500	Total
One	2 (1-2)	28	23	9	5	65
Two	5 (3-7)	64	89	14	5	172
Three	14 (8-21)	153	232	54	22	461
Four	2 (22-23)	26	28	11	1	66
Five	4 (24-27)	45	72	15	11	143
Six	3 (28-30)	18	62	23	11	114
Total %age	**30 (1-30)**	**334 (32.7)**	**506 (49.6)**	**126 (12.3)**	**55 (5.4)**	**1021 (100.0)**

* *Basic services include water, public toilet, power, drainage and cleaning. 120 (10.5) did not spend anything on basic services.*

Table 3.8: Expenditure on Clothing by Households

(in Rupees)

Zone	No. of Basties	<100	100-500	500-1000	> 1000	Nil	Total
One	2 (1-2)	22	40	3	1	11	77
Two	5 (3-7)	63	100	2	-	24	189
Three	14 (8-21)	149	280	3	3	95	530
Four	2 (22-23)	21	45	2	-	5	73
Five	4 (24-27)	46	87	5	-	15	153
Six	30 (28-30)	33	73	5	-	8	119
Total %age	**30 (1-30)**	**334 (29.3)**	**625 (54.8)**	**20 (1.8)**	**4 (0.4)**	**158 (13.8)**	**1141 (100.0)**

Table 3.9: Expenditure on Health by Households

(in Rupees)

Zone	No. of Basties	<100	101-300	301-500	> 500	Total
One	2 (1-2)	42	18	2	-	62
Two	5 (3-7)	68	44	24	6	142
Three	14 (8-21)	203	138	24	11	376
Four	2 (22-23)	24	21	5	1	51
Five	4 (24-27)	55	45	6	3	109
Six	3 (28-30)	46	28	10	2	86
Total %age	**30 (1-30)**	**438 (53.0)**	**294 (35.6)**	**71 (8.6)**	**23 (2.8)**	**826* (100.0)**

* *315 did not spend anything on health.*

Table 3.10: Expenditure on Rent by Households

(in Rupees)

Zone	No. of Basties	<100	100-500	501-1000	> 1000	Don't know	Total
One	2 (1-2)	-	5	-	-	4	9
Two	5 (3-7)	7	45	20	1	5	78
Three	14 (8-21)	2	156	28	1	15	202
Four	2 (22-23)	1	14	-	-	1	16
Five	4 (24-27)	-	38	7	-	3	48
Six	30 (28-30)	2	17	3	-	3	25
Total %age	**30 (1-30)**	**12 (3.2)**	**275 (72.8)**	**5 8(15.3)**	**2 (0.5)**	**31 (8.2)**	**378* (100.0)**

* *763 did not pay any rent*

Table 3.11: Expenditure On Education By Households

(in Rupees)

Zone	No. of Basties	<100	100-500	500-1000	> 1000	Nil	Total
One	2 (1-2)	8	7	-	-	62	77
Two	5 (3-7)	7	13	1	-	168	189
Three	14 (8-21)	58	47	5	-	420	530
Four	2 (22-23)	10	12	3	-	48	73
Five	4 (24-27)	14	15	3	-	121	253
Six	30 (28-30)	14	13	1	2	89	119
Total %age	**30 (1-30)**	**111 (9.7)**	**107 (9.4)**	**13 (1.1)**	**2 (0.2)**	**908 (79.6)**	**1141 (100.0)**

Table 3.12: Status of Women Headed Household

Status	Number	Percentage
Household don't have male members	22	59.46
Households having male members	15	40.54
Total	**37**	**100.00**

Table 3.13: Income Status of the Households (Women Headed)

Range (in Rupees)	Number of Households	Percentage
<=500	5	13.51
501-1000	8	21.62
1001-1500	4	10.81
1501-2000	12	32.43
2000+	8	21.62
Total	**37**	**100.00**

Annexure 4

A. Water

Table 4.1: Source of Drinking Water

Zone	Basties (No.)	Private Tap	Public Tap	River Canal Stream	Shared Tap	Hand Pump	Others	Total
One	2 (1-2)	30	27	1	3	-	16	77
Two	5 (3-7)	76	77	14	7	-	15	189
Three	14 (8-21)	183	195	60	15	37	40	530
Four	2 (22-23)	38	26	-	3	-	6	73
Five	4 (24-27)	66	64	-	5	-	18	153
Six	3 (28-30)	88	19	-	1	-	11	119
Total %age	**30 (1-30)**	**481 (42.2)**	**408 (35.7)**	**75 (6.6)**	**34 (3.0)**	**37 (3.2)**	**106 (9.3)**	**1141 (100)**

Table 4.2: Supply of Water Per Day

ZONE	No of Basties	Less than 1 hrs.	1 to 5 hrs.	6 to 10 hrs.	11 to 15 hrs.	16 to 20 hrs.	24 hrs.	Don't Know	Total
One	2(1-2)	-	39	14	2	5	-	-	60
Two	5(3-7)	4	129	14	2	1	8	2	160
Three	14(8-21)	51	304	13	-	-	14	11	393
Four	2(22-23)	1	62	2	-	-	-	2	67
Five	4(24-27)	12	120	-	-	-	-	3	135
Six	3(28-30)	1	98	7	-	-	1	1	108
Total %age	**30(1-30)**	**69 (7.5)**	**752 (81.5)**	**50 (5.4)**	**4 (0.4)**	**6 (0.7)**	**23 (2.5)**	**19 (2.1)**	**923 (100.0)**

Table 4.3: Distance of Water Source

Zone	No. of Basties	0 - 5 met.	5 - 10 met.	11 - 20 met.	21 - 25 met.	26 - 30 met.	30+ met	Total
One	2 (1-2)	25	12	7	3	3	-	50
Two	5 (3-7)	52	29	14	3	10	1	109
Three	14 (8-21)	60	95	70	45	76	15	361
Four	2 (22-23)	12	9	4	7	18	2	52
Five	4 (24-27)	34	28	19	3	14	2	100
Six	3 (28-30)	17	6	5	1	3	-	32
Total %age	**30 (1-30)**	**200 (28.4)**	**179 25.4)**	**119 (16.9)**	**62 (8.8)**	**124 (17.6)**	**20 (2.8)**	**704* (100.0)**

* *44 Households (those have shared as well as private tap) also used public tap.*

Table 4.4: Average number of trips a day to get water by Households

Zone	No. of Basties	<5 trip	5-8 trips	10-12 trips	13-15 trips	15+ trips	Total
One	2(1-2)	18	16	6	4	-	44
Two	5(3-7)	54	45	3	2	2	106
Three	14(8-21)	161	151	14	5	1	332
Four	2(22-23)	21	7	3	1	-	32
Five	4(24-27)	37	41	4	-	-	82
Six	3(28-30)	16	12	2	-	-	30
Total %age	**30(1-30)**	**307 (49.0)**	**272 (43.5)**	**32 (5.1)**	**12 (1.9)**	**3 (0.5)**	**626* (100.0)**

* *34 households did not respond*

Table 4.5: Time Spent For Getting Water (Per Trip) By Households

Zone	NO. of Basties	0-5 minutes	> 5 minutes	Total
One	2(1-2)	50	-	50
Two	5(3-7)	108	1	109
Three	14(8-21)	346	15	361
Four	2(22-23)	50	2	52
Five	4(24-27)	98	2	100
Six	3(28-30)	32	-	32
Total %age	**30(1-30)**	**684 (97.2)**	**20 (2.8)**	**704* (100.0)**

* *44 Households (those have shared as well as private tap) also used public tap.*

B. Bathing

Table 4.6: Availability of Bathing Space

ZONE	No. Of Basties	Bathing Location			No Bathroom	Total
		Within Premises	Outside Premises	Both		
One	2(1-2)	42	34	-	1	77
Two	5(3-7)	131	39	2	17	189
Three	14(8-21)	440	42	-	48	530
Four	2(22-23)	50	22	1	-	73
Five	4(24-27)	123	23	-	7	153
Six	3(28-30)	111	7	-	1	119
Total	**30(1-30)**	**897**	**167**	**3**	**74**	**1141**
%age		**(78.62)**	**(14.64)**	**(0.26)**	**(6.49)**	**(100.00)**

C. Toilet

Table 4.7: Accessibility of Toilet Facility by Households

Zone	Toilet				Open Space		Total
	Individual		Community				
	Number of Households	%age	Number of Households	%age	Number of Households	%age	
One	19	3.58	49	12.25	9	4.29	77
Two	105	19.77	59	14.75	25	11.90	189
Three	238	44.82	182	45.50	110	52.38	530
Four	49	9.23	22	5.50	2	0.95	73
Five	69	12.99	58	14.50	26	12.38	153
Six	51	9.60	30	7.50	38	18.10	119
Total %age	**531 (46.54)**	**100.00**	**400 (35.06)**	**100.00**	**210 (18.40)**	**100.00**	**1141 (100.00)**

** 17 households used public toilet even when they had private toilets*

Table 4.8: Distance of Community Toilet

Zone	No. of Basties	<5 mtrs.	5-10 mtrs	Total
One	2(1-2)	29	20	49
Two	5(3-7)	17	47	64
Three	14(8-21)	41	145	186
Four	2(22-23)	7	16	23
Five	4(24-27)	35	23	58
Six	3(28-30)	22	8	30
Total %age	**30(1-30)**	**151 (36.83)**	**259 (63.17)**	**410 (100)**

** 417 (400+17) households used community toilet. Here 7 households did not respond.*

Table 4.9: Time Spent to Use Community Toilet

Zone	No. of Basties	<5 minute	5-10 minute	11 - 15 minute	16 - 20 minute	Total
One	2(1-2)	10	14	18	4	46
Two	5(3-7)	10	18	21	3	52
Three	14(8-21)	51	54	46	14	165
Four	2(22-23)	3	13	6	-	22
Five	4(24-27)	22	13	11	2	48
Six	3(28-30)	8	12	10	1	31
Total %age	**30(1-30)**	**104 (28.57)**	**124 (34.07)**	**112 (30.77)**	**24 (6.59)**	**364* (100.00)**

** 53 households did not respond*

Table 4.10: Mode Of Payments For Use Of Toilets By Households

Zone	No Of Basties	Monthly	Daily	Per Use	Monthly By family	As Per every single use	Don't know	Total
One	2(1-2)	-	-	23	-	20	6	49
Two	5(3-7)	-	-	36	16	12	2	66
Three	14(8-21)	1	6	81	3	87	11	189
Four	2(22-23)	-	-	19	-	2	2	23
Five	4(24-27)	1	4	20	1	31	2	59
Six	3(28-30)	-	-	1	-	4	26	31
Total %age	**30(1-30)**	**2 (0.5)**	**10 (2.4)**	**180 (43.2)**	**20 (4.8)**	**156 (37.4)**	**49 (11.8)**	**417 (100)**

Table 4.11: Availability of Toilet (Male Oriented Households)

Type of Toilet	Number of Households	%age
Individual	74	41.11
Shared	4	2.22
Community	56	31.11
Open space	46	25.56
Total	**180**	**100.00**

D. Drains

Table 4.12: Type Of Drains

ZONE	No. of Bastees	Covered Drains	Open Drains	No Drains	Total
One	2 (1,2)	8	44	25	77
Two	5 (3-7)	128	35	26	189
Three	14 (8-21)	290	121	119	530
Four	2 (22,23)	73	0	0	73
Five	4 (24-27)	114	34	5	153
Six	3 (28-30)	101	13	5	119
Total %age	**30 (1-30)**	**713 (62.5)**	**247 (21.6)**	**181 (15.9)**	**1141 (100)**

Table 4.13: Frequency of Drain Cleaned

Zone	No. of Basties	Daily	Twice A Week	Weekly	Fortng hly	Mont hly	Once In Two Month	After Three Month	Total
One	2(1-2)	17	18	12	8	1	-	-	53
Two	5(3-7)	3	12	27	13	32	27	30	144
Three	14(8-21)	21	19	33	56	75	79	97	380
Four	2(22-23)	1	2	3	5	18	10	27	66
Five	4(24-27)	18	3	4	12	20	14	37	105
Six	3(28-30)	9	5	3	5	13	18	18	71
Total %age	**30(1-30)**	**69 (8.4)**	**56 (6.8)**	**82 (10.0)**	**99 (12.1)**	**159 (19.4)**	**148 (18.1)**	**206 (25.2)**	**819* (100.0)**

* *181 did not have drains and 141 did not respond.*

E. Solid Waste

Table 4.14 Waste Generated (by Households)

ZONE	No. Of Basties	Small Bag	Medium Bag	Large Bag	Total
One	2(1-2)	65	11	1	77
Two	5(3-7)	125	51	13	189
Three	14(8-21)	370	132	28	530
Four	2(22-23)	31	31	11	73
Five	4(24-27)	103	47	3	153
Six	3(28-30)	88	29	2	119
Total %age	**30(1-30)**	**782 (68.5)**	**301 (26.4)**	**58 (5.1)**	**1141 (100.0)**

Table 4.15 : Waste Cleared By

Zone	No. of Basties	Sweeper	In Drain	In Garbage Dump	Thrown Anywhere
1 N=76	2(1-2)	39	2	49	1
2 N=189	5(3-7)	14	6	158	21
3 N=529	14(8-21)	174	35	364	85
4 N= 73	2(22-23)	19	-	54	-
5 N= 151	4(24-27)	6	-	138	8
6 N= 118	3(28-30)	117	14	80	9*
N=1136* %age	**30 (1-30)**	**369 (32.0)**	**57 (5.0)**	**843 (74.2)**	**124 (10.9)**

* *5 did not respond*

Table 4.16: Frequency of Garbage Dump Cleaned

ZONE	No. of Basties	Daily	Twice in a Week	Once a week	Fortnight	Once a month	Once in two month	Total
One	2(1-2)	14	21	12	16	-	-	63
Two	5(3-7)	25	16	26	9	3	1	80
Three	14(8-21)	121	41	42	39	8	5	256
Four	2(22-23)	26	10	4	1	-	-	41
Five	4(24-27)	31	17	16	5	4	2	75
Six	3(28-30)	28	13	11	13	-	-	65
Total		**245**	**118**	**111**	**83**	**15**	**8**	**580***
%age		**42.24**	**20.34**	**19.14**	**14.31**	**2.59**	**1.38**	**100.00**

** 103 did not respond*

F. *Electricity*

Table 4.17: Sources Of Electricity By Households

Zone	No. of Basties .	Metered Connection	Local Taut	Neighbour/ Shared	Direct from Electric Pole	Total
One	2(1-2)	31	-	14	6	51
Two	5(3-7)	41	23	67	1	132
Three	14(8-21)	157	36	237	-	430
Four	2 (22-23)	23	16	15	10	64
Five	4 (24-27)	58	21	56	1	136
Six	3 (28-30)	58	2	52	-	112
Total %age	**30 (1-30)**	**368 (39.9)**	**98 (10.6)**	**441 (47.7)**	**18 (1.8)**	**925* (100.0)**

** 216 did not have electricity*

Table 4.18: Use Of Substitute For Electricity By Households

ZONE	No of Basties	Lantern	Kerosene	Candle	Other	Total
One	2(1-2)	-	23	-	-	23
Two	5(3-7)	5	41	-	-	48
Three	14(8-21)	2	67	2	1	72
Four	2(22-23)	1	6	-	-	7
Five	4(24-27)	-	13	-	-	15
Six	3(28-30)	-	6	-	-	6
Total %age	**30(1-30)**	**8 (4.7)**	**156 (93.0)**	**2 (1.8)**	**1 (0.6)**	**171* (100.0)**

** 45 (20.8) did not respond. 925 (81.1) had electricity.*

Annex 5

A. Women (15-49)

Table 5.1: Age at the time of first marriage

(in year)

Zone	No. of Basties	<=12	13-15	16-17	18-20	21-25	25+	Total
One	2(1-2)	-	18	26	30	5	-	79
Two	5(3-7)	11	32	32	54	9	-	138
Three	14(8-21)	25	100	142	196	27	-	490
Four	2(22-23)	4	18	18	22	7	-	69
Five	4(24-27)	7	14	39	61	13	1	135
Six	3(28-30)	4	23	41	55	5		128
Total	**30(1-30)**	**51**	**205**	**298**	**418**	**66**	**1**	**1039**
%age		**4.91**	**19.73**	**28.68**	**40.23**	**6.35**	**0.10**	**100.00**

* *171 women were unmarried*

Table 5.2: Age at the time of First Pregnancy

(in year)

Zone	No. of Basties	<=12	13-15	16-17	18-20	21-25	25+	Total
One	2(1-2)	Nil	3	23	31	13	1	71
Two	5(3-7)		8	23	54	33	1	119
Three	14(8-21)		20	105	217	88	9	439
Four	2(22-23)		1	23	27	11	1	63
Five	4(24-27)		4	19	65	35	4	127
Six	3(28-30)		11	28	51	19	4	113
Total	**30(1-30)**		**47**	**221**	**445**	**199**	**20**	**932**
%age			**(5.04)**	**(23.71)**	**(47.75)**	**(21.35)**	**(2.15)**	**(100.00)**

Table 5.3: Age at the time of first Delivery

(in year)

Zone	No. of Basties	<=12	13-15	16-17	18-20	21-25	25+	Total
One	2(1-2)	Nil	2	20	32	15	1	70
Two	5(3-7)		4	19	58	35	1	117
Three	14(8-21)		17	90	221	100	9	437
Four	2(22-23)		1	18	31	11	1	62
Five	4(24-27)		2	16	68	35	4	125
Six	3(28-30)		9	22	59	18	4	112
Total %age	**30(1-30)**		**35 (3.79)**	**185 (20.04)**	**469 (50.81)**	**214 (23.19)**	**20 (2.17)**	**923 (100.00)**

Table 5.4: Number of Deliveries (in last one year)

Zone	No. of Basties	Number	%age
One	2(1-2)	6	3.51
Two	5(3-7)	24	14.04
Three	14(8-21)	91	53.22
Four	2(22-23)	12	7.02
Five	4(24-27)	24	14.04
Six	3(28-30)	14	8.19
Total	**30(1-30)**	**171**	**100.00**

Table 5.5: Place of Delivery (in last one year)

Zone	No. of Basties	Govt hospital	Pvt. Hosp/Nurs. home	PHC sub centres	Home	Not Answered	Total
One	2(1-2)	2	-	1	3	-	6
Two	5(3-7)	6	5	-	13	-	24
Three	14(8-21)	19	16	-	55	1	91
Four	2(22-23)	5	-	-	6	1	12
Five	4(24-27)	1	4	-	19	-	24
Six	3(28-30)	4	2	1	7	-	14
Total	**30(1-30)**	**37**	**27**	**2**	**103**	**2**	**171**
%age		**21.64**	**15.79**	**1.17**	**60.23**	**1.17**	**100.00**

Table 5.6: Delivery Assisted by (in last one year)

Zone	No. of Basties	Doctor	ANM/ Nurse	Traditional dai	Relatives/ friends	Total
One	2(1-2)	2	-	1	3	6
Two	5(3-7)	6	5	-	13	24
Three	14(8-21)	20	16	-	55	91
Four	2(22-23)	5	-	1	6	12
Five	4(24-27)	1	4	-	19	24
Six	3(28-30)	4	2	1	7	14
Total	**30(1-30)**	**38**	**27**	**3**	**103**	**171**
%age		**22.22**	**15.79**	**1.75**	**60.23**	**100.00**

Table 5.7: Weight of Child at Birth

(in Grams)

Zone	No. of Basties	<2500	>=2500	Total
One	2(1-2)	6	12	18
Two	5(3-7)	10	27	37
Three	14(8-21)	23	53	76
Four	2(22-23)	3	18	21
Five	4(24-27)	13	22	35
Six	3(28-30)	9	12	21
Total	**30(1-30)**	**64**	**144**	**208**
%age		**30.77**	**69.23**	**100.00**

B. Children Under 5 Years

Table 5.8: Status of Immunisation

Zone	No. of Basties	Fully Immunised	Partially Immunised	Not Immunised	Total
One	2 (1-2)	4	34	-	38
Two	5 (3-7)	7	86	5	98
Three	14 (8-21)	25	317	26	368
Four	2 (22-23)	5	43	-	48
Five	4 (24-27)	19	89	4	112
Six	3 (28-30)	10	61	4	74
Total %age	**30 (1-30)**	**70 (9.5)**	**629 (85.2)**	**39 (5.3)**	**738* (100.0)**

** There were 884 children below the age of 5 years, but we could get detailed data about 738 children.*

Table 5.9: Immunisation Coverage (Multiple Response Table)

Zone	No. of Basties	BCG	DPT1	DPT2	DPT3	OPV1	OPV2	OPV3	Measles
One N=38	2 (1-2)	11	9	7	7	10	8	8	4
Two N=93	5 (3-7)	31	30	21	16	29	22	14	7
Three N=342	14 (8-21)	103	97	69	58	98	74	63	33
Four N=48	2 (22-23)	14	12	11	8	12	10	8	6
Five N=108	4 (24-27)	37	36	29	28	36	30	28	19
Six N=70	3 (28-30)	17	16	13	12	15	12	11	10
Total N=699* %age	**30 (1-30)**	**213 (30.5)**	**200 (28.6)**	**150 (21.5)**	**129 (18.5)**	**200 (28.6)**	**156 (22.3)**	**132 (18.9)**	**79 (11.3)**

** 39 (5.3) children were not immunised by any type.*

Table 5.10: Children Suffered With Diarrhoea (During Last Two Weeks)

Zone	No. of Basties	Yes	No	Don't know	Total
One	2 (1-2)	2	36	-	38
Two	5 (3-7)	12	86	-	98
Three	14 (8-21)	43	322	3	368
Four	2 (22-23)	12	36	-	48
Five	4 (24-27)	12	100	-	112
Six	3 (28-30)	11	63	-	74
Total %age	**30 (1-30)**	**92 (12.5)**	**643 (87.1)**	**3 (0.4)**	**738 (100.0)**

Table 5.11:Children Suffered With Diarrhoea (During Last One Year)

Zone	No. of Basties	Yes	No	Total
One	2 (1-2)	20	16	36
Two	5 (3-7)	17	64	82
Three	14 (8-21)	82	239	321
Four	2 (22-23)	18	22	40
Five	4 (24-27)	21	74	96
Six	3 (28-30)	27	35	62
Total %age	**30 (1-30)**	**185 (29.0)**	**450 (70.6)**	**637* (100.0)**

* *101 did not respond*

Table 5.12: Children Suffered with Fever (During last two weeks)

Zone	No. of Basties	Yes	No	Total
One	2 (1-2)	11	27	38
Two	5 (3-7)	43	55	98
Three	14 (8-21)	126	242	368
Four	2 (22-23)	19	29	48
Five	4 (24-27)	44	68	112
Six	3 (28-30)	27	50	74
Total %age	**30 (1-30)**	**267 (36.2)**	**471 (63.8)**	**738 (100.0)**

Table 5.13: Intakes Given During Diarrhoea (Last Two Weeks) (MRT)

Zone	No. of Basties	Breast milk	Other milk	Gurel	Home fluid	ORS	Water with breast feeding	Water	Other fluids
One N = 2	2 (1-2)	1	1	-	-	-	-	-	-
Two N= 11	5 (3-7)	11	3	2	2	-	2	-	-
Three N= 31	14 (8-21)	21	5	3	3	4	1	5	1
Four N = 10	2 (22-23)	5	1	2	2	-	-	2	-
Five N = 7	4 (24-27)	4	1	2	1	-	1	1	-
Six N = 11	3 (28-30)	8	4	1	1	1	2	3	2
Total N = 72* %age	**30 (1-30)**	**50 (69.4)**	**15 (20.8)**	**10 (13.9)**	**9 (12.5)**	**5 (6.9)**	**6 (8.3)**	**11 (15.3)**	**3 (4.2)**

* 20 did not respond.

Table 5.14: Type Of Learning Centres Attended by Children

Zone	No. of Basties	Anganwadi	Balwadi	Other Govt. School	Pvt. School	Total
One	2 (1-2)	5	5	-	1	11
Two	5 (3-7)	10	5	-	-	15
Three	14 (8-21)	22	13	3	2	40
Four	2 (22-23)	1	3	-	1	5
Five	4 (24-27)	18	8	1	1	28
Six	3 (28-30)	7	6	-	-	13
Total %age	**30 (1-30)**	**63 (56.3)**	**40 (35.7)**	**4 (3.6)**	**5 (4.5)**	**112* (100.0)**

* *636 (84.87) children .did not attend any pre-school*

C. Children 5 to 14 Years

Table 5.15: Number of Children Enrolled in School

Zone	Yes	No	Total
One	70	14	84
Two	95	32	127
Three	442	106	548
Four	83	10	93
Five	101	32	133
Six	119	16	135
Total %age	**910 81.25**	**210 18.75**	**1120 100**

Table 5.16: Children Currently Attending School

ZONE	No. of Basties	Primary (1-5)	Middle (6`-8)	Higher study (9+)	Total
One	2 (1-2)	43	14	5	62
Two	5 (3-7)	60	12	1	73
Three	14 (8-21)	285	76	11	372
Four	2 (22-23)	56	20	1	77
Five	4 (24-27)	59	24	4	87
Six	3 (28-30)	64	35	5	104
Total %age	**30 (1-30)**	**567 (73.2)**	**181 (23.4)**	**27 (3.5)**	**775 (100.0)**

Table 5.17 : Type of School Currently Attending

ZONE	No. of Basties	Local Body (rural)	Local Body (urban)	Other Govt. School	Private	Non formal Education	Balwadi/ Preschool/ Nursery/ Aganwadi	Other Type	Total
One	2 (1-2)	-	46	13	-	1	2	-	62
Two	5 (3-7)	-	39	19	12	-	3	-	73
Three	14 (8-21)	3	98	209	25	1	26	9	372
Four	2 (22-23)	1	24	36	3	1	4	8	77
Five	4 (24-27)	-	38	35	11	-	3	-	87
Six	3 (28-30)	-	45	52	5	-	2	-	104
Total %age	**30 (1-30)**	**4 (0.5)**	**291 (37.5)**	**364 (47.0)**	**56 (7.2)**	**3 (0.4)**	**40 (5.2)**	**17 (2.2)**	**775* (100.0)**

* *135 children dropped out. 210 children were not enrolled*

Table 5.18: Number of Children Dropped Out

Zone	No. of Basties	Primary (1-5)	Middle (6-8)	Higher Studies (9+)	Total
One	2 (1-2)	7	1	-	8
Two	5 (3-7)	13	9	-	22
Three	14 (8-21)	42	24	4	70
Four	2 (22-23)	1	5	-	6
Five	4 (24-27)	7	7	-	14
Six	3 (28-30)	6	9	-	15
Total %age	**30 (1-30)**	**76 (56.3)**	**55 (40.7)**	**4 (3.0)**	**135* (100.0)**

* *775 currently attending school. 210 children were never enrolled.*

Table 5.19: Type of school attended last by drop out

Zone	No. of Basties	Local body	Other Govt.	Private	Non formal Ed.	Balwadi/ Preschool/ Nursery/ Aganwadi	Others	Total
One	2 (1-2)	-	4	3	-	1	-	8
Two	5 (3-7)	6	6	10	-	-		22
Three	14 (8-21)	7	23	37	2	1	-	70
Four	2 (22-23)	1	1	3	-	-	1	6
Five	4 (24-27)	-	2	6	6	-	-	14
Six	3 (28-30)	-	9	5	-	1	-	15
Total %age	**30 (1-30)**	**14 (10.4)**	**45 (33.3)**	**64 (47.4)**	**8 (5.9)**	**3 (2.2)**	**1 (0.7)**	**135 (100.0)**

Table 5.20: Reasons for being dropped out (MRT)

Zone → Reasons ↓	1 N = 8	2 N = 22	3 N = 70	4 N = 6	5 N = 14	6 N = 15	Total N = 135*
School far away	1	4	1	-	-	4	10
No time for school	1	1	6	-	-	-	8
Child works	-	1	2	-	-	1	4
Child unwell	1	3	3	2	-	-	9
School not essential	-	3	1	-	5	-	9
School not necessary for girls	-	3	9	-	-	-	12
Child not interested	3	6	21	4	5	13	52
No Birth Certificate	-	-	-	-	-	1	1
Child scared of school\ teacher	-	1	5	-	-	1	7
Low quality of teaching	-	1	2	-	1	2	6
Other reasons	2	8	25	1	3	5	44

** 210 children were never enrolled. 775 currently attending school.*

Table 5.21: Working Status of the Children

Zone	Paid work outside	%age	Unpaid work outside	%age	Help in HH work	%age	Not Working	%age	Total
One	1	2.44	6	37.50	39	12.00	38	5.15	84
Two	7	17.07	2	12.50	49	15.08	69	9.35	127
Three	18	43.90	5	31.25	141	43.38	384	52.03	548
Four	4	9.76	2	12.50	26	8.00	61	8.27	93
Five	8	19.51	1	6.25	43	13.23	81	10.98	133
Six	3	7.32	0	0.00	27	8.31	105	14.23	135
Total	**41**	**100.00**	**16**	**100.00**	**325**	**100.00**	**738**	**100.00**	**1120**

Table 5.22: Working hours of the children (per week) (Paid and Unpaid Workers)

Zone	No. of Basties	<=5	6-10	11-20	21-35	36-50	51-80	80+	Total
One	2(1-2)	1	1	-	-	1	4	-	7
Two	5(3-7)	1	-	1	1	3	3	-	9
Three	14(8-21)	2	1	-	5	4	6	5	23
Four	2(22-23)	-	1	1	1	-	-	3	6
Five	4(24-27)	1	-	-	3	4	-	1	9
Six	3(28-30)	-	-	-	2	1	-	-	3
Total %age	**30(1-30)**	**5 (8.77)**	**3 (5.26)**	**2 (3.51)**	**12 (21.05)**	**13 (22.81)**	**13 (22.81)**	**9 (15.79)**	**57 (100.00)**

APPENDIX 1

Form 1A : Household information State: ☐☐ Zone: ☐☐ Cluster No. ☐☐ Household No.: ☐☐☐

Address :

Line No.	Please tell me the name of each person who usually lives here and any guest of the household who stayed here last night, starting with the head of the household. *Record Name/Initials*	Is [name] male or female? 1=Male 2=Female	How old was [name] on her/his last birthday? *Record in completed years*	What is the current marital status of [name]? 1.Currently married 2.Widowed 3.Divorced 4.Separated 5.Unmarried	Relationship with the head of the household 1= Self 2= Spouse 3= Son/Daughter 4= Son-in-law/ Daughter-in-law 5= Mother/ Father/ in-laws 6= Brother/Sister 7= Others	FOR ALL PERSONS AGED 5 YEARS AND ABOVE: Can [name] both read and write with under-standing, a short simple sentence? 1. Yes 2. No 3. Only Local language not Hindi 9. Don't know *(If No or DK → column 9)* *	What is the highest grade [name] has completed?	STATUS OF INCOME: Is [Name] getting some income from any source? *1. Yes 2. No*	What is the occupation of [Name]?	Status of occupation? . Self-employed . Regular . Casual . Others	How much income from your all the occupations? **(Record in Rupees)** *(if income is not known please put 9998 code)*
1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5		6	7	8	9	10	11
01		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
02		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
03		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
04		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
05		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
06		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
07		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
08		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
09		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐
10		1 2	☐☐	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 9	☐☐	1 2		1 2 3 4	☐☐☐☐

12 Summary	
A. No. of children below 5 years	☐☐
B. No. of children aged 5 but below 15 years	☐☐
C. No. of women aged 15 but below 50 years	☐☐
D. Total No. of members in the household	☐☐

Line Number of Respondent ..... ☐☐

Record 'Y" if continuation sheet of Form 1 is used : ☐

Interviewer to check :

Just to make sure I have a complete household listing:

1) Is there any other person such as a small child or infant that we have not listed?
2) In addition, is there any other person who may not be member of your family, such as domestic servant, lodger or friend who stayed here last night?
3) Do you have any guests or temporary visitors staying here, or anyone else who stayed here last night? If number of guests are more than 5 then no need to count the guest.

If the answer to any of the above set of questions is YES, please add those persons to the household listing. In case the number of members in the household and guests total more than 10, please use an additional Form 1. Record the state and district codes as well as the cluster and household number. Change the line number from 01 to 11, 02 to 12 etc.

Date of interview: ☐☐/☐☐/ ☐☐☐☐

Name of interviewer: _____

Result of interview

Interviewed.....1
Interviewed after revisit.....2
Not interviewed.....3→record reasons

Record reasons for non-response

Household absent 1
Refused..... 2

* Read & write with understanding a simple sentence in Hindi/ English/ Gujarati/ Marathi.

Name of Supervisor: _____ Sign: _____

Form 1B : Household Information

State: ☐☐ Zone: ☐☐ Cluster: ☐☐ HHno.: ☐☐☐

13 | 1.13 | What is the religion of the head of the HH?

Hinduism 1
Islam 2
Christianity 3
Sikhism 4
Buddhism 5
Jainism 6
Others 7

14 | 1.14 | Does the head of HH belong to scheduled caste or scheduled tribe?

Scheduled caste 1
Scheduled tribe 2
None of the above 3

15 | 1.15 | Type of house?

Pucca 1
Semi Pucca 2
Kutcha 3

16 | 1.16 | Material of the roof of the house?

Grass, leaves, reeds, thatch, wood, mud/unburned bricks or bamboo 1
Tiles, slate or shingle 2
Corrugated iron, zinc or other metal sheets 3
Asbestos cements sheets 4
Bricks, stone and lime 5
Stone 6
Concrete (R.B.C/R.C.C). 7
Others 8

17 | 1.26 | Ownership of house?

Own 1
Rented 2
Owned on government/ private land 3
Others (specify) 4

18 | 1.17 | What is the main source of drinking water for members of your HH?

Tap exclusively to HH ..... 01 ☐
Public tap ..... 02 ☐
Shared tap ..... 03 ☐
Sanitary well ..... 04 ☐
Tubewell with motor ..... 05 ☐
Handpump ..... 06 ☐
River/canal/stream ..... 07 ☐
Tanker/truck ..... 08 ☐
Others ..... 09 ☐
Don't know ..... 99 ☐

19 | 1.40 | Average Number of Hours of water supply in a Day ?

(from tap/pub. tap) ..... ☐☐

20 | 1.41 | Average number of days in a week of water supply?

(days) ..... ☐

21 | 1.18 | Is the source of drinking water within or outside the premises of the HH?

Within the premises of the household ..... 1→27
Outside the premises of the HH 2

22 | 1.19 | How far is the water source from your HH?

Record in meters ..... ☐☐☐

23 | 1.20 | How much time does it take to go there, get water and come back in one trip?

Record in minutes ..... ☐☐☐

24 | 1.27 | How many trips do you need to take every day ?

In summer ..... ☐☐
In Winter ..... ☐☐

25 | 1.28 | How much water do you use every day (in bucket of 15 litres) for HH chores?

Record in numbers ..... ☐☐

26 | 1.29 | How much water for drinking and cooking you need a day (in buckets of 15 litres)?

Record in numbers ..... ☐☐

27 | 1.30 | Do you find the water safe?

Yes 1
No 2

28 | 1.21 | Do you have toilet facility?

Yes 1
No ..... 2→32

29 | 1.22 | Is this toilet within your household, yard or compound?

Yes 1
No ..... 2→32

30 | 1.23 | Is this toilet used exclusively by the household?

Yes 1
No ..... 2→32

31 | 1.24 | Who paid for the construction of the toilet?

Entirely by the household 1
Partly by household and partly by government or an agency 2
Material supplied by government or an agency and labour by the household 3
Entirely by government or an agency 4
Shared by some HHS 5
Others (specify) 6
Don't know 9

32	1.25	**In your household, how does one dispose the stools of young children under 3 years?** Children always use toilet/latrine.....a Thrown in the toilet/latrine.....b Thrown outside the compound.....c Thrown in the yard.....d Children defecate in the drain.....e Others.....f No young children under 3 years in the household.....g	38	1.36	**Do you pay for the use of community toilet?** - Monthly.....1 - Weekly.....2 - Daily.....3 - Per use.....4 - Monthly for the whole family.....5 - Per use by all individuals.....6 - Per use by only men.....7 - Community toilet not used.....99
33	1.31	**Is there any community toilet which you use?** Yes.....1 No.....2→39	39	1.37	**In your household is there any bathing space?** Yes.....1 No.....2→42
34	1.32	**If it is a community toilet ?** - how many seats: Men.....☐☐ Women.....☐☐	40	1.38	**Where is the bathing space?** - Inside the premises.....1 - Outside the premises.....2 - Both.....3
35	1.33	**If it is a community toilet, how far is the toilet from your HH?** Record in meters:.....☐☐	41	1.39	**Bathing space used by women and children?** - Inside the premises.....1 - Outside the premises.....2 - Both.....3
35a		**Is the toilet connected to Sewerage system?** Yes.....1 No.....2			
36	1.34	**How much time do you have to wait on an average for the use of toilet?** (Record in minutes) Men.....☐☐ Women.....☐☐			
37	1.35	**In your family who use the community toilet regularly?** Men.....a Women.....b Children.....c All.....d Some family members.....e			

5/29/00

Form 1C : Household Information

State: ☐☐ Zone: ☐☐ Cluster: ☐☐ HH No.: ☐☐☐

42 1.41 **What is your monthly expenditure (in Rupees) on :**

Rent..... ☐☐☐☐

Food..... ☐☐☐☐

Clothing..... ☐☐☐☐

Education..... ☐☐☐☐

Health..... ☐☐☐☐

Others (specify) ..... ☐☐☐☐

43 1.42 **What is monthly household expenditure (in Rupees) on basic services:**

Water..... ☐☐☐

Community Toilet..... ☐☐☐

Sweeping/waste collection..... ☐☐☐

Electricity..... ☐☐☐

Others (specify) ..... ☐☐☐

44 1.40 **What is your total monthly household expenditure?**

Record in Rupees..... ☐☐☐☐

45 1.43 **Have you taken any loan?**

Yes.....1

No.....2 →End

46 1.44 **From whom you have taken the loan ?**

Bank/ govt. agency ..... a

Moneylender..... b

Neighbour/relative..... c

Co-operative societies..... d

Informal societies ..... e

Any other ..... f

47 1.45 **Why have you taken loan?**

Shelter.....a

Upgrading services.....b

For Income Generating activities.....c

Health.....d

Marriage/ social functions.....e

Disasters.....f

Others (specify).....g

48 1.46 If upgrading services specify the nature of services which was upgraded?:

Water..... ☐

Toilet..... ☐

Electricity..... ☐

49 1.47 **If it is water:**

Household tap connection 1

Installed water booster..... 2

Dug Handpump/Borewell..... 3

Any other..... 4

Amount Spent(in Rs.) ..... ☐☐☐☐

50 1.48 **If it is toilet facility:**

Built a household toilet with septic tank 1

Built a household toilet with sewerage connection.... 2

Any other..... 3

Amount Spent (in Rs.) ..... ☐☐☐☐

51 1.49 **If it is a Electricity:**

Get a meter connection..... 1

Get electricity..... 2

Amount Spent (in Rs.) ..... ☐☐☐☐

05/29/00

State: ☐☐ Zone: ☐☐ Cluster: ☐☐ HH No.: ☐☐☐

Form 1D: Household (Solid Waste)

Result code
Completed 1
Completed after revisit 2
Household absent 3
Refused 4

135 6.01 **How much waste do you generate every day?**

Small polythene bag 1
Medium Polythene bag 2
Large polythene bag 3

136 6.02 **What do you do with the waste?**

Sweeper collects ..... a
Throw in drain ..... b
Throw in the garbage dump c
Throw anywhere ..... d

137 6.03 **Does the sweeper come?**

Daily 1
Once in two days 2
Once in three days (twice a week) 3
Weekly 4
Irregular/ once in a while 5
No practice of sweeper ..... 6→ 142

138 6.04 **Is this a municipal/private sweeper ?**

A Municipal Sweeper 1

A paid sweeper – private 2

139 6.05 **Where does the sweeper throw the garbage?**

Garbage dump 1
Load to the truck 2
Any where 3
Do not know 4

140 6.06 **How often is the garbage dump cleaned?**

Daily 1
Twice a week 2
Once a week 3
Fortnightly 4
Monthly 5
Once in two months 6
After three months 7
Do not know 8

141 6.07 **Do you separate waste into?**

Biodegradable 1
Non niodegradable 2
Do not separate 3

Liquid waste

142 6.08 **Are there drains in the community?**

Yes 1

No ..... 2→150

143 6.09 **What % of area do they cover (mark on resource map)?**

144 6.10 **Are the drains covered?**

Yes 1
No 2

145 6.11 **How often are they cleaned?**

Daily 1
Twice a week 2
Weekly 3
Fortnightly 4
Monthly 5
Once in two months 6
After three months 7

146 6.12 **Who cleans them?**

Municipal sweeper 1

Private Sweeper 2

Others (by themselves) 3

147 6.13 **Do children defecate in them?**

Yes 1

No 2

148 6.14 **Do people throw garbage in them?**

Yes 1

No 2

149 6.15 **Are they connected to main drain?**

Yes 1

No 2

150	6.16	**Do you have metered connection for electricity?** Yes.....1 No.....2→153
151	6.17	**Do you receive a bill on your name?** Yes.....1 No.....2
152	6.21	**For how much time you get electricity per day?** In hours..... ☐☐
153	6.18	**If it tapped electricity, is it from?** Local tout.....1 Neighbour.....2 Himself/themselve 3
154	6.19	**Do you pay for that?** Yes .....1 No 2
155	6.20	**How much do you pay per month?** **Record in Rs. .....** ☐☐☐
156	6.22	**What do you use in place of electricity?** Lantern.....1 Kerosene lamp .....2 Candle.....3 Any other (specify) 4

Form 2 : Children under age 5 years

State: ☐☐ Zone: ☐☐ Cluster: ☐☐ HH No.: ☐☐☐

			1	2	3	4
		Child Line Number (as in Form 1A)	☐☐	☐☐	☐☐	☐☐
52	2.01	**Name of the child** (as in Form 1A)				
53	2.02	**Sex of the child** (as in Form 1A) 1. Male 2. Female	1 2	1 2	1 2	1 2
54		**Respondent's Line Number** (as in Form 1A)	☐☐	☐☐	☐☐	☐☐
		Result code 1. Completed 2. Completed after revisit 3. Respondent absent 4. Refused	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
55	2.06	**What is the date of birth of [name]?** DAY MONTH YEAR	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐
56	2.07	**How old is [name]?** **Record in months**	☐☐	☐☐	☐☐	☐☐
57	2.08	**Was [name] weighed at birth?** 1. Yes 2. No 9. Don't know	1 2→59 9→59	1 2→59 9→59	1 2→59 9→59	1 2→59 9→59
58	2.09	**How much did [name] weigh at birth?** *(1.From card 2.From recall 9.Don't know)* **RECORD WEIGHT IN GRAMS**	1 2 9 ☐☐☐☐	1 2 9 ☐☐☐☐	1 2 9 ☐☐☐☐	1 2 9 ☐☐☐☐
59	2.10	**Check Q.56 and mark:** 1. Age less than 24 months →60 2. Age 24 months and more →62	1 2	1 2	1 2	1 2
60	2.21	**Circle code 1 if immunization has been given and code 2 if not given and code 9 if don't know. Copy vaccination dates from card for each vaccine. If no card is available, ask relevant questions and enter dates.**				
		1. BCG	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		2. DPT	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		3. DPT 2	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		4. DPT 3	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		5. OPV 1	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		6. OPV 2	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐

		7. OPV 3	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		8. MEASLES	1 2 9	1 2 9	1 2 9	1 2 9
		DAY/MONTH	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
		YEAR	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
61	2.29	**Was [name] given Vitamin A supplement when she/he was between 9 and 12 months?** 1. Child under 9 months 2. Yes, along with measles vaccination 3. Yes, but separately 4. No 9. Don't know	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9
62	2.30	**In the last two weeks, that is, since _____ (day) of the week before last, has [name] been ill with fever?** 1. Yes 2. No 9. Don't know	 1 2→65 9→65	 1 2→65 9→65	 1 2→65 9→65	 1 2→65 9→65
63	2.31	**Did [name] take any anti-malaria drugs for the fever?** 1. Yes 2. No 9. Don't know	 1 2 9	 1 2 9	 1 2 9	 1 2 9
64	2.32	**Was blood smear recommended or taken?** 1. Recommended and taken 2. Recommended but not taken 3. Taken, but was not recommended 4. Neither recommended nor taken 9. Don't know	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9
65	2.33	**Has [name] had an illness with cough at any time in the last two weeks, that is, since_____ (day) of the week before last?** 1. Yes 2. No 9. Don't know	 1 2→68 9→68	 1 2→68 9→68	 1 2→68 9→68	 1 2→68 9→68
66	2.34	**When [name] had an illness with cough, did she/he breathe faster than usual with short, quick breaths?** 1. Yes 2. No 9. Don't know	 1 2 9	 1 2 9	 1 2 9	 1 2 9
67	2.35	**When [name] had illness with cough, did you observe any chest indrawing?** *Use local term* 1. Yes 2. No 9. Don't know	 1 2 9	 1 2 9	 1 2 9	 1 2 9
68	2.36	**Has [name] had diarrhoea in the last 2 weeks, that is, since _____ (day) of the week before last?** 1. Yes 2. No 9. Don't know	 1 2→71 9→71	 1 2→71 9→71	 1 2→71 9→71	 1 2→71 9→71
69	2.37	**During this episode of diarrhoea, did [name] drink any of the following?** *Read out every item and record* **(1. Yes 2. No 9. Don't know)** a. Breastmilk b. Other milk or infant formula c. Cereal-based gruel or gruel made from roots or soup d. Other locally-defined acceptable home fluids (e.g. SSS, yogurt drink) e. ORS packet solution f. Water with feeding during some part of the day g. Water alone h. Defined "unacceptable" fluids (e.g. cola etc.)	 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9	 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9	 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9	 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9

70	2.38	**During this episode of diarrhoea, was [name] <u>offered</u> anything to drink everyday?** IF YES : **Was she/he offered the same amount of liquids to drink as usual before the diarrhoea, or more, or less than before?** 1. None 2. Less (<75%) 3. Same 4. More 9. Don't know	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9
71	2.39	**Check Q.62, Q.65 and Q.68 and mark:** 1. Yes in either Q.62 or Q.65 or Q.68 2. Other	 1 2→78	 1 2→78	 1 2→78	 1 2→78
72	2.40	**During the episode of fever/cough/diarrhoea that [name] suffered during the last 2 weeks, did she/he <u>drink</u> much less, about the same or more than usual?** 1. None 2 Much less 3. About the same 4. More 9. Don't know	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9	 1 2 3 4 9
73	2.41	**During the episode of fever/cough/diarrhoea that [name] suffered during the last 2 weeks, did she/he eat less, about the same or more food than usual?** IF LESS : **Much less or somewhat less?** 1. None 2. Much less (<75%) 3. Somewhat less (75-100%) 4. About the same 5. More 9. Don't know	 1 2 3 4 5 9	 1 2 3 4 5 9	 1 2 3 4 5 9	 1 2 3 4 5 9
74	2.42	**During the episode of fever/cough/diarrhoea that [name] suffered during the last 2 weeks, did you seek advice or treatment outside the home?** 1. Yes 2. No 9. Don't know	 1 2→78 9→78	 1 2→78 9→78	 1 2→78 9→78	 1 2→78 9→78
75	2.43	**Where did you seek advice or treatment from?** **Record all providers mentioned** Hospital Primary Health Center/MCH clinic Dispensary Mobile/outreach clinic Private physician Sub-centre/ANM/Male Health Worker CHG/AWW Chemist/Drug seller Fair Price Shop Traditional healer Relative or friend Other	 a b c d e f g h i j k l	 a b c d e f g h i j k l	 a b c d e f g h i j k l	 a b c d e f g h i j k l
76	2.44	**Were you advised to give a packet of ORS?** 1. Yes 2. No 9. Don't know	 1 2 9	 1 2 9	 1 2 9	 1 2 9
77	2.45	**Was [name] given ORS?** 1. Yes 2. No 9. Don't know	 1 2 9	 1 2 9	 1 2 9	 1 2 9
78	2.46	**Check Q.68 Q.74 and mark:** 1. Yes in both Q.68 and Q.74 2. Other	 1→84 2	 1→84 2	 1→84 2	 1→84 2
79	2.47	**During the last 1 year and before last two weeks, did [name] suffer from diarrhoea?** 1. Yes 2. No 9. Don't know	 1 2→84 9→84	 1 2→84 9→84	 1 2→84 9→84	 1 2→84 9→84
80	2.48	**Last time when [name] had diarrhoea, did you seek advice or treatment from someone outside the home?** 1. Yes 2. No 9. Don't know	 1 2→84 9→84	 1 2→84 9→84	 1 2→84 9→84	 1 2→84 9→84

81	2.49	**Where did you seek advice or treatment from?** *Record all providers mentioned.* a) Hospital b) Primary Health Center/MCH clinic c) Dispensary d) Mobile/outreach clinic e) Private physician f) Sub-centre/ANM/Male Health Worker g) CHG/AWW h) Chemist/Drug seller i) Fair Price Shop j) Traditional healer k) Relative or friend/ neighbour l) Others	a b c d e f g h i j k l	a b c d e f g h i j k l	a b c d e f g h i j k l	a b c d e f g h i j k l
82	2.50	**Were you advised to give a packet of ORS?** 1. Yes 2. No 9. Don't know	1 2 9	1 2 9	1 2 9	1 2 9
83	2.51	**Was [name] given ORS?** 1. Yes 2. No 9. Don't know	1 2 9	1 2 9	1 2 9	1 2 9
84	2.52	**Sometimes children have severe illnesses and should be taken immediately to a health facility. What types of symptoms would cause you to take your child to a health care facility right away?** *Do not prompt - keep asking for more signs/symptoms until the caretaker cannot recall any additional ones.* 1. Child not able to drink or breastfeed 2. Child becomes sicker 3. Child develops a fever 4. Child has fast breathing 5. Child has difficult breathing 6. Child has blood in stool 7. Child is drinking poorly 8. Others	a b c d e f g h	a b c d e f g h	a b c d e f g h	a b c d e f g h
85	2.61	**Has (name) had Jaundice (use local name) in the last three months?** 1. Yes 2. No 9. Don't know	1 2 9	1 2 9	1 2 9	1 2 9
86	2.62	**Has (name) had typhoid (use local name) in the last three months?** 1. Yes 2. No 9. Don't know	1 2 9	1 2 9	1 2 9	1 2 9
87	2.63	**Has (name) had any skin disease (use local name) in the last three months?** 1. Yes 2. No 9. Don't know	1 2 9	1 2 9	1 2 9	1 2 9
88	2.53	**Check Q.56 and mark:** 1. Age less than 24 months 2. Age 24 months and more	1→End 2	1→End 2	1→End 2	1→End 2
89	2.54	**Does [name] attend any organized learning by way of anganwadi centre, nursery, pre school, or any other early childhood education programme?** 1. Yes 2. No 9. Don't Know	1 2 9	1 2 9	1 2 9	1 2 9
90	2.55	**Which kind of learning center does [name] go to?** 1. Anganwadi centre 2. Balwadi/ECD centre 3. Other government pre-school 4. Private nursery pre-school	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Form 3 : Children age 5 to 14 years

State: ☐☐ Zone: ☐☐ Cluster: ☐☐ HH No.: ☐☐☐

			1	2	3	4
Child Line Number		**(as in Form 1A)**	☐☐	☐☐	☐☐	☐☐
91	3.01	**Name of the child** **(as in Form 1A)**				
92	3.02	**Sex of the child** **(as in Form 1A)** 1. Male 2. Female	1 2	1 2	1 2	1 2
Respondent's Line Number		**(as in Form 1A)**	☐☐	☐☐	☐☐	☐☐
Result code 1. Completed 2. Completed after revisit 3. Respondent absent 4. Refused			1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
93	3.03	**What is the date of birth of [name]?** DAY MONTH YEAR	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐
94	3.04	**How old is [name]?** RECORD IN YEARS	☐☐	☐☐	☐☐	☐☐
95	3.11	**Did [name] do any kind of work for someone who is not a member of the household, during the past week?** 1. Yes, for pay 2. Yes, unpaid 3. No 9. Don't Know	1 2 3→97 9→97	1 2 3→97 9→97	1 2 3→97 9→97	1 2 3→97 9→97
96	3.12	**Since last** (day of the week), **about how many HOURS did [name] do this work for someone outside this household?**	☐☐	☐☐	☐☐	☐☐
97	3.13	**Does [name] regularly help with household chores/house keeping at home, such as cooking, shopping, cleaning, washing clothes, fetching water, or caring for children?** 1. Yes 2. No 9. Don't know	1 2→99 9→99	1 2→99 9→99	1 2→99 9→99	1 2→99 9→99
98	3.14	**Since last** (day of the week), **about how many HOURS did [name] spend doing these chores?**	☐☐	☐☐	☐☐	☐☐
99	3.15	**Does [name] regularly do any other family work?** 1. Yes 2. No 9. Don't know	1 2→101 9→101	1 2→101 9→101	1 2→101 9→101	1 2→101 9→101
100	3.16	**Since last** (day of the week), **about how many HOURS did [name] do this work?**	☐☐	☐☐	☐☐	☐☐
101	3.17	**Has [name] ever attended school?** 1. Yes 2. No 9. Don't know	1 2→109 9→109	1 2→109 9→109	1 2→109 9→109	1 2→109 9→109
102	3.18	**Is [name] currently attending school?** 1. Yes 2. No 9. Don't know	1 2→107 9→107	1 2→107 9→107	1 2→107 9→107	1 2→107 9→107
103	3.19	**Which grade is [name] currently attending?** *Record grade.* *If Preschool record '44'. If Vedic, Quranic or other traditional studies record '55'*	☐☐	☐☐	☐☐	☐☐
104	3.20	**What is the type of school that [name] is attending?** 1. Local bodies – rural 2. Local bodies – urban 3. Other government school 4. Private school 5. Non formal education 6. Balwadi/Preschool/Nursery/Anganwadi 7. Others	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

105	3.21	**In the last 3 school working days, how many days did [name] attend the school?** 1. 1 days 2. 2 day 3. 3 days 4. 0 days	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
106	3.22	**Check Q.102 and mark:** 1. If Yes 2. Other	1→End 2	1→End 2	1→End 2	1→End 2
107	3.23	**Which grade did [name] attend last? Record grade**	☐☐	☐☐	☐☐	☐☐
108	3.24	**What is the type of school that [name] attended last?** 1. Local bodies – rural 2. Local bodies – urban 3. Other government school 4. Private school 5. Non formal education 6. Balwadi/preschool/nursery/Anganwadi 7. Others	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
109	3.25	**Why did [name] drop out or never attended school?** **Record all reasons mentioned** a) School far away (inaccessible) b) Time of school inconvenient c) No time for school, child busy with household work d) Child busy with wage labour e) Child unwell/sick f) Child is disabled g) Did not consider schooling important h) School not necessary for girls i) Child not interested j) Birth certificate not available k) Child scared of school/teacher l) Quality of schooling very poor m) Teacher comes rarely or does not come at all n) Caste factor o) Others	a b c d e f g h i j k l m n o	a b c d e f g h i j k l m n o	a b c d e f g h i j k l m n o	a b c d e f g h i j k l m n o

Form 4 : Women age 15 to 49 years

State: ☐☐ **Zone:** ☐☐ **Cluster:** ☐☐ **HH No.:** ☐☐☐

			1	2	3	4
Woman Line Number (as in Form 1A)			☐☐	☐☐	☐☐	☐☐
110	4.01	**Name of the woman** (as in Form 1A)				
Result code 1. Completed 2. Completed after revisit 3. Respondent absent 4. Refused			1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
111	4.02	**How old were you at the time of your last birthday?** *Record in years*	☐☐	☐☐	☐☐	☐☐
112	4.03	**WHAT IS YOUR CURRENT MARITAL STATUS?** 1. Currently married 2. Widowed 3. Divorced 4. Separated 5. Married but gauna not performed 6. Unmarried	1 2 3 4 5→End 6→End	1 2 3 4 5→End 6→End	1 2 3 4 5→End 6→End	1 2 3 4 5→End 6→End
113	4.04	**What was your age at the time of your (first) marriage?** *Record in years*	☐☐	☐☐	☐☐	☐☐
114	4.05	**Did you ever become pregnant?** 1. Yes 2. No	1 2	1 2	1 2	1 2
115 *	4.06	**What was your age at the time of your first pregnancy?** *Record in years*	☐☐	☐☐	☐☐	☐☐
116	4.07	**What was your age at the time of your first delivery?** *Record in years*	☐☐	☐☐	☐☐	☐☐
117 **	4.08	**HOW MANY PREGNANCIES, IN TOTAL, DID YOU HAVE?**	☐☐	☐☐	☐☐	☐☐
118	4.09	**How many children, in total, did you give live birth to?** 1. Male 2. Female 3. Total	☐☐ ☐☐ ☐☐	☐☐ ☐☐ ☐☐	☐☐ ☐☐ ☐☐	☐☐ ☐☐ ☐☐
119	4.10	**How many children, in total, are currently surviving?** 1. Male 2. Female 3. Total	☐☐ ☐☐ ☐☐	☐☐ ☐☐ ☐☐	☐☐ ☐☐ ☐☐	☐☐ ☐☐ ☐☐
120	4.11	**Did you deliver in the last one year?** 1.Yes 2.No	1 2→130	1 2→130	1 2→130	1 2→130
121	4.12	**In which day, month and year did you deliver last?** DAY MONTH YEAR	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐	☐☐ ☐☐ ☐☐☐☐
122	4.13	**What was the outcome of your last delivery?** 1. Live birth 2. Still birth	1 2→126	1 2→126	1 2→126	1 2→126
123	4.14	**What was the sex of the baby?** 1. Male 2. Female	1 2	1 2	1 2	1 2

* *If it is first pregnancy and not deliver then switch over → 130.*

** *If there are more than one pregnancies and not deliver then also switch over → 130*

			1	2	3	4
124	4.15	**Where is the child now?** 1. Alive 2. Dead	1→126 2	1→126 2	1→126 2	1→126 2
125	4.16	**How old was the child at the time of death?** *Record in months*	☐☐	☐☐	☐☐	☐☐
		Reason of death				
126	4.17	**Did you undergo any antenatal check-up during your last pregnancy?** 1. Yes 2. No	1 2	1 2	1 2	1 2
127	4.29	**Where did you have your last delivery?** 1. Government hospital 2. Private hospital/ nursing home 3. PHC/Sub-centre 4. Home 5. Others	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
128	4.30	**Who assisted you during your last delivery? Circle all answers** a) Doctor b) ANM/Nurse c) Traditional Dai d) Relatives/Friends e) No one	a b c d e	a b c d e	a b c d e	a b c d e
129	4.31	**Was the delivery normal?** 1. Yes 2. No, caesarian section 3. No, blood transfusion was given 4. No, other interventions	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
130	4.36	**Check Q.112 and mark:** 1. Currently married 2. Other	1 2	1 2	1 2	1 2
131	4.38	**Now I like to ask you about the hand washing practices in your household.** **To keep our body clean we take bath daily, what are the occasions when you wash your hands?** *Do not prompt.* **(1.Before 2.After 3.Both before & after)** a) Eating b) Serving food c) Feeding child d) Cooking e) Defecation f) Cleaning child's stools g) Disposing child's stool	1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3	1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3	1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3	1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

STATE: ☐☐ ZONE: ☐☐ CLUSTER: ☐☐ HH No.: ☐☐☐

Form 5 : Household Observation

		Result code Completed ..... 1 Completed after revisit ..... 2 Household absent ..... 3 Refused 4
132	5.01	**We would like to check whether the salt used in your household is iodized.** **May I see a sample of the salt used to cook the main meal eaten by members of your household last night?** **Record test outcome as per code** Iodized ..... 1 Not iodized ..... 2 No salt at home ..... 3 Salt not tested 4
133	5.02	**Check Q. 38 of Form 1B** If Yes ..... 1 If no 2
134	5.03	**Type of toilet facility used by your household** *Investigator to observe and fill* Flush to sewage system on septic tank ..... 1 Pour flush (water seal) type ..... 2 Improved pit (e.g. VIP) ..... 3 Simple pit ..... 4 Service/bucket type ..... 5 No toilet 9

APPENDIX 2

Classification of Occupations

1. Self-employment	
	Self-employment (modern)
111	Autoriksha
112	Soap worker
113	Scrap
114	Tempo
115	Tutions
116	Watch repair
117	WC cleaner
118	Wood sale
119	Contractor
120	Coolie/hamali
121	Cycle repair
122	Electric work
123	Lorry
124	Mechanic
125	Pipe work
126	Rag picker
128	Lathe Machine
129	Lace making
130	Packing
	Self-employment (traditional)
131	Bharatkam
132	Khatik
133	Bangle Making
134	Luharikam
135	Mali kam
136	Mason work/Kadiyakam
137	Pilo work
138	Potter
139	Prepare bedi
140	Tailoring
141	Bobinworker
141	Thief
142	Husbandry
143	Barber
144	Cloth iron/ironing/laundry
145	Basket Maker
146	Bangle Sale
147	Broom maker
148	Carpenter
149	Cart
150	Coblar
151	Fisherman

	Self-employment (other)
161	Business
162	Chasma shop
163	Flower shop
164	Grocery shop
165	Hotel
166	Dairy
168	Home industry
171	Chatai sale
	Self-employment (salesmen)
172	Cloth sale
173	Goods sale
174	Chemical sale
175	Old cloth sale
176	Sale toys
177	Salesman
	Self-employment (food sellers)
181	Cold drink sale/ Selling icecream
182	Dalmuth sale
183	Fruit seller
184	Fish sale
185	Masala sale
186	Nuts sale
187	Salt seller
189	Vegetable seller/green seller
	Self-employment (handcart: *lari*)
191	Lari/Galla
192	Pani-puri lari
192	Tea lari
194	Vada lari
195	Kerosene Lari
196	Pan stall
2. Regular job	
	Regular job (govt., semi-govt.)
201	Conductor
202	Fireman
203	Guard
204	Govt. service
205	Nurse
206	SMC service
206	SMC sweeper
207	Supervisor
208	Tele dept.
209	Dalal SMC servant

	Regular job (textile)
210	Looms operator
211	Sari work
212	Beem
213	Cloth colouring
215	Cloth shop
216	Color lab
217	Colour work
218	Cutting cloth
219	Design master
220	Dyeing & printing
221	Factory worker
222	Handloom
223	Machine operator
	Regular job (other industries)
224	Printing mill
225	Winding job
226	Saree printing
227	Service in mill
228	Testing
229	Textile related
230	Textile shop job
231	Warping
232	Cloth work
	Regular job (other sector)
241	Job/Private service
242	Cable
243	Hawker
244	Chicken centre
245	Helper
246	Compounder
247	AutoDriver
248	News paper
249	Diamond worker
250	Misc work
250	Working in the shop
251	Maid
252	Liftman
253	Garage
254	Door keeper
254	Mess
255	Photo shop
256	Lining work
257	Machine man
258	Saree shop job
259	Fitter
260	Shopwork
261	Talkies operator

262	Teacher
267	Tele. booth
268	Peon
269	Tempo driver
270	Worker
272	Manager
273	Welding
274	Wood factory
275	Watchman
276	Cooking
278	Gardener
280	Safai kamdar
290	Sweeper
3. Casual work	
310	Casual labour
320	Farming
330	Handwork
340	Jariwork
360	Road work
370	Scarf cutting
380	Statue maker
390	Tempo helper
391	Truck driver assistant
4. Other occupation	
410	Anganwadi workers
420	Social worker
430	Retired
440	Rent
450	Pension
460	Band
470	Begger