# POVERTY MAPPING

## *A Situation Analysis of Poverty Pockets in Indore*

UN-HABITAT

INDORE MUNICIPAL CORPORATION

WaterAid

# Foreword

The Government of Madhya Pradesh has accepted the Municipal Action Plan for Poverty Reduction (MAPP) as an instrument for slum level intervention. A city wide poverty mapping exercise for identifying the poor and creating a data base of their condition is a primary requirement for this purpose.

I am happy to learn that on the request of Government of Madhya Pradesh, UN-HABITAT and Water Aid India in Partnership with our Municipal Corporation has for the first time carried out a city wide Poverty Pocket Situational Analysis (PPSA) for mapping the poverty and environmental infrastructural deficiencies in each poverty pocket for prioritizing interventions in our cities in Madhya Pradesh. This survey assumes greater significance for the reason that it takes into account all poverty pockets of the city instead of only those slums that exist in municipality records. This has resulted in the identification of a large number of Poverty Pockets which are still not notified and presently therefore not entitled for municipal services provisions. There is a large concentration of the poor in these areas, which underscores the importance of formalizing the non-notified and the urgent need to take the facilities and entitlements to the large concentrations of poor in these pockets.

It is understood that this survey is part of the Slum Environment Sanitation Initiative (SESI), jointly implemented by UN-HABITAT under its Water for Asian Cities Programme, along with Water Aid India, its local counterpart NGO and our city Municipal Corporation. The overall purpose of this project is to demonstrate and develop approaches for slum improvement (with focus on water, sanitation and hygiene education), which could influence investments in these areas resulting in access to services for the marginalized. The PPSA will serve as a very useful planning tool for the preparation of proposals under the Integrated Housing & Slum Development Programme of Government of India as well as for preparing the Municipal Action Plan for Poverty Reduction (MAPP).

On behalf of our Municipal Corporation, I reaffirm our commitment to extend all possible cooperation to the collaborative efforts of UN-HABITAT and Water Aid India for making interventions in selected poverty pockets totaling five thousand households in our city with a target of achieving zero open defecation in these selected pockets. It is my hope that this tool, lessons learnt and the follow up interventions will be an eye opener for the citizens of the city and thus help promote the full and active participation of all stakeholders in the attainment of the Millennium Development Goal 7, target 10 of halving by 2015 the proportion of people without sustainable access to drinking water and basic sanitation.

Dr. UMA SHASHI SHARMA
Mayor
Indore

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# ABBREVIATIONS

| | | |
|---|---|---|
| ADB | : | Asian Development Bank |
| BPL | : | Below Poverty Line |
| DFID | : | Department for International Development |
| FGDs | : | Focus Group Discussions |
| GoI | : | Government of India |
| GoMP | : | Government of Madhya Pradesh |
| IMC | : | Indore Municipal Corporation |
| HH | : | Households |
| ICDS | : | Integrated Child Development Services |
| MDGs | : | Millennium Development Goals |
| MDM | : | Mid-Day Meals |
| MP | : | Madhya Pradesh |
| MoU | : | Memorandum of Understanding |
| NGO | : | Non Government Organisation |
| PP | : | Poverty Pockets |
| PLA | : | Participatory Learning and Action |
| PPSA | : | Poverty Pocket Situation Analysis |
| SSEI | : | Slums Environmental Sanitation Initiative |
| ULBs | : | Urban Local Bodies |
| UPAI | : | Urban Poverty Alleviation Initiatives |
| UN-HABITAT | : | United Nations Human Settlements Programme |
| WAC | : | Water for Asian Cities |
| WAI | : | WaterAid India |

Section 1

# CONTEXT OF POVERTY MAPPING

The Water for Asian Cities (WAC) Program is a collaborative initiative between the United Nations Human Settlements Program (UN-Habitat), the Asian Development Bank (ADB) and Governments of Asia. Launched in March 2003 via a Memorandum of Understanding (MoU) between ADB and UN-HABITAT in Madhya Pradesh WAC is expected to leverage its experience in urban water governance and capacity building as well as ADB's operational experience and lessons from evaluation of impact in other cities. Under this program UN-HABITAT is mandated to develop a strategy for Pro Poor Water and Sanitation Governance in Madhya Pradesh for contributing to attain the Millennium Development Goals (MDGs) on water and sanitation and slum upgrading with a special focus on the urban poor. In India, Water for ASIAN Cities Programme is supporting the Madhya Pradesh Urban Water Supply and Environment Improvement Project in the cities of Bhopal, Gwalior, Indore and Jabalpur.

## 1.1 Slum Environmental Sanitation Initiative (SESI):

A Workshop on Pro-Poor Urban Water and Sanitation Governance was organised in March 2005 in Bhopal with the key objective to bring together primary and secondary stakeholders to discuss and decide on the approach and strategy to be adopted by UN-HABITAT in the implementation of the Water for Asian Cities Programme in Madhya Pradesh. The main actions with regard to environmental sanitation to be taken by UN-HABITAT based on the workshops recommendations are as below: -

- Citywide integrated environmental sanitation and waste management programmes, including need based low-cost sewerage and on-site sanitation, aiming at improved health and hygiene behaviour change. This will be through initial assessments of the sanitation situation followed by demonstration pilots and scaling up to city wide programmes
- Mapping the urban poor in its entirety, generating high quality GIS maps and development of a city specific pro-poor water and sanitation governance strategy

As a follow up of these recommendations a pilot Slums Environmental Sanitation Initiative (SESI) in the slums of the four project cities was proposed to be executed. The project would demonstrate an integrated approach to environmental sanitation, waste management, low-cost sewerage and/or on-site sanitation, for improved change in health and hygiene behaviour.

This pilot project is being executed in a tri-partite partnership model, bringing together resources and expertise from the UN-HABITAT, Water Aid India, Bhatriya Gramin Mahila Sangh (BGMS) and Indore Municipal Corporations for about 5000 households which are lacking in infrastructure facilities viz. access to water supply, improved sanitation, grey water disposal etc.

The Government of Madhya Pradesh (GoMP) has accepted the Municipal Action Plan for Poverty Reduction (MAPP) as an instrument for slum level intervention. The MAPP is an instrument to prioritize the slums for investment based on poverty and environmental infrastructure deficiency matrix. On the GoMP's request UN-HABITAT carried out a citywide Poverty Mapping exercise for mapping the poverty and environmental infrastructural deficiencies in each pocket for prioritizing interventions in Indore.

## 1.2 Poverty Pocket Situation Analysis (PPSA): Purpose and Approach

In the first phase of the UN-HABITAT and WaterAid India's SESI program, a detailed slum enumeration exercise was carried out during March April 2006 called **Poverty Pocket Situation Analysis.** The final objective of this exercise was two fold:

1. In consultation with the Indore Municipal Corporation (IMC) select Poverty Pockets (PPs) covering approximately 5000 households which were poorly placed on the Millennium Development Goal 7 target 10 i.e. halve by 2015, the percentage of households with access to improved water source and percentage of households with access to improved sanitation.
2. To collate the data on all PPs on availability of environmental deficiency parameters for kick starting the MAPP process by the MCs.

This study is not a household survey but the data under this study has primarily been derived from key informant interviews/ group discussions and reflects the multiple and overlapping perspectives of different stakeholders in poverty pockets. This has been triangulated by qualitative survey using participatory exercises for community's direct feedback from six Poverty Pockets for final analysis.

As far as estimate of 'access' to infrastructures in poverty pockets is concerned, this study does not claim to be one that explores issues of the city in all their complexity and against any benchmark of accessibility. It does not look at differential access to facilities or the current status of facilities as much as the availability of facilities or lack of it, for designing interventions in the most water and sanitation facilities deficient areas. The study, however, understands access to mean the availability of useable and quality infrastructure in any given locality. The following analysis (especially the cross tabulation) and ranking has been undertaken keeping this understanding of access in mind.

Qualitative feedback however uncovers different nuances of 'access', helping us to identify areas of most concern in the perception of surveyed communities. This feedback has been interwoven with quantitative data in order to define issues of access for the following environmental infrastructure deficiency indicators have been considered:

Categorizing PPs on MAPP pockets:

1. Percentage of length not covered with pucca drains,
2. Percentage deficiency of pucca road,
3. Percentage deficiency in street lights,
4. Percentage of households not covered with piped water supply,
5. Percentage of hourly water supply available to population,
6. Percentage of households not covered with toilets and
7. Percentage of households with access to improved way of disposal of grey water.

Categorizing PPs on MDG platform:

1. Access to improved sanitation
2. Access to improved water supply

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Section 2

# PPSA METHODOLOGY

## 2.1 PPSA Indore: Poverty Pockets Mapping

**Stage 1.**

The process of slum mapping started in February 2006 in Indore. A format was jointly developed and adopted uniformly by partner NGO BGMS, Indore Municipal Corporation, UN-Habitat and WaterAid India for gathering the necessary data. Field teams comprised of two NGO staff and one municipal corporation staff in each team to carryout the survey.

**Stage 2.**

An orientation workshop was conducted in early February 2006 with all the team members to discuss and clarify the format of the survey. WAI, UN Habitat, Indore Municipal Corporation and BGMS attended the workshop and oriented the teams about the program and importance of the correct information collection through focus group discussions, transect and observations in the PPs.

**Stage 3.**

The survey covered 604 PPs in Indore. In the process of data collection BGMS and Indore Municipal Corporation officials verified the collected data with their signatures. UNH and WAI team members also cross-verified the data collected in the forms by NGO and Municipal Corporation field staff. Each team filled in the survey form and signed on each of them for authenticity. The data was then compiled by the partner NGO BGMS, and sent to WaterAid India for analysis and poverty pocket ranking.

The questions asked were mainly bordering on population (no of households, no of families below poverty line, total population etc.), presence of infrastructure (roads, street lights, schools, anganwadi, balwadi, health centers etc), access to water supply (hours of water supply, no of individual and community water connections, quality of water etc) and access to sanitation (individual and community toilets, open defecation practice, solid waste management etc). The data analysis provided information on PPs with least access to water and sanitation and where the number of people living below poverty line was high apart from access to infrastructure. Based on individual poverty pocket's information on these counts, PPs were categorized and ranked.

**Stage 4.**

In order to triangulate the quantitative data as well as to collect information on quality and status of available infrastructure and basic services impacting quality of life in PPs, qualitative survey was undertaken separately using participatory tools.

Tools used included:

- Focus Group Discussion
- Transect Walk
- Observation
- Individual Interaction




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Section 3

# A CITY WIDE ANALYSIS

## 3.1 Overview

As per the 2001 census, the district of Indore has more than 70.1% of its population living in urban areas (total population of 1597551) second only after Indore in the state of Madhya Pradesh. Indore is the largest city of Madhya Pradesh in terms of population and is also the economic capital of the State. The decadal population growth (1991 -2001) was 47% and a majority of this urban population has settled as PPs in Indore city, creating a particular situation of growth not met with basic infrastructure requirements. Indore today has got maximum number of PPs in the state of Madhya Pradesh.

Administratively, Indore city has been divided in 12 zones, which are further divided in 69 wards. These wards together house 604 PPs; of which, only 229 have been notified by Municipal Corporation of the City. People inhabited in these PPs are generally from nearby villages, which have come to Indore in search of livelihoods. However, it also houses a good number of people from other bordering regions and states Nimar region, Dhar region and Maharashtra.

A good number of these people are un-skilled daily wage labour, while around 20% of the people are also engaged in semi-skilled and skilled labour works. Some of the people are also engaged in micro-enterprise activities in the city like vegetable vending, etc. Females of the slum are mostly engaged in domestic work.

## 3.2 Scenario in Poverty Pockets

### 3.2.1 Below Poverty Line Households

As a leading Industrial city, Indore exercises a great pull on the adjoining hinterlands. This, coupled with the natural increases in population, has meant that the city has seen a mushrooming growth of PPs with unhygienic living conditions. Although the city population doubled from 1971 to 1991, the slum population almost quadrupled over the same period. In 1991, the population of the city was nearly 1.2 million out of which slum dwellers accounted for 0.35 million.

**Table 3.1: Number of Households and Below Poverty Line (BPL) Households**

| Total Number of PP | Total No. of Households | No. of BPL Households in PP | % of BPL Households in PP |
|---|---|---|---|
| 604 | 176545 | 52854 | 30 |

The only official estimate available for no. of BPL households is that of the Directorate of Food and Civil Supplies, Government of Madhya Pradesh, according to which 86,062 ration cards have been issued in Indore District as a whole (one card per family, data for 1997-98).

As per a 1998 impact assessment [1], over two thirds of the slum families lived below the poverty line. Suppressing the age group 0-5 years, about 40 percent of the slum dwellers were illiterate. Although 86 percent of the slum families were served by the public water distribution system, the supply was mainly by the public taps and not individual connections. Others used alternative sources of water such as wells, hand pumps. Public or individual toilets theoretically served about 76 percent of families. However, most of the public toilets, which served 68 percent of the households, were ill maintained and unusable. If we use these findings as a broad reference the situation for Indore has not changed for the better over the last seven years, as is revealed by quantitative data quoted below drawing on findings from 604 PPs making it arguably one of the largest enumeration exercises carried out in the city and possibly the state in the recent past.

1. Gita Dewan Verma (1998): Findings of an Impact Assessment Study, Asian Institute of Technology

### 3.2.2 Status of Water Availability:

More than 200 people share every public stand post in Indore. Qualitative data reveals how fighting is a common everyday occurrence over water in slum areas. Of the other sources present many are essentially not working for e.g. of the 321 handpumps, as many as 60 are closed.

A majority of the water sources are community sources; however, there are PPs where water is also available through private bore / tube well owners. The water from these sources is charged at Rs. 100/- per month for 10-15 buckets per day, while water from the community sources is available for free in all the sampled PPs. Even the water supply from the municipal taps is not charged.

**Table 3.2: Drinking water supply sources**

| Total Number of PP | No. of Public Stand Posts | No. of Wells | Number of Hand Pumps | Number of Tube Wells |
|---|---|---|---|---|
| 604 | 1153 | 112 | 321 | 3046 |

Qualitative findings reveal the seasonality of water availability, with predictably the summer season being the worst for the inhabitants in the PPs. Water supply through municipal taps get reduced considerably as does supply through hand pump, bore wells and tube wells. Water is supplied through municipal tankers, but this also fails to fulfill the requirements of water. Availability of drinking water becomes very scarce. Time spent on availing water varies from slum to slum. Minimum time spent of availing water is 15 minutes in Arjunapura and maximum time spent on regular season is 2-3 hours. This increases to 4-5 hours in summer seasons, where people need to stand in long queue for availing water from tankers and other water sources.

The qualitative survey also found that even where sources of water were present the dependence of the community was gradually increasing on the same source over time due to an increase in population. Therefore lack of access is not just a function of complete absence of infrastructure but also of increasing population dependent on available sources and any intervention needs to be planned in this light.

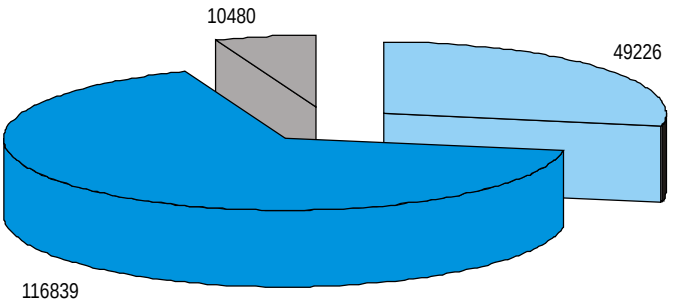
Non-availability of water has a major implication on the livelihoods and lifestyle of people in the PPs. While in some water scarce PPs, women find it difficult undertake wage labour, and only one of the two adults could engage themselves in productive activities, in others women have to do extra work to fetch water and provide labour. Water scarcity has also been found to be an important reason for the discontinuance of education of adolescent girls, who are generally given the responsibility of fetching water for the households. In summers, many of the men folk forgo their daily wage for fetching water from long distance in cycles, etc. So, while on one hand they need to pay higher for getting water, on the other hand they end up earning less (for less number of days) because of their engagement in fetching the water.

#### 3.2.2.1 Drinking water supply:

In the surveyed poverty pockets a large proportion of households (66%) depend on public stand posts, boreholes, wells, springs etc for drinking water which have been designated as a safe source of drinking water. Overall an overwhelming 72% of the households do not have access to piped water supply while the average percentage deficiency in piped water supply in PPs is in fact 99%. While the quality of water available in the PPs is relatively sound (63% of the PPs reported the availability of sweet water) supply of water is another disturbing issue where 20% of the taps are completely dry and another 25% have water for only up to half an hour within which a large population has to address all their daily water requirements.

| Table 3.3: Drinking Water Supply Scenario | | | |
|---|---|---|---|
| Total Households | No. of households having access to piped water | No. of households using public stand posts/taps, borehole or pump, protected wells, prote cted springs or rainwater/hand pumps | No. of households depending on tankers, vendors providing water or unprotected wells and springs |
| 176545 | 49226 | 116839 | 10480 |

**Drinking Wate Supply Scenario**




Choudhary Park is a big notified settlement of around 300 HHs, situated in the periphery of Indore city. The slum faces a serious problem of water scarcity. Choudhary Park has got just 1 community hand pump and some 25 individual bore wells. Most of the people fetch water from this community hand pump, while some houses get the water of their requirement from individual bore well. The bore well owners charge a monthly rent of Rs. 100/- for providing 5-7 utensils full of water. Rest of the people goes to other near by PPs for fetching water. People getting water from hand pump spent a lot of time for getting insufficient quantity of water. Similar is the case with households who get their water from other nearby PPs, which faces hardship along with spending time on water collection. The households, which get water from privately owned tube well, take water only when the owner switches on the motor and thus does not have any option and end up spending most of the time for fetching water. People spend as long as 5 hours a day in fetching water in summer season. In summer, municipality supplies water through tanker, though in insufficient quantities.

Because of this scarcity of water, people do not take even bath everyday, nor do they keep their clothes on a regular basis. Water is first arranged and stored for drinking and cooking purposes, only the rest of the water is used for other purposes. This has deteriorated the health condition of the residents, which can be seen from the prevalent skin diseases and other related problems like dehydration, etc in the slum.

Women folk in the slum generally remain back in their houses for fetching water and do not contribute to household incomes directly, thereby reducing their control on income and the expenditures in the house. Cases of huge drop outs in adolescent girls have been reported, when they stop going to school for fetching water.

In summers, the scarcity of water impacts the household economy directly. Households pay a good amount of money in getting water. And on the other hand, because of their time consumption in getting the water, they lost on their wage incomes.

#### 3.2.2.2 Water Quality: -

The water supplied thru stand posts or house connections is reportedly of sweet taste and potable. However very few slums were reported of the presence of hard water or tasteless water. These are generally from hand pumps or in-situ bore wells.

**Table 3.4: Water quality**

| | Sweet test | Salty | Taste less |
|---|---|---|---|
| Number of PP | 418 | 107 | 233 |

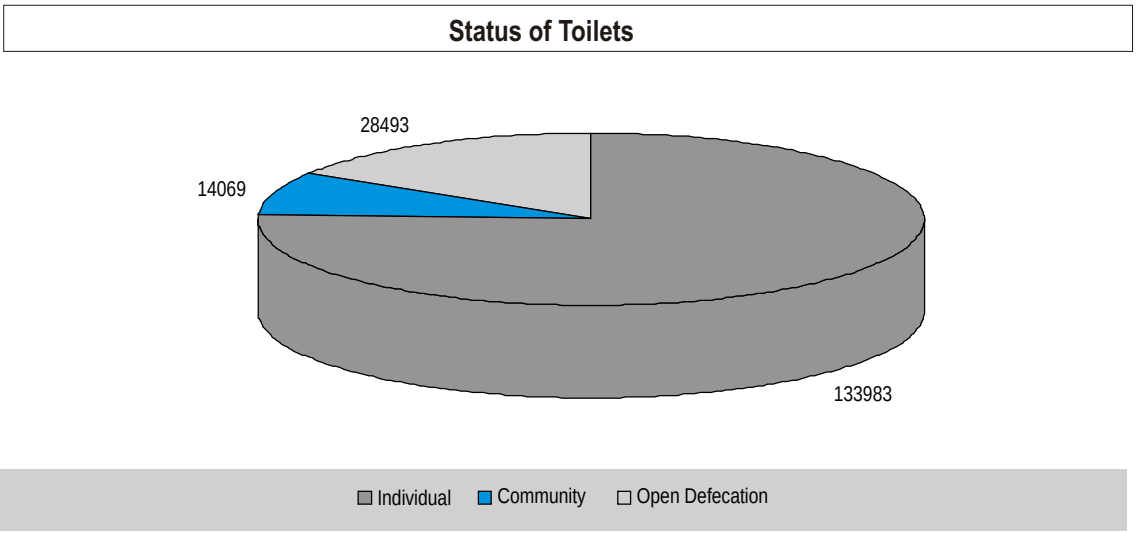
### 3.3.3 Status of Sanitation

#### 3.2.3.1 Availability of Toilets

76% of the households have access to individual toilets, 80% of the PPs have no community toilets and 16% still defecate in the open. This indicates that in terms of availability of infrastructure for sanitation Indore PPs are in a relatively better condition. The qualitative findings produced slightly different impressions on the status of sanitation.

**Table 3.5 : Status of Toilets**

| Total Households | Individual | Using Community Toilets | Open Defecation |
|---|---|---|---|
| 176545 | 133983 | 14069 | 28493 |




Even the households, which have got personal toilet prefer to go for open defecation. One important reason for this has been lack of water for cleaning, flushing the toilets, while the other reason has been the lack of sufficient drainage system, which result in choking of these toilets very frequently. In such households, first priority is given to the adolescent girls to use the toilets, while the next preference is given to women in the households. Men and guests of the house use the toilets only in emergency.

The situation results in heavy pollution in the region. This also causes various health problems in the PPs, especially among children. This clubbed with other issues of lack of water, poor drainage and waste disposal lead to high incidents of water borne diseases in the PPs. Incidents of malaria, diarrhoea and dysentery are a common and regular phenomenon in the PPs.

This situation worsens at the time of monsoons. With no drainage system and some of the PPs being low lying areas, all the discharged, un-degraded material from the open space start floating in the PPs and become the main reason for serious health problems in the PPs.

While going for open defecation, people spent a lot of time as high as 1.5 hours per day per person. The other issues that came up during discussions were the regularly and rapidly reducing spaces for defecation. With regular and constant 'development' of the city, the open space, which was available earlier, is constantly reducing and the residents of the slum are facing serious problems. People, especially women have to get up very early in the morning and go in groups of 2 to 4. Due to the choked and unavailable drainage system and also lack of sufficient water, the individual toilets are not built, nor are they used after being built.

Poverty Pockets are not found to have community toilets in good numbers (See data below). Wherever, the community toilets were there, they were hardly managed. Water and electricity is not available in any of the community toilets. None of the toilets were offering paid services; all were free for use and thus were not cleaned, maintained or managed.
Anand Nagar is a slum based on the periphery of Indore city. It is located on the AB (Agra-Bombay Highway) Road in housing around 720 households.

The slum is situated in a very low lying area and is surrounded by AB Highway on one side and Railway tracks on the other side. The slum has got well laid under ground drainage system, but because of it being low lying, the same does not prove of any help. All the drainage lines remained choked through out the year.

In rainy season, water remained logged for 4-5 days after each rain of not more than 30-45 minutes, causing serious problems of health and hygiene. The non-functional street lights aggravate the situation in rainy season, when the whole slum remain full of water every where. Daily commuters, mainly those who have some mode of transportation cycles, mopeds, motorcycle, who suffer a lot.

The situation is further worsened by a *naala*, which flows at one end of the slum. All the water clogged mixes with the water of naala. In Anand Nagar, more than 70% of the people go for open defecation. These people do not find any place for attending to their nature calls. Moreover, all the discharged material in the open grounds starts floating in the slum with the logged water.

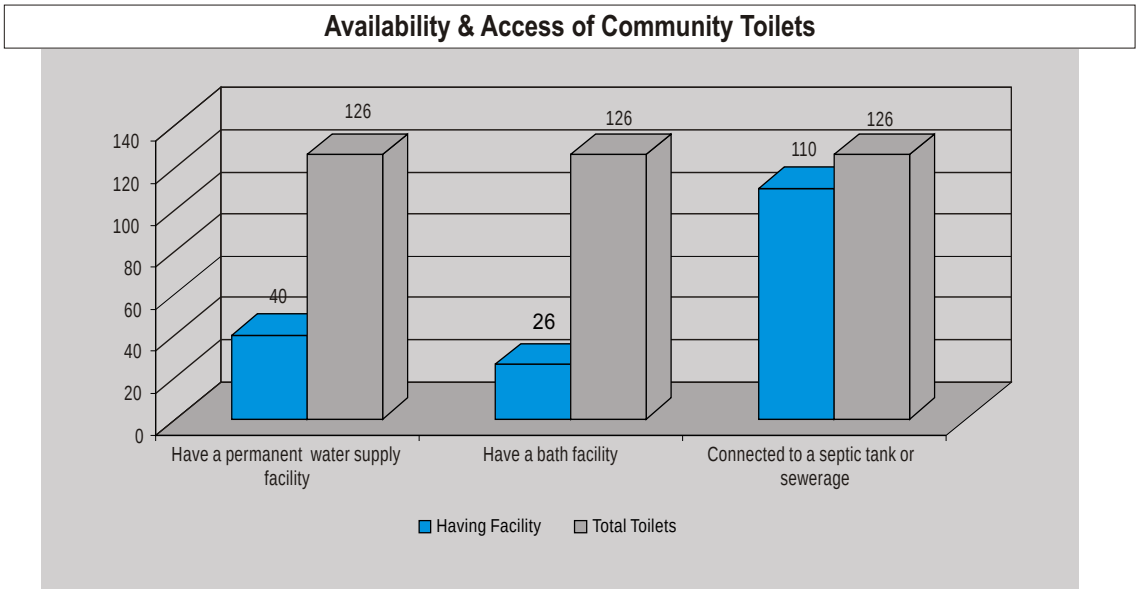
Incidence of disease is very high in the slum. Other major impact of this situation is on the reduced no of days of employment, because most of the people remain enclosed in their houses in the rainy season.

### 3.2.3.2. Availability and Operation of Community Toilets:

While there is no significant disparity between number of seats for women and males it is important to note that Indore is the only city with a greater number of total seats for men as compared to women. It has substantially less no. of toilets with permanent water supply and bathing facilities as compared to other cities (39 for Bhopal for e.g. and only 26 for Indore which in relation to the large number of Poverty Pockets in Indore construes a significant gap).

**Table 3.6: Community Toilets: Availability and Access:**

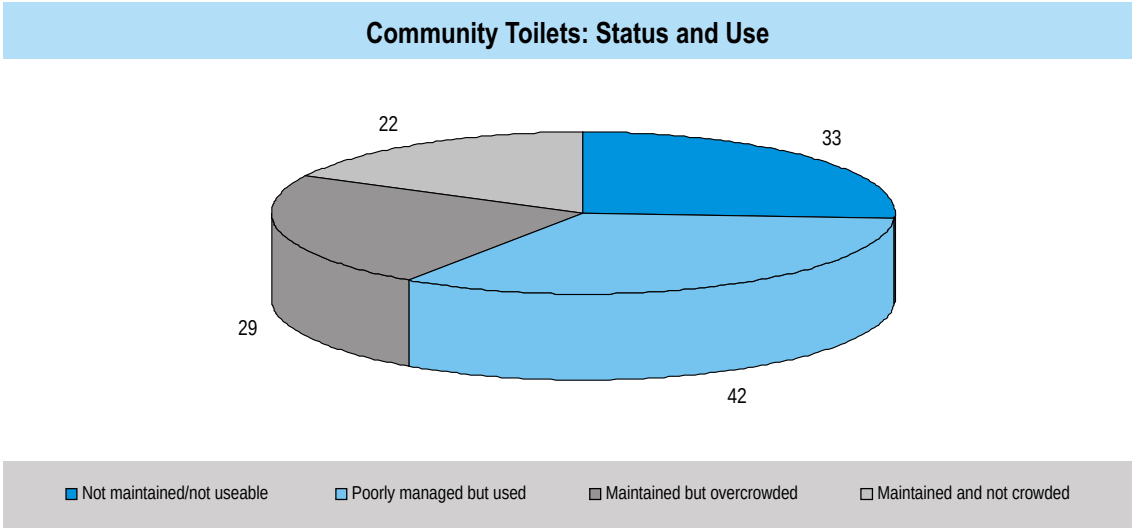
| Total No. of PP | Total Number of Community Toilet /Seats | Total Seats | | Have a permanent water supply facility | Have a bath facility | Connected to a septic tank or sewerage |
|---|---|---|---|---|---|---|
| | | Male | Female | | | |
| 604 | 126/1463 | 728 | 735 | 40 | 26 | 110 |




Of the total community toilets 26% are not in use, 38% are poorly manage but used and 34% are maintained but overcrowded. Only 20% of the toilets were reported as well maintained and less crowded. Again not all the well maintained toilets have a permanent water supply. Nearly 32% of the toilets are pay and use and of toilets where community paid for maintenance only 35% were well maintained showing that payment for services does not necessarily imply that the service is being provided efficiently.

**Table 3.7: Community Toilets: Status and Use**

| Total No. of PP | Total Number of Community Toilet | Not maintained/not useable | Poorly managed but used | Maintained but overcrowded | Maintained and not crowded |
|---|---|---|---|---|---|
| 604 | 126 | 33 | 42 | 29 | 22 |

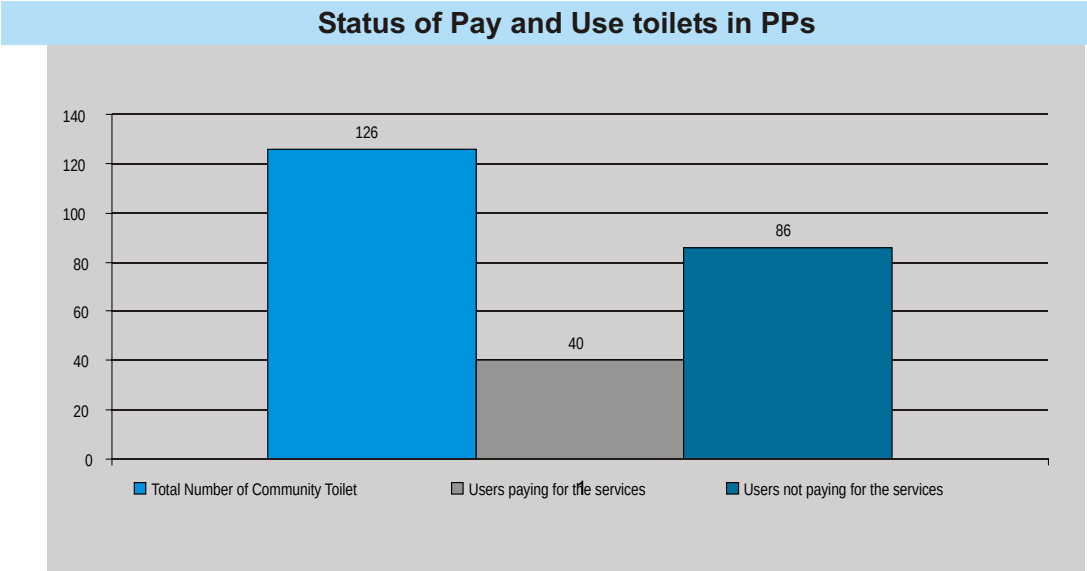


### 3.2.3.3. Paying for Community Toilets

There are 40 community toilets where community are paying for the services. This portrays a discouraging picture especially regarding the financial sustainability of CTs and is a serious area of concern. The "Sulabh International "operates and maintains such community toilets on a pay and use basis, it charges paisa 50 per use. A family of five can purchase a monthly card for Rs. 20. However, the O&M cost of the CTs maintained by Sulabh International is estimated as Rs 6000 per month for the 10 seated complex. Therefore, any policy option on operation and maintenance of CTs should primarily be focussed on raising the contributions from users in operation and maintenance for ensuring the ownership and sense of belonging.

**Table 3.8: Status of Pay and Use toilets in PPs**

| Total Number of PP | Total Number of Community toilet | Users paying for the services | Users Not paying for the services |
|---|---|---|---|
| 604 | 126 | 40 | 86 |




## 3.2.4 Status of Drainage and Water Logging Status in PPs

### 3.2.4.1 Drainage:

On the whole the coverage by drains in Indore is very low at 353 compared to figures like 1684 for 380 PPs in Bhopal. Again even where lined drains exist complementary services are difficult to come by, as qualitative data reveals. None of the Poverty Pockets, which have upgraded to a great extent or are colonized by government, have got any drainage system. Households have done some work in concretizing the internal (within house) drainage system and have brought it up to front of their houses and have left it open, subsequently. In some of the Poverty Pockets, open drains have been laid down, but are technically/architecturally not appropriate, thus lead to more water logging.

**Table 3.9: Condition of Drains**

| Total Number of PP | Total Length of Drains in Km | Length of Lined Drains |
|---|---|---|
| 604 | 353 | 219 |

The municipal corporation does not clean the drains. People contribute together and pay the sweeper for cleaning the drains, but this also happens in areas, where people afford this. Some of the areas are left un-cleaned for months together.

#### 3.2.4.2 Water Logging:

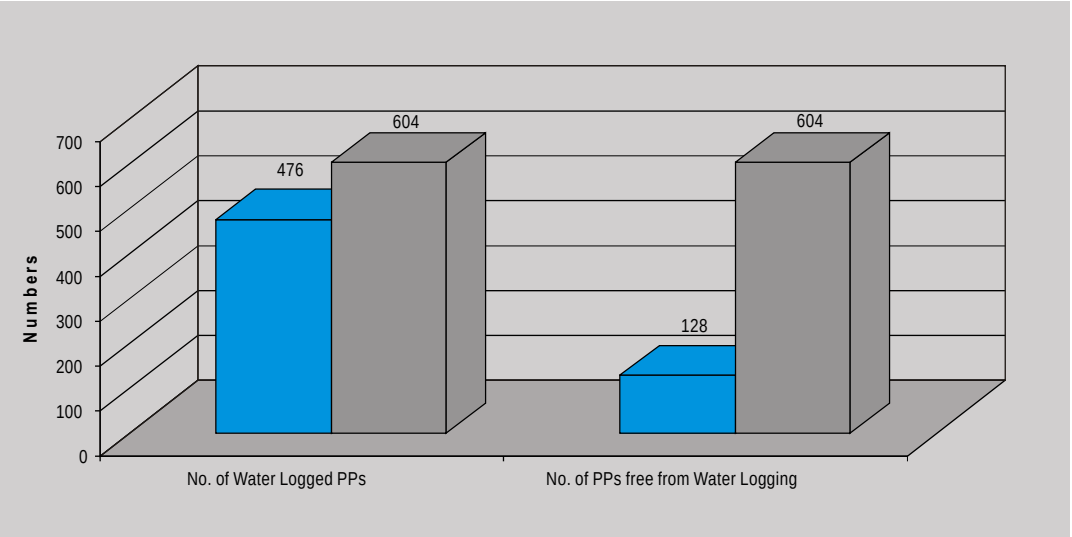
While lack of drainage causes heavy water logging in the Poverty Pockets, the lack of regular cleaning results in high incidents of health related problems malaria is the most highly reported among these.

Not surprisingly given the above factor, 78% of the PPs are water logged. Additionally nearly 60% of the PPs where garbage was thrown in the drains also had water logging implying this may be a serious cause of water logging.

**Table 3.10: Areas Prone to Water Logging**

| Total Number of PP | No. of Water Logged PPs | No. of PPs free from Water Logging |
|---|---|---|
| 604 | 476 | 128 |

**Areas Prone to Water Logging**




### 3.2.5 Status of Grey Water and Solid Waste Disposal:

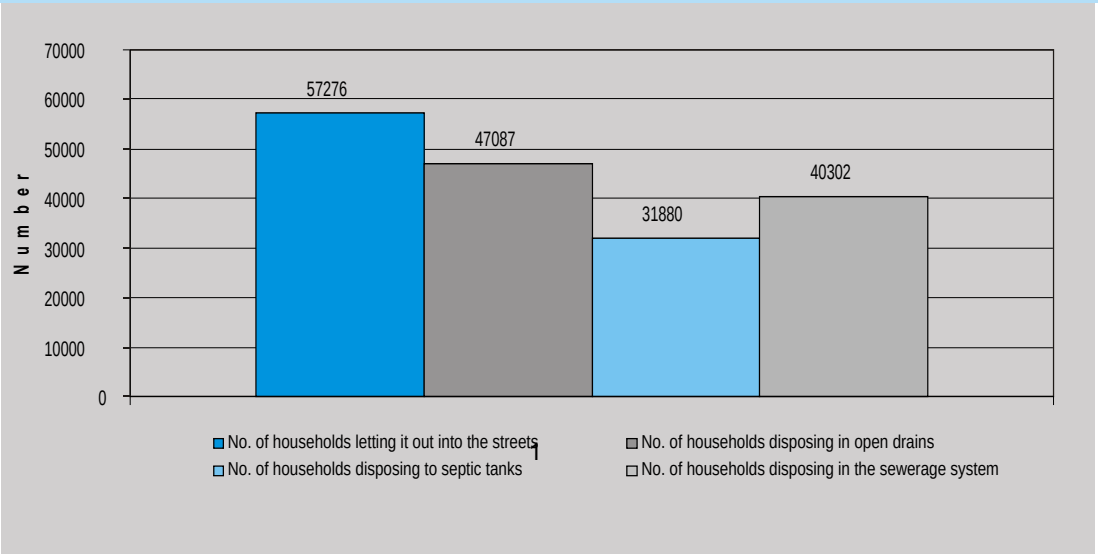
#### 3.2.5.1 Disposal of Grey water (waste water from household chores):

42% of the total households have access to a sewer or septic tank in which to dispose grey water. 57% of the households let waste water flow into open drains and streets which causes a major health hazard.

**Table 3.11: Disposal of Grey Water**

| Total Households | No. of households letting it out into the streets | No. of households disposing in open drains | No. of households disposing to septic tanks | Number of households disposing in the sewerage system |
|---|---|---|---|---|
| 176545 | 57276 | 47087 | 31880 | 40302 |

**Grey Water Scenario**




### 3.2.5.2. Disposal of Solid Waste Management:

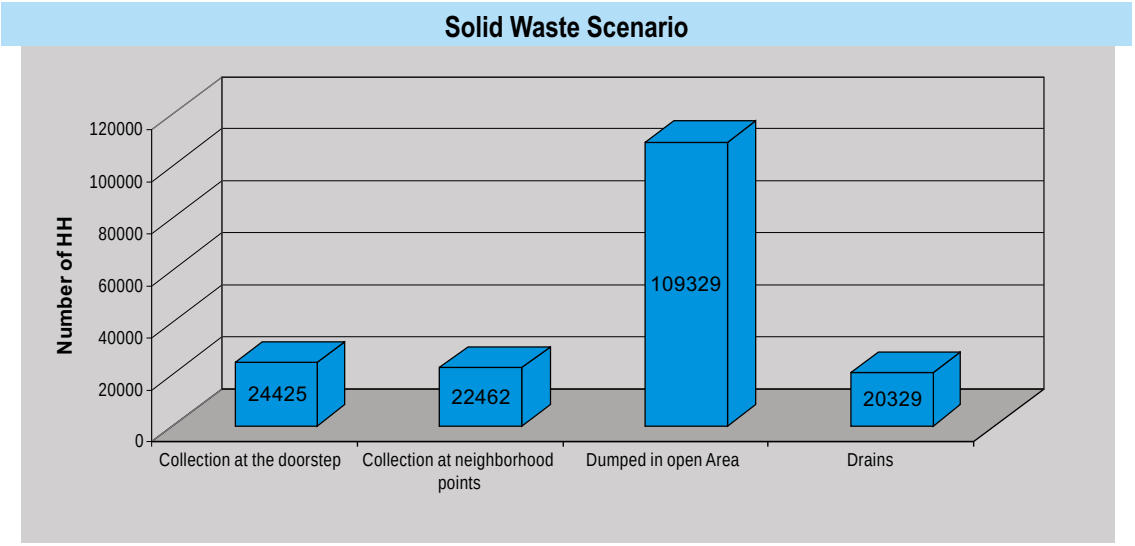
Only 13% of the households have the facility of waste being collected at the doorstep. An overwhelming 60% are dumping waste in the open leaving the area, and particularly its children, vulnerable to diseases borne by flies and mosquitoes and other such parasites. Again only 9% are taking the garbage to neighborhood points. A matter of serious concern is that 11% of the households are letting the garbage flow into drains. Nearly 30% of the PPs where stagnant water was found reported that garbage was thrown in the drains implying this may be a serious cause of water logging.

Data also shows that it is PPs where the practice of throwing garbage in drains combines with relatively high populations that this issue becomes most severe. 63% of the PPs where garbage was being thrown in the drains reported water logging.

Qualitative findings revealed that in all households threw their garbage in open space. Only in one slum, dustbins have been installed, but hardly 10% of the people of the slum use that for disposing their garbage. People throw garbage either in an open space just outside their house, or in some common open space or naala (drain) flowing nearby. The garbage thrown in common spaces get accumulated over time and are rarely disposed of to some other place. Only some households collect funds from time to time to get this disposed material removed.

**Table 3.12: Solid Waste Scenario**

| Total Number of HH | No. of households having the facility of solid waste collection at their doorstep | No. of households having the facility of solid waste collection at neighborhood points | No. of households dumping solid waste in the open | No. of households through solid waste into the drains |
|---|---|---|---|---|
| 176545 | 24425 | 22462 | 109329 | 20329 |




### 3.2.6 Status of Roads, Street Lights and Community Activity Areas:

#### 3.2.6.1 Roads:

In an urban context, roads form a direct link in access to public infrastructure and transport. Only 58% of the total road length in Indore Poverty Pockets is metalled. This leads to certain particular problems as the FGDs revealed in the six sampled Poverty Pockets. In fact even where roads are metalled the approach road to the Poverty Pockets from the main road is *kuchcha* or unlined. Only the main roads around which the PPs are settled are metalled.

The roads in almost all the Poverty Pockets get logged (some time up to waist heights) with water in monsoon seasons and create lot of problems in the daily life of the residents, especially to girls and women and more so in the nights. The lack of drainage and the water logging on roads results in missing of daily wage work.

**Table 3.13 : Condition of Roads**

| Total Number of PP | Total Length of Road in Km | Length of Lined Road |
|---|---|---|
| 604 | 738 | 435 |

#### 3.2.6.2 Streetlights:

Over 36% of the PPs had five or less functional street light poles indicative of the extreme lack of infrastructure in this area. (Data was not available for the total number of electricity poles against road length). Given the direct relation this has to safety and security of inhabitants, particularly women, this constitutes a serious concern in the poverty pockets. Again the PLA exercise provides key insights on the issue of whether 'availability' amounts to 'useability' or accessibility of a facility. Not all the households have legal connection for electricity. Only about 40% of the households have got legal connection, rest of the households has illegal electricity connection. There are street lights, but majority of them do not function for more than 6-7 months in a year. This causes problems for residents, mainly women and children in nights.

**Table 3.14 Number of Functional Street Light Poles**

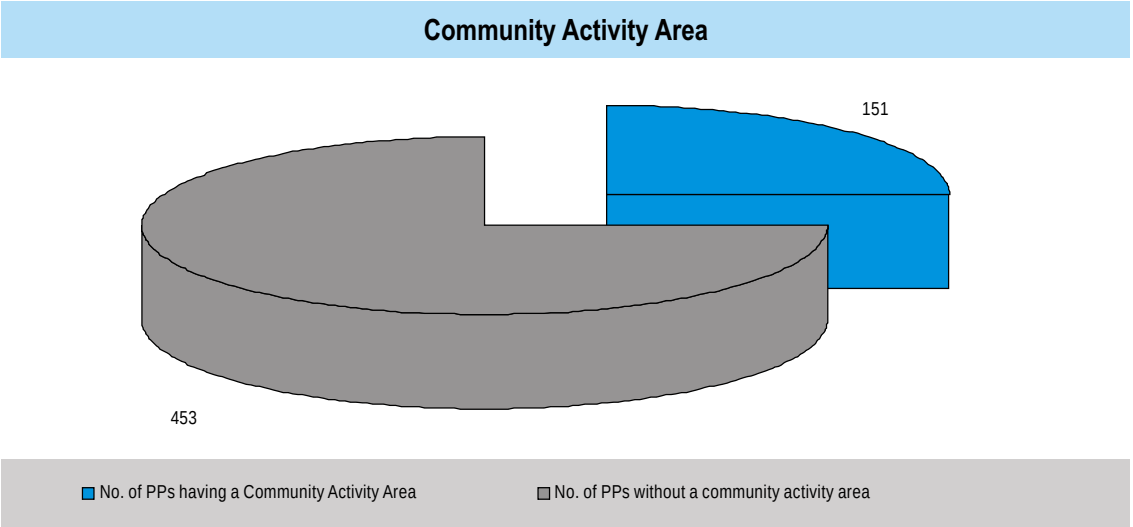
| Total Number of PP | Functional Street light poles |
|---|---|
| 604 | 11503 |

### 3.2.6.3. Community Activity Areas:

A community activity area here refers to any common area such as a playground, or park for use by slum inhabitants. Only 25% of the PPs had access to a community activity area. If we look at the PLA data for open defecation, respondents had mentioned that due to increasing development in the areas grounds for even open defecation were not readily available. In such circumstances it is not likely that space has been provided for slum residents for common activities. This reflects on the quality of life and standards of living in Indore Poverty Pockets.

**Table 3.15: Community Activity Area**

| Total Number of PP | No. of PPs having a Community Activity Area | No. of PPs without a community activity area |
|---|---|---|
| 604 | 151 | 453 |



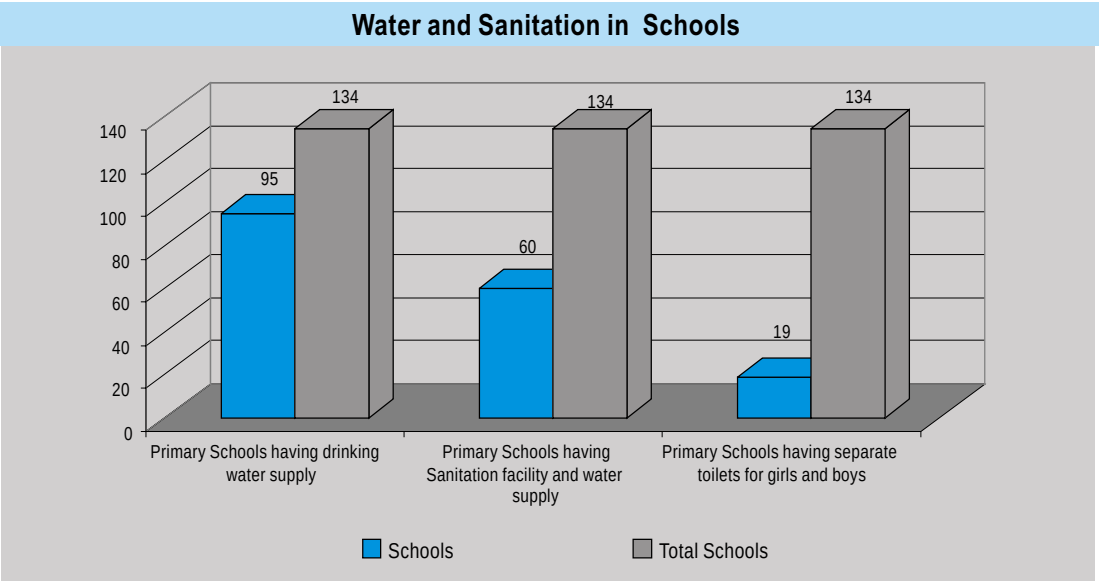

## 3.2.7 Status of Schools, Aanganwadis, Baalwadis and Public Health Centre Service Status

### 3.2.7.1 Schools:

Indore has relatively few primary schools compared to Bhopal where for example 60% of PP had primary schools, here only 20% of the PPs have primary schools. Out of the schools that exist very few have drinking water supply and it can be inferred that only 15% of the total primary schools have a relatively acceptable level of facilities. But by far the worst performance is in the area of providing separate sanitation facilities for boys and girls of which only 19 schools in the total PPs could report. When basic requirements for girl students are not available how can retention rates be expected to be at appropriate levels evidence for which is also borne out by qualitative data as can be seen below.

Children in the six Poverty Pockets seriously lack education facilities. Only two of the six sampled Poverty Pockets have government school. Though, all six Poverty Pockets have private schools all the school government and private were only upto 5th standard. Children therefore go to other nearby areas, Poverty Pockets for education after class 5th. Some of them also go for higher education. But, again predictably due to the fact that children would have to travel to other areas for higher education the drop out rates goes on increasing after class 5, most effecting girl children. Majority of the girls drop out after class 8th. It's only in rare cases that they study up to 12th and very few go for a college education. Main reason for girls drop out has been engagement in household activities from a very young age - mainly water fetching. They also start accompanying their mothers as domestic workers very early in their lives. While boys also drop out they do so at a later stage when they start going for wages and in search of employment.

| Table 3.16: Water and Sanitation in Schools | | | | |
|---|---|---|---|---|
| Total Number of PP | No. of Primary School | No. of Primary School having drinking water supply | No. of Primary School having Sanitation facility and water supply | Number of Primary School having Separate toilets for girls and boys |
| 604 | 134 | 95 | 60 | 19 |

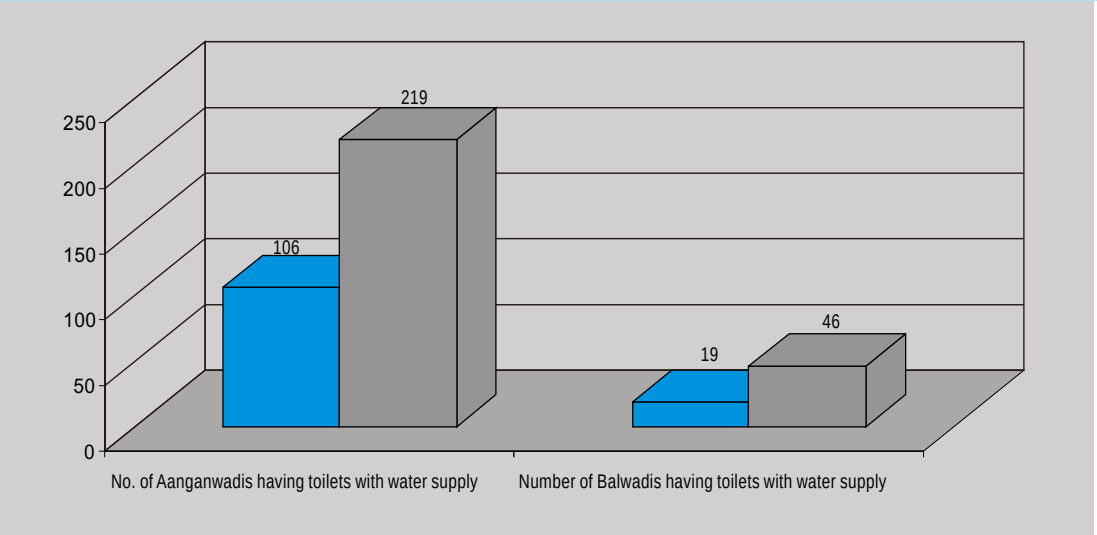



### 3.2.7.2 Aanganwadis and Baalwadis:

Coverage by both aanganwadis (36%) and baalwadis (7%) is low in Indore with a much higher degree of access to aanganwadis in the Poverty Pockets as compared to Baalwadis. Again only approximately 50% of the aanganwadis have toilet facilities with water and this can be seen as a major issue of concern especially from a gender perspective in the context of both these programs being central to the government's mother and child health care policies.

| Table 3.17 : Conditions of Aanganwadis and Baalwadis | | | | |
|---|---|---|---|---|
| Total Number of PP | No. of Aganwadis | No. of Aganwadis having toilets with water supply | No. of Balwadis | No. of Balwadis having toilets with water supply |
| 604 | 219 | 106 | 46 | 19 |

**Aanganwadis and Baalwadis**




### 3.2.7.3 Distance to the closest health sub-centre:

Health is the utmost area of concern in these areas. In health, there are two basic problems one is the condition of health by virtue of various factors like water scarcity and its bad quality, lack of sanitation and drainage facilities, etc. The other is lack of health infrastructure in and around Poverty Pockets.

People in all the Poverty Pockets face serious health problems, majority of which are water borne and sanitation related diseases malaria, diarrhea, skin diseases, etc. Residents also lack in preventive measures, whereby no prevention measures are taken up for all the above diseases. Lack of vaccination facilities was another common thing to observe in the Poverty Pockets.

In terms of health infrastructure, qualitative data reveals that none of the six Poverty Pockets were found to have any hospital or clinics private or government in their own slum. All have to go to clinics in other nearby areas for all health related issues and problems. These clinics and hospitals are situated as far as 8 km in some of the Poverty Pockets. However, average distance to any of these clinics is not less than 2 km from the Poverty Pockets. Some of these hospitals do have OPDs and are able to take care of minor emergencies. These clinics have doctors ranging from 1 in some clinics to a maximum of 4 in other hospitals. Vaidya and quacks are non existent in the Poverty Pockets with a few exceptions.

The maximum number of Poverty Pockets (47%) do not have health infrastructure within 2 kms (and it should be noted that this does not mean that health infrastructure exists at a 2 km distance distance as reported can be as high as 10 kms). In this context the dependence of community members on quacks is high, health expenditures also typically rise and are in fact a common recorded reason behind households spiraling into poverty.

**Table 3.18: Average Distance to the closest Sub Health Centre**

| Distance | 0-0.5 Km | 0.5-1 Km | 1-2 Km | > 2 Km |
|---|---|---|---|---|
| Number of PP | 91 | 78 | 153 | 282 |
| Percentage | 15 | 13 | 25 | 47 |

Section 4

# INTER POVERTY POCKET DISPARITY STATUS

## 4.1 Categorisation of Poverty Pockets on MAPP parameters:

### 4.1.1. Roads:

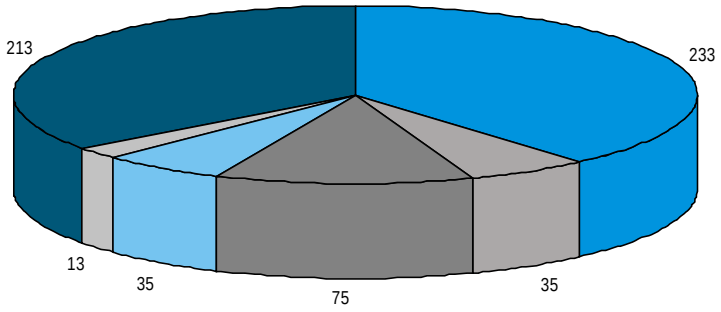
Number of poverty pockets showing 100% and 0% coverage by pucca roads was 35% and 39% respectively. The distribution of PPs across the below 50% and above 50% marks is virtually even.

However the issue is found most markedly present in zones 1, 8 and 11. This shows correspondence between the deficiency of lined drains and lined roads as these are also precisely the zones where absence of lined drains was most felt. Particularly zones 1 and 8 are most badly affected in both these areas.

**Table 4.1: Inter PP Presnce of Pucca Roads**

| Percentage of Pucca Roads | 0 | 0 > 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% |
|---|---|---|---|---|---|---|
| No. of PPs | 233 | 35 | 75 | 35 | 13 | 213 |
| Percentage | 39 | 6 | 12 | 6 | 2 | 35 |

**Percentage deficiency of Lined Roads**

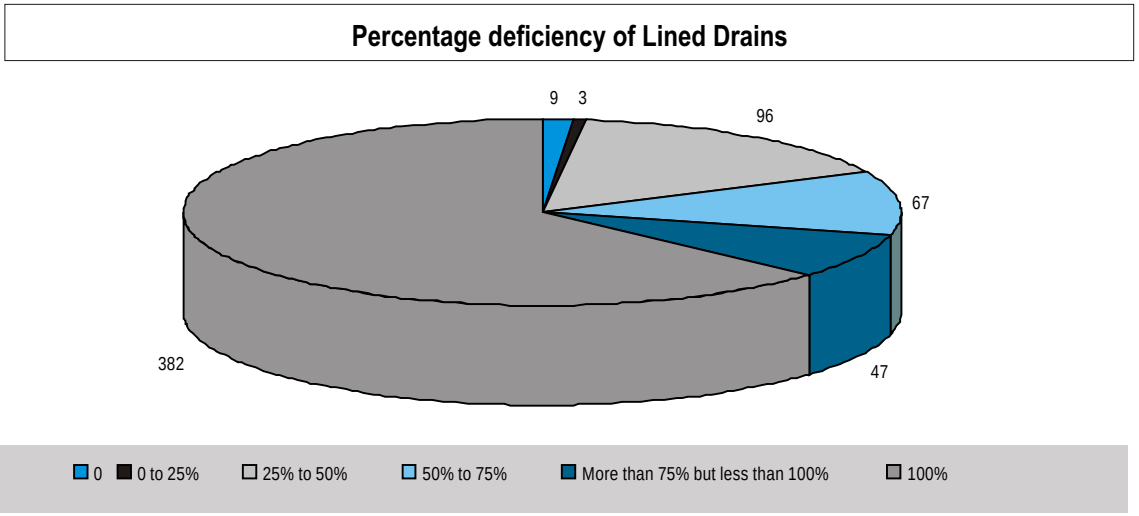



### 4.1.2. Drainage:

Drainage is the second most important issue emerging in the inter PP analysis. An overwhelming 62% of PPs reported 0% presence of lined drains. Only 20% reported more than 75% presence of lined drains.

**Table 4.2: Percentage deficiency of Lined Drains**

| Percentage deficiency of Lined Drains | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% |
|---|---|---|---|---|---|---|
| No. of PPs | 9 | 3 | 96 | 67 | 47 | 382 |
| Percentage | 1.5 | 0.5 | 16 | 11 | 8 | 63 |

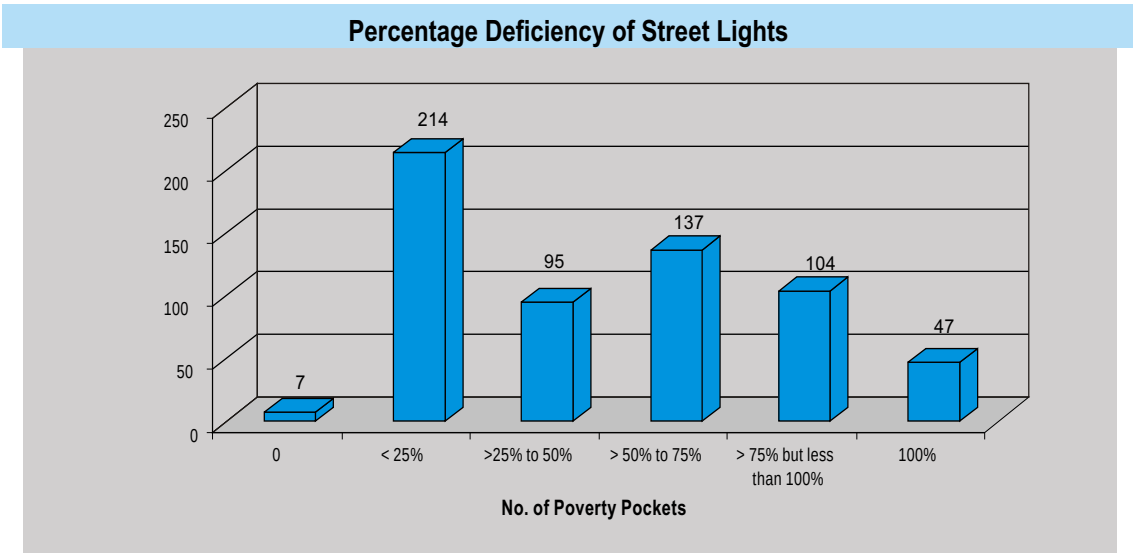



### 4.1.3 Street lights:

In order to assess whether the above availability of street lights were sufficient the standard measure adopted was one street light for every 30 metres of road. A large number of PPs proved to have insufficient lighting against this benchmark with nearly 17% of the PPs falling in the categories where there was 75% or above deficiency in street lights. Only 1% of the PPs showed no deficiency in the presence of this infrastructure.

**Table 4.3: Percentage deficiency of Street Lights**

| Percentage deficiency of Street Lights | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% | Total |
|---|---|---|---|---|---|---|---|
| No. of PPs | 7 | 214 | 95 | 137 | 104 | 47 | 604 |
| Percentage | 1 | 35 | 16 | 23 | 17 | 8 | 100 |

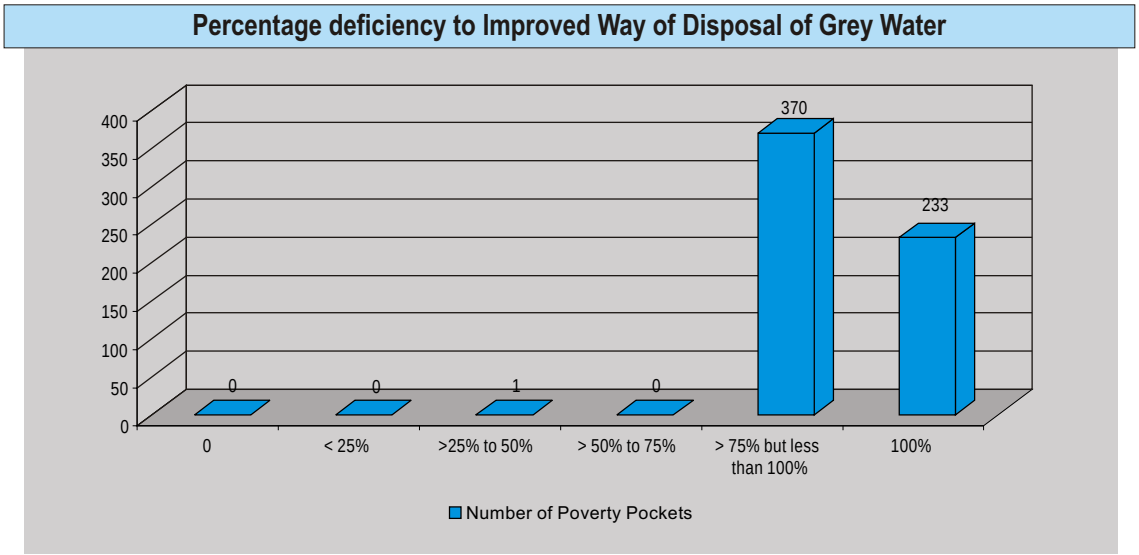


### 4.1.4 Grey Water Disposal:

In terms of disposal of grey water approximately 39% of the Poverty Pockets report that they do not have improved ways to dispose grey water. In fact none of the PPs report that they have such improved ways. This is indicative of how pervasive this issue is across the entire city needing particular attention and being linked as it were to the overall issue of lack of drainage.

**Table 4.4 : Percentage deficiency of grey water disposal:**

| Percentage deficiency to improved way of Disposal of Grey Water | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% | Total |
|---|---|---|---|---|---|---|---|
| No. of PPs | 0 | 0 | 1 | 0 | 370 | 233 | 604 |
| Percentage | - | - | 0 | - | 61 | 39 | 100 |

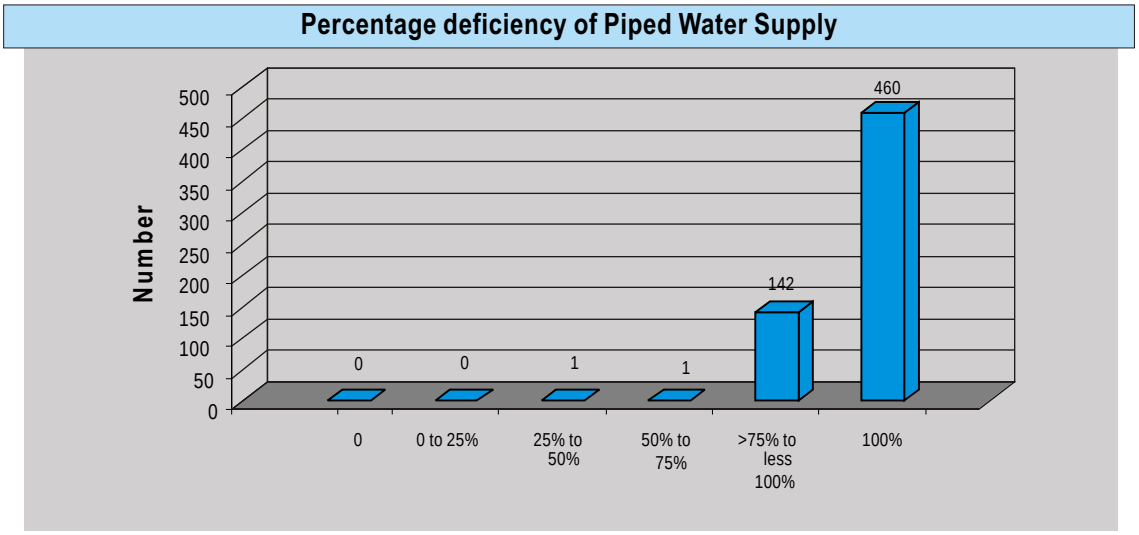



### 4.1.5 Access to Piped Water Supply

The most abysmal conditions exist in access to drinking water where nearly 76% of the PPs report 100% deficiency in access to drinking water a basic need in any habitation. The impacts of such a deficiency have been recorded in above sections however it is important to emphasize this interrelatedness of poverty, low status of women and girl children, and lack of access to potable water.

It is perhaps due to the widespread nature of this problem that of all the cities covered it is in Indore that we find it difficult to identify where exactly the problem is most aggravated all zones reported multiple Poverty Pockets with 100% deficiency. It was revealed that zones 11, 9, 8, 7, 6 reported relatively higher access though this is in purely relative terms as we must note that 23% of the Poverty Pockets are in fact reporting very high deficiency between 75 and 100%.

| Table 4.5: Drinking Water Supply Scenario : Inter PP Analysis | | | | | | |
|---|---|---|---|---|---|---|
| Percentage deficiency of Piped Water supply | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% |
| No. of PPs | 0 | 0 | 1 | 1 | 142 | 460 |
| Percentage | 0 | 0 | 0.16 | 0.16 | 23 | 76 |




### 4.1.6 Hourly Water Supply

While the quality of water available in the PPs is sound (70% of the slums reported the availability of sweet water) the fact remains that the vast majority (64%) of the PPs are dependent on 1 -2 hrs of water supply and many slums (20%) have no water at all. Given the pressure of population on each source (see analysis above) this low level of supply (a total of 84% of PPs in the 0-2 hrs supply categories) creates extreme hardship for the families.

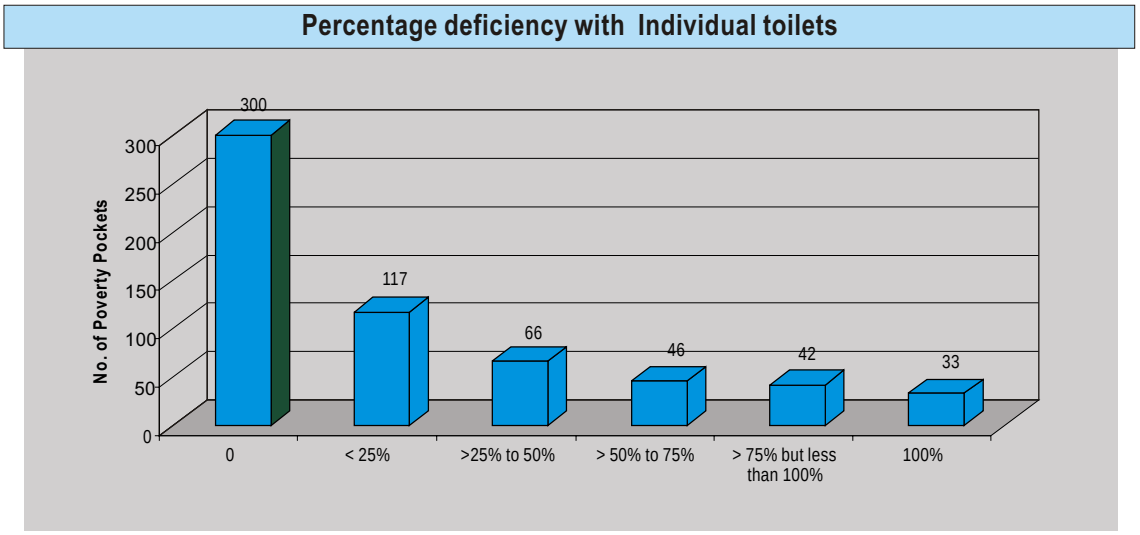
| Table 4.6: Availability of Water in P Ps | | | | | | |
|---|---|---|---|---|---|---|
| No. of Hrs supply per day from stand posts/piped water supply | No water supply through pipeline (assuming 0 - 1 hr amounts to no supply) | Between 1 - 2 hours per day (including 2 hrs) | Between 2 - 5 hours per day (including 5 hrs) | Between 5 - 10 Hrs per day (including 10 hrs) | >10 hours | Total |
| No. of Poverty Pockets | 507 | 83 | 13 | 1 | 0 | 604 |
| Percentage | 84 | 14 | 2 | 0 | 0 | 100 |

### 4.1.7 Individual Toilets:

The survey data on the sanitation behaviour of the PPs revealed that nearly 80% of the poverty pockets are 25% to 100 % deficient in toilet facilities. There is need for awareness creation for the behavioural change towards adoption of low cost sanitation units.

**Table 4.7: Percentage deficiency of Individual Toilets**

| Percentage deficiency with individual toilets | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% | Total |
|---|---|---|---|---|---|---|---|
| Number of PPs | 300 | 117 | 66 | 46 | 42 | 33 | 604 |
| Percentage | 50 | 19 | 11 | 8 | 7 | 5 | 100 |




## 4.2 Categorisation of Poverty Pockets on MDG parameters

### 4.2.1. Access to Improved Sanitation

It is revealed that 50 percent of the PPs doesn't have any scientific ways of sanitation services. Focus on densely populated PPs as an initial step can really help to improve the overall sanitation profile of Indore city.

**Table 4.8: Access to Sanitation Scenario: Inter PP analysis**

| Percentage Population having Access to improved Sanitation | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% | Total |
|---|---|---|---|---|---|---|---|
| Number of PPs | 33 | 42 | 46 | 66 | 117 | 300 | 604 |
| Percentage | 5 | 7 | 8 | 11 | 19 | 50 | 100 |

### 4.2.2. Access to Improved Water Source: -

The large number of Poverty Pockets (88%) with 100% reporting access to improved water supply is not necessarily borne out by quantitative and qualitative data for drinking water supply and water for sanitation as has been discussed in previous sections. This would seem to indicate that reporting on improved water sources needs to be more detailed and qualitative in order to bring out the real issues of access across Indore slums.

**Table 4.9 : Access to Improved Water Sources**

| Percentage Population having Access to improved Water Sources | 0 | 0 < 25% | 25% to 50% | 50% to 75% | More than 75% but less than 100% | 100% | Total |
|---|---|---|---|---|---|---|---|
| Number of PPs | 43 | 5 | 4 | 7 | 9 | 536 | 604 |
| Percentage | 7 | 1 | 1 | 1 | 1 | 89 | 100 |

**Percentage Access to Improved Water Supply**

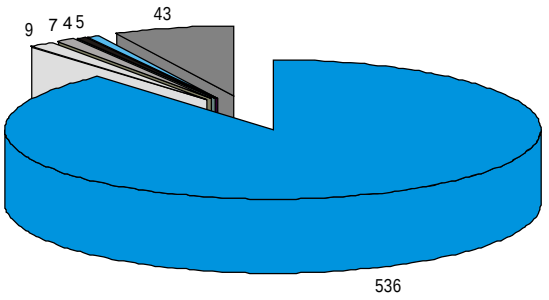



**Table 4.10: Deficiency Matrix based on existing water and sanitation facilities**

| Percentage Access to Improved Sanitation | Percentage Acess to Improved water Supply | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0 | 1-25 | 26-50 | 51-75 | 76-99 | 100 | Total |
| 0 | 11 | - | 1 | - | - | 21 | 33 |
| 1-25 | 4 | - | - | - | - | 38 | 42 |
| 26-50 | 8 | 1 | 1 | - | - | 36 | 46 |
| 51-75 | 10 | 1 | 2 | - | 3 | 50 | 66 |
| 76-99 | 4 | 1 | - | - | 5 | 107 | 117 |
| 100 | 6 | 2 | - | - | 8 | 284 | 300 |
| **Total** | **43** | **5** | **4** | **0** | **16** | **536** | **604** |

Section 5

# CONCLUSION

Broadly the quantitative survey conducted in Indore seemed to indicate that lack of access to piped water supply was extremely high at approximately 99% indicative of a basic requirement for safe drinking water not being there in Indore Poverty Pockets. Detailed data is also presented on this aspect in the inter PP analysis section. In sharp contrast only 23% of households mentioned that they did not have access to toilets. Again in the perception of a vast majority of respondents (91%), the current situation is an improvement in terms of access to an improved water sources. Improvements in sanitation too have been reported for over 56% of the households.

**Table 5.1: Overall Analysis of PPs in Indore**

| | |
|---|---|
| Total No. of Poverty Pockets Identified | 604 |
| Total Households | 176545 |
| Number of Household living in the poverty pockets Below Poverty Line | 19614 |
| % of household living Below Poverty Line | 30 |
| % hh living in the poverty pockets with access to improved water source (Average) | 66 |
| % hh living in the poverty pockets with access to improved sanitation (Average) | 84 |
| % hh living in the poverty pockets defecating in open | 16 |
| % hh living in the poverty pockets with piped water supply | 28 |

Survey data using participatory methodologies provide contrasting answers to the research questions of access of water, sanitation and basic infrastructure, indicative perhaps of the complexity of the issues at hand. As per the qualitative exercise carried out in six Poverty Pockets, water is the single most urgent requirement in Indore Poverty Pockets. In the absence of piped water supply to households and low water tables in many areas in the summer a household may have to spend as much as 4-5 otherwise productive hours in fetching water. This limits their involvement in livelihood activities and puts a tremendous burden on women in particular. Households pay private water providers where quality of water is anyone's guess. Each water source has a number of people dependent on it resulting in a tremendous amount of pressure on each source. Opportunity costs of accessing water are high, as households lose out on income contributions by one or the other productive member due to the need for someone to take responsibility to fetch water and on the other hand, pay high amounts of money to private providers to give this basic service.

Sanitation is another key problem and while quantitative data reveals that nearly 80% of the population does have 'improved' access to toilets, the qualitative data reveals that in four of six Poverty Pockets no community toilets were present, open defecation was common, where there were private or community toilets use was limited by water supply and/or inappropriate drainage. Unhygienic conditions exacerbated by lack of water were leading to a number of diseases prevalent in the communities. Incidence of malaria, diarrhea, and dysentery are a common and regular phenomenon in the Poverty Pockets. Indore Poverty Pockets face another unique problem where even open defecation grounds are difficult to come by due to the population pressure on land. This illustrates the extreme nature of deprivation faced by swelling numbers of slum dwellers in Indore.

The analysis revealed that poverty, deficiency of access to basic water and sanitation services are spatially clustered in the North West zones of Indore city (Diagram -1). Trends across poverty pockets indicate that the highest co-incidence of BPL households, lack of access to improved water sources and lack of access to improved sanitation occurs across zones One, Three and Ten in the north and North West of the city. The highest individual incidence of BPL households is in zone seven and eight while the highest individual incidence of lack of access to water and sanitation is in zones 1 and 6 respectively. In terms of concentration of population however Central Indore is most populated. Any intervention planned at addressing these concerns should therefore keep in view the above distribution of access and poverty.

## 5.1 Sanitation: Access and Availability

Status of access to sanitation facilities sanitary conditions seems to be far worse than water. Nearly a quarter of the households (24%) in 604 surveyed Poverty Pockets have no access to individual toilets and 16% households, in fact, still defecate in the open and Not more than 8% households use community toilets. This is indicative of the limited use of the community toilets in improving the sanitation environment in the area. Its limited use is also explained by the lower availability and accessibility, apart from poor maintenance in terms of irregular or no water supply, bad sanitary condition and lack of proper drainage, among many. As low as approximately 8% households in the surveyed PPs claim to have access to the 126 community toilets that exist in 604 PPs of Indore While only 60% of these toilets are linked with the secured water supply source. It sufficiently explains why 18% community toilets are not in use and 27% are maintained but overcrowded.

## 5.2 Water and Sanitation in Schools (Including Aanganwadis and Baalwadis)

Lack of infrastructure contributes further to lower retention rate, especially of the girl child/adolescent, in the fewer schools that are available there. Almost 30% of the primary schools do not have drinking water facilities and 26% schools (among all categories) are without toilet facilities. Nearly 65% of the schools do not have separate toilet facilities for girls and boys. The major issue of concern in both the aanganwadis and baalwadis is the lack of toilet facilities as approximately 50% of both lack the same, despite both these programs being central to the government's mother and child health care policies and gender equity.

## 5.3 Sanitary Condition of PPs: Solid Waste and Waste Water Disposal

Absence of planned development of PPs is a major reason for absence of waste disposal facilities (both liquid and solid waste). In the absence of sewer facilities 88% of the households let waste water flow into open drains and streets, causing a major health hazard, as only 23% of the total households have access to a sewer or septic tank in which to dispose grey water.

Like any other slums of the city, the availability of dustbins, their regular cleaning and user's waste disposal behaviour are not very different here. Lack of a defined garbage dump point or designated areas for solid waste disposal and inefficient municipal services could be responsible for more than 62% households dumping waste in the open making the area vulnerable to diseases borne by flies and mosquitoes and other such parasites. Only 14% households in 604 PPs receive a doorstep facility for solid waste disposal and only 13% are taking the garbage to neighbourhood points. A matter of serious concern is that 11% of the households are letting the garbage flow into drains.

A large percentage of poverty pockets (63%) remain totally deficient in terms of coverage by lined drains. Worse still, where stagnant water was reported, garbage was being thrown in the drainage channels of the slum implying a serious cyclical problem of water logging. As a result over 79% of the Poverty Pockets reported the incidence of water logging. This is also because only 37% (approx.) of drains are lined in those PPs and not cleaned regularly.

In the perception of PLA (qualitative survey) respondents the open drainage system and water logging were serious problems and contributed directly to unhygienic and unsanitary conditions in the slums. Another concern related to unlined drains emerging from qualitative survey was the contamination of water sources such as taps were lines crossed unlined drains. The PPSA thus calls for planning interventions for improvement of basic services in PPs with emphasis on water and sanitation facilities.

## Diagram 1: INDORE ZONE AND WARD MAP


| | | |
|---|---|---|
| Zone No 1 | Wards No. 2,3,4,5,7,20 | |
| Zone No 2 | Wards No. 17, 18, 19, 21, 27 | |
| Zone No. 3 | Wards No. 22, 23, 48, 49, 50, 34, 54 | |
| Zone No. 4 | Wards No. 43, 44, 45,46,57,58 | |
| Zone No. 5 | Wards No. 51,52 | |
| Zone No. 6 | Wards 55,59,67,68,69 | |
| Zone No. 7 | Wards No. 41,61,63,64,65,66 | |
| Zone No. 8 | Ward No. 9,34,36,39,62 | |
| Zone No. 9 | Wards No. 31,33,35,37,38 | |
| Zone No.10 | Wards No. 10, 11, 12, 32 | |
| Zone No. 11 | Wards No. 8,14,15,16 | |
| Zone No 12 | Wards No. 26,28,30,40,42,60 | |

## Annexure - 1

# PPSA Questionnaire

**NOTE** *TO THE ENUMERATOR AND MUNICIPAL CORPORATION STAFF: RECORD GENERAL OBSERVATIONS ABOUT THE NEIGHBOURHOOD ENVIRONS. THE PURPOSE IS TO CAPTURE FEATURES OF THE POCKET THAT ARE COMMON TO ALL DWELLINGS AND PERSONS LIVING IN THE AREA AND DEPICTING IT ON A MAP.*

**Q 1. Name of the Poverty Pocket**

A. WARD NUMBER: .....
B. NAME OF THE WARD SUPERVISOR (HEALTH DEPARTMENT): .....
C. NAME OF THE SUB ENGINEER (WATER SUPPLY DEPARTMENT): .....

**Q 2.**

**a. Number of Households ----------**
**b. Population----------**

**Q 3. Number of BPL Households**

**Q 4. Physical boundary landmarks for demarcating the North, South, East and West Edges for the pocket :**

a.Distance from North to East Landmark .....
b.Distance from East to South Landmark .....
c.Distance from South to West Landmark .....
d.Distance from West to North Landmark .....

**Q 5. Condition of roads:**

a. Total Length of road.....
b. Length of kucha road .....
c. Length of pucca road .....
(In Kilometre)

**Q 6. Condition of drains:**

a. Total Length of drains .....
b. Length of pucca drains .....
c. Length of kucha drains .....
(In Kilometre)

**Q 7. Is the area prone to water logging:** **Yes/No**

**Q 8. Number of Street light Poles**

**Q 9. Is there a community activity area (Common places for gathering of people): Yes/No**

**Q 10. Condition of Schools:**

a. Number of Primary schools
b.Number of Primary Schools having drinking Water facility
c.Number of Primary Schools having Sanitation facility with water supply
d.Number of Primary schools having separate toilets for boys and girls

**Q 11. Condition of Anganwaris / Balwadis:**

a.Number of Anganwari?
b.Number of Anganwari having toilets with water supply?
c. .....Number of Balwadi?
d.Number of Balwadi having toilets with water supply?

**Q 12. Distance to the closest health sub centre (in Kilometre)**

**Q 13. Drinking water supply source:**

a. Number of public stand posts .....
b. Number of Wells .....
c. Number of hand pumps .....
d. Number of Tube wells.....

**Q 14. Water quality:**

a. Sweet taste
b. Salty
c. Taste less

**Q 15. Availability of Water Supply**:

No. of hours supply per day from standposts/piped water supply

**Q 16. Community Toilet**

a. Is there a community toilet in the area? Yes/No
b.Number of total seats for male/female: ------/-------
c.Does it have a permanent water supply facility? Yes/No
d. Does it have a bath facility? Yes/No
e.Is it connected to a septic tank or sewerage? Yes/No

**Q 17. Operation of the existing community toilet:**

1. Condition:
a. Not maintained, not useable
b. Poorly managed, but used
c. Properly managed, but overcrowded
d. Properly managed, not crowded

2. Are users paying for the services (Yes/No)

**Q 18. Solid waste scenario:**

Either of:

a.Facility of solid waste collection at the doorsteps
b.Facility of solid waste collection at the neighbourhood points
c.Solid waste is dumped openly in the area
d.Solid waste finding its way into the drains

**Q 19* Disposal of Grey water (waste water from household chores):**

a.Number of households letting it out on the street
b.Number of households disposing to open drains
c.Number of households disposing to septic tanks
d.Number of households disposing by sewerage system

**Q 20*. Sanitary facilities scenario:**

a. Number of Households having individual toilets,
b.Number of Households using community toilet……..
c.Number of households defecating in the open……

**Q 21*. Drinking water supply scenario:**

a.Number of Households having access to Piped water supply ……
b.Number of households using public standposts/taps, borehole or pump, protected wells, protected springs or rainwater/ handpumps ……..
c.Number of households depending on tankers, vendor provided water or unprotected wells and springs…… .....

*** Note 1: In items 19, 20 and 21 the number of Households in various categories should add up to the total number of households in the area as given in 02**

**Note 2: Except Q : 1, 2, 3, 7, 12, 15, 17, 18, 19 the remaining physical features should be depicted on a map prepared on a scale of 1 : 600 (1" = 50') with clear boundary demarcations.**

**Municipal Corporation Staff 1**

Name……...

Designation ……

Sign…….

**Municipal Corporation Staff 2**

Name……...

Designation…….

Sign…….

**Enumerator 1**

Name……...

Sign…….

**Enumerator 2**

Name……...

Sign…….

# REPORT FORMAT

[ALL IN KILOMETRES]

| Length of roads (pucca and kucha) | Length of pucca drains | % of length not covered with pucca drains [1-{(b)/(a)}] * 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q.05 answer code=1 | Q.06 answer code=2 | |

| Length of roads (pucca and kucha) | Length of pucca road | % of deficiency of pucca road [1-{(b)/(a)}] * 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q.05 answer code=1 | Q.05 answer code=3 | |

| Length of roads (pucca and kucha) | No. of existing streetlights | % of deficiency in street lights [1-{(b)/((a)/30)}]*100 |
|---|---|---|
| (a) | (b) | (c) |
| Q.05 answer code=1 | Q.08 | |

| Total Number of Households | Households served by Piped Water Supply | % of households not covered with piped water supply [1-((b)/(a))]* 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q2.0 answer code=1 | Q.21 answer code=1 | |

| No of hours supply per day | % of hourly supply available to population (% of hours supply ) [(b)/24] * 100 |
|---|---|
| (a) | (b) |
| Q.15 | |

| Total number of Households | Households covered with toilets | % of households not covered with toilets [1-(b)/(a)]* 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q2 answer code=1 | Q 20 answer code 1 | |

| Total number of Households | Number of households disposing to septic tanks and sewerage system | % of households with access to improvedway of disposal of Grey water [(b)/(a)]* 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q2.0 answer code=1 | Q.19 answer code=3+4 | |

| Total number of Households | Number of Households dependent on tankers,vendor provided water or unprotected wells and springs | % of households with access to improved water source [1-(b)/(a)]* 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q2. answer code=1 | Q.21. answer code=3 | |

| Total number of Households | Number of Households defecating in the open | % of households with access to improved sanitation [1-(b)/(a)]* 100 |
|---|---|---|
| (a) | (b) | (c) |
| Q2.0 answer code=1 | Q.20 answer code=3 | |

***Suggestion: may be good to put the source question/answer code numbers in the above matrix for the benefit of easy calculation, also useful to cross check the quality of field data in field itself by the supervisors***

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United Nations Human Settlements Programme (UN-HABITAT), 2006

UN-HABITAT Report on Poverty Mapping : A Situation Analysis of Poverty Zones in Indore

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