LIVING ON THE EDGE AND PAYING FOR IT

A study in Sanjay Colony, Okhla phase II, Delhi

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SECTION I
FOREWORD

C – 271, Sanjay Colony
27th May, 2006
11 am

*It's a hot May morning and the sun-sheltered house in front of us looks inviting. We notice an old man sitting on a staircase opposite the house, and in the hope of getting invited inside, we begin with our staple starter: "*Bijli pani ka survey karna hai, uncle… yahan kaisi suvidhayen hain…"[1]
"Kya suvidhayen?" *He cuts us short.* "Koi suvidha nahi hai yahan".[2]
We ask him if he would elaborate on that. He willingly obliges.

Mr. Jamir Ali is close to 60 years of age, and has spent nearly half his life in Sanjay Colony. His extended family of eight lives in a two-room house. As we sit down on one of the numerous water containers lined up outside the house, his wife comes out and offers us water. That's the cue for our first question relating to provision of water.

It turns out that water tankers scheduled for the day, on which most residents rely for their basic needs, haven't arrived yet. That explains the queue of empty containers. We point to a water pipeline running along the lane – and are promptly told that taps in the area ran dry within two months of their installation which, interestingly, was right before Assembly elections.
"So what will you do about water now?"
"We'll go shopping for it."
We are puzzled.
He continues: "Here if you want water, you beg, borrow or buy."
And over the next one hour, as Mr. Ali speaks, the puzzled look gradually wears off our faces.

12:15 pm

We finally get invited inside. Mr. Ali, who had left us a minute back, returns with a small ceiling fan in his hand and reinstalls it on his ceiling for us. As we sigh in relief, he warns us that it may not last for long. The reason: He has not paid his electricity bill for about a year now. This non-payment was intended to be a community initiative against the huge bills slapped against residents by the private power contractor. Gradually, though, most residents buckled under pressure and now he's the only one left protesting.
"This 'contractorisation' of power has to be ended. But who listens to us??"

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[1] "We have to carry out a survey regarding the water-power situation… what facilities are available here…"
[2] "What facilities?" "There are no facilities here."

1:00 pm

We sit down for lunch, and are introduced to Mr. Ali's 14-year old daughter Shehnaz. We ask about her studies, she replies that she dropped out of school after class V.
"Why?"
"Government schools are too far off. My father was apprehensive about the traffic on the main roads… There was a case two years back where a girl lost her leg in an accident…"

Over lunch, we get to know of her tuberculosis problem. She had first gone to a local quack with her coughing fits, and then moved on to Safdarjung, a government hospital. She was on daily medication for the next 6 months. When the cost of medicines started building up, they looked around for help. It appeared in the form of a medical centre run by a non-government organisation.
"That was fortunate. If we hadn't come across it, we might have had to stop her medication", *Jamir Ali tells us.*

Suddenly there is a commotion outside – water tankers have finally arrived. As the family rushes off with their empty containers, we are left munching our food.

2:30 pm

After lunch, we get ready to wrap up our survey; it has taken too long already. But when Mr. Jamir Ali returns, he has a direct question for us: Can we arrange for a loan for him? We ask if he has tried obtaining credit under the various bank schemes targeted at the urban poor. Yes, he replies. He did try, but he "could not afford the bribe".
We ask for details.
"You have to slip in 5,000 to get a Rs 50,000 loan sanctioned… what use is it then?"

2:45 pm

We prepare to leave. One last look around the room and we estimate it to be about 6 feet by 8. We know we should be moving, but we have to ask how he came in possession of the land. He relates to us his story, and wraps it up with a question:
*"*I've lived here for 30 years. My entire family stays here. My daughter knows no other house. And tomorrow they'll just hand us a notice telling us to pack up and leave. Am I not worth even this 25 *gajj*[3] of land?"

[3] Square yards

SECTION II
EXECUTIVE SUMMARY

The aim of our research project was to conduct a survey among residents of an unauthorised settlement in Delhi, and try to calculate the poverty premium (if any) being paid by these residents for a basket of basic services comprising water, power, education, health, sanitation, housing, and finance.

The term 'poverty penalty' became widely known through a book by C. K. Prahalad, *The Fortune at the Bottom of the Pyramid* (2005) in which he established the premium paid by residents of Dharavi, Asia's biggest slum, in comparison with their more affluent fellow citizens living in Warden Road, one of Mumbai's posh areas.

This paper attempts to undertake a similar exercise in Sanjay Colony, a slum settlement in Delhi's Okhla phase II. Two main questions which the paper seeks to answer are:
1. Is there a poverty premium being paid by the urban poor for basic public services?
2. If yes, how much is the premium (in both qualitative as well as quantitative aspects)

Our month-long primary research in the area threw up – among other findings – the following noteworthy points:

- Water: Residents here pay Rs 45 per kilolitre of water, which imposes upon them a premium of 4 to 7 times when compared with bills paid by subscribers to the city's Water Board connections.

- Finance: At the usual Sanjay Colony rate of simple interest (10% per month), they incur a penalty which is ten times the interest rates charged by banks. Loans at short notice in the Colony can be obtained only at an interest rate of 10-15% per day.

- Sanitation: Even with three public toilet complexes in the vicinity, only 15.7% of the surveyed population prefers to use them due to a host of problems. 62.1% residents use a nearby jungle for defecating despite expressing concerns about lack of hygiene and security there.

- Health: Despite financial constraints, 54% residents opt to go for private treatment on account of the various procedural hassles that government hospitals involve.

SECTION III
INTRODUCTION

Poverty Premium: Penalizing the Urban Poor?

The term 'urban poverty' is as difficult to define as the phenomenon itself is easy to encounter. Although the phrase "urban poor" usually evokes vague equations with "people in slums", urban poverty is far from homogenous in nature. For the purpose of this study, the urban poor (excluding the homeless population, i.e. persons with extremely transient dwelling) were classified into three main categories on the basis of their housing structure. The bottom tier comprised people living in shanties and/or settlements that do not have a proper brick-and-mortar structure. The middle tier consists of partly cemented settlements, such as houses with brick walls and asbestos-sheet roofs. The topmost tier includes dwellers of houses that possess an entirely brick-and-mortar structure. All three categories constitute the urban slum population.

The National Sample Survey Organisation (NSSO) defines a slum as "a compact settlement with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions". Such an area is considered as a "non-notified slum" if at least 20 households lived in that area. Areas notified as slums by the respective municipalities, corporations, local bodies or development authorities are treated as "notified slums".

Poverty premium, in the context of this paper, is defined to be the differential between the "real cost" per unit of a commodity paid by the urban poor and the market price paid by more affluent residents. "Real cost", as we see it, includes both the actual price paid for a commodity, as well as other hidden costs like cost of access, opportunity cost of procuring the service, cost incurred due to below-par quality of the product, and the cost of irregularities in the distribution mechanism of the service. In other words, the premium can be qualitative as well as quantitative in nature.

Reasons for this premium can be numerous. Lack of consumer options scores high on this list of culpable factors. With limited avenues to choose from and often faced with a situation of monopoly/oligopoly on the supply side, consumers are compelled to pay a premium on certain products. Looking at the provision side, this lack of options can be attributed to a general perception that the urban poor do not have enough purchasing power (nor willingness to pay) to drive adequate demand and to form a viable market. Another reason is lack of corporate initiative to break through these hitherto-untapped markets by way of innovations designed for their specific consumer needs.

Informality of markets is another reason for premiums. In the absence of a formal government/corporate set up, unregulated (and often non-institutionalised) markets

crop up to cater to the unfulfilled service demands of a community. In the absence of monitoring, there is no incentive for the informal set up to focus on the quality of service, or to ensure efficiency, regularity and fairness in provision.

Inefficiencies in access and distribution also add to the premium by imposing upon consumers hidden costs like price of access and opportunity cost involved in availing of the service.

Illegality of residence, or citizen status, has a major role to play here. While issues of illegality may not per se hamper the provision of basic services, they often hinder any kind of initiative to look for permanent solutions to problems of inefficiencies within the set up. Also, by making consumers wary of opting for a legal recourse in case of any grievances, illegality adds to the qualitative premium on a service.

Why 'Living on the Edge'

Despite being located in the country's capital city, slums in Delhi are often relegated to the periphery when it is a question of access to basic services. Saddled with usually inefficient and largely inadequate government provision of services, these slums do not even have the option of organised private alternatives since the corporate sector presumes that they do not possess enough purchasing power. As a consequence, these slums are pushed to the edge as far as efficient government/private provision of basic services is concerned.

Faced with inadequate and inefficient government provision of certain services (like water), and in the midst of illegality and surrounding issues, residents in Sanjay Colony are paying a premium – either qualitative or quantitative or both – for most basic services covered in our survey.

Through the By-lanes of Sanjay Colony…

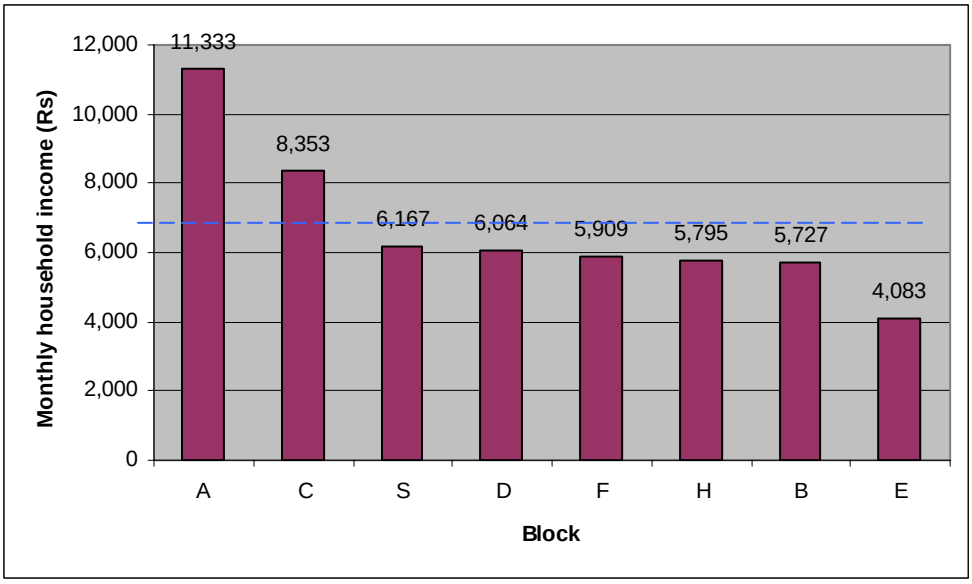
Sanjay Colony is a notified slum located in Okhla phase II near Kalkaji. The slum is situated on elevated land and has a hilly topography with the outer areas situated on a slightly higher level than the interior areas.

The Colony came into existence nearly 30 years ago when migrants (primarily from Bihar and Uttar Pradesh) started occupying vacant plots of land here. Today, this unauthorised settlement has the status of a 'notified slum' which entitles it to electrification and an official water distribution system.

At present there are more than 5,000 houses in Sanjay Colony, with a total population of nearly 35-40,000.[4] The slum is roughly divided into nine blocks – A to H and S. Some blocks have distinct occupational characteristics; for instance, block A is the hub of the export-line business and rag picking work, block C has a large number of tailor shops and block F mainly comprises of '*gujjars*[5]'. The most common lines of occupation among the earning population are contracted export jobs, scrap dealing, shop keeping, tailoring and factory labour.

As per this survey, the average family size in Sanjay Colony is six or seven, and the average household income is Rs 6,856 per month.[6] As apparent from figure 1, this average (indicated by the blue dotted line) is pulled up substantially by the higher income levels of blocks A and C.

Fig. 1: Block-wise average monthly household income



Source: Annexure 1

[4] Source: Area councillor Sunil Bidhuri

[5] Milkmen community

[6] See annexure 1

SECTION IV
METHODOLOGY

The first step was to identify a suitable location for research. Using the internet, four potential case-study areas were tracked down. After paying a visit to each of these four areas, Sanjay Colony (located in Okhla phase II) was chosen since it had a mix of all three kinds of settlements as detailed in the introduction of this paper. While the status of a 'notified slum' gives the Colony government-sanctioned access to water and power, informal options are also available for services like water, health and finance.

Over the next one week we acquainted ourselves with the Colony and gathered preliminary information about the basic services we intended to focus upon in the survey (i.e. the various options available and mode of provision of each service). Based on the extent of information available, it was decided to cover seven basic services – water, power, education, health, sanitation, housing and finance.

The next step was to identify the stakeholders involved. These turned out to be the local residents, service providers and service suppliers. A structured questionnaire was then prepared which sought to elicit response regarding the provision of each service, price paid for it, and the poverty premium (if any).

It was decided to interview 95 households – 15 each in blocks A, C and E; 11 each in blocks B, D, F and H; and 6 in block S. The block-wise sample size was arrived at after gathering a preliminary idea about the relative distribution of population among the various blocks. The sampling method used was stratified random sampling. In order to obtain a fair representation of the universe, an attempt was made to include proportionate numbers of houses on rent as well as shops being operated out of houses.

While the consumers' account of the basic services was covered by the questionnaire, various service providers were also interviewed. These were – the Delhi Jal Board office (Okhla phase II), Sulabh International office (Palam-Dabri Road), the four public toilet complexes catering to Sanjay Colony, two power contractors, the two schools within the Colony, four local doctors and a couple of Sahara Finance agents.

SECTION V
"LIVING ON THE EDGE…"

5.1 WATER

Water is probably the most valued commodity in the *galis*[7] of Sanjay Colony, deriving its value from the fact that there is never quite enough of it. Within minutes of having struck a conversation with residents, woes of water come pouring out in a way the manna from their taps never has.

5.1a PROVISION

The multiplicity of water sources that seems to exist at first glance turns out to be eyewash since more than one of them are unviable solutions to most residents.

Tankers: On paper, the Delhi Jal Board (DJB) is supposed to provide water free of cost to slum clusters through tankers. In reality, provision through tankers is massively inadequate for this 30,000-strong community. Each tanker comes in the name of a certain person who is responsible for distributing water to the 20-30 members of his/her 'list'. For most individuals, their allotted tanker arrives once in two or three days.

Community taps: *The area is served by a 50,000-gallon capacity booster pump. Water reaches residents through taps, one located between every four or five houses. These taps were installed before the last Assembly elections, and have run dry since then.*

Bore wells: To extract groundwater, the DJB has dug two bore wells in the Colony. But during summer months, this is a near futile effort owing to the low water table level. Apart from issues of water availability, bores in the area have been grabbed for exclusive personal use by households closest to the bores.

Purchasing water: Inadequacy of the government provision, coupled with lack of well defined user rights over free resources (DJB tankers, public bores/taps), compels residents to look for other sources of water – usually at a steep price. The main avenues for purchase of water are: public toilet complexes where borewell water (meant for consumption within the complex) is 'unofficially' sold, and private borewells/taps in nearby areas from where residents carry home water in containers. Some payment also has to be made to keep tanker drivers in good humour so that tankers arrive without fail. While some respondents viewed this is as "just *chai pani*"[8] that they offer to drivers of their own volition, others claimed that they are routinely asked for money before being allowed to fill water from these tankers. Nearly 60% of residents' water consumption comes from these priced sources.

[7] By-lanes

[8] Tea, snacks

Procuring water from nearby areas: Faced with lack of water, residents often have to go looking for water in nearby areas like Govindpuri, Kalkaji, Okhla phase III etc. Such water is procured from DJB offices, private hand pumps/taps, etc. and usually comes at the 'normal' water tariff (see page 12).

5.1b PREMIUM ON WATER

Qualitative Assessment

Tankers

The tanker system, which seems to be simple enough on the face of it, is actually a complicated mechanism of water distribution. Matters of politics often intervene; it is alleged that mostly it is people with political patronage who manage to get tankers allotted in their names, and so the list of beneficiaries gets edited with every shift in the power balance.

There are distributional issues too. Many residents complain of missing out on their share of water due to a variety of reasons. One of these is simply the geographical difficulty of not being close enough to reach tankers in time. Also, some residents claim that although their signatures were eagerly sought while applying for a tanker, once it gets allotted they are not always allowed free access to the water. There are also many residents who are not part of any 'list' and thus do not have a claim over any of the tankers. Such ambiguous and **poorly defined allocation of rights** over tanker water leads to much resentment which manifests itself in the form of physical fights that break out over tankers. Although one tanker is supposed to take care of an entire *gali*, sometimes it is only a few influential people who get to fill water, while at other times more than a hundred households turn up to claim their share.

Community taps

The level of water in the main booster pump determines the quantity of water supplied. During summers, it is hardly adequate to satiate the basic water requirements of the area. In the inner blocks that are situated higher than other areas, water does not reach taps at all. Also, water pipes run along – and often inside – sewage drains which poses a grave health risk, especially in monsoons when drains inevitably overflow. Problems of undefined usage rights plague the community taps system too.

> ***"Follow the pipe…"***
>
> Water pipes running through drains are the most visible vestiges of a redundant water distribution mechanism. The process of evolution, however, has provided these pipes a new life form as direction pointers. This became apparent when we went looking for a local doctor in Sanjay Colony. Every time we stopped to ask for directions, we were told simply to "walk along the pipe". The mantra was reiterated confidently by residents even when moments of doubt plagued us – at one point when the pipeline looked broken for good, a helpful shop lady spat out her betel leaf, pointed out to a spot in the distance (where the pipe appeared to have been repaired) and advised: "Just follow the pipe..."

Borewells

The quality of bore well water is so poor that it is undesirable not only for drinking purposes but also for washing & bathing. Many people remark that they use bore water only for cleaning their house.

Purchasing water

Public toilet complexes are the most frequent recourse for making good the daily shortfall of water. But shauchalays[9] mostly obtain their water from bore wells. This water is salty and hard, and not meant for drinking purposes. However, with no other alternatives, residents use it as drinking water without any further treatment at all.

Quantitative Assessment

Interestingly, the market for water seems to have established a rigid equilibrium in this area – **Re 1 for every 20 L** of water seems to be the universal tariff, whatever the source or amount of purchased water.

As per our survey, the average expenditure incurred on water by Sanjay Colony residents is **Rs 236 per month per household**. The average household water consumption in a month comes to 5,280 L. Hence, residents here are consuming water at an average of around Rs 45 per kilolitre whereas for priced DJB water connections throughout the city, most consumers pay between Rs 6.67 to Rs 11.83 per kilolitre (see table 1).

This translates into a **poverty premium of 4 to 7 times** on water[10]. Further, if the volume of water consumption per household is held constant, residents would be paying **6 times less** if they had metered DJB connections, and that too for municipal-grade good quality water as opposed to the quality of water they are compelled to consume now.

Table 1 DJB tariff applicable w.e.f. 01.04.2005

Consumption (KL per month)	*Rs per KL (B)*
Upto 6	0.00
7 – 20	2.00
21 - 30	7.00
Above 30	10.00

Note: The bill is to be calculated as follows:

P= M + 1.5 B X, where

M = Minimum service charges (Rs 40 per month per connection here)

B = Block tariff rates per KL

X = Units consumption in KL.

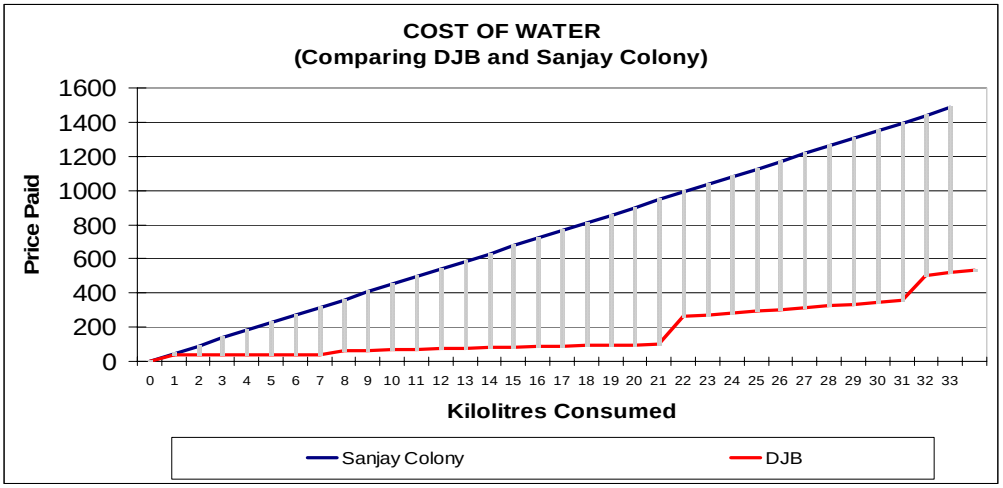
[9] Public toilet complexes

[10] See annexure 2

When represented in the form of a diagram (figure 2 below), the quantitative premium incurred at various consumption levels of water is apparent.

In figure 2, the blue line traces the price paid for various levels of water consumption at the Sanjay Colony rate, while the other line indicates the amount billed as per DJB tariff. The difference between the two is the quantitative premium paid by residents of Sanjay Colony. The figure, of course, does not take into account the qualitative premium imposed due to consumption of borewell water that is hardly fit for drinking.

Fig. 2 Poverty premium on water



Source: Annexure 3

So, How Much Does Free Water Cost?

Since the provision of free water is insufficient to meet everyone's daily water requirement[11], money is expended on purchasing water from the following sources:-

- *Water from shauchalays:* Water is sold outside Sulabh shauchalays at the aforementioned rates. Although residents report that they hardly use the Sanjay Colony shauchalay owing to unavailability of water, the person in charge of the shauchalay orders tankers every week (paid for by the shauchalay authorities) and then charges residents for water.
- *The rickshaw water system:* Rickshaw drivers can be hired to go procure water from nearby areas. The driver charges about Rs 30-35 as his service charge, and also gets reimbursed for the money paid to obtain water. A typical rickshaw trip sets back a family by at least Rs 50-60.
- *Tanker driver:* Some residents claim that tanker drivers ask for up to Rs 100 per week from all beneficiaries of a tanker. This amount, when split amongst them, comes to Rs 10-15 per household per fortnight.

[11] See page 14

The Daily Story in Numbers…

1. Daily water requirement

As per the United Nations Population Fund estimates, the basic daily water requirement (BWR) comes out to be 50 litres per capita for the purposes of drinking, sanitation, bathing, cooking and kitchen needs.[12] However, it is accepted that factors like distance to the primary source of water, means of access available, and nature of ownership over the water source (sole/ shared), tend to bring down the average water consumption. For this survey, the average BWR in Sanjay Colony has been taken to be **25 L**[13] per person. The daily household requirement would, thus, be calculated as: 25 L for each member, plus 25 L of water needed for household chores over and above personal requirement.

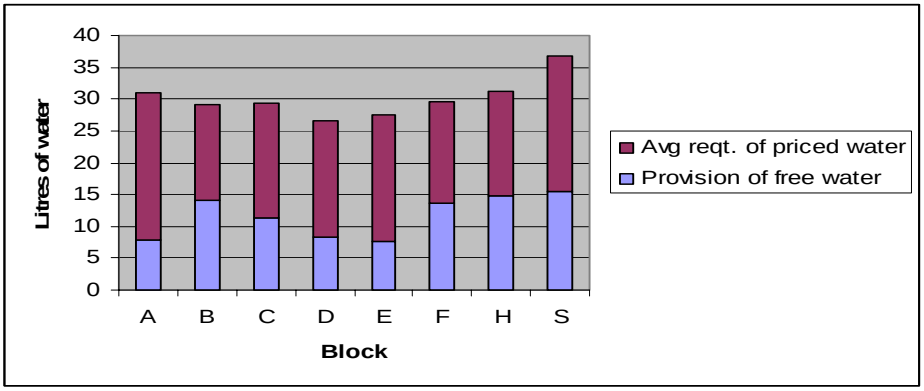
2. Daily requirement of priced water per person in Sanjay Colony

This is calculated as the difference between the average daily consumption[14] and the quantity of non-priced water an individual manages to procure each day from tankers/ taps/ public bores. Henceforth, this difference is also referred to as the "daily shortfall", since it essentially describes a shortfall of free (non-priced) water. This shortfall of free water is what compels residents to procure water for money.

The block-wise per person average daily requirement of water (total) and average daily requirement of priced water is shown in figure 3 below. For instance, in block A, an individual's average water consumption is 31.9 L (obtained by dividing the total household water consumption of the block A sample by the number of persons in the block A sample). Of this, 7.9 L is obtained from public sources such as DJB tankers, public bores and taps, while the remaining 23 L of water is procured on payment.

Fig. 3 Block-averages of daily water req (total) and daily req of priced water

(All figures are daily per person averages)



Source: Annexure 4

[12] Source: United Nations Population Fund (UNFPA). 2001. *The State of World Population 2001.* Available at http://www.unfpa.org/swp/2001/english/ch02.html. Accessed on 22 July 2006.

[13] 25 L appears to be the base minimum water requirement per day per person, as per our survey

[14] Average daily water consumption: Daily household requirement / Number of family members

3. Average monthly payment for water

What emerges from the figures in table 2 below is this: While block A, which has the maximum purchasing power, is quite predictably spending the maximum amount on its water needs, even the block with the least purchasing power (block E) ends up paying a lot for water. However, the expenditure pattern of the two blocks is starkly different. Several respondents in block A order private tankers on need basis, which implies that block A chooses to incur expenditure on better quality water as compared to that from, say, bores. But block E, limited by financial constraints, has to buy water mostly from nearby shauchalays, that is hardly fit for drinking. Hence, in spite of paying an average of Rs 280 per month per household on water, block E has to make do with extremely poor quality water which is barely potable.

Table 2 Block-wise depiction of monthly expenditure on water in comparison with average monthly household income

(All figures in Indian Rupees)

Block	*Monthly household income*	*Monthly expenditure on water*
A	11,333	352.0
C	8,353	208.0
S	6,167	243.3
D	6,064	208.2
F	5,909	180.9
H	5,795	183.6
B	5,727	189.1
E	4,083	280.0

Source: Primary research

A Case for User Charges?

In comparison with the monthly household income, the average expenditure on water of each block is not vastly different across the eight blocks. This is despite the fact that some blocks (like A and C) have a monthly income much higher than the Colony average, and hence can afford to pay more for their water needs. This near-parity in payment can be explained by the fact that sources of water are common to all and there is not much variance in the price charged from different consumers.

This seems to be an apt situation where a case can be made for applying user charges within a formal service framework. If some water provision system could be established wherein slabs are created on usage basis and consumers are charged slab rates (as opposed to a flat rate), the resulting situation would be Pareto optimal since each slab of

consumers is being charged the highest rate they're willing to pay[15], and this exhaustion of consumer surplus makes sure that no Pareto improvement is possible in this situation.

The Unwanted Intermediary

On interacting with residents in Sanjay Colony, one thing that was striking was the whole-hearted approval expressed by people to the idea of billed water usage (through pipe lines straight to home). Their reason was simple enough: Since they're already paying quite a sum for low-quality water bought from informal markets, why not pay 'officially' to consume DJB water that would be better in quality and much easier to access?

DJB officials had similar views: Since they incur a considerable cost in providing tanker water to these clusters, which anyway falls inadequate due to distributional problems, why not offer an assured supply to consumers and charge them as per use?

It is ironical that when producers are willing to charge for a commodity and consumers are more than happy to pay for it, the intermediate 'benevolence' of those in power forces "free provision" upon citizens and makes them pay a fortune for alternatives that are barely worthy of consumption.

4. Opportunity cost of procuring water

The expenditure on water in Sanjay Colony includes both the access cost as well as the unit price of water. A working person here goes searching for water at least twice a week. The opportunity cost of each of the 95 surveyed households was calculated in the following manner: A typical water-hunting trip takes up around 2 hours. While residents do try to avoid cutting into their work time, often they face tradeoffs between going to work and procuring water. And since most residents are on daily wages, the decision to choose water over work results in wage slashes. For estimating this opportunity cost of water, the per-trip loss of salary was calculated for each house. This, multiplied by the number of times a month this cost is borne, gave the monthly opportunity cost of water for each household.

For instance, if a house has one earning member who makes Rs 100 a day (which translates into Rs 10 an hour for a 10-hour working day), then the opportunity cost borne on each water-procurement trip comes to Rs 20. If such trips are undertaken twice a week, then the cumulative opportunity cost for the month is 8 times Rs 20, i.e. Rs 160.

The average monthly opportunity cost on water, as per our calculations based on responses given in the survey, is **Rs 155**. Out of a total Rs 236 spent on water per month, this price of access obviously costs households much more than the price per unit of water.

[15] "willingness to pay" is reflected in the usage pattern: each consumer chooses to use within the maximum slab rate that is acceptable to him/her.

Community Initiative: Chasing a Mirage?

A pertinent question here is: Despite being regular consumers of priced water, and despite spending close to Rs 240 per month on water, why are residents still compelled to consume sub-standard water?

Grabbing of public resources for exclusive personal use is part of the problem. Owing to ambiguity in usage rights, benefits of the water distribution mechanism appear to be unfair and highly skewed. But it is lack of initiative – both corporate/private as well as communal – that seems to be the biggest problem. Living in an unauthorised settlement, insecurity of tenure makes residents apprehensive about investing money in community projects. Hence ideas that are long-term in nature do not get converted into reality since most households live on a consume-as-per-need basis, and make day-to-day consumption decisions rather than plan for collective expenditure on a long-term basis.

Despite the extent to which water scarcity plagues the life of an ordinary citizen here, we were unable to find any instance of community participation in investments/arrangements that could work out to the benefit of everyone involved. To quote one possible solution, pooling in resources to lay down underground water pipes might work well in various areas of the Colony, but no step in this direction seems to have been attempted so far.

Price to Access, License to Waste

As discussed earlier, the one-time price to access water costs Sanjay Colony residents much more than the unit price of purchased water. In this scenario, one comes across sheer wastage of water even in the face of scarcity. Since the price of access is a fixed cost, during times of shortage people often collect quantities much in excess of their need, and dispose it of when they can access better-quality free public sources (like DJB tankers) again.

Imposition of user charges can again be advocated in this context. As per the *marginal cost principle of economics*, efficiency is maximised when producers supply and consumers consume a commodity at their respective optimal levels. Therefore, charging consumers as per their individual usage would not only work to the benefit of both producers and consumers, it would also lead to more judicious use of a commodity as scarce as water is in Delhi.

5.2 POWER

5.2a PROVISION

Post privatisation in the year 2002, electricity to this area is provided by Reliance Energy-owned BSES (Bombay Suburban Electric Supply Limited) Rajdhani Power Limited. The contractor system introduced by the Delhi Vidyut Board (DVB) is still in place and now the contractors submit collected revenue to BSES.

There are seven contractors in Sanjay Colony, each block under one or two contractors. The meter installed in each house monitors electricity usage by the household and billing is done based on the meter reading. Each contractor has a main meter for himself, which records the aggregate consumption by all the houses to which he provides electricity. The contractor is supposed to pay BSES as per the reading in his meter and in return he gets a fixed share of the total revenue collected. Each contractor has his own bill receipts. Rs 175 is the minimum rent paid irrespective of usage, and is charged if consumption is under 70 units a month. For more than 70 units, the rate charged is Rs 2.20 per unit; Rs 175 is not charged in this case.

5.2b Cartel Rule

A majority of the residents surveyed were satisfied with electricity provision. An average household uses 2 light points, 2 fans and a TV. Coolers are also used by about 70% of the households surveyed. Use of fridge and other machines is restricted to shops and commercial units. On an average there is a power cut for 2-3 hours every day in summers and for 1-2 hours in winters.

However, the 'contractorised' distribution system is the main cause of distress among residents, since the contractors work as a cartel. Common problems reported were:

- No liberty in choosing the contractor: Though the contractors do not cater to pre-specified blocks, residents are usually forced to choose the contractor who largely covers that particular section of the slum.
- No liberty to install own meter: Most contractors do not allow residents to buy a meter themselves, and try to install their own (contractors') meters. This causes resentment among residents and leads to allegations of meter-tampering.
- Lack of information: Residents are not aware of the per unit rate, components of the bill, etc. They just go by the contractor's word and pay the amount stated on the bill.
- Lack of consistency in billing: Though the per unit charge is Rs 2.20, some people claim paying Rs 3.50, while some pay Rs 1.80. Also, the additional components of the bill vary as per the contractor.

There is a monopoly power wielded by contractors in the Colony. Residents have little choice and feel cheated even with the presence of seven different contractors. The

variation in the per unit rates and additional charges is due to the fact that the contractor is completely in charge of billing the users, and has to pay BSES only according to his main meter reading. There is no check on the functioning of the contractors, which gives them an opportunity of cheating the residents.

5.2c Metering the Usage

After the introduction of the contractor system, every household was supposed to install a meter and thence pay a monthly bill to their contractor. The installation charge includes cost of a new meter, connecting wires and initial servicing. Getting a new connection costs Rs 1200, while purchase of a new meter costs at least Rs 400. Once the connection is installed, the monthly bill comes to either Rs 175 (usage less than 70 units a month) or Rs 2.20[16] times the units of consumption (for usage more than 70 units).

Only 4 out of the 95 households surveyed had never had a meter installed. Everyone else did initially pay their monthly bills, but over time 14 of them removed their connections because of huge bills or meter failure. On further questioning, these respondents accepted using the metered connection for only a couple of points and using stolen electricity for the rest. In most of these cases the contractor knows about the theft but chooses to ignore it. We term this as "*meter + stolen*" in the table below.

There are also cases of theft and 'consensual theft' (or '*paid stolen power*'). Theft happens due to reasons like inability to pay bills, excessive use of electricity etc. 'Consensual theft' is of two types – in some cases the contractor allows residents he 'knows' to pay a fixed amount every month irrespective of their meter reading (common among shop owners), while sometimes if a household repeatedly defaults on the bills and is deemed likely to resort to theft, the contractor fixes a monthly rent of Rs 200 for the household.

Table 3 enlists the details of households resorting to the various methods of electricity usage mentioned above.

Table 3: Methods of Electricity Usage

S. No	*Option*	*No. of users*	*Percentage*	*Average Per Month Payment*
1	Meter	58	61.1	Rs. 374
2	Stolen	16	16.8	Nil
3	Meter + Stolen	14	14.7	Rs. 250
4	Paid Stolen	7	7.4	Rs. 200

Source: Primary research

An interesting observation is that blocks A and C (with higher than average income) have more cases of electricity theft in the form of 'meter + paid'. The reason: they know contractors better and are aware of ways to steal electricity without getting caught.

[16] Subsidised rate for slum areas

Powerless residents

Privatisation seems to have had no effect on the provision system of electric power here, since the electricity situation has not changed even after privatisation. Residents of the Colony cannot choose their contractors, nor can they change them, without payment of large sums of money. There seems to be collusion between contractors that explains the near-homogenous billing structure and a similar style of functioning across contractors.

There are hardly any instances of repairs being done; contractors insist on changing the meter at any hint of a fault. Even in cases when the contractor agrees to repair faults, he does so only on the 1st of the month. A service charge of Rs 20-25 per month is added to bills, although the only servicing provided is the monthly meter reading & billing. Residents complain about not being allowed to install/buy their own meters. Almost all of them feel they are being overcharged, but say they 'cannot' verify meter readings since they do not know how to. There are also instances of varying rates as per the contractor's volition – parts of block E, for example, pay a rate of Rs 3.50 per unit.

Thus, there are several problems faced by residents despite paying for electricity and despite the fact that a legal system is in place to take care of the power situation. During our interviews, contractors, users and the BSES all gave us different takes on the situation. Contractors complain about electricity theft by residents and rampant defaulting on bills. All this, they say, leaves them with hardly any money to hand over to the BSES. Residents feel that it is their 'right' to steal electricity, since contractors themselves cheat the BSES by switching off their main meters at night. And the BSES, while admitting the faults of the existing system, maintains that a new system will soon be introduced. Hence electricity theft, discontentment among residents and rule of the cartel prevail even as the blame game continues.

We feel that the removal of this contractor system would be a step in the right direction. However, certain aspects need to be addressed for the new system to succeed. Community participation is an important force of change that is completely untapped till now. We came across only one instance of group initiative in the Colony, wherein residents of block E made their resentment vocal and succeeded in changing their area contractor as they felt they were being grossly overcharged. Such initiatives can go a long way in keeping contractors in check. Improving the level of awareness among residents about the power situation is also essential. They need to know the basic functioning of the system, proper billing rates and, most importantly, should be able to check their meter reading. It was noticed that some residents refused to pay bills simply because they felt the bills were too high. Community participation can also help in another context – it can create awareness about proper electricity usage to minimise resource wastage.

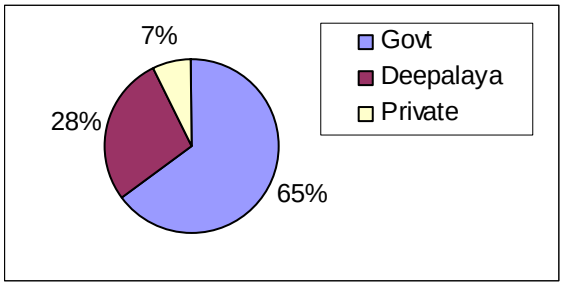
5.3 EDUCATION

5.3a PROVISION

Various schools cater to the residents of Sanjay Colony. Among government aided schools, there is a primary school (till standard V) run by the Municipal Corporation of Delhi (MCD) within the Colony, and two government-run Sarvodaya schools in nearby areas. Within the Colony there's also a school run by the non-profit organisation Deepalaya that imparts education up to standard VIII. Some residents send their kids to private schools close by.

Among the 95 households surveyed, there were 71 households with school-going children and a total of 167 school-going children. 108 of them go to government schools (that includes the MCD school as well as Sarvodaya schools), 47 are enrolled in the Deepalaya school and 12 children have opted for unaided private schools. The school going pattern is depicted in figure 4.

Fig. 4: School going pattern in Sanjay Colony



Source: Annexure 5

"500 Miles Away From Home"

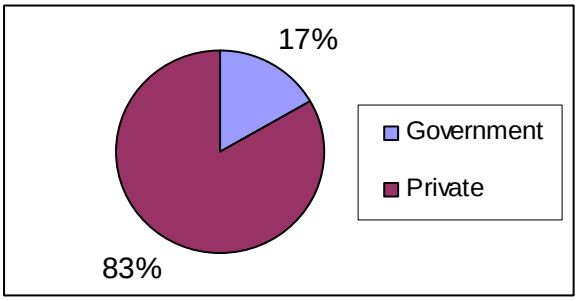
The choice of schools in Sanjay Colony is severely hampered by constraints of finance and access. While financial limitations might be expected, what demands attention is the huge role played by distance-to-school issues in determining which school a child goes to. This is true especially of younger children and girls. Most government schools are more than half an hour away on foot, and en route children have to cross at least three busy intersections. This explains why most children under 10 years of age go to the MCD school despite lamenting its poor standards.

In the case of girls, there is another kind of parental anxiety – many respondents recounted incidents where female students were harassed on their way to school. This is why many parents insist on chaperoning their daughters to school, and when that is not possible, quite a few girls drop out of school in their higher classes. We also came across an unexpectedly high number of households where girls, once they reached the

stage of secondary education, were sent back to the family's native village to pursue higher studies in schools there.

When we asked respondents that if there were no financial and accessibility constraints, to what kind of school would they prefer to send their kids, a vast majority opted for private schools[17], as can be seen in figure 5.

Fig. 5: Preferred school going pattern in Sanjay Colony



Source: Annexure 5

The tuition scene is Sanjay Colony is quite active, especially before exam time in schools. Many of these tuition classes are taken by elder school students or by students who are studying in (or have graduated from) college, but there also exist more 'professional' tuition centres. The fee ranges from Rs 20 per month (at a tuition centre run by the NGO Prayatna) to a figure as high as Rs 400-500 per month per student, especially for those studying in higher classes.

5.3b PREMIUM ON EDUCATION

Qualitative Assessment

Municipal Corporation of Delhi (MCD) school

Almost everyone we talked to in the Colony opined that the quality of education being imparted here was dismal. The school was found lacking in even the most basic infrastructure. It has no provision for drinking water, no electricity in classrooms and hardly enough benches for students. There is also a paucity of classrooms – for close to 450 students enrolled in each shift, there are only 5 classrooms and hence many students have to sit outside the room. Due to lack of permanent staff, often two or three classes of the same grade are clubbed together which makes the student to teacher ratio as high as 70:1 per class. Midday meals are served to students, but all our student respondents made it a point to mention that the quantity they are served is too little.

[17] The option "private schools" includes both private aided (like Deepalaya) as well as unaided schools.

Added to this lack of basic infrastructure is the fact that students complain about the standard of teaching. We were told that almost every day, half their scheduled classes – that is four out of eight periods – get wasted because teachers are either absent or skip taking classes. One respondent told us that he dropped out of the MCD school because of the corporal punishment meted out to students there.

Deepalaya School

The quality of education here is well appreciated by residents. The only thing working against this school is the fact that it is not recognized by the government. So after class VIII, students face problems in getting admission to government schools. Many of them have to get made a certificate stating that they've been home-schooled so far. Some others simply get diverted to the open schooling track which does not find many takers since residents feel that such schooling is not regarded highly. We also came across instances where young kids are enrolled into both a government school as well as the Deepalaya school, so that problems of school-transfer can be circumvented later. In such cases, the kid attends the morning shift of the government school and then the afternoon shift of Deepalaya, or vice versa.

Sarvodaya schools

The quality of these schools seems to be much better than the MCD school. However, the location of these schools poses a major problem for residents. Students have to walk for a minimum of 20 minutes through busy main roads to reach their school. Walking is the only option availed of by these students; out of the 45 households we spoke to, only 3 had kids who travelled by bus/rickshaw to school.

Private schools

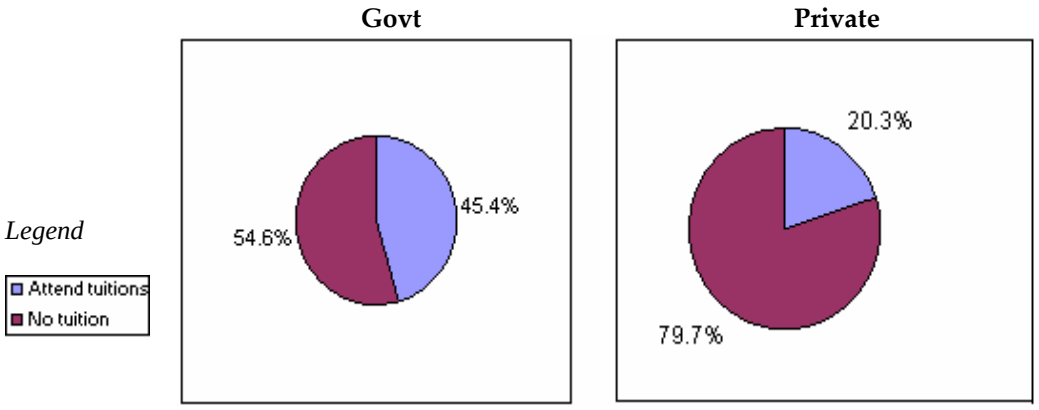
Their fee structure, predictably, is the highest among all available alternatives. Bal Vaishali Public School in Harkesh Nagar, for example, charges Rs 300 per month. A great incentive for residents to send their kids to these schools, in spite of comparatively high fees, is that the medium of education here is English.

Private tuition centres

Based on our preliminary analysis of the households covered so far, more government school students seem to be going for these tuitions than their private school counterparts, which may be regarded as a pointer towards the quality of government schools (as perceived by parents and students). There are also instances of government school students joining tuition classes only to learn English better.

Out of 108 government school students, 49 go for tuition classes (i.e. 45.4% of total government school students), while out of 59 private school-goers, 12 go for tuitions (i.e. 20.3% of the total private school students). This is shown in figure 6 below.

Fig. 6: Percentage of students in government and private schools taking tuition classes

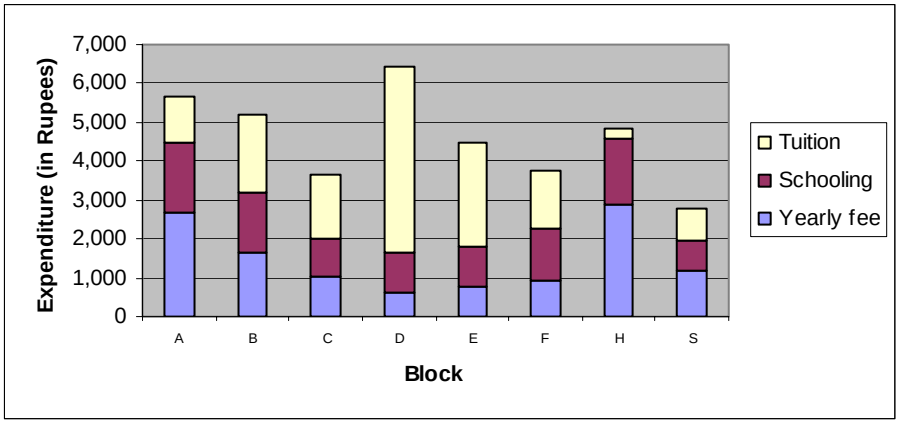


Source: Annexure 6

Quantitative Assessment

The **average yearly expenditure** incurred on children's education in Sanjay Colony, as per our survey, is **Rs 4602** per household**.** This translates into **Rs 384 per month** which is about 5.6% of the average monthly household income in Sanjay Colony. The block-wise and component-wise break up of this expenditure is shown in figure 7 below. An interesting observation to be made in figure 7 is that the block spending the least on yearly school fee, in which the maximum proportion of children go to government schools, is spending the highest on tuition charges. On the other hand, the block spending the maximum on yearly fee, which implies the highest proportion of private school going children, spends the least on tuitions. This may well be taken to be another pointer towards the difference in quality of education – perceived as well as real – provided in government schools and private schools.

Fig. 7: Component-wise break up of annual expenditure on education



Source: Annexure 7

5.4 HEALTH

5.4a PROVISION

Inadequate nutritional intake and poor quality ration, lack of clean drinking water, unhygienic environment, inadequate housing conditions and improper garbage disposal – all these contribute towards posing a serious threat to the health of slum dwellers. Women and children, in particular, are severely affected as they spend a majority of their time in this environment. The most common reasons cited for lack of good quality healthcare provision to slum dwellers are – their being a migrant population, illegality of their settlement, and the financial constraints faced by them.

The various options available to the residents of Sanjay Colony for health care are:

- Government Hospitals
  a) Safdarjung Hospital
  b) All India Institute of Medical Sciences (AIIMS)
  c) MCD Dispensary in Kalkaji
- Private clinics and hospitals
- Local doctors in Sanjay Colony
- Government medical van
- NGO Centres and Visiting Doctors

5.4b PREMIUM ON HEALTH CARE

Qualitative Assessment

Government Hospitals

The nearest government health facility is the Kalkaji dispensary, which is around 7 kilometres away. Availability of doctors and medicines here is erratic, hence this option is not popular among respondents. For specific treatment or consultation, residents have to go to Safdarjung or AIIMS. Both are situated close to each other and it takes a good 30-45 minutes to reach there. The average waiting time for getting an outpatient department (OPD) card made and then getting to consult a doctor is around 3-4 hours. In some cases residents complained that getting a card made takes a whole day, and then getting medical attention takes up the entire next day.

Private clinics and hospitals

Residents of Sanjay colony visit private clinics in neighbouring areas like Kalkaji and Govindpuri. These are the costliest option availed of by residents for health care. In cases of serious illnesses, residents resort to private hospitals, Holy Family and Jeevan hospital being the most popular. The waiting time at these clinics is maximum 30 minutes, and X-ray and blood test results are available within a day or two.

Local Doctors in Sanjay Colony

There are around 50 doctors within the Colony, none of them specialists. Most have small clinics with basic treatment and glucose facilities. A few have provision for blood tests but none of them have X-ray or surgery facilities. Most of them are residents of the Colony. It is tough to establish their authenticity. Residents claim that they are not qualified doctors and advise out of experience or their knowledge of Ayurveda.

Government Medical Van

A medicine van sent by the Municipal Corporation of Delhi is supposed to visit the colony twice a week, but many residents reported that it had not come in months. Most residents complain that they never get to know about the van's arrival. Some residents complained about the low quality of medicines supplied by the van.

NGO Centres and Visiting Doctors

The NGO Deepalaya holds an eye camp every month in their school within the Colony. Most people interviewed were aware of this camp and utilized its facilities. We also came across two private visiting doctors who set up camps in the colony and provide basic medicines. However, awareness about these doctors is restricted to a limited area around the doctors' camps.

Ignorance is not bliss!

Tuberculosis (TB) is a common disease in our country. Hence government hospitals and various NGOs supply the Dots treatment of TB at subsidised rates. However, to our surprise, out of the four TB cases we came across, two did not even know about options available to them and thus ended up paying quite a lot.

In the first case, a young man who stated that he did not trust government hospitals, opted for a private specialized hospital where he paid **Rs 35,000** for his treatment. Till the time we talked to him, he wasn't aware that the NGO Prayatna provides free of cost TB treatment in the Colony. In another case, a young girl had been receiving treatment from Safdarjung hospital at Rs 500 a month. Her family was planning to discontinue the treatment owing to financial problems. Luckily, they came to know about Prayatna right in time and the NGO's health centres came to their rescue.

Prejudices and lack of information can sure cost a lot.

Quantitative Assessment

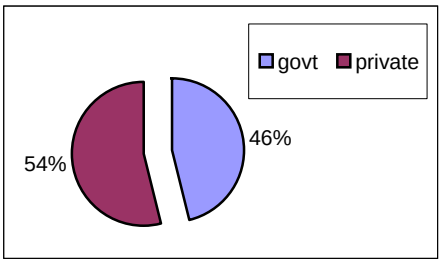
Primary Health Care

80 out of the 95 residents surveyed, i.e. **84%** respondents, go to local doctors for first time consultation. For minor aliments like fever, cough, dysentery, boils or small hurts these doctors are preferred because of their low fees and easy accessibility. The cost of consultation here is Rs 30-40 that includes one dose of medicine. There is also a small percentage of people going to government hospitals even for minor illnesses, out of mistrust in the local doctors.

Secondary Health Care

In case the illness persists despite treatment by local doctors, or if the there is need for surgery or specialised treatment, residents choose between the government hospitals and private hospitals around Okhla. Figure 8 below shows the percentage of people going to government and private hospitals for serious illnesses (heart/head operations, TB treatment, attacks, high fever or fractures). Even though government hospitals provide treatment as well as certain medicines free of cost, 54% of the people still go to private clinics where the cost is much higher.

Fig. 8: Percentage usage in cases of serious illness



Source: Annexure 8

Various reasons can be pinned down for this. Distance plays a major role here. The two government hospitals are quite far off from the Colony. Second and more importantly, people feel that their entire day goes waste in getting treatment at government hospitals. Getting an OPD card made takes hours and one also has to fill up several forms. Moreover, some people simply do not trust these hospitals to provide good quality service. Especially in emergency cases, all these factors discourage people from visiting government hospitals. Ignorance and prejudice also play a part. There were some cases where even under financial constraints, residents chose a private hospital since they "had heard of cases of negligence and unsatisfactory treatment at government hospitals". People who can afford private treatment and/or have some savings usually opt for private healthcare options over the government ones. But there are also quite a few residents who avail of private treatment despite lacking sufficient financial resources. This explains why seven out of the ten respondents who had undergone major treatments, said they had to take a loan or sell their property to pay the cost of treatment.

The Fee for Good Health

It is tough to state a definite figure for average monthly expenditure on health since it varies drastically from case to case. However, assuming no serious illness or accident in the family, a household spends Rs 300-400 per month on consultation fees, medical tests, transportation cost and cost of medicines. In case a family member is on regular medication, this amount may go up to Rs 700-1000 per month.[18]

[18] As per survey

The price paid by residents for the previously described healthcare options varies. Table 7 below enlists the cost of various facilities in the four most popular options. Government hospitals include Safdarjung and AIIMS, while private clinics include only the clinics in Kalkaji and Govindpuri. 'Nil' implies that no fee is charged for the facility and 'NA' stands for non-availability of the facility.

Table 4: Prices charged for various health options

(All figures are in Rupees)

S. No.	*Option*	*Transportation*		*Consultation*	*Blood Test*	*X-Ray*	*Bed per night*[19]
		Bus	*Auto*				
1	Safdarjung	5	50	Nil	Nil	Nil	Nil
2	AIIMS	5	50	Nil	Nil	50	30
3	Private Clinics	25	2	100	150	200	1500
4	Local Doctors	Nil	Nil	30-40	60	NA	NA

Source: Primary research

All services – from getting an OPD card to most medical treatment – are free of cost in Safdarjung. Patients do not have to pay for most operations, unless in case of a transplant or an operation that requires use of certain equipments not available in the hospital. Even in such cases, the rates are subsidised.

Although the MCD dispensary in Kalkaji is the closet and cheapest option available, the number of people surveyed utilizing it is quite low. Some survey respondents were not even aware of its existence. In all three government options, some medicines are provided by the hospital but in most cases patients have to purchase prescribed medicines from private chemists, the cost of the medicines depending on the case.

Bribes in Safdarjung: "As time consuming and elaborate as the treatment"

The resident quoted here took his son to Safdarjung hospital a day after the child got his arm fractured. He had received basic treatment from a local doctor but wanted proper examination. However, Safdarjung refused him entry into Emergency ward since the accident had occurred the previous day. Seeing the father's disappointed face, a cleaning staff member offered help through his 'sources'. But there were conditions – one must come as early as possible in the morning and also be willing to show up the next few days. That was essential to get in touch with the appropriate person who could help them further through *his* 'contacts'. And the next step would be determined only after this 'appropriate' person could be caught hold of.

Defeated by the complexity of the system, the son finally had to go to a private clinic for his medical treatment.

[19] In the general ward

Prescription for Good Health: Infrastructure, Information and Initiative

Studying the healthcare facilities available to residents here, some inferences can be drawn regarding possible ways to improve the situation. First of all, there is a need for more healthcare centres in the vicinity of the slum, along with better infrastructure in government and MCD hospitals. This will help in reducing access time and related problems that are currently faced by Sanjay Colony residents.

However, simply waiting for the provision to improve will not do. The untapped demand for viable healthcare options is evident, with 84% respondents stating that they visit local quack-doctors for primary consultation. There is an urgent need to fulfil this demand with a formal, better organised and more consistent network of healthcare set-ups. This can be done through corporate or cooperative/NGO sectors. It is also essential that such set-ups cater to specific needs of the people. Health insurance and financial support is another aspect completely ignored till now, which must be looked into. The biggest factor that makes a success out of any initiative is the spread of awareness and healthcare knowledge among slum dwellers. Dissolving ignorance and prejudices is imperative, and this requires involvement of residents as well as sensitivity towards the focus community.

Some specific needs of the Colony manifested themselves in the course of the survey. Health advice to women employed as cloth pickers is necessary, as they work for 8-10 hours a day at a stretch which compels them to inhale minute dust particles and causes severe cough and other serious aliments. It also became apparent that there is a pressing need for lady doctors in the Colony to advise and educate them on child care, maternal issues and other health problems faced by them.

5.5 SANITATION

Sanitation is one of the biggest issues in Sanjay Colony. Under-utilisation of public toilet complexes, open defecation, filthy *galis* and filthier drains, and non-existent garbage disposal mechanism are only a few of the visible issues. All this translates into an extremely low standard of cleanliness and sanitation. Deadly disease-carriers infest the lanes of Sanjay Colony, making illnesses like diarrhoea, vomiting, dysentery and boils quite common among residents.

6.4a PROVISION: Public Toilet Complexes

- *Sulabh Shauchalay, Sanjay Colony*: Located on the boundary of the slum, this is one of the biggest Sulabh complexes in Delhi. With a total of 200 seats, the Shauchalay offers toilet, bathing and washing facilities. An underground bore was set up in 1992 for providing running water to the complex, but it failed in January 2006. Presently, the caretaker orders a water tanker once a week for use within the complex.
- *Sulabh Shauchalay, near Sheronwale Mandir*: Located at a distance of approximately a kilometre from the Colony, it is mainly used by residents of Block A as it is the closest for them. It was set up eight years ago and has a functional bore providing tap water. With a total of 21 seats, the complex is small but widely used. Abundance of water in this Sulabh makes it a popular choice as a source of water, if not sanitation purposes.
- *JJ & Slum Department Complex, Harkesh Nagar*: Also about a kilometre from the slum, this complex has around 40 seats in all. A contractor hired by the Jhuggi Jhopri & Slum Department maintains it. Water is supplied via a bore well.

5.5b PREMIUM ON SANITATION

Qualitative Assessment

Public Complexes

Residents are not satisfied with the sanitation facilities in the area. Some of the problems they have with the three complexes around Sanjay Colony are:

a) Accessibility: As the colony is quite big, residents complain of having to walk for more than a kilometre to these complexes.
b) Hygiene: Most people feel that the jungle or open areas are cleaner options.
c) In the case of the Shauchalay in the colony, since the bore has failed people have to carry water from home or make do with less quantity of water. Also, this complex is closed whenever tanker water runs out.
d) Time taken: Men often have to wait for half an hour in a line at shauchalays.
e) Use charge: Paying for these facilities is not preferred by most people.
f) Safety concerns for ladies

On visiting the complexes we noted a stark contrast in their use and maintenance. The Sheronwale Sulabh, being a small complex and having a functional bore, is the best run and most used with around 800 users per day, although only a few people from Sanjay Colony use it. The Harkesh Nagar complex is in a similar state; however, availability of water by the bore is comparatively poorer. The Sulabh in the Colony is totally in contrast with the other two. Lack of water, as cited by both residents as well as the caretaker, is the main reason behind this. Residents complain that the complex is usually closed through the day, has no water, is extremely dirty and is unsafe for ladies. All these claims proved to be right during our three visits to the shauchalay.

Other Alternatives: Are they?

Our survey brings out surprising statistics about the number of residents of Sanjay Colony using any public toilet complex. Only 15 % of the residents surveyed use these shauchalays regularly. Hence, we ask the question: what are the other options? The sewage lines are restricted to the outskirts of the Colony and it costs a minimum of Rs 6,000 to set up a toilet at home. Thus, the most common option used by residents is the jungle land behind the slum. This land is used as a dumping ground for household & shop wastes and open defecation. Women using the jungle face security threats and hence have to go at odd hours and always in a group.

Drainage and Garbage disposal

Household waste is disposed of in garbage dumps on the boundary of the Colony, or in the jungle behind the slum. Every lane has uncovered drainage pipes running along the path which are choked with plastic, food waste and cloth pieces[20]. Water pipelines run along these drains and even the taps open into drains. MCD workers are in charge of maintaining drains but they clean only the main lanes and never enter the interior areas. Most residents feel that it is the MCD's duty to handle drainage issues and so they dump garbage into drains and rarely clean it themselves. Hence, drains and lanes in the slum are extremely dirty and serve as a breeding ground for flies, insects and germs.

Quantitative Assessment

Usage Patterns

The percentage of residents using the various available options for sanitation throws up some surprising numbers. For instance, only five out of the 95 households surveyed use any of the public sanitation complexes for bathing and washing. Table 5 below gives the usage patterns of the various options, as reported by the 95 residents interviewed:

[20] Because of the thriving cloth and rag picking industry in the slum

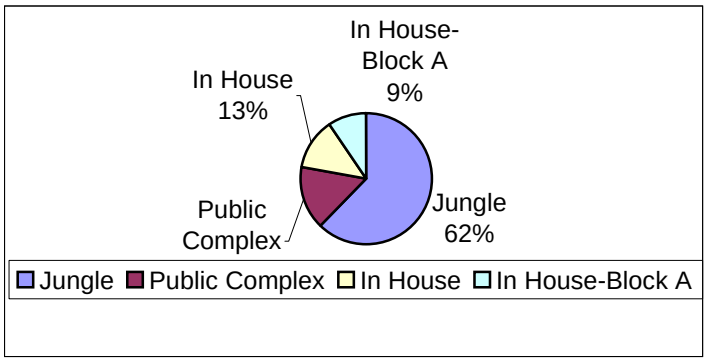
Table 5: Usage Patterns

Option	*No. of users*	*Percentage*
Jungle	59	62.1
Any of the public toilet complexes	15	15.7
Toilet in house	21	22.1

Source: Annexure 9

Clearly, the number of residents using the jungle is much greater than the other two options. An important fact to note here is that out of the 21 houses having toilets, 9 belong to block A (out of the 15 block A houses surveyed). Figure 9 below represents the figures as a pie-diagram. 'Toilet in house' has been divided into two parts because of a significantly high number of toilets in houses in block A.

Fig. 9: Usage Patterns



Source: Table 5

The most noteworthy case is that of women in Sanjay Colony. They are not charged any fee in the two Sulabh Shauchalays, which includes provision of water. Also, most women complain of the jungle being unsafe and recount cases of harassment. Yet, out of the 43 ladies surveyed, only 10% use the Shauchalay while 69% use the jungle.[21]

Looking at the usage patterns, the first question that arises is – What are the reasons for significantly low percentage of usage of the Shauchalays by the residents?

Some potential causes could be: low maintenance, lack of hygiene, accessibility problems (being perceived as "too far") and cost incurred in usage.

In the case of the shauchalay within the Colony, the most important causes were unavailability of water and irregular timings.

What Keeps Them Away?

An interesting point to be noted is that almost none of the residents who use public shauchalays (or used to frequent it earlier) complained of the complex being dirty. It was mostly people who had never visited any of the shauchalays who cited lack of hygiene as a reason for not using them.

[21] See annexure 10

Cleaning of drains is mainly seen as the duty of the MCD workers and the figures clearly indicate as much. Table 6 below shows the number of residents opting for private cleaners. It is interesting to note that out of the 75 residents who rely on the MCD workers for cleaning of gutters, only 27 reported that the workers come daily or even alternate days. Though this number is only 15, a number of residents pay the MCD workers too. Thus, residents here are paying for cleanliness, yet receiving bad service.

Table 6: Cleaning of Drains

Option	*No. of user H/Hs*[22]	*Percentage*
MCD workers	75	78.9
Private hired cleaners	15	15.7
Self-clean	5	5.2

Source: Primary research

Charge / Fee

At the two complexes with functional bores, the rate is Re 1 for toilet, Rs 2 for bathing and Re 1 per cloth for washing for both men and women. The case of the Sulabh complex in the Colony is different due to lack of water. According to Mr. Mishra, caretaker of the Sulabh Shauchalay in Sanjay Colony, they charge Re 1 from men for all purposes but they have to purchase water from the shauchalay or get their own water from home. Women are not charged anything for the toilet facility but have to pay for purchased water. The rate of usage is: Rs 2-3 for 40 L, and Re 1 for 20 L. Thus, most residents using public shauchalays use them for toilet purposes only. Knowing that the average family size here is 6 (as per the survey), we can estimate that a family using shauchalays regularly will have to spend **Rs 360 per month**[23].

Cleaning of Drains and Garbage Disposal

Though MCD workers are not supposed to charge money for cleaning drains, 15 out of the 75 residents relying on these workers pay them monthly. The rate differs with the block, the range being **Rs 15-20 per month** from each house. Private cleaners charge Rs 25 per month from each house.

The Sulabh Saga

The Sulabh shauchalay in Sanjay Colony forms a separate case because of acute water problems due to bore failure. According to the caretaker, Mr. Mishra, the bore was set up in 1992 and stopped functioning in January 2006. Since then there has been a sharp decline in the usage of the complex. Before the bore failed, Sulabh earned Rs 400-500 per day from this complex. However, since January, daily collections have dipped to Rs 60-80. The chief reason for this is lack of water due to which the maintenance is affected,

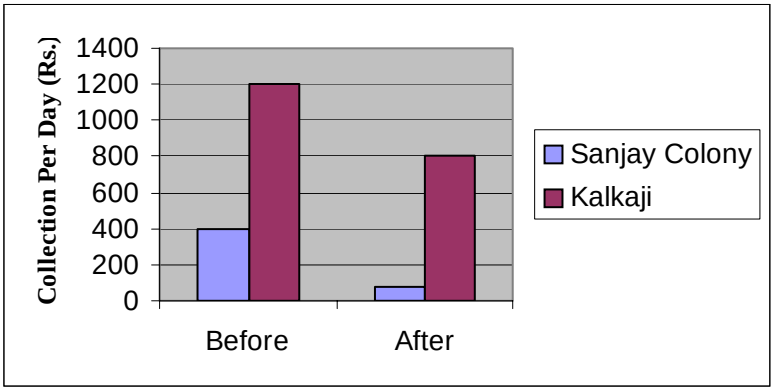
[22] Households

[23] See annexure 11

users do not get adequate amounts of water and the shauchalay timings become irregular. A 12,000-litre water tanker is ordered every week to cater to the needs of this complex. Sulabh International pays for the tanker and sale of this water for non-shauchalay purposes is not allowed. An official at the Sulabh International office told us that tankers are ordered on consumption basis. Thus, shortage of water should not really be a hindrance for residents to be able to use the complex. More importantly, it should not be a reason for the caretaker to shut down the complex.

Issues of water shortage apart, the Colony shauchalay has always, for some reason, been less used than the one in Kalkaji. Before their respective bores failed, daily collection at the Colony shauchalay was Rs 400-500, as compared to Rs 1200 per day at Kalkaji. This despite the fact that the Colony shauchalay is much bigger. Figure 10 below shows the contrast in their usage. Depicted first is the situation before bore failure. After the bore failed in both complexes, collections in Sanjay Colony have dipped to a mere Rs 60 per day, while those in Kalkaji, though decreased, still stand at Rs 800 per day.

Fig. 10: Collection per day in Sulabh Shauchalays



Source: Maintenance In charge, Sulabh International

Along with lack of water and poor maintenance, another reason causing under-utilization of the Colony shauchalay is the local dominance of a certain community. After talking to residents, we came to know about the power wielded by the *gujjar* community (living in the block right opposite the complex). This power often manifests itself in the form of territorial exclusivity. People told us that *gujjars* use the area around the complex – as well as Sulabh water – for their cattle, and do not pay the caretaker for using the shauchalay. We also came by complaints that other residents of the Colony are not even allowed to access the shauchalay through *gujjar*-dominated areas. For women, it adds to the security threat already faced. The caretaker is either in connivance with, or threatened by, the *gujjars* for letting them misuse the complex.

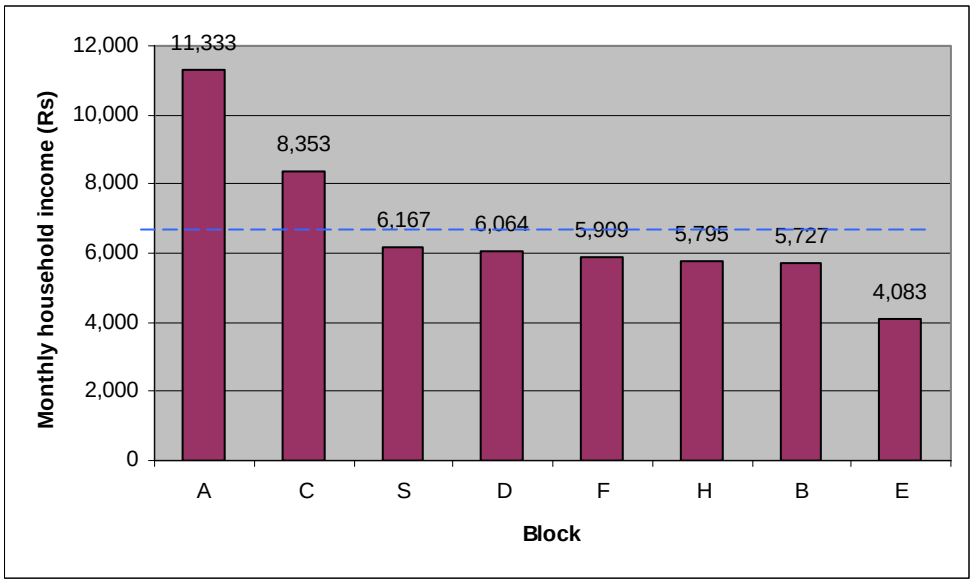
Although all three shauchalays sell water for household purposes, according to Sulabh International officials, sale of water is strictly prohibited at Sulabh complexes since that water is meant only for shauchalay purposes.

5.6 FINANCE

The income levels of households in Sanjay Colony vary according to the number of earning members and the nature of work. Some of the common occupations here are: Work in export companies, own export business (contract basis), cloth picking, shopkeeping, *kabadi*[24] business, labour in factories, driving auto/rickshaws, tailoring and working as government employees.

The average monthly household income in Sanjay Colony is Rs. 6,856.[25] However, this figure is skewed because of blocks A and C. Only these two blocks have monthly incomes much above the average, at Rs 11,333 and Rs 8,353 respectively. The other six blocks are below the Colony average, with block E placed the lowest at Rs. 4,089.

Fig. 11: Block-wise average monthly household income



Source: Annexure 1

5.6a SAVINGS

As per the survey, at least one third of the residents do not avail of any formal savings option.[26] The primary reason for this is the low level of household savings, which can be attribute to the following factors:

a) Low monthly household income.
b) Even out of this income, most residents have to send some money back home to their villages in order to support their extended families.

[24] Scrap dealing
[25] See annexure 1
[26] This includes banks, chit funds and private savings schemes like the Sahara fund (see page 36)

Also, many residents live nearly hand-to-mouth, making day-to-day expenditure decisions purely on need as well as ability-to-spend basis. So for meeting unforeseen expenditure they prefer keeping money at hand, as opposed to an institutionalised option wherein immediate access to their money might be curtailed.

The various options used by residents for their savings are:

- **Bank**

Out of the 95 people interviewed, 54%[27] have accounts in some or the other bank while the remaining 46% do not. The usual reasons given for not having a bank account are – low saving rate, an aversion to banks and their procedures, illiteracy and lack of knowledge about savings schemes.

- **Chit funds / "Committees"**

Community or chit funds are self-help groups formed by residents to help them save as well as reap interest on their savings. The number of members in a typical committee varies from 10 to 30. Every month each member deposits a fixed amount (Rs 100-1,000). At the end of the year, they are returned the total principal amount plus the interest earned, if any, by the fund, split evenly among members. This interest is earned whenever anyone takes a loan out of the committee's pool of money. Though these funds are easily accessible and convenient, only 11 out of the 95 surveyed residents reported having opted for them. The main reason cited for this is lack of trust. Faith in such funds has been further eroded after some cases of fraud wherein funds were shut down without notice and members lost their money.

- **Sahara[28] Fund**

Sahara is emerging as a viable option for several residents here. Around 10-15 residents from Sanjay Colony are employed as Sahara agents who try to promote their savings scheme. We came across 5 residents opting for Sahara Fund as a savings option. The Educative Officer of Sahara Finance told us that their savings scheme has at least 50-60 clients in Sanjay Colony. Sahara offers options for daily deposit, recurring deposit and fixed deposit to its clients. The minimum amount to be deposited daily in the daily deposit scheme is Rs 20 while in recurring deposits, it is Rs 100 per month. Both have a maturity period of five years, and claim to provide flexible terms of payment. Also, the amount being deposited can be increased whenever the client wants to save more. Interest is paid on the total amount in the deposit at the end of the maturity period. In case of need, one can withdraw a part of the savings before the deposit matures. These features might help the Sahara fund gain popularity among residents.

- **Under the bed**

While almost all residents keep a part of their savings at home, for nearly half of our sample this is the sole option for their savings. On being probed further about this, respondents reasoned that they hardly have any savings at the end of the month. They also mentioned lack of trust in chit fund communities, and lack of awareness about bank procedures. Hence, despite fears of theft, the pillowcase remains popular with residents.

[27] See annexure 12
[28] Scheme by Sahara India Parivar

5.6b CREDIT

Credit is a huge issue for residents of Sanjay Colony. Not deemed creditworthy by banks, they have to look to other options when faced with major expenditures, both planned as well as unplanned. Most people avoid borrowing on interest and try to pay for major expenses either from their savings or by asking for help within the extended family. Many respondents told us that they often seek help from relatives back home, or take loans from their native villages. Out of the 95 houses interviewed, 51 have borrowed money at some point of time or the other. Of these, 16 borrowed from their family or friends without having to pay any interest. The other 35 used the following options:

- **Banks**

Only 8 residents had ever borrowed money from a bank. Some people complained about being refused loans by banks while most said that the process of applying for credit was too complicated and required "too many official documents". Banks generally deem slum dwellers as not being creditworthy because they do not have a regular, assured source of income. Hence they do not have collaterals to offer and securities to back their loan. Also, the urban slum population is viewed as transient, since they are often on the move looking for better opportunities. This lack of permanence makes it all the more difficult for them to obtain bank loans. Although banks do come up with special schemes with more flexible terms for urban slums, none of the households surveyed had ever taken such a loan. In fact, most of them were unaware of the terms of such schemes.

- **Local Money lenders**

There seem to be a number of local moneylenders in the colony. Almost everyone, even the residents who have never taken a loan knew about the moneylenders. 14 of the 35 people who have taken a loan on interest opted for these lenders. The rate of interest per is 10-15% per month, varying according to the lender, amount and time of return. The time of return is usually not fixed and one can return the loan in parts or instalments.

- **Community Fund**

Five respondents reported having taken a loan from local chit funds. The rate of interest charged by these funds is 2-3% per month. Members have the privilege of a lower rate of interest (2% per month) while non-members are charged at least 3% per month. A non-member is given credit only if a committee member acts as his/her guarantor, in which case the guarantor member becomes liable to be held responsible in case of any fraud/ default. The terms and conditions of such loans vary from fund to fund. To give an instance of these regulations, the terms and conditions of one such fund are reproduced below:

Jansuvidha Welfare Society

(All figures in Rupees)

Compulsory deposit per month	Amount deposited after 4 years	Expected amount after 4 years
100	4,800	5,928
200	9,600	11,856
300	14,400	17,784
400	19,200	23,712
500	24,000	29,640

Terms and conditions:

1) Compulsory deposit to society is 100% safe.
2) Compulsory deposit sum will be returned immediately on expiry of term.

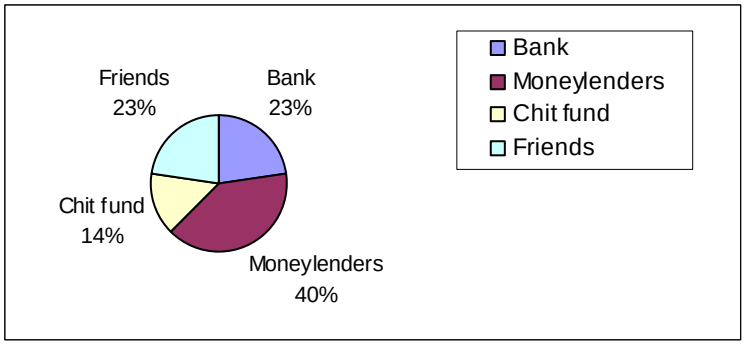
Society aims:

1) Open the study center in backward area.
2) Handicaps and health department.
3) Computer study center.

- **Friends**

Eight respondents have taken loans from their friends or acquaintances paying an interest of 5% per month. Figure 12 below takes into account only those 35 residents who have ever taken a loan on interest. It is clear that the number of people taking loans from local moneylenders is more than any of the other options, even though the interest rate charged by them is the highest. Also, though the chit fund seems to be the most assessable and economical option, it is the least preferred.

Fig. 12: Percentage of various credit options used



Source: Annexure 13

5.6c PREMIUM ON CREDIT

Most banks charge interest on a yearly basis with rates from 8% to 12%. On the other hand, in Sanjay Colony, local moneylenders, chit funds and even friends charge interest on a monthly basis. Thus, the interest paid by people here is a lot more than in the case of commercial banks.

Assuming that the loan seeker has to pay a monthly interest of 10% per month (which is the lowest interest rate in case of local lenders), it sums up to 120% per annum. Thus, the person ends up paying **10 times** the interest he would have paid to a bank.

Table 7: Premium on various credit options for a period of one year

Credit option	*Rate of interest*	*Premium*[29]
Community fund (member)	2% per month	2 times
Community fund (non-member)	3% per month	3 times
Friend/ Local lender	5% per month	5 times
Friend/ Local lender	10% per month	10 times

Source: See annexure 17

Call Loans in Sanjay Colony

In case of an immediate need for money, residents have to resort to loans from local moneylenders at **10-15% per day.** This option is used in case of emergencies, when the person cannot wait for a loan to be passed by banks/funds. People try to pay back such loans as soon as possible, i.e. within a week or two. These loans are most popular among residents involved in the cloth business for their business dealing purposes.

On a purely calculation basis, if call loans are resorted to, they impose a premium of up to **456 times** on a credit-seeker in Sanjay Colony!

[29] See annexure 14

SECTION VI
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SECTION VII
ANNEXURE

ANNEXURE 1: Monthly household income

S. No.	*Block*	*No. of H/H surveyed*	*Total Income (Rs)*	*Average H/H income (Rs)*
1	A	15	1,69,995	11,333
2	B	11	62,997	5,727
3	C	15	1,25,295	8,353
4	D	11	66,704	6,064
5	E	15	61,245	4,083
6	F	11	64,999	5,909
7	H	11	63,745	5,795
8	S	6	37,002	6,167
Total		**95**	**6,51,320**	**6,856**

ANNEXURE 2: Calculation of poverty premium on water

Making the reasonable assumption that most subscribers to Delhi Jal Board's priced water connections lie between the intermediate usage slabs of "7-20 KL per month" and "21-30 KL per month", the minimum & maximum charges paid by this subscriber base can be calculated hence:

Minimum: Units of consumption : 6 (per month)

Bill as per given formula : Rs 40 + (1.5 x 6 x 0) = Rs 40

Price paid per kilolitre: Rs 40 / 6 = Rs 6.67

Maximum: Units of consumption: 30 (per month)

Bill as per given formula : Rs 40 + (1.5 x 30 x 7) = Rs 355

Price paid per kilolitre: Rs 355 / 30 = Rs 11.83

Since the per kilolitre price paid by Sanjay Colony residents is around Rs 45 per kilolitre, the poverty premium comes out to be:

Rs 45 / 6.667 to Rs 45 / 11.83

That is, 7 times to 4 times.

ANNEXURE 3: Graphical calculation of poverty premium on water

X	DJB FC	DJB VC*X	DJB Price	S.Col FC	S.Col VC	S. Col VC*X	S.Col Price	Poverty Premium
0	40	0	Rs. 40.00	0	45	0	0	- Rs. 40.00
1	40	0	Rs. 40.00	0	45	45	45	Rs. 5.00
2	40	0	Rs. 40.00	0	45	90	90	Rs. 50.00
3	40	0	Rs. 40.00	0	45	135	135	Rs. 95.00
4	40	0	Rs. 40.00	0	45	180	180	Rs. 140.00
5	40	0	Rs. 40.00	0	45	225	225	Rs. 185.00
6	40	0	Rs. 40.00	0	45	270	270	Rs. 230.00
7	40	14	Rs. 61.00	0	45	315	315	Rs. 254.00
8	40	16	Rs. 64.00	0	45	360	360	Rs. 296.00
9	40	18	Rs. 67.00	0	45	405	405	Rs. 338.00
10	40	20	Rs. 70.00	0	45	450	450	Rs. 380.00
11	40	22	Rs. 73.00	0	45	495	495	Rs. 422.00

12	40	24	Rs. 76.00	0	45	540	540	Rs. 464.00
13	40	26	Rs. 79.00	0	45	585	585	Rs. 506.00
14	40	28	Rs. 82.00	0	45	630	630	Rs. 548.00
15	40	30	Rs. 85.00	0	45	675	675	Rs. 590.00
16	40	32	Rs. 88.00	0	45	720	720	Rs. 632.00
17	40	34	Rs. 91.00	0	45	765	765	Rs. 674.00
18	40	36	Rs. 94.00	0	45	810	810	Rs. 716.00
19	40	38	Rs. 97.00	0	45	855	855	Rs. 758.00
20	40	40	Rs. 100.00	0	45	900	900	Rs. 800.00
21	40	147	Rs. 260.50	0	45	945	945	Rs. 684.50
22	40	154	Rs. 271.00	0	45	990	990	Rs. 719.00
23	40	161	Rs. 281.50	0	45	1035	1035	Rs. 753.50
24	40	168	Rs. 292.00	0	45	1080	1080	Rs. 788.00
25	40	175	Rs. 302.50	0	45	1125	1125	Rs. 822.50
26	40	182	Rs. 313.00	0	45	1170	1170	Rs. 857.00
27	40	189	Rs. 323.50	0	45	1215	1215	Rs. 891.50
28	40	196	Rs. 334.00	0	45	1260	1260	Rs. 926.00
29	40	203	Rs. 344.50	0	45	1305	1305	Rs. 960.50
30	40	210	Rs. 355.00	0	45	1350	1350	Rs. 995.00
31	40	310	Rs. 505.00	0	45	1395	1395	Rs. 890.00
32	40	320	Rs. 520.00	0	45	1440	1440	Rs. 920.00
33	40	330	Rs. 535.00	0	45	1485	1485	Rs. 950.00

Note:

DJB = Delhi Jal Board; S. Col = Sanjay Colony; FC = Fixed cost; VC = Variable cost

X = Litres of consumption

ANNEXURE 4: Block-averages of daily water requirement (total) and daily requirement of priced water

Block	*Consumption through non-priced provision (in Litre)*	*Average daily shortfall of free water (in Litre)*
A	7.9	23
B	14.1	15.1
C	11.4	17.9
D	8.3	18.3
E	7.6	19.9
F	13.7	15.8
H	14.7	16.4
S	15.5	21.3
Average	**11.74**	**18.46**

ANNEXURE 5: Preferred and actual school-going patterns in Sanjay Colony

Preferred pattern:

Preferred option	*No. of households*	*In percentage terms*
Government	12	16.7%
Private	59	83.3%

Actual pattern:

Option availed of	*No. of households*	*In percentage terms*
Govt	47	66.0%
Deepalaya	21	29.5%
Private	3	4.5%

ANNEXURE 6: Percentage of students in government and private schools taking tuitions

Option	*Total no. of students*	*No. of students taking tuitions*	*Percentage of students taking tuitions*
Govt schools	108	49	45.40%
Private schools	59	12	20.30%

ANNEXURE 7: Component-wise break up of annual expenditure on education

Block	*Yearly fee*	*Schooling*	*Tuition*	***TOTAL***
A	2,683	1,798	1,200	**5,681**
B	1,653	1,547	2,017	**5,217**
C	1,011	972	1,667	**3,650**
D	627	1,000	4,797	**6,424**
E	784	1,027	2,673	**4,484**
F	918	1,334	1,500	**3,752**
H	2,901	1,672	267	**4,840**
S	1,170	800	800	**2,770**
TOTAL	**11,747**	**10,150**	**14,921**	**36,818**

ANNEXURE 8: Choice between Government and Private hospitals in case of serious illness

H/H no.	*Address*	*Name*	*Disease*	*Govt/Pvt*
1	A - 108	Suresh	Head operation	Pvt
2	A - 132	Paro	Back operation	Pvt
3	A - 184	Shashi	Appendix	Govt
4	A - 51	Bablu	Kidney stones	Pvt
5	A - 125	Rajesh	Eye Operation	Govt
6	A - 85	Lakhan Pal	Appendix	Govt
7	B - 49	Mohd. Siddiqui	Head operation	Pvt
8	B - 108	Rameshwar	Tuberculosis	Pvt
9	B - 423	Seema	Leg operation	Pvt
10	B - 470	Mool Chand	Brain operation	Govt
11	C - 271	Jamir Ali	Tuberculosis	Govt
12	C - 437	Lajja Devi	Heart operations	Pvt
13	C - 270	Vimla Singh	Back operation	Govt
14	D - 286	Amar	Stomach operation	Pvt
15	D - 391	Sheela Devi	Ear operation	Pvt
16	F - 22	Batto	Tuberculosis	Govt

17	F - 180	Rehana	Injury	Govt
18	H - 333	Sulekha	Back operation	Govt
19	H - 106	Meera	Kidney stones	Pvt
20	S - 83	Manoj Kumar Rai	High fever	Pvt

ANNEXURE 9: Usage patterns for sanitation

Total number of users = 95

Number of houses with toilets: Block A = 9, except Block A = 12

Total number of houses with toilet = 21

Percentage = No. of residents using the option / 95

ANNEXURE 10: Percentage of women using Shauchalay

Option	*No. of women using the option*	*In Percentage terms*
Shauchalay	4	10
Jungle	30	69
In house	9	21

Total number of women surveyed = 43

ANNEXURE 11: Predicted monthly expense on public toilets by one household

(Assumption: The household uses shauchalays only for toilet purposes and each member buys a 20-litre can of water each time of use.)

Average household size = 6

Cost of use of toilet = Re 1; Cost of 20 L can of water = Rs 1

So, total cost per visit = Rs 2

Per day expense of the household = Rs 12

Per month expense of the household = Rs 12 x 30 = Rs 360

ANNEXURE 12: Percentage of residents with bank accounts

Total number of residents surveyed = 95

No. of residents with bank account = 51

No. of residents without any bank account = 44

Percentage of residents having bank account = No. of residents with bank accounts / 95

ANNEXURE 13: Percentage of various credit options used

S. No	*Option*	*Number of residents using it*
1	Banks	8
2	Local Moneylenders	14
3	Chit funds	5
4	Friends	8

Total number of residents who have taken loan on interest = 35

Percentage of residents using a credit option = No. of residents using option/35

ANNEXURE 14: Premium on finance

Premium on credit calculated as follows:

Annual interest payment as per current credit option / Annual interest payment to bank