LIVING ON THE EDGE AND PAYING FOR IT

A study in Sanjay Colony, Okhla phase II, Delhi

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TABLE OF CONTENTS

SECTION I
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SECTION II
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??"

1:00 pm

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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."

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 III
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 IV
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.

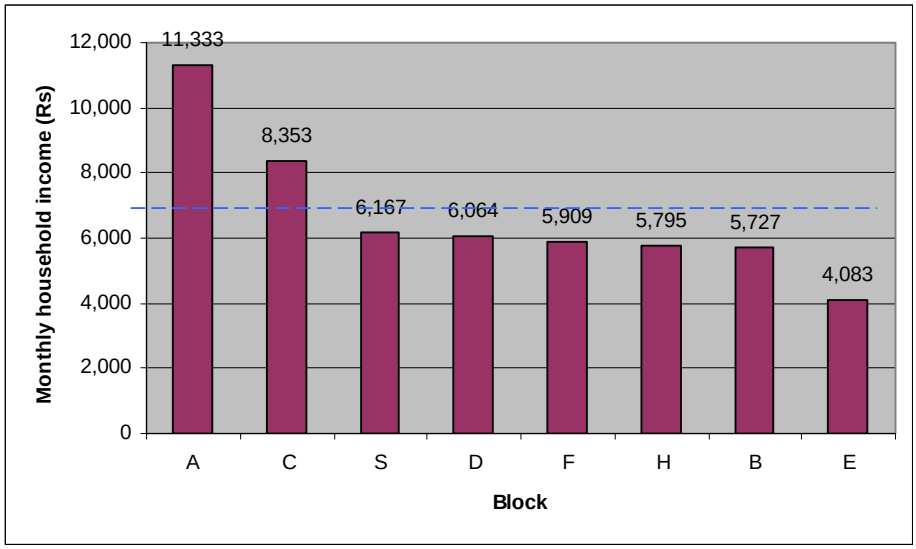
At present there are more than 5,000 houses in Sanjay Colony, with a total population of nearly 35-40,000.[4] The slum is roughly divided into nine blocks – A to H and S. Some blocks have distinct occupational characteristics; for instance, block A is the hub of the export-line business and rag picking 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.

[4] Source: Area councillor Sunil Bidhuri

[5] Milkmen community

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.

Figure 1: Block-wise average monthly household income



Source: Annexure 1

[6] See annexure 1

SECTION V
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.

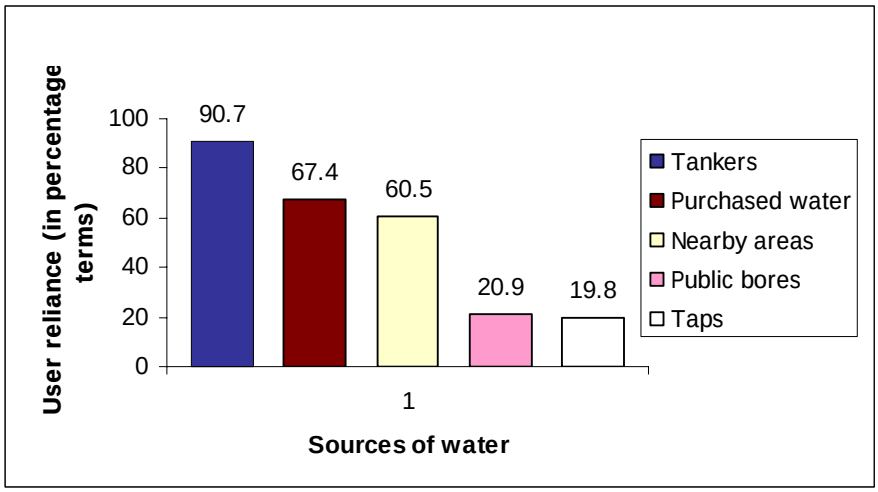
SECTION VI
"LIVING ON THE EDGE..."

6.1 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 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.

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. Mentioning them in the order of residents' usage of these sources, water tankers lead the list with about 90.7% people stating that they procure water from these tankers. 67.4% residents have to purchase water either from nearby Sulabh *shauchalays*[8] or through the rickshaw-water system to supplement the quantity they manage to procure from tankers. Going to nearby areas in search of public water sources comes third, with 60.5% of respondents saying they often have to resort to this. Public bore wells are placed fourth with only a 20.9% usage figure, owing primarily to the poor quality of water they yield. And community taps, cause of much complaint among residents, are the least used with a mere 19.8% dependence. This is depicted in figure 2 below.

Fig 2 Usage of various sources[9]



Source: Annexure 2

6.1a PROVISION

Tankers: The Delhi Jal Board (DJB) provides water tankers free of cost to Sanjay Colony. On paper, any resident (called a '*jimmewar*') can form a group of ten to fifteen households, approach the DJB office with this list of names and get a tanker issued in

[7] By-lanes

[8] Toilet

[9] Dependence is non-exclusive in nature. In fact most residents claim to depend on at least two of the available water sources.

his or her name. According to the DJB office, close to 60 tankers are sent to Sanjay Colony everyday, although for most listed individuals, their allotted tanker arrives once in two or three days. But now it seems that a physical constraint on DJB's resources has been reached, so no more application letters are being accepted.

Community taps: Sanjay Colony is served by a 50,000-gallon capacity booster pump. According to a DJB official we talked to, the pump gets filled up to 25-30,000 gallons everyday, which is supposed to ensure water supply to the Colony every morning and evening. Water reaches residents through community taps, one located between every four or five houses. These were installed at the time of last Assembly elections, and most of them have run dry since then.

Bore wells: To extract groundwater, the DJB has dug two bore wells in the Colony, and the construction of a third bore has been recently sanctioned. However, during summer months, this is a near futile effort owing to the low water table level. Apart from issues of availability of water, some bores in the area are private property, or at least are claimed to be so by their 'owners' (households closest to the bore).

Purchasing water: Despite the option of (supposedly) free water from DJB, most residents are paying some amount of money for their fill of water. Inadequate water supply, coupled with absence of well defined rights over water sources like DJB tankers and bore wells, is making people resort to monetary payment as a means of procuring water. The options available for purchasing water are:

- *Water from shauchalays*[10]: Three shauchalay complexes cater to Sanjay Colony – one next to a Deepalaya school within the Colony, one in nearby Harkesh Nagar and one near an oft referred to "Sheronwale temple". At all three of them, water (meant for shauchalay purposes) is sold to people. While the Harkesh Nagar and Sheronwale shauchalays extract their water from a bore, the one within Sanjay Colony orders water tankers since its bore has failed.
- *The rickshaw water system:* Rickshaw wallahs can be approached and asked to go procure water from nearby areas like Govindpuri, Kalkaji, Harkesh Nagar etc. Water sources such accessed are usually DJB offices, private hand pumps, taps in public parks etc. The rickshaw wallah charges a certain sum for his efforts, and also gets reimbursed for the money paid to obtain that water.
- *Packaged water:* Water packaged in bottles and plastic pouches can be purchased from the various shops dotting every *gali* of Sanjay Colony.
- *Tanker drivers:* According to residents, tanker drivers have to be kept in good humour so that tankers arrive without fail at the allotted time. While some respondents viewed this is as "just *chai pani*"[11] that they offer to drivers of their own free will, some others claimed that they are routinely asked for money before being allowed to fill water.

Procuring water from nearby areas: Faced with lack of water despite the above mentioned sources of water in Sanjay Colony, residents often have to go looking for water in Govindpuri, Kalkaji, Okhla phase III etc. Such water is procured from DJB

[10] Public toilets

[11] Tea, snacks

offices, private hand pumps, taps in public parks etc, and usually the water procured comes at the 'normal' water tariff (see page 12).

6.1b PREMIUM ON WATER

Qualitative Assessment

Tankers

The tanker system, which seems to be simple enough on the face of it, is actually quite 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 obtain tankers, and so the list of beneficiaries gets edited with every shift in the power balance.

There are distributional issues too. On the one hand, residents on peripheral areas of the Colony are more or less satisfied with the system since they have the easiest access to tankers. But people in the interior areas, which are reached only by narrow *galis* where tankers obviously cannot enter, are a much harassed lot. Many of them complain of missing out on their share of water due to a variety of reasons. One of these reasons is simply the geographical difficulty of not being close enough to reach tankers in time. Also, some residents claim that although their names & signatures were eagerly sought while applying for a water tanker, once it gets allotted the *jimmewar* does not always allow them free access to the tanker.

There are also quite a few residents who are not part of any list, and thus do not have a claim on any of the tankers that come to Sanjay Colony every day. These residents either have to make do with other sources of water supply, or end up paying money to tanker drivers and/or *jimmewars* for obtaining their fill of water.

Such ambiguous and **poorly defined allocation of rights** over tanker water leads to much resentment which often manifests itself in the form of physical fights that break out over water tankers. Although one tanker is supposed to take care of an entire *gali*, sometimes it is only *jimmewars* and people close to them who get to fill water, while at other times, more than a hundred households turn up to claim their share of water (usually when tankers scheduled for an earlier time of the day get delayed/ cancelled).

Another issue concerning water tankers is their timings. Although each tanker is supposed to come at an individually specified time, none of them is punctual and often residents have to wait the entire day for their tankers. While it is usually left to the women and/or unemployed males of the household to collect their share of tanker water, sometimes employed members also have to let go of their day's work in order to wait around for the tanker.

Community taps

The level of water in the main booster pump determines the quantity of water supplied to these houses. During summertime, it is hardly adequate to satiate the most basic water requirements of the area. In areas where water does manage to squeeze out of taps, the supply time barely exceeds ten or fifteen minutes in an entire day. We chanced upon individual hand pumps in some houses, installed by prying open a

leakage outlet at some point along the water pipe. These yield water for about half an hour to one hour every day, but such instances of personal investment are rare. In the inner parts of the Colony, which are topographically 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 to households that are served by tap water, especially in monsoons when drains inevitably overflow.

Problems of access (to taps) and undefined usage rights plague the tap water 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 to us 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 a spot in the distance (where the pipe appeared to have been repaired) and advised: "Just follow the pipe..."

Bores

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 apart from the shauchalay in Sanjay Colony, the other two obtain their water from bore wells. This water is salty and hard, and ideally not suited for drinking purposes. However, with no other alternatives, residents of the Colony often use it as potable water, without any further treatment whatsoever.

Quantitative Assessment

Interestingly, the market for water seems to have established a static equilibrium in this area – **Re 1 for every 20 L** of water seems to be the universal tariff here, 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**[12]. 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).

[12] See annexure 3

This translates into a **poverty premium of 4 to 7 times** on water[13]. Further, if the volume of water consumption per household is held constant, residents would be paying **6 times less[14]** 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.

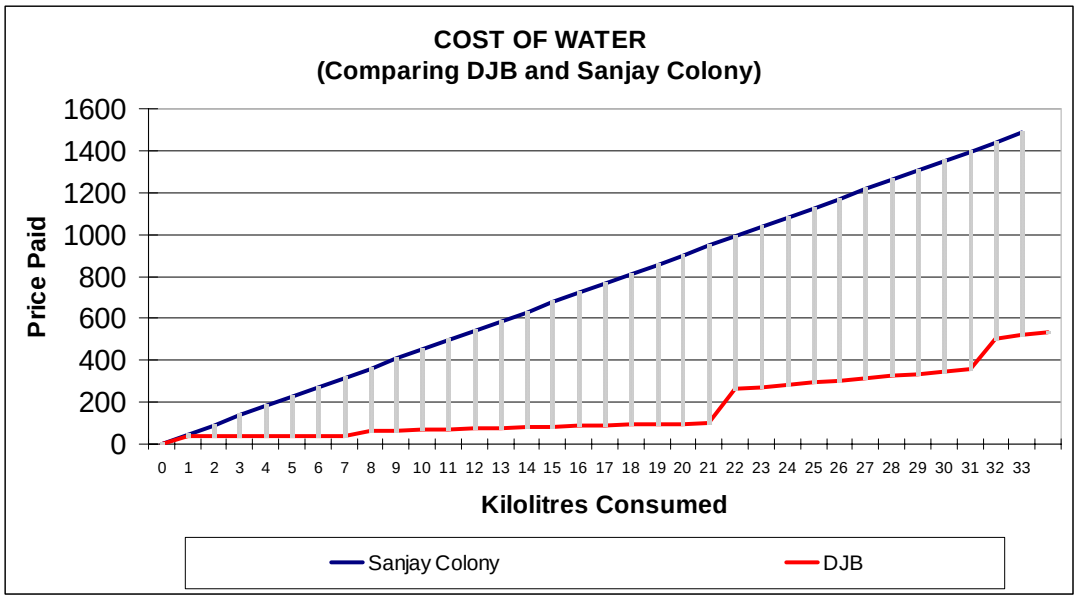
When represented in the form of a diagram (figure 3 below), the quantitative premium incurred at various consumption levels of water is apparent.

In figure 3, the blue line traces the cost of water paid at the Sanjay Colony "rate" of Rs 45 per kilolitre, while the red line indicates the amount billed as per the DJB tariff card. The difference between the two lines is the poverty premium paid by residents of Sanjay Colony. As the units of consumption (kilolitres) increase, so does the premium paid as per the Sanjay Colony pricing mechanism.

Fig. 3 Poverty premium on water

[13] See annexure 4

[14] See annexure 4



Source: Annexure 5

So, How Much Does Free Water Cost?

Since the provision of free water is insufficient to meet everyone's daily water requirement[15], 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 at Rs 850 per 12,000-L tanker (paid by the shauchalay authorities) and then charges residents for water.
- *The rickshaw water system:* Rickshaw wallahs can be approached and asked to go procure water from nearby areas like Govindpuri, Kalkaji, Harkesh Nagar etc. The rickshaw wallah charges about Rs 30-35 as his service charge, and also gets reimbursed for the money paid to obtain water (around 300-350 L of it). A typical rickshaw trip sets back a family by at least Rs 50-60.
- *Packaged water:* Water packaged in bottles and plastic pouches can be purchased from the various shops dotting every *gali* of Sanjay Colony. A 1-L bottle (usually of well-known, recognizable brands) costs Rs 10 while a 200-ml water pouch (manufactured by largely unheard-of companies) can be bought for Re 1. Shop owners with refrigeration facility charge an extra Re 1 for chilled water.
- *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.

The Daily Story in Numbers...

[15] See page 17

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 per day for the purposes of drinking, sanitation, bathing, cooking and kitchen needs.[16] 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 per person. The government norm for supplying water to slum clusters is 40 litres per person a day.[17]

For the purpose of this survey, the average basic water requirement in Sanjay Colony has been taken to be 25 L[18] per member of a household. The daily household requirement of water would, thus, be calculated as: 25 L for each household member, plus 25 L of water needed for household activities 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[19] and the quantity of non-priced water an individual manages to procure each day from tankers/ taps/ public bores. Henceforth in this paper, 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 and average daily requirement of priced water is shown in figure 4 below.

[16] 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.

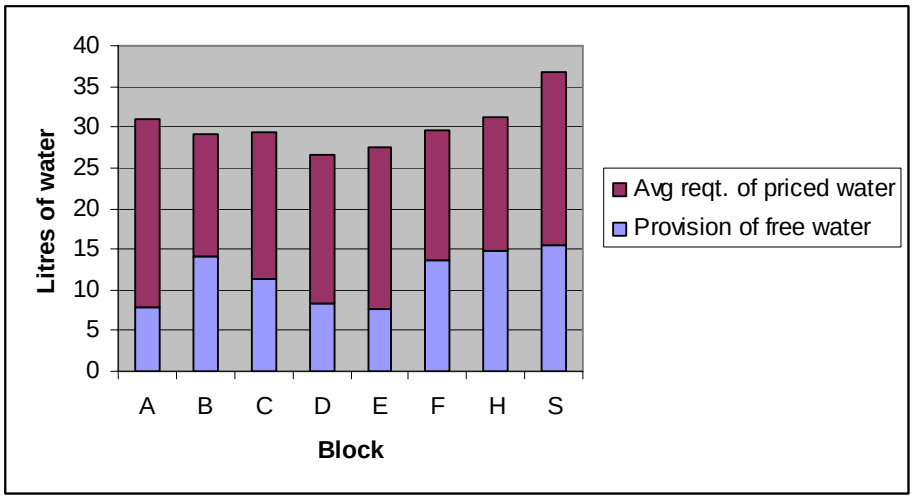
[17] Source: Hazards Centre. 2004. *A Report on Pollution of the Yamuna at the Pushta in Delhi*.

[18] 25 L appears to be the base minimum water requirement per day per person, as per our survey

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

Fig. 4 Block-averages of daily water requirement and daily requirement of priced water

(All figures are daily per person averages)



Source: Annexure 6

For instance, in block A of Sanjay Colony, an individual's average water consumption is 31.9 L (obtained by dividing the total household water consumption by our sample in block A by the total number of persons in our sample in block A). Of this, 7.9 L is obtained by public sources of water such as DJB tankers, public bores and water pipelines, while the remaining 23 L of water is procured on payment.

3. Average monthly payment for water

Block A, which has the highest monthly household income as per our survey (Rs 11,333) spends the maximum amount per month on their water while Block C spends the least (see table 2).

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 requirements, even the block with the least purchasing power (block E) ends up paying a lot for satiating its water needs. However, the expenditure pattern of the two diverse blocks is starkly different. Quite a few respondents in block A order private tankers on need basis, which implies that block A chooses to incur expenditure on what might be deemed as better quality water as compared to that from, say, bores. But block E, limited by financial constraints, has to buy water mostly from the bores of nearby shauchalays which 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.

The problem is compounded by the fact that just 4 out of the 95 households we surveyed said that they purify water for drinking on a regular basis, even when the source of water is as unfit for intake as that obtained from bore wells.

Table 2 Block-wise depiction of monthly expenditure on water

in comparison with average monthly household income

(All figures in Indian Rupees)

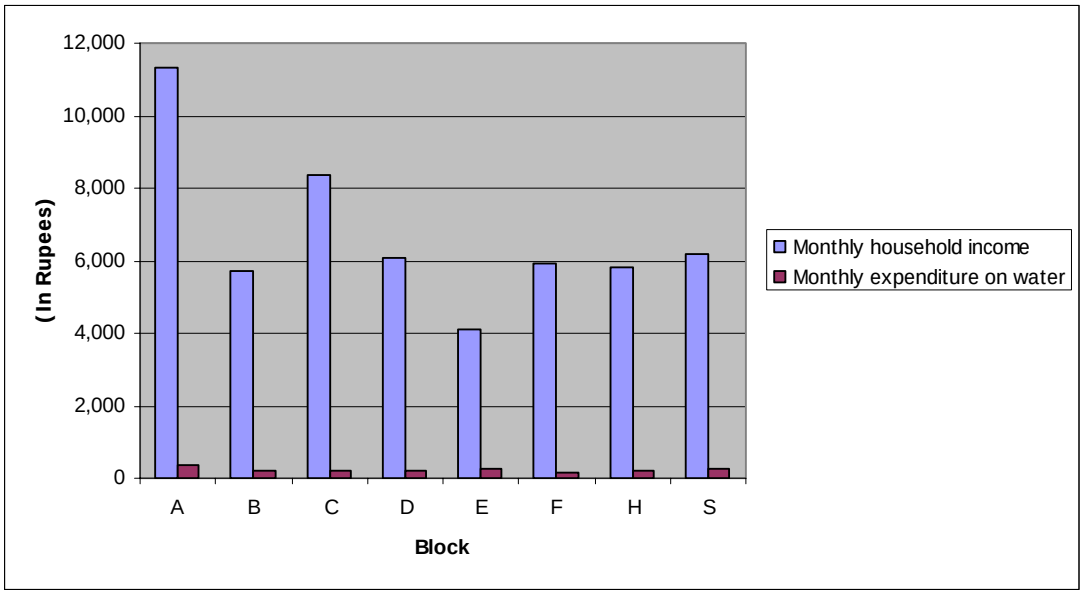
Block	*Monthly household income*	*Monthly expenditure on water*
A	11,333	352.0
C	8,353	208.0
S	6,167	243.3
D	6,064	208.2
F	5,909	180.9
H	5,795	183.6
B	5,727	189.1
E	4,083	280.0

Source: Annexure 3

A Case for User Charges?

A noteworthy point is brought out by figure 5 below.

Fig. 5 Block-wise depiction of monthly exp on water in comparison with monthly income



Source: Annexure 3

In comparison with the average 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 higher than average monthly income, and hence can afford to pay more for their water consumption needs. This near-parity in payment, as reflected in figure 5, 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 ground situation where a case can be made for applying user charges. If a 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[20], and this exhaustion of consumer surplus makes sure that no Pareto improvement is possible in this situation.

The Unwanted Intermediary

Throughout our interaction with residents on the issue of water, 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?

The DJB officials we spoke to expressed a similar opinion: Since they incur a considerable cost to provide potable water to these clusters, which anyway falls inadequate due to the surrounding mess of distributional problems, why not provide 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, some intermediate votebank-targeting "benevolence" of those in power forces citizens to pay a fortune for poor quality water.

4. Opportunity cost of procuring water

The price on water in Sanjay Colony includes both price of access as well as price per unit of water. In the absence of viable alternatives within close proximity to their houses, it is perhaps no surprise that the price of access to water is higher than the actual "rate" 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 in a month this cost is borne, gave the opportunity cost per month on 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 entire month is 8 times Rs 20, that is, Rs 160.

[20] "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.

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.

6.2 POWER

6.2a PROVISION

In 1997, the state government brought electricity to the unauthorized colonies and slums of Delhi through the 'Single Point Delivery System'. The proposed scheme was to be run as follows. Power would be supplied in bulk to transformers located within the unauthorized colony by the Delhi Vidyut Board (DVB) through a high-tension line, which would be further distributed to residents by private contractors. The construction of the entire infrastructure for this distribution of power (such as lines, poles, installation of meters etc.) was to be the responsibility of the private contractor. The 'motoring arrangement for measurement of bulk energy to be delivered to the Agency for distribution' was to be provided by the DVB. Contractors are required to "lay insulated low voltage wires on poles for distribution of electricity taking into account the safety aspects as per Indian Electricity Rules 1956". These contractors were awarded contracts for the purpose of revenue realization and were referred to as an 'agency'.[21]

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

There are seven contractors in Sanjay Colony. Each block is under one or two contractors. The meter installed in each house monitors usage of electricity by the household. Billing is done based on the reading shown by the meter. Each contractor has a main meter for himself, which records the consumption by all the houses to which he is providing 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 per month is the minimum rent paid irrespective of usage. According to one of the contractors, if the usage is under 70 units for a month, Rs 175 is to be charged from the house. On use of more than 70 units, the rate charged is Rs 2.20 per unit; Rs 175 is not charged in this case.

Some of the other components of the bill are service charge, meter charge, fault charge and tax. These are charged as per the contractor's discretion. Several residents have previous months' bills pending, often adding up to thousands of rupees. The fine charged for late payment also varies with the contractor, ranging from Rs 10 to 50 per month.
There are very few instances of repair of meter or electricity points. Here again the charges vary with the contractor in question. Most people do not have to pay for small repairs, while some pay up to Rs 100.
An order issued by the Delhi Electricity Regulatory Commission (DERC), in March 2004, to the three distcoms – North Delhi Power Limited (NDPL), BSES Yamuna Power Limited and BSES Rajdhani Power Limited – seeks to provide legal power connections

[21] Source: *Private Provision of Public Services in Unauthorised Colonies, A Case Study of Sangam Vihar,* by Prateep Das Gupta and Swati Puri

to the Capital's slum dwellers at a reasonable cost. The slum residents can get a connection by paying Rs 175 per month for two electricity bulbs and one fan, as compared to paying anything from Rs 200 to 250 per point, which was being collected by the single-point contractor. This will free the residents from the clutches of contractors.
As a part of this initiative, residents of Sanjay Colony filled a form on payment of Rs. 200 at the local BSES office in April 2005. However, no action as been taken till now and the residents are not aware of the current status nor the future of electricity provision.

6.2b PREMIUM ON POWER

Qualitative Assessment

Rule of the Cartel

A majority of the residents surveyed are satisfied with electricity provision and consider it a boon for the Colony. On an average there is a 2-3 hour power cut per day in summers and 1-2 hours in winter. On rare occasions, there may be longer cuts due to faults in the line or meter.

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.

However, the 'contractorised' distribution system is the main cause of distress among residents. The contractors work as a cartel, which continues to exist post-privatisation in the Colony. The common challenges faced by the residents are:

- *No liberty in choosing contractor*: Though the contractors do not cater to pre-specified blocks, residents are usually forced to choose the contractor who is largely covering that section of the slum.
- *No liberty to install own meter*: Most of the contractors do not allow the residents to buy a meter and try to install meters supplied by themselves.
- *Lack of information*: The residents are not aware of the per unit rate, components of the bill, checking of the meter etc. They have to go by the contractor's word and pay the amount stated on the bill.
- *Lack of consistency of charges among contractors*: Though the per unit charge is Rs 2.20, some people claim being charged Rs 3.50, while some Rs 1.80. Also, the additional components of the bill vary as per the contractor.

There is a monopoly of the 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 exploiting the residents.

Quantitative Assessment

Metering the Usage

After the introduction of the contractor system, every household was supposed to install a meter and henceforth, pay a monthly bill to their contractor. The installation charge includes meter, connecting wires and initial servicing. At present, getting a new connection costs Rs 1700. The meter to be installed can be bought either by the contractor or user. Rs 175 is the minimum monthly charge, which the user has to pay even when electricity is not used or when the meter reading is less than 70 units.

First time installation : Rs 1200
Cost of new meter : Rs 400 (from the contractor)
Per unit rate : Rs 2.20[22]
Minimum monthly rent : Rs 175

Only 4 out of the 95 households surveyed had never had a meter installed. Everyone else did initially start with payment of monthly bills, although over time around 15 removed their connections because of huge bills or meter failure.

Although a majority of respondents initially claimed paying by the meter, on further questioning 14 of them accepted using the meter connection only for a couple of points and using stolen electricity for the rest. In most of these cases the contractor does know about the theft but chooses to turn a blind eye towards it. We term this as "meter + stolen" in table 3 and figure 6 below.

There are also cases of theft and 'consensual theft' or 'paid stolen power'. Theft is committed due to reasons like lack of finances to pay bill, excessive use of electricity etc.

'Consensual theft' is of two types. In some cases, the contractor allows the residents he 'knows' to pay a fixed amount every month irrespective of their meter reading. This is especially common among shop owners. In some other cases, in case the resident is unable to pay bills regularly and the contractor expects him to resort to theft, he (the contractor) fixes a flat monthly rent for him, which is usually around Rs 200 as found out by the survey.

Table 3 below enlists the number of residents using the different ways to get electricity, their percentages and the average per month payment in each case.

Table 3: Usage of Electricity Sources

S. No	*Option*	*No. of users*	*Percentage*	*Average Per Month Payment*

[22] Subsidised rate for slum areas

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

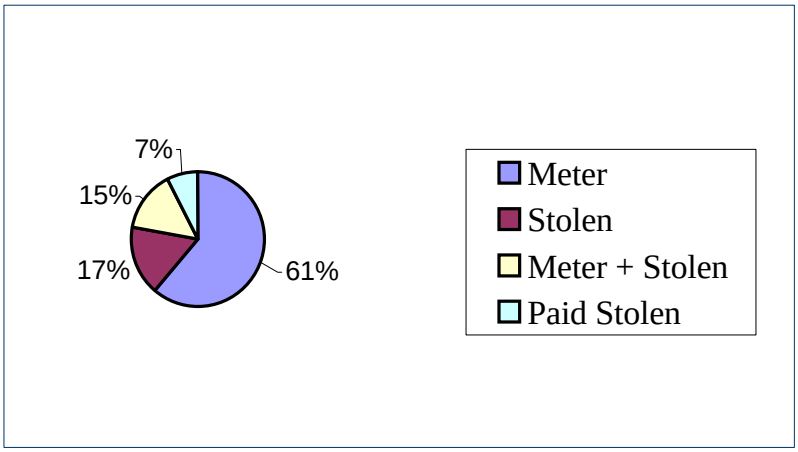
Source: Annexure 7

An interesting observation is that among the various blocks, blocks A and C which have higher than average income, have most cases of electricity theft in the form of 'meter + paid'. The reason, usually, is that they know the contractor better and are more aware of ways to steal electricity without getting caught.

The per month payment for electricity is maximum when residents adhere to payment by meter. Though a majority of people surveyed claim to be paying according to the meter, nearly half the residents reported that electricity theft is still rampant. The contractors complain that they have no way to keep a check on this as residents find ingenious ways to evade detection. The amount paid for 'paid stolen' and 'meter + stolen' is almost the same.

Figure 6 below shows the percentage of residents obtaining electricity using the four options.

Fig. 6: Percentage usage of various options



Source: Annexure 7

6.3 EDUCATION

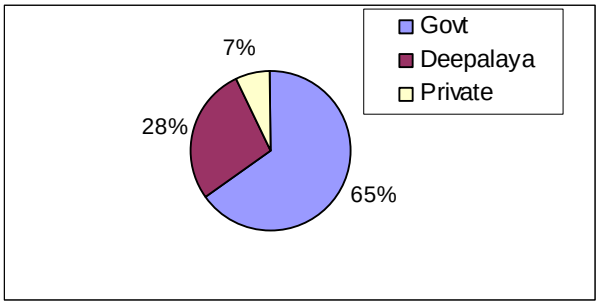
Various schools cater to the residents of Sanjay Colony. Among government aided schools, there is a primary school run by the Municipal Corporation of Delhi within the Colony, and senior secondary government schools in nearby areas. Within the Colony there's also a school run by the non-profit organisation Deepalaya. Some residents send their kids to private schools around the Sanjay Colony area.

6.3a PROVISION

The MCD school within the Colony is up to class V, and its yearly fee is Rs 60. Classes are held in two shifts – the morning shift is for girl students and the afternoon shift is allotted to boys. The Deepalaya school imparts education up to class VIII, and charges Rs 500-1000 per student per year, depending on the class. For higher classes, students attend government-run Sarvodaya schools in Giri Nagar, Kalkaji, Shyam Nagar, Harkesh Nagar etc. These schools charge quarterly fees to the tune of Rs 45/60/105 for 3 months, depending on the school and the student's class. Residents also have an option of sending their wards to private schools in areas like Govindpuri and Harkesh Nagar.

Among the 95 households surveyed, we came across 71 households with school-going children, with 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 7.

Fig. 7: Actual school going pattern in Sanjay Colony



Source: Annexure 8

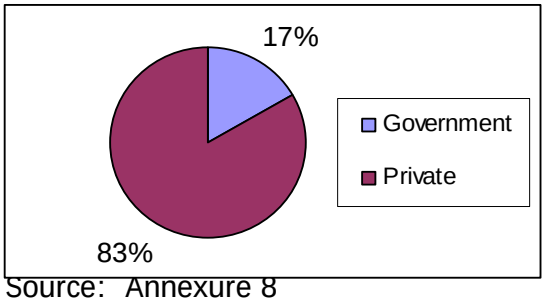
"500 Miles Away From Home"

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[23], as can be seen in figure 8.

Fig. 8: Preferred school going pattern in Sanjay Colony



Source: Annexure 8

Also, we found the private tuition scene to be quite active in Sanjay Colony, 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 structure of tuition centres is as below:

- For all subjects

Prayatna tuition centre : Rs. 20 per month
Other tuition centres : Rs. 100 per month

- Subject-specific coaching

Private tuition centres : Rs. 100-400 per month per subject

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

6.3b 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 in the MCD school was absolutely dismal. We found the school lacking in most of the criteria based on which we judged schools. It has no provision for drinking water, no electricity in classrooms and no benches for students. There is also a paucity of enough 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. Midday meals are served to students, but every one of our student-respondents made it a point to mention that the quantity they are served is too little.

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 their 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 when students need to make the obvious transition to class IX, they face problems getting admission into 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, as we found out, 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 in 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 to school.

Private schools

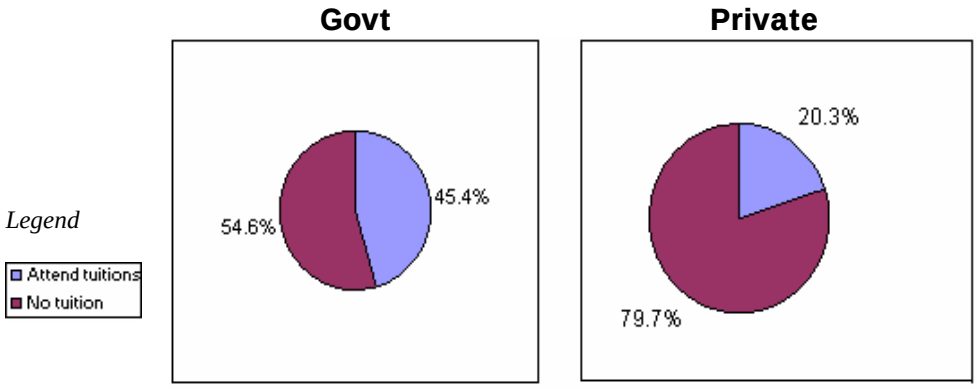
Their fee structure, predictably, is the highest among all the available alternatives. Bal Vaishali Public School in Harkesh Nagar, for example, charges Rs. 300 per month. A great incentive for residents to send their kids to these schools, in spite of comparatively high fees, is that the medium of education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

Private tuition

Students in Sanjay Colony can choose from various tuition centres within the colony, or in nearby areas like Harkesh Nagar, Govindpuri etc. These centres are run by private enterprise as well as for non-profit motive. An instance of the latter would be a tuition centre managed by an organisation called Prayatna, which gives students some extra help with all their school subjects for a minimal fee of Rs 20 per month. Students also take more intensive coaching for individual subjects, for which the charge varies from Rs 100 to Rs 400 per subject per month. 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 seen as a pointer towards the quality of education imparted in 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 9 below.

Fig. 9: Percentage of students in government and private schools taking tuition classes



Source: Annexure 9

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 given below.

Table 4: Block-wise and component-wise break up of annual expenditure on education per household[24]

(All figures in Rupees)

Block	*Yearly fee[25]*	*Schooling[26]*	*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**

The same is depicted in figure 10 below.

An interesting observation to be made in figure 10 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 translates into the highest proportion of private school going children, spends the least on tuitions.

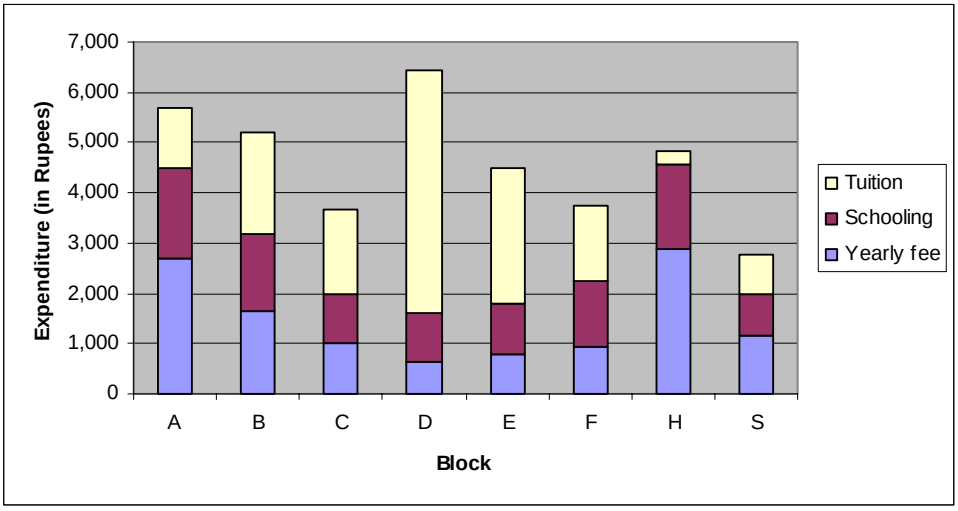
This may well be taken to be another pointer towards the difference in quality of education – perceived as well as real – provided in government schools and private schools.

[24] In case of expenditure on education, "household" implies a house with at least one school going child

[25] Annual expenditure on school fees per household

[26] Total annual expenditure on books, stationery and uniform per household

Figure 10: Component-wise break up of annual expenditure on education in Sanjay Colony



Source: Table 4

6.4 SANITATION

Sanitation is one of the biggest issues in Sanjay Colony. Under-utilisation of public toilet complexes and a near non-existent garbage disposal mechanism are the two main issues related to sanitation that plague residents of this area.

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, 130 for men and 70 for women, the Shauchalay offers toilet, bathing and washing facilities. Set up in 1984 by Sulabh International, it is maintained and the revenue is collected by a Sulabh caretaker Mr.Mishra. The official timing of the Complex is 5 am to 10 pm. However, the caretaker opens it according to the need of the users so the complex is functional from 7 am – 10 am and 6 pm – 8 pm.

The official Sulabh rates for shauchalays in slum area are: Re 1 for using the toilet, Rs 2 for bathing and Re 1 per piece of clothing for washing. These prices include water from the tap. There is no fee for ladies for toilet and bathing purposes as per the Sulabh International rules. This rule was introduced to encourage use of complexes among the ladies and is still being followed to in the Sulabh Complexes set up before 1990. 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, this shauchalay is mainly used by the residents of Block A, as it is 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 20 seats each for men and women. A contractor hired by the Jhuggi Jhopri and Slum Department maintains it. Water is supplied via a bore well.

6.4b 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 the residents complain of having to walk around a kilometre to these complexes.
b) *Hygiene and Maintenance*: Most people feel that the jungle or open areas are cleaner options.
c) In the case of the Sulabh Shauchalay in the colony, since the bore has failed people have to carry water from home or make do with lesser quantity of water. Also, this complex is shut whenever tanker water runs out.
d) *Time Taken*: Some men complain of having to wait for half an hour in long lines at Shauchalays.
e) *Use charge*: Paying for these facilities is not preferred by most people of the slum.
f) *Safety concerns for ladies*: Particularly in the case of the Sulabh Shauchalay in the Colony, being located in a relatively isolated area poses security threat for ladies. Also, the complex is not well lit, making it very unsafe for ladies to use the complex in the evening.

On visiting the complexes we noted a stark contrast in the use and maintenance of all three. 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 residents from Sanjay Colony use it. The Harkesh Nagar complex is in a similar state; however, availability of water at this complex 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 Colony residents as well as the caretaker, is the main reason behind this. Despite having 200 seats, about ten times more than the other two, it has a daily collection of mere **Rs 60-80 per day**. 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 Sulabh. After failing to be able to use it on the first two attempts, we managed to get an entry on the third. The ladies' section of the complex has no provision for water. The 'cleaner' provided us with a 20 L can. The bathing and toilet sections are separate. Almost half the toilet seats were not fit for use as they were broken or clogged. Even though we used only 10 L of water, we had to pay Rs 2, the price of an entire can. Water is definitely an essential requirement of a public toilet complex and lack of it does hamper its maintenance and use.

Other Alternatives: Are they?

Our survey brings out a surprising statistics about the number of residents of Sanjay Colony using any Public toilet complex. Only 15 % of the residents surveyed use the

shauchalays regularly. Hence, we ask the question, what are the other options? The sewage lines are restricted to the outskirts of the colony and costs a minimum of Rs 6000 to set up a toilet at home. Thus, the most common option used by the residents is the jungle land behind the slum. The jungle land is used as a dumping place for household, shop wastes and open defecation. As an unsaid law, the ladies use nearer to the slum areas and men go further away. However, ladies face security threats and have to go at odd hours, when it is dark and always in a group. Some people avoid using the jungle during heavy rainfall. The entire jungle land is covered with human faeces and other wastes. People coming here bring their own water in containers. Needless to say the land is extremely unhygienic and haven for flies and other insects.

Drainage, sewage, and garbage disposal

Every lane has uncovered drainage pipes running along the path. MCD workers are in charge of cleaning drains. 40 workers allotted for Sanjay Colony from 2-4 pm everyday. Certain parts of Block A do not have any drains. Sewage lines are restricted to the outskirts of the slum. Here too only a few residents have sanitation facilities at home as setting up one toilet costs Rs 6000 above. Most houses in Block A have sewage lines as the residents of this block pooled money and constructed the system. MCD workers have to collect garbage and waste from lanes and gutters of the Colony. Household waste is disposed of in the garbage dumps on the boundary of the slum, or the jungle[27] behind the slum.

Apart from certain parts of Block A, the entire colony has drains in the lanes. The drains are narrow and uncovered. Most residents surveyed rely on MCD workers for cleaning the drains. The drains are filled with plastic, food wastes and cloth pieces[28]. There is lot of stagnant water and garbage piled up in corners. Drains coming from 1st floor are broken. The water pipes run along these drains and the taps open into the drains. The MCD workers clean only the main lanes and have never cleaned the drains of the interior ones, the reason cited is that their cleaning instruments cannot be used to clean these narrow drains. Thus, the residents are left with the option of either cleaning the drains themselves or hiring a private cleaner.

Most residents feel that it's the MCD workers duty to clean the drains. Hence, they dump their garbage in the drain and rarely clean it themselves. They wait or keep calling the MCD worker, who comes rarely, thus causing waste to collect in the lanes. Also, the topography of the place (hilly) causes the waste to collect at places that are downhill. Barring a small section of the slum, located on the slope, drains and lanes in the slum are extremely dirty and a breeding ground for flies, insects and germs. Hence, certain blocks like D are worst affected.

Quantitative Assessment

Usage Patterns

[27] Forest area

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

The percentage of residents of the slum, using the various available options for sanitation throws up some surprising numbers. The usage of the three options available by the 95 residents interviewed is given below in Table 5:

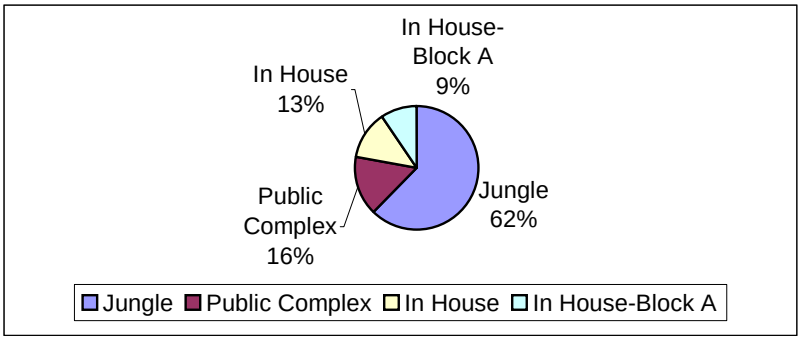
Table 5: Usage Patterns

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 10

Clearly, the number of residents using the jungle is much greater than the other two options available. 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 11 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. 11: 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.[29] Only five residents out of the 95 households surveyed use any of the public sanitation complexes for bathing and washing. Almost all prefer doing the same in their house or the lane outside their house.

Cleaning of drains is mainly seen as the duty of the MCD workers and the figures clearly indicate so. Table 6 below shows the number of residents opting for private cleaners. Though this number is only 15, a number of residents pay the MCD workers too. Thus, paying yet receiving bad service.

On visiting the three Shauchalays, we noted that going to the nearest complex from any point in the slum takes 5-10 minutes. Looking at the usage patterns, the first

[29] See annexure 11

question that arises is – What are the reasons for significantly low percentage of usage of the Shauchalays by the residents?

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

In the case of the Shauchalay in the colony, t
most important causes that emerged 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.

Table 6: Cleaning of Drains

Option	*No. of user H/Hs*[30]	*Percentage*
MCD workers	75	78.9
Private hired cleaners	15	15.7
Self-clean	5	5.2

Source: As per primary research

Almost all residents themselves clean the *gali* they live in since this does not come under the duties of the MCD workers. 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.

[30] Households

Charge / Fee

At the two complexes with functional bores, Harkesh Nagar and Sheronwale, the rate charged is Re 1 for toilet, Rs 2 for bathing and Re 1 per cloth for washing both for men and women. The case of the Sulabh complex in the colony is different due to lack of water. According to, Mr. Mishra, the 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 Sulabh or get their own water from home. Women are not charged anything for usage of toilet facility but have to pay for purchased water. The rate of water for usage is: Rs 2-3 for 40 L usage, and Re 1 for using 20 L.

Thus, as a majority of the residents using the shauchalays use it for toilet purposes only, and knowing that the average number of members in a household is 6, we can estimate that a family using the Shauchalay will spend **Rs 360 per month.**[31]

Cleaning of Drains and Garbage Disposal

Though the MCD workers are not supposed to charge any money for cleaning the drains, 15 out of the 75 residents relying on these workers pay them monthly. The rate differs with the block, with the range being **Rs 15-20 per month** from each house in the lane. Residents of blocks D and F complain of the MCD workers asking them to pay money else leaving the garbage of the lane in front of their house. The private cleaners charge Rs 25 per month from each house and Rs 30-40 per month for cleaning drains plus disposing household garbage.

[31] See annexure 12

6.5 HEALTH

6.5a Description of healthcare options

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 the severely affected as they spend a majority of their time in this environment. The most common reasons citied for lack of good quality health care 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
  a) Chandiwala Hospital
  b) Jeevan Hospital
  c) Holy Family Hospital
  d) Various clinics in Kalkaji and Govindpuri
- Local Doctors in Sanjay Colony
- Government Medical Van
- NGO Centres and Visiting Doctors

6.5b PREMIUM ON HEALTH CARE

Qualitative Assessment

- **Government Hospitals**

The nearest government health facility is the Kalkaji dispensary, which is around 7 kilometres away. It takes residents roughly 10-15 minutes by auto and 30 minutes on foot to access this dispensary. For specific treatment or consultation, they have to go to Safdarjung hospital or AIIMS. Both are situated quite close to each other and it takes a good 30-45 minutes to reach there. The average waiting time for getting an OPD card made and then getting to consult a doctor at Safdarjung or AIIMS 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. It can take around 15 days to get an X-ray result. Emergency cases, however, are looked into immediately. The MCD dispensary in Kalkaji is located near the Colony but availability of doctors and medicines here is erratic. Hence, this option was not preferred among the respondents.

- **Private clinics and hospitals**

Residents of Sanjay colony visit private clinics in the neighbouring areas of Kalkaji and Govindpuri. These are the costliest option availed of by the residents for health care. In cases of serious illness or treatment, residents also resort to private hospitals, Holy

Family and Jeevan hospital being the most popular. It takes 10-15 minutes by auto and 30 minutes on foot to the private clinics in the Kalkaji and Govindpuri. The waiting time is maximum 30 minutes. X-ray and blood test results are available within a day or two.

- **Local Doctors in Sanjay Colony**

There are around 50 doctors with clinics in the colony. None of these are specialists. Most have small clinics with basic treatment and glucose facilities. Few have provision for blood tests, while none of them have X-ray or operation facilities. Most of these local doctors live in Sanjay Colony. It is tough to establish the authenticity of these doctors. Most resident's claim that they are not qualified doctors and advice out of experience or are Ayurvedic doctors. We observed that most doctors with clinics on the main road had a registration number; however it was not possible to establish the same for various doctors operating within the colony.

- **Government Medical Van**

The MCD medicine van is supposed to visit the colony twice a week on Monday and Thursday. Most residents lamented about the absence of van for more than 5 months. However, there seemed a conflict in their claims as some said it hasn't come for an year while a few asserted it still came. The location could not be determined where it stands due to varied responses by the residents. Most residents complained that they did not get to know about the arrival of the van. Some residents complained about low quality medicines supplied by the Medical Van.

- **NGO Centres and Visiting Doctors**

The NGO Deepalaya holds an eye camp every month in their school in the colony. Most people interviewed by us were aware of this camp and got eye check-ups from there. 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 camp.

- **Child Care**

Almost all residents rely on lady health officers ("doctor madams") from the MCD dispensary in Kalkaji who come every month to provide vaccinations to infants and children. These vaccinations are done free of cost. None of the parents surveyed took their children to any hospital or primary health care centre for vaccinations.

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 for 3 months 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*

Out of the 95 residents surveyed 80, that is **84%**, go to local doctors for first time consultation. For minor aliments like fever, cough, dysentery, boils or small hurts these doctors are the most popular option because of the lower fee than private clinics and easy accessibility. However, there is a small percentage of people going to government hospitals even for minor illness, as they do not trust the local doctors. The cost of consultation is Rs 30-40 that includes one dose of medicine in most cases.

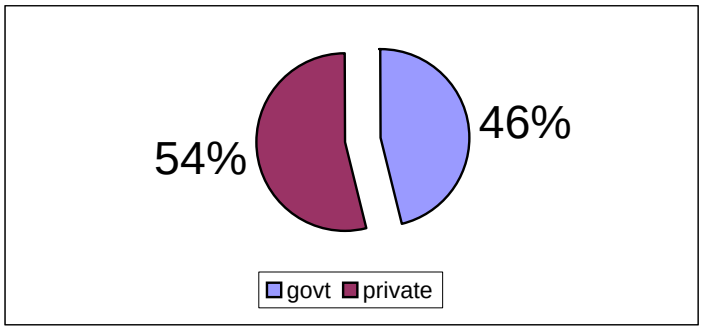
Some of the reasons for residents visiting these local quacks are – accessibility and convenience in receiving treatment, lack of information and awareness causing them to opt for these quacks and lastly, lower fee.

- *Secondary Health Care*

In case the illness persists despite treatment by local doctors, or if the there is need for an operation or specialised treatment, residents choose between the government hospitals and the private hospitals around Okhla.

Figure 12 below shows the percentage of people going to government and private hospitals for serious illnesses, which include operations of heart, head, treatment of TB, attacks or high fever and fractures. Even though the government hospitals provide free treatment and certain medicines to the patients, 54% of the people still go to private clinics where the cost is much higher.

Fig. 12: Percentage usage in cases of serious illness



Source: Annexure 13

Various reasons can be pinned down for this trend. Distance plays a major role here. The government hospitals are quite far off from the Colony. A one-way trip to Safdarjung takes approximately 45 minutes by bus and half an hour by auto. Second and more importantly, people feel that their entire day goes waste in getting treatment at the government hospitals. Waiting time for getting an OPD card being around two-three hours and one has to fill up of forms at various counters. Lastly, some people simply do not trust the hospitals to provide good quality service. Especially in cases of emergency, all these factors discourage people from visiting the government hospital.

Ignorance and certain prejudices also play a part in the choices the people make. We came across a few cases where even under financial constraints some residents chose to go to a private hospital since they "had heard of cases of negligence and unsatisfactory treatment at the government hospitals". It was noticed that people who can afford private treatment and/or have some savings usually opt for private options of health care over the government options. But there are also quite a few residents who go to private hospitals but do not possess sufficient financial resources. Out of the ten people surveyed seven had to take a loan or sell their property to pay the cost.

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 which includes doctor consultation fee, 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.[32]

The price paid by residents for the previously described healthcare options varies. Although government options are the cheapest, the cost and time involved in transportation, as well as the waiting time[33] for getting medical attention is maximum in these. Private clinics being quite costly, local doctors are a convenient and cheaper

[32] See annexure 14

[33] "Waiting time" is the time gap between arriving at a health care center and getting medical attention. In government hospitals, due to excessive rush, it takes too long to get a medical card made and then get the doctor's attention.

option for the residents. 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 7: Prices charged for various health options

(All figures are in Rs)

S. No.	*Option*	*Transportation* *Bus*	*Auto*	*Consultation*	*Blood Test*	*X-Ray*	*Bed per night*[34]
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 Out Patient Department (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. In the case of AIIMS, the charge for an OPD/ Emergency card is Rs 10. Basic blood tests are free, though some fee is charged for other tests.

Although the MCD dispensary in Kalkaji is the closet and cheapest option available to residents, the number of people surveyed going to this dispensary is quite low. Some survey respondents were not even aware of its existence. While most minor medical cases are handled within the dispensary, serious cases are referred to Safdarjung.

In all three government hospitals, 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. The local doctors charge Rs 100 for a visit to a house at night or in case of emergency. An injection costs Rs 60 while a bottle of glucose Rs 100. The medical van that frequents Sanjay Colony twice a week dispenses minor medical treatment and provides medicines. A card charge of Rs 5 has to be incurred here to get medicines for two weeks from the van.

Bribes in Safdarjung: "Just 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.

[34] In th

Centr

6.6 HOUSING

Sanjay Colony is home to more than 5,000 houses.[35] Most of these are 1-room or 2-room *pucca* structures. As per our observation during the course of the survey, the average area of these rooms is approximately 50-60 square feet.

6.6a PROVISION

The Colony came into existence and started getting inhabited in the late 1970s. Original residents, who have lived here for close to 30 years, tell us that they came to know of this settlement by word-of-mouth and hence decided to "*gherao* land"[36] for