

PAHAL (Pratyaksh Hanstantrit Labh)

Direct Benefits Transfer for LPG (DBTL) - A Study of Marginalized households



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INTRODUCTION

The Government of India provides Liquefied Petroleum Gas (LPG) to domestic households at heavily subsidized rates in 14.2 Kg cylinders up to the prevailing cap of cylinders per annum per household. LPG cylinders from 186 bottling plants are sent to more than 13000 distributors to serve more than 16 crore households for cooking purposes, covering more than half of the country's population, delivering more than 30 lakh cylinders every day¹. All the social groups are impacted by the delivery of LPG cylinders, as it is an essential commodity for almost 50% of the households (larger percentage in the urban areas) at the time when use of other sources like firewood is deteriorating with the lesser availability of time and firewood.

There are three major service providers who provide an LPG gas connection – Bharat Petroleum, Hindustan Petroleum, Indian Oil Corporation. There are two types of LPG connection:

- For domestic use – 14.2 kg and 5 kg
- For commercial use (hotel, restaurant, industry) – 19 kg and 47.5 kg

The following documents are required to subscribe for cylinder:

- Date of birth certificate such as 10th Standard certificate
- Your identity documents such as Permanent Account Number (PAN), Ration card, Aadhar card
- Proof of residence such as Voter's card, Electricity Bill, Telephone Bill, passport, LIC policy, driving license, bank passbook
- Passport size photographs
- An affidavit should be submitted
- Completed application form
- Photocopy of Aadhar card
- Requisite Fees

Taking the case of Delhi, use of kerosene for stoves specially provided at PDS has been curbed since 2012 after the launch of 'Kerosene-free Delhi' scheme by Shriela Dikshit Government under which 350,000 families using kerosene oil got a filled LPG cylinder, regulator, an ISI-marked gas stove with two burners and a rubber tube for free. This was undertaken as the subsidized kerosene was not reaching the intended beneficiaries and often ended up in the black market. This move has increased the consumer base of the by eliminating the initial cost of buying a cylinder for poor. Moreover, BPL families, under the CSR scheme can avail new LPG connection without paying the security deposit of one cylinder (14.2 kg or 5 kg capacity, as the case may be) and one pressure regulator, except for some of the other minimal expenses.

Till 2014, Government of India provided direct subsidy on LPG cylinder for household users. This subsidy was directly provided and deducted from the amount that has to be paid for the cylinder. However, the pricing of domestic subsidized LPG below the market price has led to diversion of subsidized LPG to commercial purposes, which unnecessarily adds to the subsidy burden of the exchequer. The total subsidy burden is Rs. 46,000 crore for 2013-14.

The only way to prevent this diversion is to move LPG in the supply chain at one market price so that the incentive for diversion is eliminated². A task force was set up to suggest solution to this problem. The Task force suggested a framework under which Government decided to launch PAHAL (Pratyaksh Hanstantrit Labh) or Direct Benefits Transfer for LPG (DBTL) scheme for LPG consumers across the country.

The DBTL scheme was rolled out in 291 districts in the country from 1st June 2013 in six phases. The Government has comprehensively reviewed the scheme and after examining the difficulties faced by the consumer substantively modified the scheme prior to launch. The modified scheme has been re-launched in 54 districts on 15.11.2014 in the 1st phase and in the rest of the country on 01.01.2015. Today, almost 14 crore households are a part of this scheme. Information technology became an enabler to achieve its objectives.

Under the modified DBTL scheme (PAHAL), in effect now, each LPG consumer links his Aadhaar number in the LPG database and in the bank account database. Consumers have to pay the market price for the cylinder and then the subsidy is transferred to the CTC (Cash transfer Compliant) consumer for each subsidized cylinder delivered (up to the cap) as per his entitlement. Alternatively, the LPG consumers who do not have Aadhaar number can also get subsidy into their bank account by simply linking their Bank Account with their LPG database.

A one-time advance called Permanent Advance is being provided to every CTC (Cash transfer Compliant) in their bank accounts as soon as they make the first booking for a cylinder after joining the scheme, prior to the delivery. This advance ensures that LPG consumers have extra cash to pay for the first LPG cylinder at market price.

PAHAL was rolled out as a consumer scheme with multiple motives. Following are the key objectives of the scheme:

- a) Remove incentive for diversion.
- b) Protect entitlement and ensure subsidy to the consumer.
- c) Improve the availability/delivery of LPG cylinders for genuine users
- d) Weed out fake/duplicate connections
- e) Allow Self Selection in subsidy

Seen from administrative and socio-economic viewpoint, PAHAL is a progressive step taken for both the consumers and government. Decision to leverage Information Technology could solve the twin problems of lack of accountability, which led to poor consumer service, and diversion that resulted in leakages of LPG subsidy. Coupled with the Pradhan Mantri Jan DhanYojna, this scheme has put the role of banking sector in the forefront. The direct transfer of subsidy to beneficiaries' bank accounts enables and incentivizes them to avail benefits of formal source savings and credit.

This hinges on the importance of role of financial literacy in realizing the benefits of the initiative with ease. Weaker sections of the society might not be completely versed to adapt the changes quickly, not only because of the lack of financial knowledge, but also due to the added liquidity constraints of paying the market price of the cylinder (even though the subsidy amount is transferred in bank accounts). The problem might not be acute for the poor users in metros, where they have access to vast banking structures with more knowledge and income stability relative to

extreme backward areas.

Acceptance of the scheme might differ depending on the recipients of the scheme. This paper tries to study the problems and the spillovers from the scheme from the *consumer perspective* specifically on marginalized section of the society, observed in its infant stage during June-July 2015.

OBJECTIVE

This study tries to analyze the scheme along with its possible spillovers and frictions based on *consumer perspective*. Focus is on the *marginalized sections* of Urban city (Delhi) . Specifically, the paper focuses on

1. Cylinder consumption from black market
2. Reasons for non-subscription to PAHAL
3. Spillovers from the scheme
4. Receipt of permanent advance and subsidy
5. Liquidity Issues and shift to other sources of cooking
6. Views about PAHAL

SAMPLE

Methodology

The study is based in Delhi, concentrated on the marginalized localities. Three areas have been chosen – two slums - Timarpur and Ekta Vihar and one village -Holambi Kalan. The slums were chosen – one from North district and Southwest district respectively. The list of slums and villages were obtained from erstwhile Planning Commission and Delhi Government website³.

A sample of 120 households has been selected from the approximate total number of households (hh.) available in the three areas. Number of households from each area was proportional to the total households of the slum/village. Data on total houses and locality structure was taken from the village Pradhan in the form of locality map in case of Ekta Vihar. A layout of the locality in Holambi Kalan and Timarpur was made with the initial guidance of local dwellers.

The details of the sample are as follows –

- **J.J. Cluster Patrachar, Timarpur, North Delhi,**
Slum Number – 412
Approximate population – 650 households
Sample size – 40

- **Ekta Vihar Camp, R.K. Puram, South West Delhi**

Slum Number – 288

Approximate population – 450

Sample size – 30

- **Holambi Kalan Village, North West Delhi**

Approximate population –800

Sample size -50

In case of slums, the houses were numbered. We used random sampling without replacement to take sample from each slum. In case of non-response or other reason, another randomly chosen household from the remaining houses replaced the household. In case of the village, houses were not numbered. We selected the streets and then selected every third household. In case there was a need for substitution, one household in between the last surveyed and selected household was randomly selected.

(A detailed sampling strategy is given in Annexure –1)

The basic idea on the characteristics of the locality was provided by the slum/village head (Pradhan), which also acted as a guide to background of the area and family specific stories.

A door-to-door survey based on direct interview method was conducted in June 2015. A detailed questionnaire was prepared to collect information regarding the personal details, economic status of the households, banking details, LPG cylinder details and the reasons behind their take on the scheme.

(The questionnaire is attached in Annexure -3)

Secondary Data: For the purpose of detailed comparison and matching, households were asked the consumer number (optional). Those who provided the numbers, the details were matched with that of transparency portal of the respective distributor. Portal helped with the data on pattern of ordering and delivery of cylinder, transfer of subsidy and advance subsidy amount for last 2 financial years. It also gives details on date of enrolling and mode of enrollment in the scheme. This allowed us to check the quality of recall and responses along with the knowledge of the true picture. The data were obtained from the *www.mylpg.com* website of the respective distributors⁴.

Each area has different set of characteristics. Timarpur and Ektavihar are ill-structured slums with negligible availability of water pipeline to individual residence and no drainage system. Unlike these, Holambi kalan has comparatively organized infrastructure and large residences. 60% of the sample in Holambi Kalan reported water pipeline at home and proper drainage system reflecting economically better dwellers. However, approximately all the sampled households in the three areas reported having electricity connection (authorized) at home.

The average household size for the aggregate and area wise sample was approximately 6 and on an average 2 earning members per household. Half of the sample units in Holambi kalan reported connection holders with secondary education, however, half of the sample in Ekta Vihar had illiterate connection holders. Majority of the connection holders (62.5%) in Timarpur were illiterate, and only 15% households had no literate family member.

Occupation structure varies across surveyed localities. Holambi kalan had 72% of the households having regular source of income with majority of earning member working as salaried workers in near factories in nearby Bawana industrial area and some having government jobs. Ekta Vihar had large number of people working in seasonal dhol bands, auto drivers and vegetable vendors, forming 60% of the sample households having regular work pattern. In case of Timarpur, a majority proportion (75%) households had earning member with seasonal work, thus, subject to fluctuating income.

The reported average monthly per capita income (MPCI) of households in Holambi Kalan was Rs.3318, followed by Ekta Vihar at Rs. 2442 and Timarpur at Rs. 1136 with a maximum of Rs 14000 in the aggregate sample (Rs.2000 max. in Timarpur). Majority of the households in the sample from Timarpur and EktaVihar were from BPL category (50% and 74% respectively). 1/4th of the sample from Holambi Kalan consisted of Below poverty line (BPL) cardholders and more than half households were Above poverty line (APL) cardholders. Aggregate sample consisted of 11.66% of households with currently no ration cards.

Almost all the households in the sample had TV and mobile phones however, owning a motorcycle or access to Internet was a luxury, which only few could afford (Mainly owned by the households in Holambi kalan).

(The detailed sample statistics is attached in Annexure – 2)

ANALYSIS

We will be dealing with three categories of cylinders, one, those filled in black, two, 14.2 kg cylinders taken from legalized agencies with connection but not enrolled in PAHAL and three, 14.2 kg cylinders taken from legalized agencies with connection and enrolled in PAHAL.

1. Cylinder consumption from black market

Use of black-marketed cylinder is an extremely expensive alternative to legal agency cylinder. Households using these pay from Rs. 80- Rs. 90 per Kg for filling their 5Kg or 14.2 Kg cylinders costing them around Rs. 1000 per month with the average monthly consumption on one 14.2 Kg cylinder.

TABLE1: Cylinder Market use distribution of households

HH using cylinder from		Timarpur		EktaVihar		HolambiKalan		Total	
		Abs.	%	Abs.	%	Abs.	%	Abs.	%
Black market	(i)	5	12.5	5	16.66	9	18	19	15.83
Legal agency	(ii)	35	87.5	27	90	42	84	104	86.66
Both	(iii)	0	0	2	6.66	1	2	3	2.5
Total	(i)+(ii)-(iii)	40	100	30	100	50	100	120	100

Abs.-Absolute figures

%- Percentage of sample from the area

Table 1 shows distribution of households on the basis of using agency/black market cylinders. Majority of the households in all the three areas rely on legal agencies for their LPG cylinders. Usage of Black market cylinders is almost equally prominent in the three areas. 63% of the 19 the black market cylinder users are BPL cardholders now, however out of 16 using only black market cylinders, 87% of them did not have a ration card two to three years ago . Majority of these BPL cardholders had seasonal source of income.

The most common reason for using these cylinders for those not having a connection was absence of documents (ration card, address proof etc) required during the 'kerosene-free Delhi' scheme , which prevented them from having a free cylinder and stove. Families living on rent and those migrated from other places face this problem. Moreover, those with the ration cards now are reluctant to take a new connection due to difficulty in paying initial security of Rs. 5000- Rs. 6000 as stated, amount not easy to save for a poor family in the capital. Notably, none of the BPL families mentioned about the CSR scheme for new connections. There were some other individual specific cases.

A chowmein vendor at Holambi kalan reasoned his resort to black cylinder for his work. Another family in Ekta Vihar occasionally needs black cylinder as their large family needs cylinder above the cap and having a new connection seems costly for them.

2. Non-Subscription to PAHAL

Consumers Using Agency Cylinders subscribed to the PAHAL

All households with an agency cylinder in Timarpur reported having only one connection, while households in other two areas had mostly two cylinders under one connection. Area wise and aggregate annual average usage is of 11 (14.2 kg) cylinders . Very few households reported booking cylinder for the other households. This was generally during marriages. Most of these households received awareness about the scheme from 'delivery man' , with 'community conversations' being the next source of awareness.

The distributor wise division of the households is as follows:

TABLE2: AGENCY WISE CYLINDER CONNECTIONS

Distributor	Timarpur	EktaVihar	HolambiKalan	Total
Indane	65.71%	88.88%	14.28%	50.07%
HP	20%	11.12%	83.33%	44.17%
Bharat Gas	14.29%	0%	2.39%	5.76%

Table only includes households having agency connections, percentage figures are calculated with 42 for Holambi Kalan, 35 for Timarpur, 27 for EktaVihar as the denominator

One household in each area using agency connection cylinder is not subscribed to the Scheme. Taking the subset of those enrolled in the scheme (101/120), 95% reported having contact information of their distributors, however only 28.7% reported being aware of the option of changing the distributor if needed after the new scheme.

In the secondary data check ,19 of these households were unwilling to reveal their cylinder consumer ID (mostly in Holambi Kalan) , fearing privacy issues. For these consumers, secondary data was traced from transparency portal with the help of information like agency name, name of connection holder and address. Information was accessed for HP users in Holambi kalan and Indane consumers in Timarpur. In Timarpur, for instance, out of 31 households enrolled, 21 households were able to recall about the link time of the Adhaar to the bank account and agency. The **quality of recall is 67%**. (Quality of recall is measured as number of households the truly reported the month of linking (+/- 1 month) divided by total number of households that are traceable).

Consumers Using Agency Cylinders not subscribed to the PAHAL

Reasons cited were non-availability of Adhaar card/ bank account. In Timarpur, the head of the house reported that agency denied for delivering the cylinder despite of having receipt with the Adhaar card number. The family was unaware of the option of enrollment with it. They were using around 12 liters of kerosene a month at Rs.70 per litre to cut down on unsubsidized cylinder. The household from Holambi Kalan had not applied for Adhaar card due to address mismatch issues in their ration card. The household not enrolled in Ekta Vihar has not opened the bank account due to personal reasons. Notably, all the 3 households were BPL category with illiterate member as a connection holder.

3. Spillovers from the PAHAL Scheme

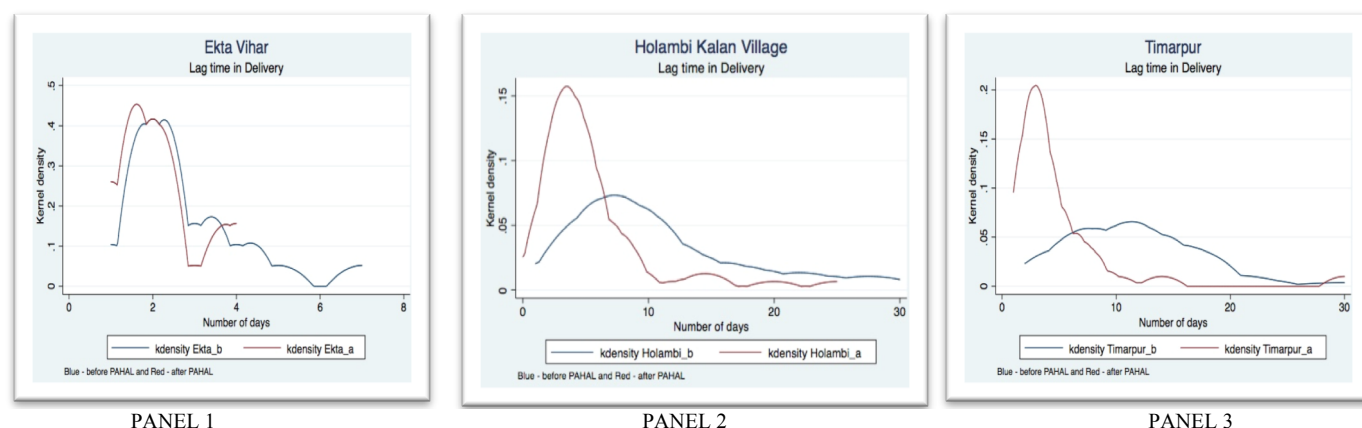
Mode of booking: PAHAL scheme comes with an automated system of booking, where the cylinder is booked through IVRS, revamping the traditional method of booking where the call is picked by the agency. 96% of the users reported that the method of booking has improved , removing the uncertainty of agency office man picking the phone (A frequent practice before the scheme during phase of shortage acted as a major of discomfort for the consumers.)

Almost all the total households (97%) now use phone to make bookings for the cylinder. Other households book the cylinders in person, specifically in Ekta Vihar where distributor office is adjacent.

Time of Delivery: On an average, the delivery time before the scheme was about 11 days. This has reduced to the average delivery time of about 5 days after the scheme. Some households after the scheme get the cylinder even at the same day of booking the cylinder. About 82% of subscribers reported a reduction in the average number of days of delivery.

Figure 1 gives the kernel density of the delivery time before (blue) and after (red) the launch of scheme. A common pattern is noticed in all the 3 patterns for 3 areas. Before line is shifted to the left and peaked more at the lower value of delivery days. Also a stark difference in before and after line is observed in Timarpur and Holambi kalan as compared to Ekta Vihar. Relatively unchanged density of Ekta Vihar could be due to the fact that large proportion of the sample there did not get door-to-door delivery service of cylinder, and consumers themselves picked up cylinder from delivery office adjacent to the locality, thus keeping the delivery time extremely small and unaffected.

Fig 1: Lag in delivery time of cylinder (Reported)



Secondary data verification of cylinder order and delivery data from transparency portal for 3 financial years from 2013-2015 till date, does not show such acute delays in delivery before the scheme, especially in Timarpur. The pattern thus obtained for before the scheme delivery time is affected by the recall of mostly extreme situations of late/quick delivery by the distributor. For instance, a lot of households in Timarpur answered that earlier it ‘sometimes’ took more than a month for the cylinder after booking, but maximum lag in order and delivery noted in the portal data for the sample households was 20 days. However, remarkable difference in the peak of these densities convey a positive impact of the scheme on the distribution end.

Distributor Services and Problems: Almost the entire sample reported that the services of the distributor have improved after the scheme (last 6 months). In general, no report of discomfort or misbehavior was observed, except in Ekta Vihar, where the Indane distributor does not provide the service of door-to-door delivery of cylinder. Some people in Timarpur complained of realizing lesser weight of cylinder and even blamed the delivery man of adding water to the cylinder, since the cylinders have become costlier.

Banking accessibility and Frequency: Generally, people were conservative in answering questions related to frequency of the banking usage. Average distance from associated banks of surveyed households was 2 km with maximum being 8 km. The services of bank correspondent is not available in these regions.

TABLE3: AGENCY WISE OPENING OF BANK ACCOUNT

Bank accounts opened	Timarpur	EktaVihar	HolambiKalan	Total
Before the scheme	90%	66.67%	92%	85%
For enrollment in the scheme	7.5%	26.67%	6%	11.67%
No bank account	2.5%	6.66%	2%	3.33%

Table includes the entire sample households

Table 3 gives area wise percentage of households according to time of opening the bank accounts. Majority of the bank account holders had more than a decade old bank accounts. 14 households in aggregate opened a zero balance account for enrollment in the scheme. Holambi Kalan families had very old accounts for their salaries/pension. 30% of the households having bank accounts had ATM cards; though most of them haven't used it till now.

Out of those enrolled in the scheme, 5.88% households in Timarpur, 14.6% in Holambi Kalan and 26.9% in Ekta Vihar agreed that their frequency of going to banks increased after the scheme. Their bank visits or using ATM services increased for getting their passbook filled for monthly subsidy transfer, enquiry about the receipt of the amount in lieu of objections of not getting messages. Some families in Holambi Kalan reported using nearby ATM to enquire about account balance after subsidy has started coming every month.

4. Receipt of permanent advance and subsidy

Permanent Advance: PAHAL subscribers are entitled to permanent advance so that specially the cash constrained households have enough cash to pay for the first higher priced cylinder. But, there has been a lot of dissatisfaction among the people about permanent advance. Very few people reporting that they have received the advance. Majority of the people were not even aware whether they are entitled to receive the permanent .

TABLE4: Households getting advanced subsidy (reported)*

Answer (Reported)	Timarpur	EktaVihar	HolambiKalan	Total
Received	8.82%	3.84%	7.32%	6.93%
Not Received	29.41%	96.16%	65.86%	51.78%
Not Aware	61.76%	0%	26.82%	41.29%

*Households include those enrolled in the scheme

Table 4 shows the area wise percentage of subscribers who reported getting the advance subsidy. In Timarpur, majority of the respondents were unaware of the permanent advance as compared to Ekta Vihar where almost the entire sample reported not receiving any initial transfer at all and none of the responder reported being unaware about it. Stark

difference could be due to living standards of the families in both the areas, with Timarpur woman (almost all the responders were woman) being less active in money matters at home.

The secondary data shows an altogether different picture. Almost all the traceable households have been verified as receiving the subsidy from the transparency portal. Those who booked the first cylinder before Jan-2015 (under other scheme) received an advance of Rs 435, those in between Jan-2015 to March-2015 received an amount of Rs 568 while those from April-2015 received an amount of Rs 203. Out of 32 households traceable in Timarpur for instance, 31 houses are shown to have received the permanent advance. The quality of responses (percentage of households correctly reporting their status, excluding those not aware) comes out to be around **27%**. Table 4 highlights that around 7% of the sample is aware of the Permanent Advance transfers. This reflects that advance subsidy amount by these families is hardly withdrawn and is saved in their bank accounts, irrespective of having cash constraint.

Regular Subsidy: As compared to permanent advance, the response of regular subsidy has been better. The amount of subsidy on an average reported is Rs. 202. Table 5 gives percentage of households receiving subsidy as reported. Majority of the people (in all the 3 areas) have responded receiving the subsidy regularly. Among those saying no, 10% reported never receiving the subsidy amount. Comparatively, Holambi Kalan saw more positive on account of transfer of the subsidy amount.

Table 5: Households getting Regular Subsidy (Reported)*

Answer (Reported)	Timarpur	EktaVihar	HolambiKalan	Total
Yes	58.82%	42.3%	68.29%	52.47%
No	29.41%	34.63%	17.08%	25.75%
Not Aware	11.77%	23.07%	14.63%	21.78%

*Households include those enrolled in the scheme

Cash transfer compliant (CTC) gets a confirmation SMS at the registered mobile number once the money is transferred at the account. This prevents from manual checking by going to the bank every time. However, this is stated as one of the concern making this new scheme uncomfortable. Among the set of enrolled users, almost one-third of the sample did not get the message of the transfer, corresponding figure for Ekta Vihar is 53.84% and Holambi Kalan is 29.2 %. Almost all the houses that reported not getting the subsidy transfers have reported not getting the message as well. Those not aware about the subsidy either are unaware about the message or do not get the message regularly.

More often asymmetric knowledge about the banking matters within the family created a bias in the responses. Unaware respondents mostly reported other member of the family knowing about the banking transfers. Largely, women were the responders of the survey (men being at work). It was observed that woman of extremely poor families were more active in bank related matters and were willing to talk about bank dependency as compared to women of better off houses who showed complete negligence about money matters at home.

According to the secondary data, however, all the houses have been receiving the subsidy within a week to a fortnight after booking the cylinder (transfer after the delivery of the cylinder) .The Quality of Responses (data-matching)

calculated as percentage of households (excluding those who said Not Aware) who truly report their status comes out to be around **64.71%**.

5. Liquidity Constraint

About 58% of the houses have reported that they face cash constraints while paying market price for the cylinder. A mere 6% of houses have been withdrawing the subsidy amount from the bank till now. This highlights an ironical picture of these households. Despite of cash transfers, constrained houses resort to community borrowings , saving money from pocket before the delivery etc.

FIG 2: Area wise percentage of households borrowing from neighbors

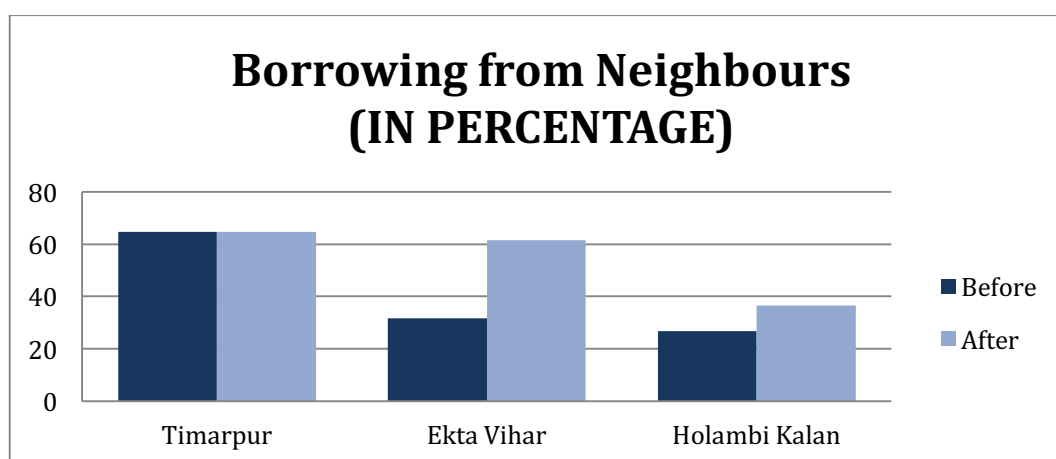


Figure 2 above shows that borrowing of money for cylinder from neighbours in Holambi Kalan and Ekta Vihar has increased and that of Timarpur as whole has remained the same. 23% of the households who reported facing liquidity constraint, are borrowing from elsewhere at the time of delivery only after the scheme. The main reason cited is the uncertain delivery of the cylinder. If the delivery boy arrives at the home and they don't have money instantly to pay for it, they ask for help from neighbors.

Other families are genuinely unable to keep aside Rs.630 (Market price of cylinder) from their pocket as compared to Rs. 400 (payable price before the scheme).These families are facing acute problem after the new procedures (despite they are not observed withdrawing from the bank). A middle-aged woman in Ekta Vihar quoted " *400 was still manageable to keep aside after booking, with such petty earning, how can people like us spare 600 at once. delivery man can come anytime, if we don't give full payment, he will go without giving the cylinder*". However, another woman in a distant corner of Ekta Vihar told that she is indebted to the deliveryman since this year.

Other Sources of Cooking

In case of Timarpur, about 41% of households have reported to use 'other sources of cooking'. Majority of these households have created earthen chulha outside the home and use wood for cooking. Holambi Kalan had cases of using cow dung to cook on chulha mainly in dairy based locality. Very few of them use stove mainly due to non-availability of kerosene. Some house resort to chulhas due to usage more than the cap of 12 cylinders, albeit, this is the custom adopted unperturbed by the scheme.

However, an interesting thing to note is that all these households were using these sources well before the scheme was started. This indicates that the scheme per se has not led these households to shift to other sources. Taste was also seen as a factor binding houses to use chulhas. An old woman from Timarpur quoted – *“My husband likes rotis cooked in chulha and so we cook other food on cylinder expect rotis”*

6. Do they want PAHAL?

PAHAL is in its initial phase of roll out. According to new provisions, consumer needs to pay the higher market price (upfront) and get the subsidy amount in their bank account. Responses of the houses surveyed reflected a pattern over acceptance to the scheme. A little better off families (generally APL, specifically, with higher asset ownership) did not seem affected by the scheme and gave an indifferent response over their preference to scheme; however, none reported option of 'Give up the subsidy'. Relatively poorer households showed a mixed response on their take on the scheme citing their reasons for the same.

Table 6: Households' preference over the scheme (in %)*

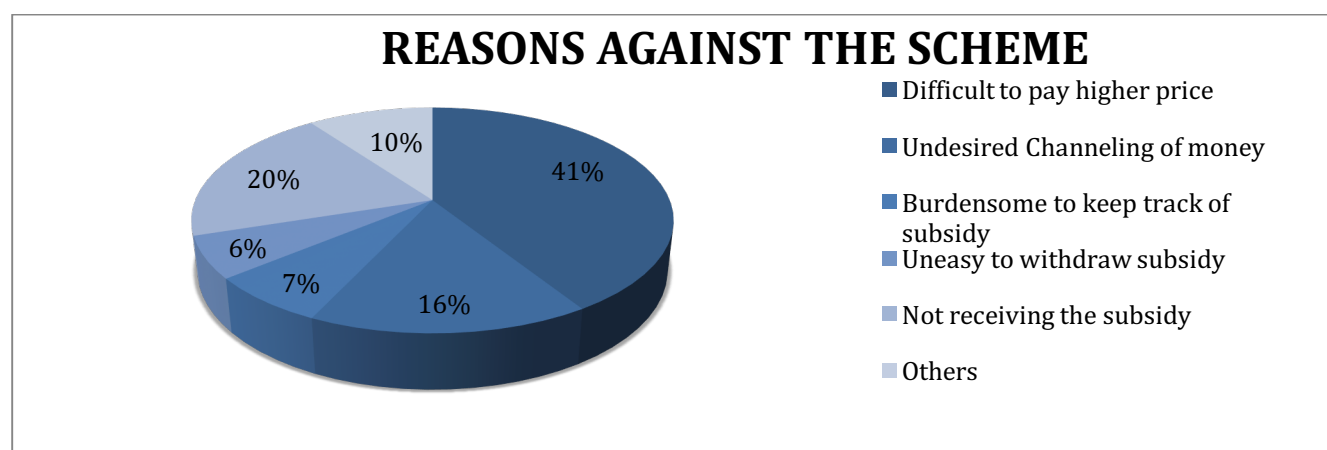
Preference over the scheme	Timarpur	EktaVihar	HolambiKalan	Total
For	35.29	0	28.57	23.3
Against	58.82	92.5	52.34	65
Indifferent	5.89	7.5	19.09	9.7

*Households include those having legalized Agency cylinders

Reasons Against the scheme: Table 6 indicates that majority of those having agency cylinders are not in favour of the scheme, where in Ekta Vihar, almost everybody did not like the idea of this scheme. The most common reason was the 'Difficulty in paying the higher price'. Majority of people felt that this difficulty was heightened due to non-receipt of subsidy, which is the second most famous reason against the scheme. Households also reported undesired channeling of their own money, as withdrawing the transferred money is not an option taken by almost every household in the sample.

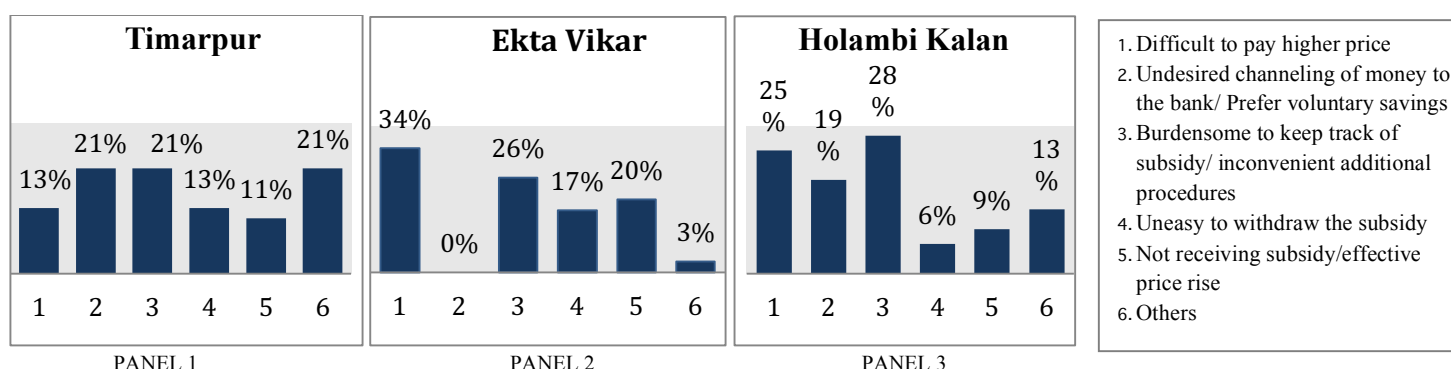
The list of reasons have been broadly categorized as shown in Figure 3.

FIG 3: Reasons Against the scheme



Aggregate of all the households enrolled in the scheme

FIG 4: Area Wise Reasons Against The Scheme



It is also important to look at the area wise segregation of households as shown in Figure 4. In case of Timarpur, more or less everyone is facing some or the problem equally. However, when we look at EktaVihar, majority of households find it difficult to pay the higher price . No one objected on channeling of subsidy amount to banks which leads to involuntary savings. Interestingly, majority of Ekta Vihar families had seasonal source of earnings and hence are expected to prefer this way of saving money away from their hands. In case of Holambi Kalan, majority of households find it difficult to pay the higher price and also that it is burdensome to keep track of the subsidy. Very few have reported that they find it uneasy to withdraw the money. An old man from Timarpur cited ‘*Government is charging us higher price – taking money from us and then returning back our money in banks: How insane is this!*’ Another man sitting next to him added – ‘*Government is planning to stop giving subsidies in a few months, that is why they are transferring the money to bank accounts*’.

Reasons in Favor of the scheme: The scheme, even though focuses on reducing black marketing, has generated various spillovers that people have started to appreciate. 41% of households favored the scheme in Timarpur as compared to EktaVihar (7 %) and Holambi Kalan (29 %). The broad reasons cited in favor of the scheme is it that allows for involuntary savings and that it led to reduction in delivery time,

Table 7: Reasons in favor of the scheme*

Reasons in Favor	Timarpur	EktaVihar	HolambiKalan
1. Prefer involuntary savings	79%	100%	75%
2. Reduction in Delivery time	14%	0%	0%
3. Others	7%	0%	15%

*Households those who are in favor of the scheme

In aggregate, majority of the households favored the scheme because of the involuntary savings. An old widow from Timarpur said ‘*At least some money goes in the bank. My entire money gets spent in household expenses. This was earlier as well*’. Others, however very less, prefer the scheme due to reduction in delivery time. This reason has not been significant in Ekta Vihar as people generally get the cylinder from agency itself. Only one man from Timarpur reported realization of reduction of leakages in cylinders. He said ‘*I am doing something good for my country with no extra cost*’

CONCLUSION

PAHAL is a scheme meant not only to reduce the black marketing of cylinders, but also to increase financial inclusion. Steps like opening of mandatory bank accounts or mandatory to use the financial system can distort the market. This scheme acts like a self incentivizing mechanism to not only bring households in the system but to make them an active participant in the banking structure. This study was conducted in June 2015, i.e., almost 6 months after the complete rollout of the scheme.

Even though BPL families, under the Corporate social responsibility (CSR) scheme can avail new LPG connection at minimal costs there are still households that use cylinders from black market. These households purchase LPG at a very high price ranging from Rs 70 to Rs 100 a litre. The main reason being unavailability of documents especially Ration Card.

Almost all the families that use authorized cylinders have subscribed to PAHAL scheme with very few exceptions. These households were mostly informed by the deliveryman to give copies of Adhaar card to bank account and agency, else subsidy will not be received, hence, it is expected that the level of awareness about nitty-gritty to be less as the deliveryman usually informed about the linking of the cylinders account to bank account.

The government, in the handbook, has enlisted some of the spillovers that are expected from the scheme. There has been a significant improvement in the mode of booking with the introduction of IVRS (Interactive Voice Response System). Consumers too have welcomed this step. Along with this, the delivery times of the cylinder has improved significantly especially for some areas. This might point towards a decrease in the divergence of the domestic

subsidized cylinder. Some of the households have also found that the distributors services have improved with the introduction of the scheme.

An integral part of the scheme requires the interaction with the bank and its financial services. Surprisingly, the scheme is found to have little or almost no impact on the financial front. Very few households have opened accounts to enroll in the PAHAL scheme. In fact, the frequency of the visits to the bank has not increased. With very few houses reporting getting the message as subsidy is deposited, this might point to the fact that people are still unaware about the receipt of the subsidy.

A one time Permanent Advance is being provided by the government to incentivize the people to join the scheme and also, to mitigate the issue of liquidity constraint even for the first booking. However, it was majority of the people were either not aware about it or said that they did not receive any such advance. When asked about the receipt of regular subsidy amount, a majority of households have responded positively. The secondary data confirms that almost all the households have been receiving the permanent advance and subsidy. This illustrates that there are no administrative bottlenecks as such.

Even though the money is being transferred at regular intervals, people generally don't withdraw it for personal reasons. Non-withdrawal of subsidy might illustrate a severe problem of liquidity constraint. However, majority of the houses were borrowing money from neighbors even before the scheme due to uncertain delivery of cylinder. Moreover, no one has shifted from cylinder to other sources of cooking or started to use more of other sources, in fact, due to better delivery network; reliance on other sources have fallen. Those who generally use other sources do so mainly because of taste preferences.

More than 50% of the households in our study are not comfortable with the scheme. Various reasons like rise in effective price, undesired channeling of money, burden to keep track of subsidy etc. are cited forth against the scheme. However, some people are able to appreciate the spillovers that the scheme carries along. These households like the fact that the money is saved in the bank accounts involuntarily.

The problems that arise are mainly due to the unawareness among the people about the details of the scheme. Therefore, steps to create awareness might help to reduce the problems that people face. For majority of people, the source of information about the scheme is delivery man, who is generally not fully informed. Hence, a better informed delivery man can help to mitigate this problem.

REFERENCES

1, 2 : PAHAL Handbook (http://petroleum.nic.in/dbt/DBTL_Handbook.pdf)

3 : For list of villages and slums in Delhi

- http://planningcommission.nic.in/reports/sereport/ser/ser_slum.pdf
- http://www.delhi.gov.in/wps/wcm/connect/DoIT_Revenue/revenue/home/organization+setup/list+of+villages+as+per+11+districts

4: Transparency portals of distributors

- <http://indane.co.in/transparency/about-portal.php>
- <http://mylang.myhpgas.in/myHPGas/HPGas/LPGservices.aspx>
- <http://my.ebharatgas.com/bharatgas/index.jsp?opt=M>

ANNEXURE – 1

Sampling Strategy of Timarpur

In case of J.J. Culster Patrachar, Timarpur (slum no. 147), households are numbered by the government starting with N-62/---. House no's are not exactly serially, for instance after 1 we might get 4 and 2,3 near that. However, the numbers are not such that they are in different ends. Total houses are 650.

Method – We used Tombola chips numbered from 0 to 99 and placed it in a bag. Required number of chips were picked without replacement from the bag

Picking numbers from 0 to 99 for each series:

- 6 households for series starting with 0
- 6 households for series starting with 1
- 6 households for series starting with 2
- 6 households for series starting with 3
- 6 households for series starting with 4
- 6 households for series starting with 5
- 4 households for series starting with 6

Substitution - Sometimes the selected were either not available (locked), not traceable or appeared unsafe. For substitution, we picked one from the remaining chips in the bag and went to survey that household.

Sampling Strategy of Ekta Vihar

In case of Ekta Vihar, Sector 6, R.K. Puram New Delhi, Delhi 110022 (Slum no. 288, ward no. – 168), there are a total of 442 households. The area is an urban slum settled in 1975 and regularized in 1989, is connected well by public transport with banking facilities in the vicinity. The gas agency of Indane is very close (almost 50) meters from the camp.

A reference **map** (not to scale) of the area is available with the ex-Pradhan – Mr. Bhoop Singh. The map clearly illustrates the location of each household in the locality. The numbering of the houses starts from northeast corner and in a clockwise manner. Houses are numbered from 1 to 442. However, for sake of convenience we consider households from 1 to 400. A thing to note is that houses are not numbered in a continuous manner; for instance, 45 may follow house with number 41.

Random Selection – 15 numbers were picked from a bag containing equal sized two types of Tombola chips containing numbers from 0 to 99. Those tombola chips differed in color, but, exactly same in shape and placed in a black bag. Picking numbers from 0 to 99 for each series:

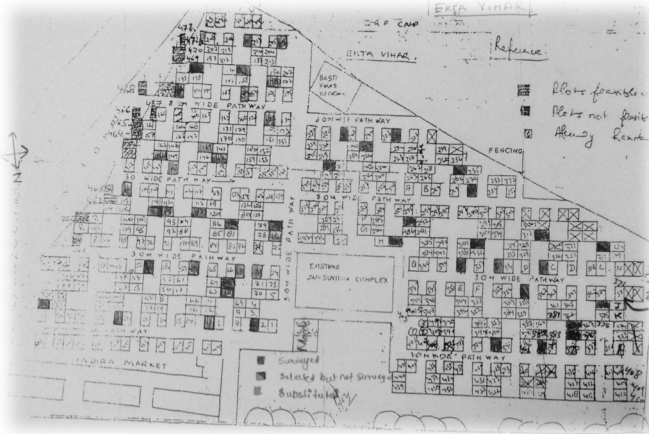
- 15 households for series starting with 0 and 1

- 15 households for series starting with 3 and 4

Substitution: Sometimes the selected households were

- Not available (locked)
- Non-residential
- Appeared unsafe or,
- Not willing to answer

For substitution, we picked one from the remaining chips in the bag.



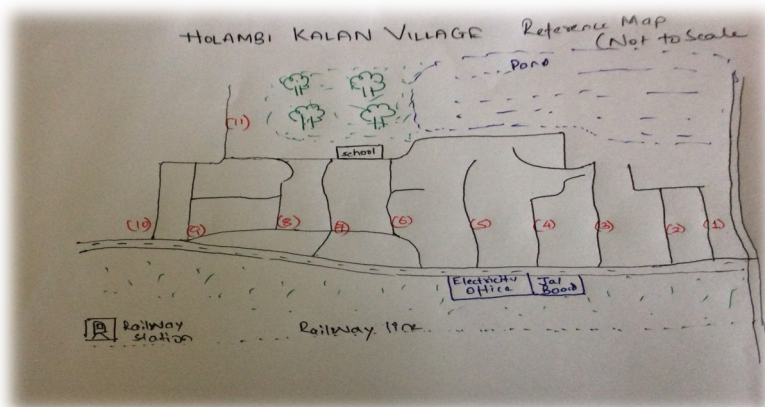
Sampling Methodology of Holambi Kalan Village

Holambi Kalan village is in North West Delhi. The Patwari of the village told us that it has an approximate population of 800 households. The problem here is that the houses are not numbered. Rather, a set of houses has common Khasra numbers. The problems with Khasra numbers is that:

1. There is no fixed no. of households in a khasra.
2. Khasra no.s are not allotted sequentially.

Method: We travelled through the streets and modified the map obtained from the Google maps. We marked the streets and gave them numbers beginning from west towards east. There were 11 streets. On each street, there were approximately 30-40 households on either side of each street. So, total of approx. 70-80 hhs on each street.

A map is attached here:



SELECTION: Using lotto tokens (1 to 11), we picked 5 numbers. Selected no.s are 1,4,5,8,10

Selecting Households:

Step 1. Select the right side of the lane. From the first 3 households, use lotto numbers to select one, say 2 comes. So, start from hh. 2 of right side.

Step 2. Start surveying every third household from the selected no..For instance, after hh.No. 2, survey hh. No. 5 and so on towards right

Step 3: After the households from the right are over start surveying household of the left side continuing in the similar manner until 10 houses are done.

Substitution: In case, there were cases where houses were not available or not willing to respond, we substituted it by surveying hh in between the two by random selection.For instance, if we surveyed hh 23 then we should survey 26. In case hh 26 can't be surveyed due to some reasons, then select house 24(proxy no. -1), 25(proxy no. - 2). Use lotto numbers to choose either of the number and survey that household. However, continue with the same number i.e. start surveying 29 and onwards.

ANNEXURE – 2

Sample Statistics

Occupation Status

	Timarpur	EktaVihar	HolambiKalan	Total
Seasonal	10	12	14	38
Salaried	30	18	36	84

Education Level of Connection Holder

	Timarpur	EktaVihar	HolambiKalan	Total
Illiterate	25	16	9	50
Primary	7			
Middle	4			
Secondary	3	7	16	26
Sen. Secondary	1	1	10	12
Graduation	0	5	0	5
Post Grad.	1	0	0	1
PhD.	0	0	0	0

Assets at home

	Timarpur	EktaVihar	HolambiKalan	Total
T.V.	37	29	48	114
Refrigerator	21	29	40	90
Motor Vehicle	8	7	31	46
Electric Meter	37	30	47	114
Water Pipeline	10	3	31	44
Mobile Phone	38	27	50	115
Internet	6	3	15	24

Ration Card

	Timarpur	EktaVihar	HolambiKalan	Total
Ration Card holders	37	28	41	106
APL (Above poverty line)	13	6	27	46
BPL (below poverty line)	20	22	13	55
Antayodaya	4	0	1	5

Household size and MPCl

	Timarpur	EktaVihar	HolambiKalan
Household size	6.05	6.3	5.88
Monthly per capita Income (reported)	Rs. 1136	Rs. 2442	Rs. 3318

Bank account holders and details

(Excluding non-subscribers of PAHAL)

	Timarpur	EktaVihar	HolambiKalan	Total
Bank account holders	33	28	49	110
Zero balance	11	5	3	19
ATM user	5	7	20	32

ANNEXURE – 3

Questionnaire

Area (Village/Slum): _____
 House number: _____
 Customer ID: _____

A. Personal details	
LPG cylinder user household (with agency connection)	Yes:____ No:____
If no:	(If using cylinder in black) Rate(per kg): _____ Usage per month: _____ Reason of not using agency cylinder: _____ _____ (Other reason) _____ _____
If yes:	
No. of connections in the house	Only 1 __ More than 1 __
No. of cylinders	Only 1 __ More than 1 __
Gas agency name	Indane __ Bharat Gas __ HP __ Indian Oil __ Others _____
Name of the connection holder	Age: _____ Sex: M __ F __
Occupation of the connection holder (mention seasonal/salaried)	_____ _____
Education level of the connection holder (yrs of schooling)	Illiterate __ Primary __ Middle __ Secondary __ Sen.Sec. ____ Undergrad __ Postgrad __ Phd. ____
Education level of the most educated in household (If he/she helps in the process)	Illiterate __ Primary __ Middle __ Secondary __ Sen.Sec. ____ Undergrad __ Postgrad __ Phd. ____
No. of family members	_____
No. of earning members in the family	_____
No. of children(below 14 yrs)	_____
Annual Household income (reported)	_____
Poverty status	APL ____ BPL ____ Antayoda ____
Whether these facilities present?(Yes/No)	T.V _____ Refrigerator _____ Motor vehicle _____ Electricity(authorized meter) _____ Water pipeline _____ Mobile phone _____ Internet _____
If migrated Family?	Yes:____ No:____
If all required documents available?	Yes:____ No:____ If not then details: _____ _____ _____ _____
B. Details about the scheme	
Whether subscribed to the PAHAL Scheme?	Yes:____ No:____

If no:(Reason)	
If yes:	
(Awareness question) Mode of awareness about the scheme	Television _____ Internet _____ Campaign _____ Community conversations _____ Delivery man _____ Others _____
Month of enrollment of the scheme	
Mode of enrollment to the scheme	Adhaar based _____ NonAdhaar based _____
Did you have to get your Adhaar card made for this scheme?	Yes: _____ No: _____
Annual requirement of cylinders (booked)	
Are cylinders booked for other households?	Yes: _____ No: _____
Mode of booking the cylinder	Phone _____ Internet _____ Go to Agency _____ Others _____
Lag time in delivery of cylinder after booking (change after the scheme)	Before _____ After _____
If the delivery time reduced?	Yes _____ No _____ No change _____ Not aware _____
<ul style="list-style-type: none"> Has the method of booking the cylinder improved? If face problem of weight of cylinder lesser than standard? If faced any misbehavior from agency side? 	Yes _____ No _____ No change _____ Not aware _____ Yes: _____ No: _____ Don't check: _____ Yes: _____ No: _____ Problem: _____ _____ _____
<ul style="list-style-type: none"> If have the contact information of the agency? If know that you can change the distributor? 	Yes: _____ No: _____ Yes: _____ No: _____
Have you ever accessed LPG portal? (reason)	Yes: _____ No: _____ - _____ _____
C. Banking Details/Issues/Impacts	
Time of opening of the bank account (with which LPG cylinder is linked)	
If the account opened to enroll in the scheme? (if no, other reason)	Yes: _____ No: _____
Type of bank account	Zero balance: Yes _____ No: _____ If not, Min balance Rs. _____
If business correspondent(BC) available?	Yes: _____ No: _____ Not Aware: _____
Distance of the bank branch where you have the account.(If BC, distance from his availability place)	
If have ATM Card?	Yes: _____ No: _____
If yes <ul style="list-style-type: none"> distance from nearest ATM If have accessed ATM in vicinity in last 3 months? 	_____ Yes: _____ No: _____
(Frequency of usage of account)	
<ul style="list-style-type: none"> When did you last go to the bank? (if BC, when was last approached?) 	_____

<ul style="list-style-type: none"> • How many times did you go to bank in last 3 months? • How often you get your passbook filled? • How often you go to the bank to deposit money?(Is frequency increased?) • How often you go to the bank to withdraw money?(Is frequency increased?) • Have you availed any other service from the bank in last 6 months? • Do you know your current balance in the account? 	<p>_____</p> <p>_____</p> <p>_____</p> <p>Yes:___ No:___ No change:___</p> <p>_____</p> <p>Yes:___ No:___ No change:___</p> <p>Yes:___ No:___</p> <p>Yes:___ No:___</p>
<p><u>(Problems in the bank)</u></p> <ul style="list-style-type: none"> - If any problem faced due to bank staff? (misbehavior/delay in working/others) (state if any) - If problem in understanding the procedures in the bank?(state if any) 	<p>Yes:___ No:___</p> <ul style="list-style-type: none"> • Misbehavior _____ • Delay in working _____ <p>Others _____</p> <p>Yes:___ No:___</p> <p>Dependent _____</p> <p>Others _____</p>
<p><u>(Skill based questions)</u></p> <ul style="list-style-type: none"> - If you deposit Rs. 100 in your account and 2% is the interest rate, will the amount be higher than Rs.105 after a year? - If you get subsidy amount(Rs.200) every month, how much amount is added to your account?(12*200) 	<p>_____</p> <p>Don't know _____</p> <p>Not willing to answer _____</p> <p>_____</p> <p>Don't know _____</p> <p>Not willing to answer _____</p>
<p>D. Subsidy related</p>	
<p>1. <u>Price of cylinder</u></p> <p>2. <u>Permanent Advance</u></p> <ul style="list-style-type: none"> • After booking first cylinder in the scheme, did you receive any amount in the account? • If yes, how much amount was transferred? <p>3. <u>Subsidy</u></p> <ul style="list-style-type: none"> • Did you get any transfer for the previous months subsidies before enrollment? • After how many days from booking the cylinder is the subsidy amount transferred to the account? How much is transferred? • Is the amount transferred after every booking? (Details of delay if any) • Do you get the message after the subsidy transfer? 	<p>Before the scheme Rs. _____</p> <p>After the scheme Rs. _____</p> <p>Yes:___ No:___ Not Aware:___</p> <p>Amount: Rs _____</p> <p>Yes:___ No:___ Not Aware:___</p> <p>Amount :Rs _____</p> <p>No. of days _____</p> <p>Yes:___ No:___ Not Aware:___</p> <p>_____</p> <p>Yes:___ No:___ Not Aware:___</p>
<p>E. Liquidity constraints</p>	
<ul style="list-style-type: none"> - If faced any problem in paying higher market price for first month after enrolling? <p>1. <u>Withdrawing Money</u></p> <ul style="list-style-type: none"> - If there is need to withdraw cash from the account to specifically pay for the cylinder? 	<p>Yes:___ No:___ Not Aware:___</p> <p>_____</p> <p>_____</p> <p>Yes:___ No:___ Not Aware:___</p> <p>If yes, withdraw after just after booking _____</p>

(If yes. How many days/hours before do you withdraw)	Or _____ _____ _____
2. <u>Borrowing Money</u>	
- In the last three months, did you ever borrow the money from anyone for the cylinder	Yes:____ No:____
- If yes, did you pay the same amount	Yes:____ No:____ (i.e. More than it)
	Rs. _____
- If yes, did you borrow because the money was not available at the moment, i.e., uncertain delivery	Yes:____ No:____
- Did you borrow before the scheme as well for the same reason i.e. uncertain delivery	Yes:____ No:____
3. <u>Other Sources</u>	
- Do you use other sources of fuel?	Yes:____ No:____
- If yes, what do you use?	Wood & chulha _____ Kerosene _____
	Others _____
- Did you use it before the scheme as well?	Yes:____ No:____
F. Banking spillovers	
Where you prefer keeping your savings?	Home _____ Bank _____ Relatives _____ Others _____
If not banks, then because:	
- Do not have savings at all	_____
- It is far off	_____
- Do not understand the procedures	_____
- Money is unsafe in banks	_____
- Other reason	_____

ANY OTHER REMARKS
