# Lessons from the World's Largest Subsidy Benefit Transfer Scheme

The Case of Liquefied Petroleum Gas Subsidy Reform in India

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#### **12.1 Introduction**

Consumer energy subsidies in developing countries are used in lieu of social security nets, aimed at shielding poor consumers from price shocks (Grubb et al. 2014). However, energy subsidies are fiscally burdensome, crowd out social spending, disproportionately benefit richer people, distort energy markets and engender higher greenhouse gas emissions (Savatic 2016). Yet, reforming fossil fuel subsidies has been politically as well as administratively challenging. Several developing countries have made unsuccessful attempts at energy price reforms, sometimes with politically disastrous consequences (Salehi-Isfahani et al. 2015).

In view of the rising subsidy burden, the Indian government has undertaken a series of fossil fuel subsidy reforms over the last few years. For instance, the government successfully deregulated gasoline and diesel prices in June 2010 and October 2014, respectively (Ganguly and Das 2016). In 2012, to contain the subsidies for liquefied petroleum gas (LPG), the predominant 'clean' cooking fuel in India, the government restricted the subsidy benefit to six LPG cylinders (14.2 kilograms each) per household, which was subsequently raised to 12 due to political pressure (Nag 2014).<sup>1</sup> Prior to 2012, there was no limit on the amount of subsidised LPG that a household could consume.

Reforming cooking fuel subsidies is particularly challenging due to opposition from poor households, as energy costs form a significant share of their expenditure budgets, even though they benefit disproportionately less than wealthier households (Savatic 2016). In 2013, the government of India introduced the Direct Benefit Transfer Scheme for LPG (DBTL scheme), a conditional cash-transfer scheme.

While cash transfers are a popular means of social assistance in developing countries, few countries have used them in the context of energy subsidies reform.

<sup>&</sup>lt;sup>1</sup> Or 35 cylinders weighing 5 kilograms each for households using smaller cylinders.

In 2005 and 2014, the government of Indonesia implemented an unconditional but targeted cash-transfer programme to compensate poor families against fuel price rise (Savatic 2016; see Chapter 6). Iran implemented a uniform cash-transfer scheme in tandem with an energy price hike in 2010 to cushion its poor population and make the reform politically feasible (Salehi-Isfahani et al. 2015).

In the context of the global discourse on fossil fuel subsidy reform, the DBTL scheme is an interesting reform to look into for various reasons. First, unlike the conventional reforms for reducing the fossil fuel subsidy, the DBTL scheme focuses on improving the efficiency of the subsidy delivery mechanism to decrease the leakage of the subsidised commodity to unintended users and uses. Second, the DBTL scheme provides a platform for the government to selectively target the subsidy to specific groups of beneficiaries, instead of providing it universally (as was the case before it was introduced). Third, the sheer scale of the DBTL scheme, which covered about 139 million households in October  $2015^2$  – making it the largest benefit-transfer scheme in the world (MoPNG 2015e) – calls for its assessment, particularly because no comprehensive analysis currently exists.

This chapter presents the results of a performance evaluation of the DBTL scheme. It seeks to draw lessons from the overall experience of the scheme, focusing on the following three key questions: (1) How successful was the implementation process of the scheme, and what were the gaps in implementation, if any? (2) How successful was the scheme in achieving its stated objectives? (3) Why did the DBTL scheme achieve this degree of success? In answering these questions, we specifically focus on the key actors and stakeholder groups involved or affected by the scheme and on the strategies employed by each to design and administer the scheme as well as to overcome the challenges encountered during the scheme's implementation.

The chapter begins with an overview of challenges associated with the LPG subsidy programme in India and the DBTL scheme. It then discusses the methodology adopted for the evaluation. Next, we discuss the results, focusing on efficacy of the implementation process, success of the DBTL scheme in achieving its stated objectives and the factors that made DBTL scheme implementation a success. We conclude with key lessons for fossil fuel subsidy reform processes for other countries while highlighting the next steps for DBTL scheme reform.

### 12.2 The LPG Subsidy and the DBTL Scheme in India

Several issues afflicting the LPG subsidy programme in India have been highlighted in the literature. These include (1) a rising subsidy burden, (2) a skewed

<sup>&</sup>lt;sup>2</sup> As of 12 March 2017, the scheme covers 165.9 million domestic connections (MoPNG 2017).

distribution of the LPG subsidy (and of consumption) among urban versus rural areas and across income classes, (3) the diversion/leakage of subsidised LPG for unintended purposes,<sup>3</sup> (4) ownership of multiple connections by several house-holds and (5) fake or 'ghost' connections<sup>4</sup> (Morris and Pandey 2006; Lang and Wooders 2012; Soni et al. 2012; MoPNG 2013; Clarke et al. 2014; Clarke and Sharma 2014; Docherty 2014; Jain et al. 2014). To address some of the challenges, these studies have proposed diverse reforms ranging from reducing the subsidy amount and imposing a realistic cap on a subsidised commodity (for each house-hold) to implementing a direct cash transfer and targeting the beneficiaries.

To curb the diversion of subsidised LPG for unintended purposes and to ensure that the households received their subsidies, the government of India introduced the DBTL scheme. The scheme aimed to reduce leakages by achieving a common market price for LPG and by channelling the consumption-linked subsidy directly to the bank accounts of LPG consumers (MoPNG 2013). Under the scheme, households buy LPG at the market price (instead of the subsidised price) and receive the subsidy directly into their bank accounts (following the purchase, for a maximum of 12 cylinders of 14.2 kilograms each per household per year).

This scheme was first launched on 1 June 2013 and subsequently expanded to 291 districts in six phases covering 17 million people (Nag 2014). The scheme was successful in curbing the leakages in the LPG distribution system, but it also suffered from numerous consumer grievances due to the speed at which it was rolled out and the requirement that a consumer should have an Aadhaar number<sup>5</sup> to receive the subsidy (MoPNG 2014). In view of such issues, the DBTL scheme was suspended in early 2014, and an expert committee was established to review it.

Incorporating the recommendations of the committee, a modified DBTL scheme, also known as PaHaL (*Pratyaksha Hastaantarit Laabh*), was relaunched in 54 districts in November 2014 and expanded to the rest of the country in January 2015 (MoPNG 2015b). The modified scheme was launched with the following stated objectives (MoPNG 2015b): (1) protecting entitlement and ensuring that the subsidy reaches the consumer, (2) removing incentives for diversion, (3) weeding out fake/duplicate connections and (4) improving the availability/ delivery of LPG cylinders for genuine users.

<sup>&</sup>lt;sup>3</sup> Earlier, LPG for households was available at subsidised market prices, unlike for commercial entities. This led to a direct incentive for siphoning and diversion of subsidised commodity for commercial uses, primarily by LPG distributors but also by consumers.

<sup>&</sup>lt;sup>4</sup> Many distributors (and consumers) had taken connections under 'ghost' names with illegal documents to receive the benefit of the subsidised commodity for non-domestic purposes.

<sup>&</sup>lt;sup>5</sup> An Aadhaar number is a 12-digit unique identification number for Indian residents that is linked to the resident's basic demographic and biometric information stored in a centralised database.

# 12.3 Methodology and Data Collection

To answer the research questions, we followed a mixed-methods approach that systematically integrates quantitative and qualitative research methods (Bamberger 2013). Although the DBTL scheme is a pan-India scheme, we focused on three states, namely Gujarat, Haryana and Kerala, to get an in-depth picture of on-the-ground realities. We chose these states to capture diversity on three main criteria: (1) the proportion of households with an LPG connection, (2) the share of LPG consumers enrolled in the DBTL scheme and (3) the proportion of rural households in the state. The selected states also represent three different geographies (south, west and north). Most of the states in the eastern part of the country exhibit a low penetration of LPG and, due to limited resources, could not be included in the study.

For our assessment, we focused on all the key stakeholders involved in the scheme's implementation, including

- 1. The Director (LPG) at the Ministry of Petroleum and Natural Gas (MoPNG) responsible for coordination and implementation of the entire scheme,
- 2. National sales heads of each of the three oil marketing companies (OMCs),
- 3. Field officers of OMCs supervising LPG distributors at district level,
- 4. Lead district managers (LDMs) of lead banks at district level responsible for coordination and implementation of the scheme from the banks' end, and
- 5. LPG distributors who stock and deliver LPG to consumers.

We conducted unstructured in-person interviews of the first two stakeholders and semi-structured telephone interviews of field officers (nine) and LDMs (three). We focused our interview with the Director LPG on national-level challenges that the scheme's implementation encountered and how the ministry tried to overcome them. We also discussed the details of the implementation strategy that the government followed. Finally, we discussed the roles and responsibilities of the various actors involved, as well as the coordination efforts undertaken between different actors and institutions. In our interviews with national sales heads of OMCs, we focused on operational issues, support and directives received from the ministry, as well as their perspective on findings from consumer and distributor surveys, to add further nuance and context to the findings and validate them. For LPG distributors, we conducted a structured telephone survey of 92 randomly selected distributors to ensure that our findings were representative. The interviews and survey were focused on understanding stakeholders' perceptions of the adequacy of the support received from other stakeholders, difficulties faced and measures taken to overcome these difficulties during the scheme's implementation. We used stakeholder perceptions along with the extent of consumer enrolment in the scheme as measures to assess the efficacy of the implementation process.

To assess the scheme's success in meeting its stated objectives, we conducted a telephone survey of 1,270 randomly selected LPG consumers, proportionate to the market share of the three OMCs in each state. The survey focused on consumer awareness about the scheme's objectives, ease of enrolment and perceived impact of the scheme on service delivery. Further, since distributors were responsible for enrolling the consumers in the DBTL scheme and directly engaged with them, we also enquired about their perception of the scheme's impact on customers, diversion of subsidised LPG and fake connections. To validate the results obtained from the survey and stakeholder interviews, and to derive lessons learned from the scheme's implementation, we supplemented our findings with an analysis of official data (on LPG sales) and secondary data sources, such as government press releases. All the engagements were conducted in May 2015 (see Jain et al. 2016 for a detailed methodology).

## 12.4 Efficacy of the Implementation Process

# 12.4.1 Status of Consumer Enrolment in the Scheme

Results from the distributor survey indicated an enrolment rate of about 85 per cent, with the highest rate reported in Kerala (87 per cent), followed by Gujarat (85 per cent) and Haryana (81 per cent). The findings correspond well with official data reported by the MoPNG, validating the representativeness of the survey.

However, in the consumer survey, a higher proportion of households (94.6 per cent) reported being enrolled in DBTL. The higher reporting could be partly attributed to those households who had submitted their application and perceived themselves as being enrolled, even though the enrolment process was not yet completed for them. This is reflective of the scheme's ongoing process but also highlights the lack of information of consumers regarding their state of enrolment.

Households that reported as not being enrolled in the DBTL scheme (5.6 per cent) stated that lack of interest in the subsidy and lack of awareness about the enrolment process were major reasons. Further, rejection of documents by the banks and lack of a bank account were other reasons. Non-enrolment due to a lack of interest indicates the scheme's potential in weeding out households that do not need the subsidy, a positive externality. This provides an important lesson that instead of providing a subsidy as a default, the government should ask for enrolment to receive subsidy benefits, which can help weed out non-deserving populations to some extent.

Though very few respondents cited the absence of bank accounts as a reason for non-enrolment, it highlights the fact that households without bank accounts could be left out of the scheme and, hence, miss out on the subsidy benefits. The important lesson here is to keep the scheme design inclusive when drafting such reform.

## 12.4.2 Stakeholder Experiences during the Implementation Process

## 12.4.2.1 LPG Consumers

We found that a majority (73 per cent) of the enrolled households reported the enrolment process to be 'easy'; only 2.5 per cent found the process to be 'difficult'. This indicates that the process was largely smooth. This could be attributed to the constant improvement in the process by the OMCs and innovative approaches adopted by the distributors, among other reasons. For instance, we found out during the field officers' interviews that distributors in some urban areas of Haryana delivered and collected enrolment forms at the doorsteps of the households through their deliverymen. This indicates the importance of designing the schemes to minimise consumer effort for enrolment, resulting in a positive perception of the process and rapid enrolment.

As per the government procedures for DBTL scheme enrolment, households had to make either two visits (for Aadhaar-based allocation of funds or seeding) or just one visit (for bank seeding). However, we found that 45 per cent of the households made three or more visits to the banks and distributors combined, indicating inefficiency in the implementation process. Despite a certain inefficiency in the process, the majority of customers did not find the enrolment process difficult. Admirably, less than 1 per cent of the households enrolled reported instances of corruption at the hands of distributors or bank officials, indicating a highly transparent process.<sup>6</sup>

## 12.4.2.2 LPG Distributors

Given the strict timelines for the scheme's implementation, 88 per cent of the surveyed distributors reported facing one or more challenges during implementation (Figure 12.1). We further found that 75 per cent of distributors reported that the Aadhaar-based seeding process was easier than the bank seeding process. Under the former, distributors have to enter only the Aadhaar number, whereas under the latter, they are required to enter several data fields related to bank account details, which is relatively tedious and error prone. This highlights the importance of simple and easy procedures for ensuring hassle-free programme implementation.

Document verification or form submission at banks was reported as the major challenge under both categories. Banks often delayed the verification

<sup>&</sup>lt;sup>6</sup> In the Corruption Perception Index 2016, India is ranked low at 79 out of 176 (Transparency International 2017).

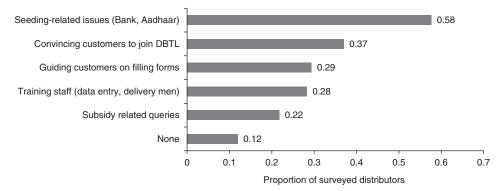


Figure 12.1 Challenges for distributors during the DBTL scheme rollout in India. (*Source:* Authors' analysis of survey data)

process and rejected high volumes of applications due to spelling mismatches. This suggests the importance of considering the procedural details and the resulting challenges in order to put contingencies and flexibilities in places. In this case, to meet the scheme's timeline, the MoPNG directed OMCs and distributors to enrol customers through direct bank seeding, skipping the banks' verification process in the short run, and later conducted the verification retrospectively.<sup>7</sup> Although this significantly increased the rate of enrolment, it also led to wrong entries of bank details by the distributors and thus affected the effectiveness of the subsidy-transfer process.

The absence of bank accounts for customers also posed difficulties to the distributors. It put the onus of guiding the customers (about opening new accounts) on the distributors, who had strict timelines to achieve the enrolment targets. Furthermore, about 36 per cent distributors did not find banks to be cooperative in handling and solving the customer complaints. At the national level, the Department of Financial Services (under the Ministry of Finance) was in alignment with the MoPNG to make the DBTL scheme a success and issued two sets of guidelines for banks to prepare themselves for DBTL scheme enrolment. However, it was found that banks were not entirely prepared for effective implementation of the scheme.

Due to delays or non-receipt of the subsidy in bank accounts, distributors had to tackle customers' subsidy-related queries without sufficient information or capacity. Subsidy-related queries were specifically cited as a major challenge by 22 per cent of the surveyed distributors (see Figure 12.1). This shows the importance of an active communication system not only between implementing agencies but also with the customers to establish trust and empower the implementers.

<sup>&</sup>lt;sup>7</sup> Based on our discussions with officials at the MoPNG.

While distributors reported various difficulties, the majority (87 per cent) acknowledged that the OMCs provided adequate support during the entire process. Based on our interviews with LPG leads, we found that OMCs supported the distributors in terms of both capacity building and financially (for the enrolment process). Field officers played a critical role in training and supervising the distributors.

## 12.4.2.3 Banking Personnel

Our interviews with LDMs revealed that banks were not well prepared for the scheme's implementation, even though the Ministry of Finance's Department of Financial Services issued notifications to the banks to facilitate adequate support. There was a lack of dedicated staffing in the banks for the DBTL scheme, with the responsibility bouncing from one employee to another; this often led to a waste of resources on repetitive capacity building. While the distributors received financial assistance from the OMCs on a per-enrolment basis, banks did not. Furthermore, banks lacked coordination between their headquarters and local branches. For instance, local bank personnel were not informed about the status of Aadhaar seeding when it was delayed at the central level, even though they were responsible for addressing customer enquiries.

The LDMs encountered several problems due to a lack of standardisation of the processes and protocols followed by different banks. For instance, banks were following different protocols to determine whether a joint account could be used for seeding with the LPG account (with or without Aadhaar). Such issues often created hassles for customers, distributors and LDMs.

LDMs also faced difficulties due to lapses in support from the distributors and gaps in information flows to the customers. On multiple occasions, LPG distributors shared LDMs' contact details with the consumers for any subsidy-related queries. Consequently, LDMs were burdened by such queries, for which they were not responsible; they also did not have the capacity or information to deal with them. Interviews with senior officials at the OMCs and the MoPNG high-lighted that the Ministry of Finance worked in close coordination with MoPNG and that towards the later stages, the coordination between banks, field officers and distributors improved significantly.

Overall, the DBTL scheme was well publicised and had fairly wide coverage, with efforts to increase enrolment rates by leveraging other ongoing schemes. While consumers found the scheme's implementation largely smooth and transparent, distributors and bank personnel encountered several difficulties, particularly due to the short timeframe of implementation. However, its smooth rollout in the short four-month timeframe was facilitated by strong leadership by the OMCs and MoPNG, coordination between different stakeholders and constant improvements in the scheme during implementation.

## 12.5 Success of the Scheme in Achieving Its Stated Objectives

## 12.5.1 Effectiveness of Subsidy Disbursal to Consumers

Direct subsidy disbursal into the bank accounts of the beneficiaries was largely successful. Based on the consumer survey, 75 per cent of the households who purchased LPG cylinders after enrolling in the DBTL scheme reported receipt of subsidies in their bank accounts. The share was marginally lower in rural areas (73 per cent).

Notably, a significant proportion (16.6 per cent) of households was unaware of the status of their subsidy receipt, and a substantial share (8.6 per cent) reported non-receipt of subsidies for any cylinder purchased. We found that the issue was the lack of proactive information flows to consumers about their subsidy transfers, which was also confirmed by the findings from the distributor survey. Upon being asked about the main improvement area for the DBTL scheme, a quarter of the surveyed distributors highlighted the need to improve timely delivery of the subsidy as well as the information to consumers. Instances of non-receipt of subsidy were repeatedly cited as an issue by distributors, field officers and LDMs. However, all stakeholders mentioned that the rate of complaints significantly decreased over time.

## 12.5.2 Impact on Diversion of Cylinders

A majority (85 per cent) of the distributors reported that the scheme had a significant impact on reducing the diversion of cylinders. Our analysis of publicly available sales data<sup>8</sup> of non-domestic LPG and auto-LPG<sup>9</sup> confirmed these findings.

The growth in the sales of non-household-packed LPG has been declining since 2009–10, with a negative growth rate in fiscal year (FY) 2013–14 and FY 2014–15. That began to turn around after November 2014, when the modified DBTL scheme was introduced. Since December 2014, the non-household-packed LPG sales have shown a significant positive growth rate, continuing for FY 2015–16, with an annual growth of 39.3 per cent (Figure 12.2). Such a marked increase in the growth of non-household-packed LPG can be attributed to the DBTL scheme's impact in constraining the diversion of subsidised LPG from the distributors' end; lower oil prices also had a partial impact by boosting demand.

Similarly, the LPG sales for transportation (auto-LPG), which have witnessed a declining growth rate since 2010–11, revived in January 2015 (concurrent to the

<sup>&</sup>lt;sup>8</sup> Monthly sales performance review reports are published by the Petroleum Planning and Analysis Cell, a body under the MoPNG.

<sup>&</sup>lt;sup>9</sup> LPG used for automobiles.

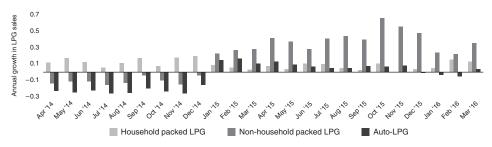


Figure 12.2 DBTL scheme's impact on growth of sales for non-domestic and auto-LPG in India.

(Source: Authors' analysis based on Petroleum Planning and Analysis Cell data.)

nationwide launch of the modified DBTL scheme). For FY 2015–16, the overall growth in auto-LPG sales has been 4.3 per cent compared to a negative growth rate of 24.4 per cent in FY 2014–15 (Figure 12.2).

Even though the DBTL scheme has tried to facilitate a uniform market price of household LPG cylinders, there still is a difference between the market price for household and non-household LPG. The difference is due to the different tax structures applicable to household and non-household LPG and could still remain as an incentive to divert household LPG for non-domestic purposes. A reform in LPG taxation would be necessary to ensure entirely uniform pricing and further reduce the diversion of household LPG for unintended uses.

#### 12.5.3 Impact on Eliminating Multiple and Fake Connections

LPG is a regulated commodity in India, and each household is allowed to have only one LPG connection. Duplicate connections, siphoning off subsidised commodities, have been a major challenge in LPG distribution. During the distributors' survey, 84 per cent of the distributors reported that the scheme had a significant impact on controlling duplicate or multiple connections.

The government of India claims that the DBTL scheme has been able to eliminate close to 33 million 'ghost' (fake or duplicate) connections (MoPNG 2015f). All these ghost connections are basically inactive LPG connections (no refills done in the past six months). However, to estimate the extent of the scheme's impact on controlling multiple connections, it is important to consider the number of inactive connections before the relaunch of the DBTL scheme (i.e. before November 2014).

An inactive connection also might not necessarily mean a ghost or duplicate/ multiple connection. An unintentional impact of the DBTL scheme could be the conversion of some genuine LPG consumers into inactive connections, especially those from poorer economic backgrounds who have insufficient cash flows to buy LPG cylinders at the market price.

Under the scheme, the initial subsidy amount is transferred to the household's bank account in advance to ensure that there is no additional outlay by the consumer while refilling a cylinder at the market price. However, in many rural areas, withdrawing money from the bank could mean losing out on half a day's salary (as bank branches are far away). Consequently, some poorer LPG consumers might reduce LPG consumption, although our study did not test this hypothesis.

Thus, of the 33 million inactive connections, a significant proportion could be fake or duplicate. However, a more careful assessment is required to estimate the impact of the DBTL scheme in eliminating such connections while acknowledging the possible withdrawal of genuine households away from LPG due to reasons discussed earlier.

## 12.5.4 Impact on Availability and Delivery of LPG Cylinders

One of the four key objectives of the DBTL scheme was to improve the availability/delivery of LPG cylinders for genuine users. To assess this, we asked consumers about the change in delivery time of the cylinders in the previous two months. More than half the households reported that the timely delivery of cylinders had improved. Another 39 per cent of households reported no change in delivery time, whereas close to 9 per cent felt that the service had deteriorated. Interviews with senior officials at the OMCs suggest that the consumer perception of improved regularity in cylinder delivery could be attributed to the avoidance of collusions at the dealers' and/or deliverymen's end as a result of the DBTL scheme.

Overall, we found that the DBTL scheme was fairly successful in achieving its objective of direct transfer of subsidies to consumers, although some gaps remain. The scheme also succeeded in limiting the diversion of subsidised products and eliminating duplicate connections, although the extent of this needs to be carefully evaluated. Finally, the consumer perception of improved timely delivery of LPG cylinders following the scheme's implementation could also be attributed to the DBTL scheme.

## 12.6 What Worked for the DBTL Scheme: Lessons Learned

This section discusses and highlights the key factors that led to the successful implementation of the DBTL scheme. It also elaborates on the lessons learned from the scheme's implementation, which could be useful for designing fossil fuel subsidy reforms in other contexts and countries.

# 12.6.1 Political Leadership and Framing of the Narrative

We find that strong leadership from the national government was a prime factor behind the successful and smooth implementation of the world's largest cashtransfer scheme, as it infused a momentum throughout the entire range of actors along the LPG supply chain involved in the implementation process. For instance, the scheme's implementation was regularly reviewed by the Prime Minister (Prime Minister's Office 2015) and monitored directly by the Minister of Petroleum and Natural Gas (MoPNG 2015d).

Unlike earlier initiatives for subsidy reforms, the DBTL scheme was implemented without any political backlash due to several factors. The dramatic fall in oil prices played a significant role in allaying public fears of any potential fallouts of the scheme. The government used this opportunity and framed the narrative on subsidy reforms as a measure to plug wasteful leakages and improve service delivery. Customer perception on this front was confirmed in our survey. The narrative was well timed, given popular sentiments against corruption (Sukhtankar and Vaishnav 2015).

For consumers, the scheme only changed the mode of subsidy disbursal and did not amount to subsidy withdrawal or reduction, which implied that only those accessing subsidies illegally were affected. These include local but unorganised commercial entities, which could not mobilise any opposition. While the LPG consumers who lacked access to banking services, mainly rural poor, might have been adversely affected, these cases were relatively few and diffused, given the low penetration of LPG in rural areas.

Thus, timely recognition of the opportunity for reform, smart framing of the narrative and direct monitoring by the political leadership at the national level were critical to the timely and successful implementation of the DBTL scheme.

## 12.6.2 Institutional Coordination

The scheme's implementation involved multiple stakeholders, including several government ministries, the entire LPG retail supply chain, the banking sector and the district-level administration. Effective coordination across different institutions, with often different mandates, was essential for the scheme's success.

For instance, regular meetings between the MoPNG and the Department of Financial Services were critical in ensuring overall alignment of banks in the scheme. The OMCs played a leading role in identifying and resolving bottlenecks by coordinating with all the relevant stakeholders throughout the scheme's implementation. As one of the field officers interviewed suggested: 'The entire implementation was under mission mode. From top to bottom, the momentum was buil[t] and leveraged, as everyone was pushing the roll-out collectively.' An elaborate multi-tiered structure of project management teams was put in place to facilitate coordination and enable troubleshooting during implementation.

# 12.6.3 Exploiting Motivations at the Individual Level and Supporting Capacity Building

One of the interesting lessons from the DBTL scheme is that giving individual ownership and responsibility to stakeholders could be instrumental in the implementation of such large-scale public programmes. For instance, the senior and middle managers of the OMCs, along with the officials and Minister at the MoPNG, were the guardian officers for one district each (MoPNG 2015c). This created a sense of individual responsibility for effective implementation of the scheme in their respective districts. Further, the annual performance appraisal of the field officers of the OMCs was linked to the enrolment rate under the DBTL scheme.

Close to 16,000 LPG distributors across the country were mobilised, given individual targets and monitored on a daily basis for the scheme's implementation. They also received periodic training and supervision from the field officers of the OMCs, along with adequate financial compensation to cover the costs incurred. Similarly, the bank personnel were trained by the LDMs, in coordination with the field officers. While an absence of dedicated bank personnel for the DBTL scheme led to delays and difficulties in the enrolment process, this was eventually overcome through continued efforts by MoPNG, Department of Financial Services, banks and LDMs.

The experience with the DBTL scheme provides an important lesson about effectively using different individual motivational drivers to facilitate effective and timely implementation of a government scheme.

## 12.6.4 Learning from Past Experience

As discussed in Section 12.2, the modified DBTL scheme incorporated insights from a review of the scheme's first round of implementation. For instance, it included an alternative enrolment procedure, which addressed the politically sensitive issue of exclusion of LPG consumers lacking an Aadhaar number. Further, the review identified the difficulties faced by different stakeholders. This helped the OMCs to devise robust systems (such as improved information technology systems and software), along with teams of experts, to quickly respond to real-time on-theground enrolment issues. A comprehensive grievance-redressal system was also established in line with the recommendations of the committee to help resolve customer issues.

This shows the importance of reviewing reform programmes and incorporating the feedback of key stakeholders, particularly end consumers, to improve the scheme design and implementation processes.

# 12.6.5 Leveraging Existing Systems and Schemes

The DBTL scheme rested on the effective use of several other government schemes and efforts. Any digital cash-transfer scheme requires a branchless banking network and a robust authentication system (Banerjee 2015). In the case of the DBTL scheme, the Core Banking Solution<sup>10</sup> enabled electronic transfer of money to beneficiaries' bank account, while the efforts towards the financial inclusion of the households ensured that most LPG consumers had or could open a new bank account to enrol in the DBTL scheme. In fact, about 14 per cent of enrolled households did not possess an existing account and had opened a new bank account to take advantage of the subsidy. About half of these accounts were opened under another national scheme for financial inclusion, Pradhan Mantri Jan Dhan Yojana. This highlights the benefits of convergence and the need for greater coordination between different government schemes. Furthermore, the OMCs conducted a 'know your customer' drive before the DBTL scheme's launch that created a digital database of beneficiaries (LPG consumers) and enabled the enrolment of customers under the DBTL scheme. The Aadhaar numbers, meanwhile, facilitated the online authentication of beneficiaries by linking their bank accounts to the core banking server (Banerjee 2015).

While there was a clear convergence of past and ongoing schemes, sustained efforts must continue to improve the banking infrastructure and services for all households, particularly as rural and/or economically poor households will make up the majority of future LPG adopters in India.

## 12.6.6 Strong Emphasis on Awareness Generation

The DBTL scheme was well publicised through an intensive information education campaign. This comprised advertising through different media and direct outreach to consumers through the use of text messages, calls and public announcements (MoPNG 2014, 2015d). An information education campaign was devised and implemented for each district. The effectiveness of the awareness campaign was

<sup>&</sup>lt;sup>10</sup> The Core Banking Solution entails the networking of branches, enabling customers to operate their accounts and use banking services from any branch of the bank on the network regardless of where the customer maintains his or her account.

reflected in the consumer survey, in which all surveyed households knew about the DBTL scheme. However, there were gaps in awareness about the enrolment process and the status of subsidy transfer, which could be overcome through proactive information flows. The messaging in the awareness campaigns, which focused on ensuring households that they would retain their deserving subsidy benefit, also improved compliance with the scheme.

## 12.7 Conclusion

With increasing coverage and use of LPG as a domestic fuel in India, the need for reforming the LPG subsidy programme is growing. Apart from capping the consumption of a subsidised product, the Indian government implemented the DBTL scheme to improve the efficiency of subsidy disbursal and to reduce diversion of subsidised LPG to unintended users and uses.

This chapter assessed the performance of the DBTL scheme in terms of its implementation and the achievement of its objectives based on the experiences of key stakeholders. Using a mixed-methods approach, we found that the DBTL scheme fared well in both implementation and achievement of objectives. However, challenges remained pertaining to delays in the subsidy transfer, information gaps and a lack of financial inclusion. In summary, the DBTL scheme was successfully implemented due to strong political leadership at the national level combined with effective institutional coordination, strategies to motivate individuals, convergence of various government efforts, learning from past experiences and a focus on awareness generation.

By guaranteeing transfers directly to the beneficiary, the DBTL scheme made the reform of LPG subsidies and the liberalisation of LPG prices possible. It has paved the way for further reforms to improve the equity of the LPG subsidy programme by targeting the beneficiaries. The Indian government has already started excluding wealthy households on the basis of income information. Potential reforms, such as differential subsidies to different types of households – classified on the basis of income, socio-economic conditions, family size or urban-rural domicile – are now possible to further improve the targeting.

The largely positive experience of the DBTL scheme has inspired the government to use direct benefit transfer for other social benefits to improve the targeting and efficacy of government subsidy expenditures. However, the government should continue its efforts to ensure that no deserving consumer is deprived of the subsidy benefit due to a lack of information, difficulty during enrolment or poor access to banking services. Sustained efforts to bring such consumers within the scheme's fold will be required, particularly as the penetration of LPG increases in rural areas, where access to banking services is a challenge. The DBTL scheme is one of the few shining examples of fossil fuel subsidy reform achieving successful implementation on a massive scale without any significant public opposition. Strong political will and leadership, along with effective communication and messaging, coupled with a robust implementation plan and good management, led to the success of the DBTL scheme. Insights from this scheme could inform effective design and implementation of cash-transfer programmes in particular and fossil fuel subsidy reforms in general.

## References

- Bamberger, M. (2013). *The Mixed Methods Approach to Evaluation* (Social Impact Concept Note Series). London: Overseas Development Institute.
- Banerjee, S. S. (2015). From Cash to Digital Transfers in India: The Story So Far. Washington, DC: Consultive Group to Assist the Poor.
- Clarke, K. and Sharma, S. (2014). India Energy Subsidy Review: A Biannual Survey of Energy Subsidy Policies. Geneva: International Institute for Sustainable Development.
- Docherty, J. (2014). Subsidies to Liquefied Petroleum Gas in India : An Overview of Recent Reforms. Geneva: International Institute for Sustainable Development.
- Ganguly, A. and Das, K. (2016). Effect of reduction of fuel subsidies on poverty and inequality in developing countries – the case of India. SAMVAD International Journal of Management 11, 32–41.
- Grubb, M., Hourcade, J. C. and Neuhoff, K. (2014). *Planetary Economics: Energy, Climate Change and the Three Domains of Sustainable Development.* London: Routledge.
- Jain, A., Agrawal, S. and Ganesan, K. (2014). Rationalising Subsidies, Reaching the Underserved: Improving Effectiveness of Domestic LPG Subsidy and Distribution in India. New Delhi: Council on Energy, Environment and Water.
  - (2016). DBTL Performance Evaluation: Insights from the World's Largest Subsidy Benefit Transfer Scheme. Geneva: International Institute for Sustainable Development.
- Lang, K. and Wooders, P. (2012). *India's Fuel Subsidies: Policy Recommendations for Reform*. Geneva: International Institute for Sustainable Development.
- MoPNG (Ministry of Petroleum and Natural Gas) (2013). Report of the Expert Group to Advise on Pricing Methodology of Diesel, Domestic LPG and PDS Kerosene. New Delhi: Government of India.
  - (2014). *Review of the Direct Benefit Transfer for LPG Scheme: Committee Report.* New Delhi: Government of India.
  - (2015a). About the scheme. Available at http://petroleum.nic.in/dbt/whatisdbtl.html (accessed 17 August 2017).
  - (2015b). Handbook on 'PAHAL' (DBTL) Scheme: Ministry of Petroleum and Natural Gas, Government of India. New Delhi: Government of India.
  - (2015c). Inauguration of mission office for PAHAL at World Trade Centre. Available at http://pib.nic.in/newsite/mbErel.aspx?relid=114107 (accessed 17 August 2017).
  - (2015d). Over 80 per cent LPG consumers have joined PAHAL. Available at http://pib .nic.in/newsite/PrintRelease.aspx?relid=116400 (accessed 17 August 2017).

- (2017). PAHAL direct benefits transfer for LPG (DBTL) consumers scheme. Available at http://petroleum.nic.in/dbt/index.php (accessed 17 August 2017).
- (2015e). 'PaHaL' acknowledged by the Guinness Book of World Records as the largest cash transfer program. Available at http://pib.nic.in/newsite/PrintRelease.aspx? relid=125024 (accessed 17 August 2017).
- (2015f). Subsidies on LPG cylinders. Available at http://pib.nic.in/newsite/PrintRelease .aspx?relid=128653 (accessed 17 August 2017).
- Morris, S. and Pandey, A. (2006). Efficient subsidization of LPG: a study of possible options in India today. Working Paper No. 2006-04-07, Indian Institute of Management Ahemdabad, Vastrapur.
- Nag, S. (2014). Fiscal effects and reforms: petro-fuel subsidy in India. *International Journal of Humanities and Social Science Studies* 1(2), 46–49.
- Prime Minister's Office (2015). PM reviews PaHaL scheme for direct benefit transfer for LPG subsidy. Available at pib.nic.in/newsite/PrintRelease.aspx?relid=115109 (accessed 17 August 2017).
- Salehi-Isfahani, D., Stucki, B. W. and Deutschmann, J. (2015). The reform of energy subsidies in Iran: the role of cash transfers. *Emerging Markets Finance and Trade* 51(6), 1144–62.
- Savatic, F. (2016). *Fuel Subsidy Reform: Lessons from the Indonesian Case*. Paris: Institute for Sustainable Development and International Relations.
- Soni, A., Chaterjee, A. and Bandhopadhyay, K. R. (2012). Fossil-Fuel Subsidy Reform in India: Cash Transfers for PDS Kerosene and Domestic LPG. Geneva: International Institute for Sustainable Development.
- Sukhtankar, S. and Vaishnav, M. (2015). Corruption in India: Bridging Research Evidence and Policy Options. India Policy Forum. Washington, DC: Carnegie Endowment for International Peace.
- Transparency International (2017). Corruption Perception Index 2016. Available at www .transparency.org/news/feature/corruption\_perceptions\_index\_2016 (accessed 17 August 2017).