

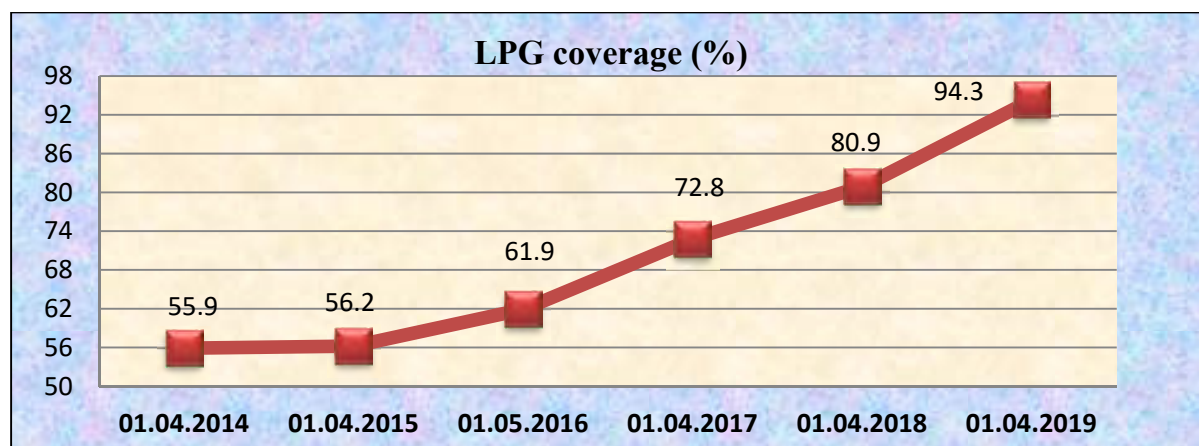
Chapter 6:
Transition of BPL households to LPG

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6.1 All India LPG Coverage

LPG Coverage is the ratio of active domestic customers to total households estimated on the basis of growth rate during 2001-2011 as per Census 2011.

Year-wise growth in all India LPG coverage from April 2014 to March 2019 was as below:



Source: PPAC and IOCL

All India LPG Coverage as on 1 April 2014 was 55.90 per cent which increased to 61.90 per cent as on 1 May 2016 and to 94.30 per cent by 1 April 2019.

The LPG coverage in 14 states/UTs as on 1 May 2016 was less than the national LPG coverage. Meghalaya had the lowest LPG coverage with 22 per cent, followed by Jharkhand (28 per cent), Chhattisgarh (31.10 per cent), Bihar (31.70 per cent), Odisha (31.90 per cent) and Lakshadweep (35.10 per cent).

Since the launch of PMUY, 14 States / UTs¹⁴ (*Annexure I*) have achieved LPG coverage in the range of 100.10 per cent to 140 per cent as on 1 April 2019. While Meghalaya (45.20 per cent) is yet to achieve the national LPG coverage of 1 May 2016, LPG coverage of the five states Jharkhand, Chhattisgarh, Bihar, Odisha and Lakshadweep was ranging from 68.40 per cent to 74.20 per cent.

Year wise growth in LPG connections after launch of PMUY is shown below:

Table 6.1: Year-wise detail of active LPG connections (No. in crore)

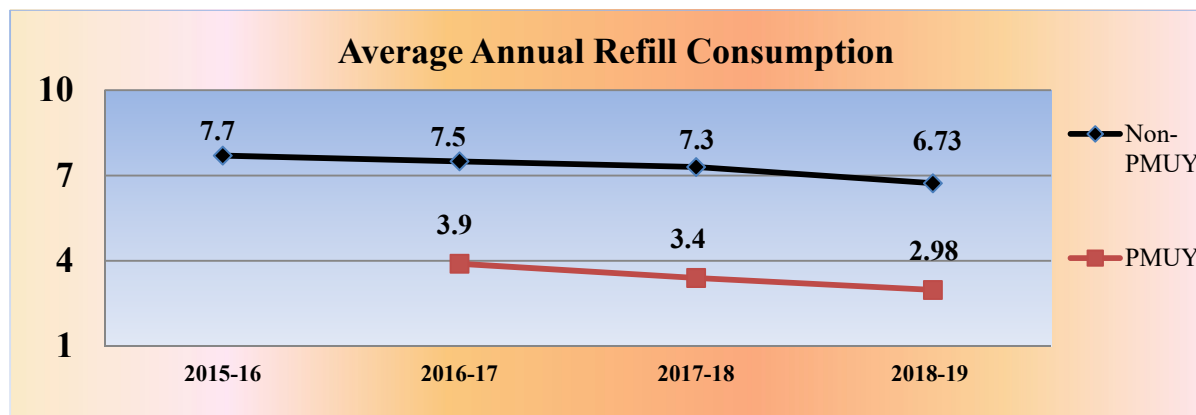
As on	Estimated no. of households	No. of LPG connections				Year-wise increase in connections	LPG coverage (per cent)
		PMUY	E-PMUY	Non-PMUY	Total		
01.05.2016	26.89	0	0	16.67	16.67	-	61.9
31.03.2017	27.29	2.00	0	17.88	19.88	3.21	72.8
31.03.2018	27.72	3.52	0	18.91	22.43	2.55	80.9
31.03.2019	28.15	3.81	3.38	19.35	26.54	4.11	94.3

(Source: PPAC and IOCL)

¹⁴ Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Uttaranchal, Mizoram, Goa, Maharashtra, Karnataka, Kerala and Telangana

As evident from the above, the increase in LPG connections was 9.87 crore since launch of PMUY, out of which 7.19 crore was on account of PMUY/E-PMUY.

However, it was observed that the increase in number of LPG connections during this period is not commensurate with the average refill consumption as depicted in the chart below:



Source: IOCL & MoPNG

The above indicates that though PMUY has been able to give a significant push to increase LPG coverage, average refill consumption is showing a downward trend which indicates that the OMCs have to go a long way to ensure sustainable usage of LPG. It may also be noted that the decline in average consumption of non-PMUY consumers (10.27 per cent) was less than that of PMUY consumers (23.59 per cent).

6.2 Adoption of clean fuel by the PMUY beneficiaries

Audit analysis of consumption of refills by PMUY consumers are given in the following paras:

6.2.1 Low consumption of refills

At the time of implementation of the scheme, OMCs have worked out the annual consumption of existing BPL families having LPG connections as 3-4 refills *per annum*. This consumption pattern was expected to continue after launch of PMUY and the assessment of demand of refills was based on this assumption.

First year of LPG usage is crucial in assessing the BPL household's willingness to adopt clean fuel and, therefore, keeping this in view, audit calculated the average refill consumption of 1.93 crore PMUY consumers who had completed one year or more as on 31 March, 2018 and observed that they had consumed 3.66 refills¹⁵ *per annum*. The same analysis was done for 3.18 crore PMUY consumers who had completed one year or more as on 31 December 2018 and it revealed that the average refill consumption came down to 3.21 refills *per annum*. Thus, the overall average refill consumption of PMUY beneficiaries is on a declining trend.

A further analysis of these 3.18 crore PMUY consumers (*Annexure II*), who had completed one year or more as on 31 December 2018, revealed that 0.56 crore (17.61 per cent) beneficiaries never came back for second refill and 1.05 crore (33.02 per cent) beneficiaries consumed 1 to 3 refills only.

¹⁵ Audit adopted the weighted average methodology for calculating the average refill consumption by the beneficiaries (viz. time period of respective beneficiary, total refill availed by her from date of installation to 31.12.2018 divided by time period in year and finally, sum of individual averages are divided by total number of beneficiaries)

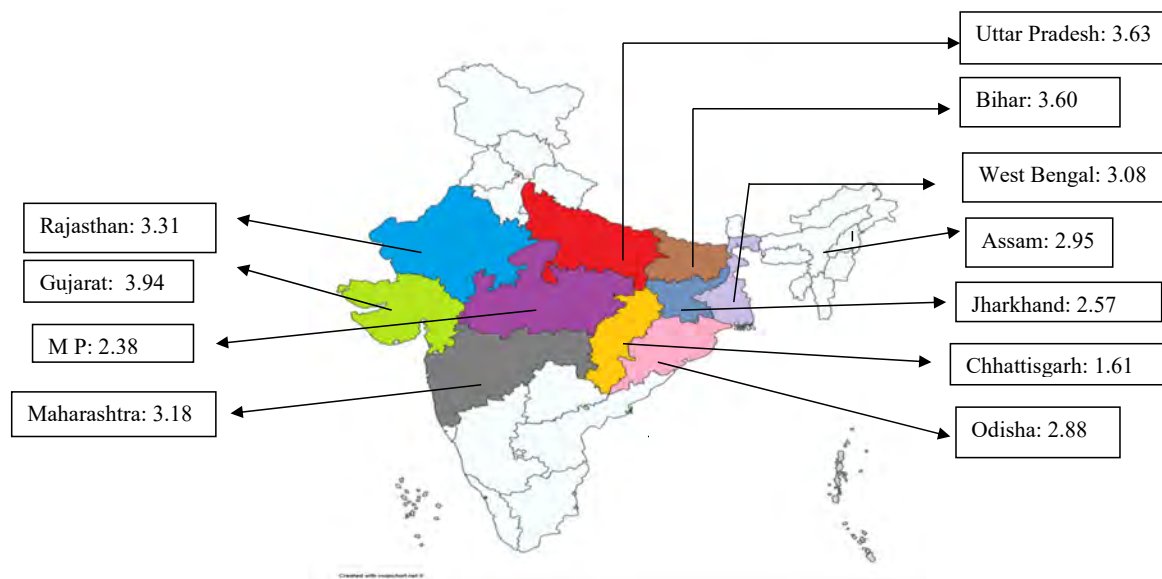
OMCs replied (April 2019) that the primary objective of this scheme was to make the clean cooking fuel reach them. The huge improvement of penetration is one of the measures of success of the scheme.

MoPNG replied (May/July 2019) that adoption of LPG depends on several factors e.g. food habits, cooking habits, access and price of LPG etc. The OMCs have been aggressively promoting 5 Kg refills and have identified 10 districts for mandatory roll out of 5 Kg refill on pilot basis. Presently, off-take of 5 Kg refills has increased significantly and being monitored on weekly basis.

The replies should be viewed against the fact that success of such a huge social scheme cannot be measured in terms of mere distribution of connections without ensuring the transition to clean fuel through sustained usage of LPG.

6.2.2 State-wise consumption pattern

Audit has analyzed the consumption pattern of PMUY beneficiaries in 11 states which had 76.50 per cent of the BPL households as per SECC-2011 list and observed that 89.95 per cent of the total PMUY connections have been released in these States as on 31 December 2018. Audit analysis revealed that the average refill consumption of PMUY beneficiaries, who had completed one year or more, located in 7 out of these 11 states was less than the overall average refill consumption of 3.21 refills per annum as worked out by audit as on 31 December 2018.



This map is for illustration purpose only. Boundaries may differ from actual.

The above chart shows that Chhattisgarh had the lowest per annum average refill consumption of 1.61 refills, followed by Madhya Pradesh (2.38 refills), Jharkhand (2.57 refills), Odisha (2.88 refills), Assam (2.95 refills), West Bengal (3.08 refills) and Maharashtra (3.18 refills).

Apart from the above in the remaining 25 states/UTs, audit observed that in two¹⁶ States/UTs the average annual consumption was less than three refills i.e. below the envisaged consumption of 3-4 refills per annum.

Though the objective of distributing deposit free LPG connections has broadly been achieved by the OMCs as discussed in Para 1.5, sustained usage of LPG by the BPL beneficiaries needs

¹⁶ Jammu & Kashmir (2.82 refills) and Dadra & Nagar Haveli (2.44 refills)

to be ensured in the states where average annual consumption was less than the envisaged consumption.

OMCs replied (April 2019) that the Industry has conducted LPG Panchayats, deferred recovery of loan from subsidy up to 6 refills, provided option for switch over to 5 kg refill, improved accessibility and created customer awareness to encourage the first-time users for consumption level to improve. The replies may be viewed against the fact that despite various steps taken to increase refill consumption, PMUY beneficiaries average refill consumption was not commensurate with the national average.

MoPNG noted (May 2019) the audit observation.

6.2.3 High Consumption of refills

Govt. of India launched (November 2014) PAHAL (DBTL) Scheme to address concerns regarding diversion of domestic subsidised LPG cylinders towards non-domestic usage. Accordingly, a domestic LPG consumer is entitled to receive subsidy on 12 cylinders in a financial year and consumption beyond 12 cylinders, attracts market prices without subsidy entitlement. Audit analyzed the consumption pattern of LPG from the LPG database and the observations are given below:

6.2.3.1 Higher annual LPG refill consumptions

OMC-wise details of consumers with higher annual consumption of refills are as detailed below:

Table 6.2: OMC wise number of beneficiaries with higher consumption

Average annual consumption of LPG refills	Number of PMUY consumers			Total
	IOCL	BPCL	HPCL	
13 to 20	96326	60160	37384	193870
21 to 30	1376	1342	1335	4053
31 to 40	108	104	141	353
41 to 50	33	17	107	157
51 to 85	11	4	16	31
Total	97854	61627	38983	198464

As seen from the above, 1.98 lakh consumers had an average annual consumption of more than 12 cylinders. Given the BPL status of these consumers, this pattern of high consumption prima-facie appears to be improbable and the risk of diversion of these domestic cylinders for commercial use cannot be ruled out.

6.2.3.2 Higher monthly LPG refill consumptions

Audit further analyzed the consumption pattern of PMUY beneficiaries on monthly basis and observed that 13.96 lakh consumers in 20.12 lakh instances consumed 3 to 41 refills in a month since installation. Out of 13.96 lakh consumers, 10.09 lakh consumers have taken refills in the above range only once and the remaining 3.87 lakh consumers have taken refills 2 to 23 times which suggests that these consumers are habitual in taking more than two refills in a month. OMC wise detail of instances of higher monthly consumption by the beneficiaries is as detailed below:

Table 6.3: OMC wise instances of higher monthly consumption

Monthly Consumption of LPG refills	IOCL		BPCL		HPCL		Total	
	No. of consumers	No. of instances	No. of consumers	No. of instances	No. of consumers	No. of instances	No. of consumers	No. of instances
3 to 5	553516	689769	449031	612752	393898	543521	1396445	1846042
6 to 9		51626		48400		35638		135664
10 to 14		16092		7996		6185		30273
15 to 41		67		65		84		216
Total		757554		669213		585428		2012195

6.2.3.3 Abnormal daily LPG refill consumption

Audit analyzed the PMUY refill transaction data of PMUY beneficiaries as well as system put in place by the OMCs for booking/issuance of refills and observed that BPCL has put in place an effective system driven mechanism for restriction on booking / delivery of more than one refill on the same day through data validation. On the other hand the software of IOCL and HPCL lacked such validation checks. Therefore, LPG distributors of IOCL and HPCL, in 3.44 lakh instances (*Annexure III*), have issued 2 to 20 refills in a day to a single PMUY beneficiary having single bottle connection.

There is a significant difference between the price of domestic and commercial LPG refills on account of subsidy / additional duties and levies (*i.e.* custom duty, excise duty and other tax differentials). Moreover, this much of high consumption is not possible even in case of general connections and therefore, risk of diversion of domestic LPG towards non-domestic / commercial use cannot be ruled out in these cases. Therefore, this needs to be investigated in order to prevent misuse of refills under the scheme.

IOCL and HPCL replied (April 2019) that LPG refill consumption of each household is independent of any quota restriction to govern the same on any single day. Each household's family structure is different, eating and cooking habits varies; as a result, every household has its unique LPG consumption requirements. Therefore, there were no restrictions to prohibit the booking and delivery of more than one LPG cylinder per day. However, a control mechanism to regulate more than one booking and refill delivery to SBC customers has been introduced in the system.

Replies are not tenable as given the BPL status of PMUY consumers, the pattern of high off-take of refills appears to be improbable and there is a risk of diversion.

MoPNG replied (May/July 2019) that the OMCs have been advised to frame internal checks and balance to closely monitor refill consumption of PMUY consumers. Further, OMCs have introduced annual capping of 15 cylinders of 14.2 Kg and distributors with high refill sales have been given show-cause letters and appropriate actions as per MDG will be taken. Moreover, three cases of diversion have been detected by BPCL and action as per MDG is being taken.

6.3 Outcome of PMUY beneficiary survey

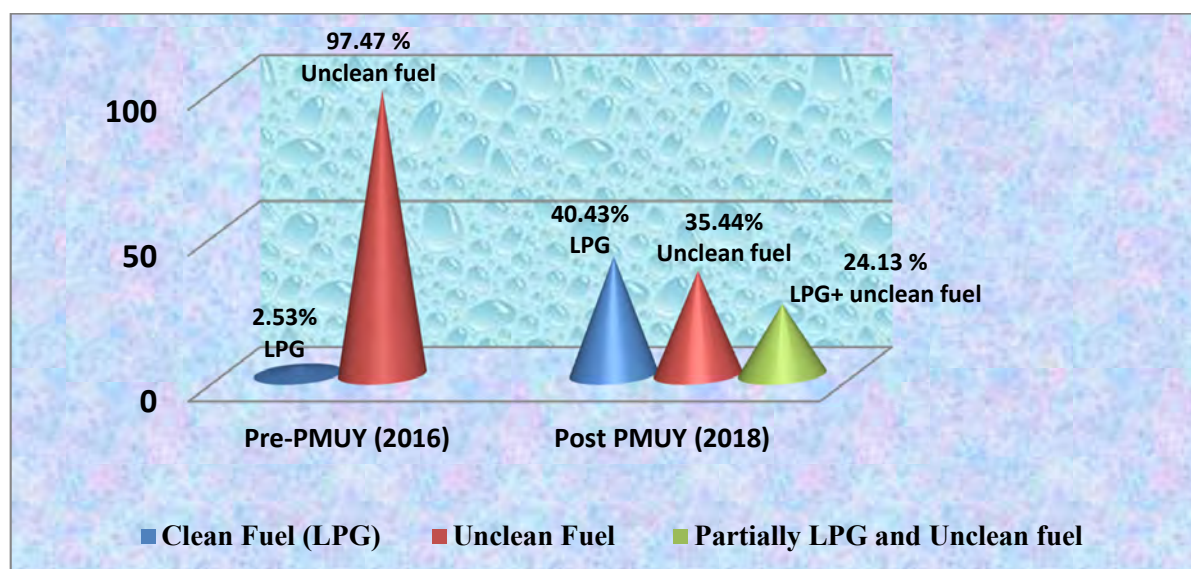
Audit conducted a sample survey of 1662 beneficiaries by selecting at least 10 PMUY beneficiaries registered with each of the 164 selected LPG distributors. This survey was

conducted to examine the extent of transition and also understand the constraints to the use of LPG by the BPL households. The following constraints were faced during this survey:

1. As the survey was conducted by the audit party in presence of LPG sales officer and LPG Distributor, the responses might involve certain bias.
2. In case the beneficiary was not present at the time of survey, the responses of some other family member were taken which might have been different from that of the beneficiary's.

Audit observed that before implementation of PMUY, 97.47 per cent PMUY beneficiaries were totally dependent upon traditional unclean cooking fuels viz. firewood, cattle dung and low quality coal and rest were using the LPG purchased from the open market.

Based on the beneficiary survey, the trend of transition from unclean fuel to clean fuel by the PMUY beneficiaries before and after implementation of PMUY was as follows:



Out of 1662 PMUY beneficiaries, 672 beneficiaries exclusively shifted to LPG, while 589 beneficiaries again reverted back to the use of unclean fuels (firewood, cow-dung cake and etc.) and 401 beneficiaries were using both LPG and unclean fuels mainly due to higher price of LPG refills or easy/free of cost availability of traditional unclean fuel.

In view of high cost of LPG refill, which emerged as the main cause for reverting back to traditional unclean fuel by the BPL households from beneficiary survey, audit analyzed the price of LPG refills (14.2 Kg cylinder) and found that market price of LPG refills had varied between the range of ₹500 per refill to ₹837 per refill¹⁷ during the period from April 2016 to December 2018. Since the cost of refill has to be paid upfront by the BPL consumers, this has become a constraint in ensuring sustained usage of LPG.

OMCs replied (April 2019) that the adaptability and sustainability of the usage of LPG by PMUY beneficiaries will be a gradual process since they are habituated to their traditional cooking methods and fuel. Also, as majority PMUY beneficiaries are from rural areas, the access and easy availability of alternate conventional solid fuels in their vicinity like firewood, cow-dung cakes, and agriculture residue cannot be ruled out as a factor affecting complete switch by

¹⁷ In the four metro cities

the beneficiaries to clean cooking fuel LPG. To bring in this transition and switch over to LPG by PMUY beneficiaries various initiatives and steps have been taken by Oil Companies.

MoPNG added (May 2019) that the OMCs have been aggressively promoting 5 Kg refills amongst PMUY beneficiaries to overcome affordability issue.

Replies have to be viewed in light of the fact that even after completion of more than two years, around 60 *per cent* beneficiaries surveyed have not yet completely shifted to clean fuels. Moreover, initiatives to encourage 5 Kg refills should have been taken much earlier in line with the caution expressed (March 2016) by EFC during approval of the scheme itself as already stated in Para 5.4.

6.4 Interest-free loan extended by the OMCs

MoPNG guidelines on the PMUY states that OMCs will provide EMI facility to those BPL beneficiaries who want to avail the same towards the cost of gas stove and first refill under the scheme. In this regard, audit observed that OMCs have extended unsecured interest-free EMI facility to 68 *per cent* of beneficiaries subject to recovery of loan amount from the subsidy payable to respective PMUY beneficiary against initial refill/subsequent refills. Details of interest-free loan extended by the OMCs to PMUY beneficiaries vis-à-vis recovery thereof as on 31 March and 31 December 2018 was as follows:

Table 6.4: Details of loanee PMUY consumers and outstanding loan thereagainst

(figure in crore)

PARTICULARS	31.03.2018	31.12.2018
No. of active PMUY consumers	3.52	3.78
No. of PMUY consumer who have taken loan	2.38	2.58
Amount of Interest-free Loan extended (₹)	3852.77	4192.79
Amount of Interest-free Loan recovered (₹)	1519.36	1575.72
Outstanding Interest-free Loan (₹)	2333.41	2617.07

As seen from the above, only 37.58 *per cent* of the amount of interest-free loan extended has been recovered by the OMCs as on 31 December 2018.

6.4.1 Non-recovery of interest free loan from PMUY beneficiaries

Analysis of loanee PMUY consumers revealed that out of 2.58 crore loanee PMUY beneficiaries, 2.14 crore (82.95 *per cent*) have completed one year or more as on 31 December 2018 and amount outstanding from them was ₹1994.82 crore as shown below:

Table 6.5: Details of outstanding loan from PMUY consumers who completed one year

Particulars	IOCL	BPCL	HPCL	Total
No. of loanee consumers who have completed more than one year as on 31.12.2018 (in crore)	1.04	0.50	0.60	2.14
Loan amount (₹ crore)	1669.24	811.36	962.00	3442.60
Loan recovered (₹ crore)	734.75	332.48	380.55	1447.78
Loan outstanding (₹ crore)	934.49	478.88	581.45	1994.82

The above reveals that the OMCs have been able to recover 42.05 *per cent* of the amount extended as interest-free loan to PMUY consumers who have completed more than one year as on 31 December 2018. However, further analysis of these consumers revealed that 0.92 crore (43 *per cent*) consumers had consumed lower number of refills (up to three) since installation and outstanding amount of loan from them was ₹1234.71 crore¹⁸ as shown below:

Table 6.6: Details of outstanding loan from PMUY consumers with low consumption

Sl. No.	Particulars	One refill	Two refill	Three refills	Total
1	No. of loanee consumers who completed one year or more as on 31 December 2018 (in crore)	0.38	0.29	0.25	0.92
2	Total loan amount extended to these loanees (₹ crore)	614.30	472.04	403.43	1489.77
3	Loan amount recovered (₹ crore)	71.10	84.29	99.66	255.05
4	Outstanding loan amount there against as on 31 December 2018 (₹ crore)	543.20	387.75	303.77	1234.72

In view of low consumption of refills by these beneficiaries, the chances of recovery of the outstanding amount are bleak.

OMCs replied (April 2019) that monitoring mechanism is being put in place to track these low consumption consumers in order to guide them for usage of clean LPG.

Despite efforts being taken by the OMCs to guide low consumption consumers for usage of clean LPG, the fact remains that since inception of the scheme, the consumption of loanee PMUY consumers who have taken one to three refills has not gained momentum resulting in non-recovery of loan extended.

MoPNG, in its reply (May 2019), did not offer any comments.

6.4.2 Impact of deferment of recovery of loan by the OMCs on PMUY beneficiaries

In view of low consumption of refills by the loanee PMUY beneficiaries, OMCs deferred (1 April 2018) the recovery of loan amount up to six refills from all the PMUY beneficiaries who were having outstanding loan amount as on 31 March 2018 as well as from all new loanee PMUY consumers who were enrolled from 1 April 2018 to boost LPG consumption.

Audit analyzed the impact of the deferment of recovery of loan amount of those consumers who consumed one, two and three refills and had completed one year as on 31 March 2018 and observed that out of 0.53 crore loanee consumers, only 0.26 crore came back for subsequent refills during the period from April - December 2018. Out of the ones who came back, only 17315 consumers consumed more than six refills from whom the recovery could be started.

Audit also observed that till 31 December 2018, number of loanees who have completed one year but having one to three refills had increased to 0.92 crore. The outstanding loan amount against them was ₹1234.71 crore as on 31 December 2018.

IOCL and BPCL have provided an amount of ₹840.96 crore and ₹70 crore respectively towards bad and doubtful debts in their books of accounts as on 31 December 2018.

¹⁸ 82.88 *per cent* of the loan extended to them

Thus, the deferment of recovery of loan by the OMCs up to six refills did not effectively result in boosting the consumption of refills and the possibility of recovery of the outstanding amount from the consumers who have low consumption is remote which will ultimately have to be borne by the OMCs.

OMCs, while accepting that deferment of recovery of loan has not enhanced the per capita consumption, replied (April 2019) that it has been decided to restart recovery of loan *w.e.f.* 1 April 2019 from all the existing as well as new loanee PMUY beneficiaries.

MoPNG, in its reply (May 2019), did not offer any comments.

6.5 Absence of Performance indicators to assess the benefits of the scheme

Expenditure Finance Committee, during approval of the Scheme, enquired (March 2016) about the measurable benefits / outcomes of PMUY to which MoPNG replied that PMUY being a social development scheme, the measurable benefits / outcomes were:

- a) the reduction in dependence on firewood
- b) improved health status of women

Audit, however, observed that there were no parameters set to monitor sustained usage of clean fuel. No performance indicators were set by the Ministry for assessing the health benefits achieved by the beneficiaries from the scheme. To an audit query that whether any criteria / benchmark has been set to assess the extent of achievement of the scheme, MoPNG replied (January 2019) that the scheme relied upon the existing studies enumerating impact of conventional fuels on the health of women and children. Hence, the overall benefit achieved from the scheme cannot be measured in absence of any performance indicator.

MoPNG noted (May/July 2019) the audit observation and also replied that to assess the impact of PMUY, it has requested the Ministry of Health & Family Welfare to set up an inter-ministerial panel of experts chaired by Health Sector expert consisting of representatives from relevant sectors including Environment, Petroleum & Natural Gas.