

INDIAN LPG BUSINESS DELIGHTS FROM THE SYNERGY BETWEEN REGULATION AND TECHNOLOGY – TAKING ENERGY INCLUSIVENESS TO NEW NORMAL

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Abstract

The story of LPG in India reflects the footprint of country's stride on the path of sustainable development. LPG marketing in India exhibited secular trend of growing consumption, high standard of service delivery and unstinted commitment towards nation building. Large population, increase in affordable income and changing lifestyle of Indians, together, have made this product much in demand. Availability of LPG has been maintained across the country by the three PSU oil marketing companies (OMC), namely Indian Oil, Bharat Petroleum and Hindustan Petroleum. LPG supply chain entails capital investment, safety precautions and technology adoption; all the factors have been well planned and executed by the OMCs, with long term developmental approach. Selling price of LPG has been kept under regulation, primarily to make the product affordable to all sections of the people.

Indian LPG story has been an exemplary case of making clean cooking fuel available, accessible and affordable to all sections of the people, thereby preventing indoor air pollution, arresting deforestation and mitigating greenhouse gas emission. (1, 2) Studies conducted during and prior to first decade of this century highlighted then prevailing inadequate energy security and crippling energy poverty experienced by households in rural India. (3, 4, 5, 6, 7) However, the last 7 years have witnessed massive transformation in rural penetration of LPG, enhancing accessibility and availability of LPG. The issue of affordability was long addressed by a

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regulated pricing regime, making the product subsidized. The universal and open-ended subsidized pricing led to some distortion, incentivizing diversion and creating unsustainable fiscal burden on state exchequer. Last three years, during the regime of BJP led NDA Government at the centre, addressed these issues by initiatives like direct transfer of subsidy into customer's bank account (DBTL-PAHAL), voluntary surrender of subsidy (Give-it-up) and by providing free installation of LPG to targeted households at the bottom of the socio-economic pyramid (Pradhan Mantri Ujjwala Yojana - PMUY). These drives taken during last 3 years have caused a silent revolution in the realm of making India energy inclusive. Indian households, otherwise residing in deep recess of deprivation, started feeling for the first time that the agony of energy poverty, entrenched since time immemorial, is finally on the recede.

Key words: India, LPG, PMUY, Technology, Marketing

LPG – An Exceptional Fuel

LPG is acclaimed to be 'exceptional energy' for its origin (as a byproduct), ease of availability, portability and its versatile application. From the consumer's point of view, for its properties of being clean and green fuel, LPG is known to be 'addictive fuel'. Environmental concerns, primarily for maintaining clean air in kitchen and to arrest deforestation, Government of India has been encouraging use of LPG, even importing the fuel and selling at a price that recovers cost partially. The combined effect of all these have made LPG a promising fuel in India.

LPG Consumption in India

India is third largest LPG consuming country in the world, following USA and China. India also occupies the distinction of being seventh largest LPG producing country in the world, following USA, China, Saudi Arabia, Russia, UAE and Qatar. (8)

The story of LPG in India dates back to 1950s, when Burmah Shell marketed LPG as Burshane gas from its refinery in Mumbai. Keeping pace with country's journey towards development, people in India used more and more LPG, recording a consistent growth of 10.98% CAGR during last 46 years (176 TMT in 1970-71 to 21,240 TMT in 2016-17). A huge mass of 19.87 crores families, constituting 72.8% of country's total households are serviced by 18,786 LPG

Distributors, about 42% whom are located in rural areas. With a view to enlarge the coverage of LPG users in the country, above 20 million households are enrolled into the LPG usage every year. However, last year (2016-17), 33.2 million households were enrolled, thanks to PMUY.

At aggregate level, LPG consumption is largely a function of supply. However at a geographically disaggregated level, LPG consumption is determined by presence of LPG Distributor, denoting LPG reach in that area. At a household level, consumption is a function of price and availability of substitute fuels.

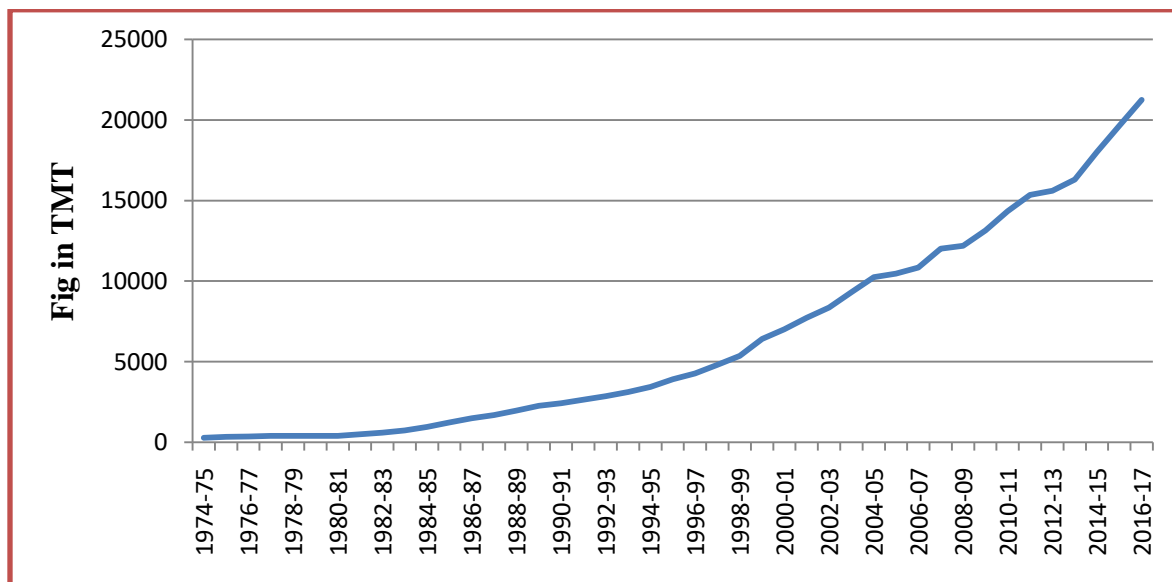


Figure 1 – Consumption of LPG in India

Source: Industry data

Figure 1 presents the long term trend of LPG consumption in the country; grew at 10.85% CAGR over 42 years. As can be seen from the figure 2, there have been variation, almost cyclical, in the annual rate of increase in the consumption of LPG. The cyclical growth pattern is random and sporadic and intuitively can be traced to supply shocks till 2011 and thereafter restrictive demand management. There are 3 peak years, where LPG consumption witnessed quantum jump; namely in 1985-86, 1999-2000 and in 2014-15. During 1985-86, due to augmentation of refining capacity and commissioning of cracking units, there was additional

production of 271 TMT LPG. And also additional 86 TMT LPG was produced by way of natural gas extraction in the same year (on the base level of 953 TMT in 1984-85). During 1999-2000, 763 TMT additional LPG was produced (on the base level of 5352 TMT in 1998-99) as Reliance refinery at Jamnagar came on stream. While the peaks in the former two years were caused by supply factors, for the first time a demand side stimulus was created in 2014-15.

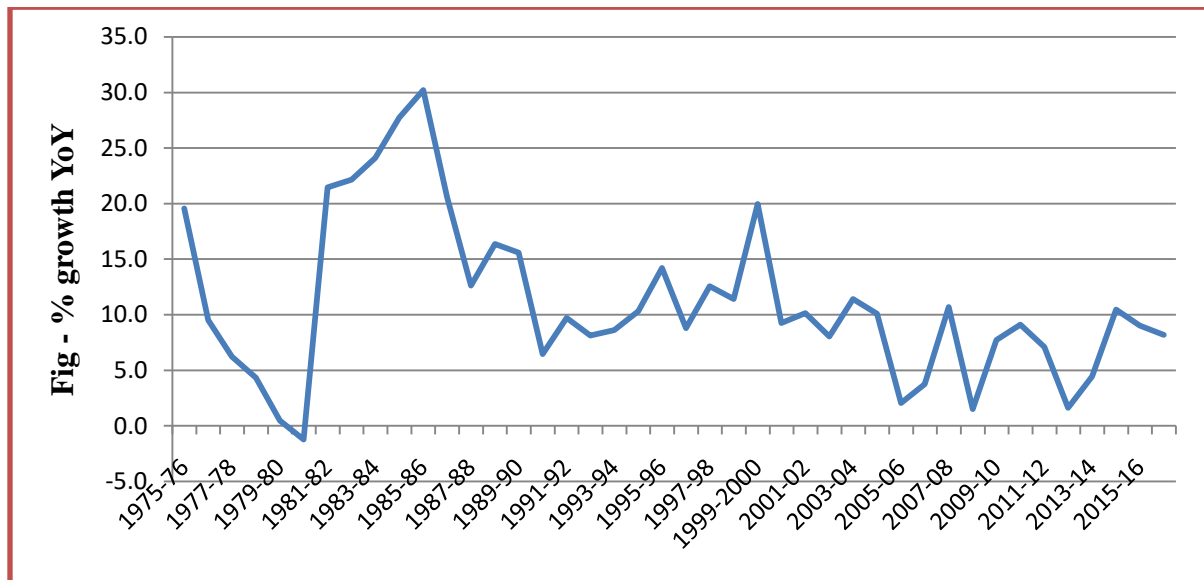


Figure 2 – Growth in Consumption of LPG in India

Source – Industry data

As LPG penetrated into rural areas with better logistics support, distributed infrastructure build up and product availability, inter fuel substitution took place at household level. As households adopted LPG, they stacked this on their existing fuel and slowly migrated to LPG as primary cooking fuel. Report suggests that growth in the prevalence of use of LPG in urban areas has been almost balanced by a decline in the use of kerosene, in the first place and firewood and chips, in the second. In rural areas, the rise in LPG use has been mainly due to reduction in the use of firewood and chips over the years. (9)

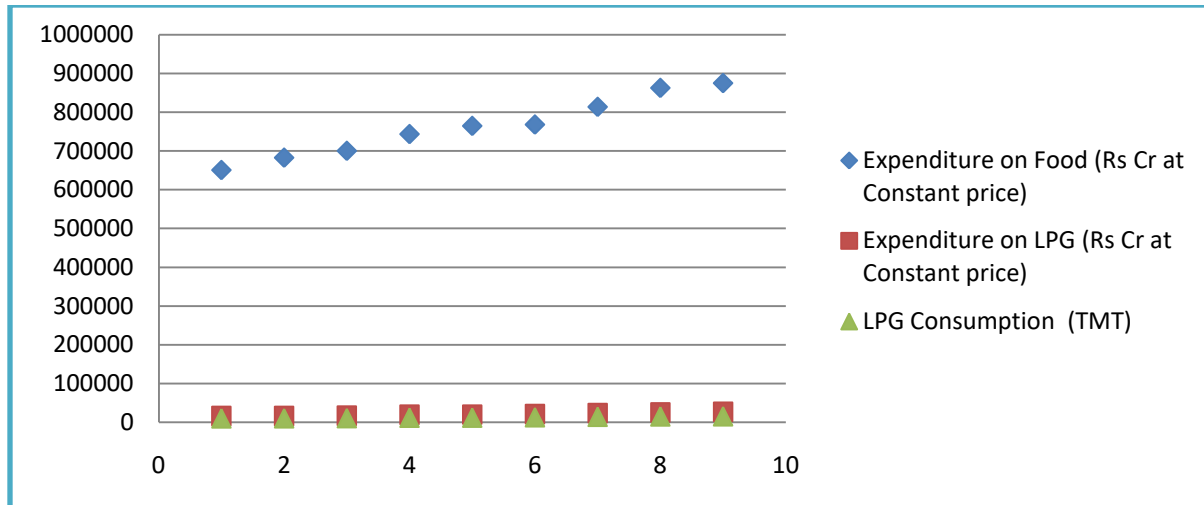


Figure 3 - Correlation between Household Expenditure on Food and on LPG

Source: Data on Expenditure www.data.gov.in accessed on 02. 03. 2017

Data on LPG consumption volume from www.ppac.org.in accessed on 02. 03. 2017

Household aggregate consumption expenditure on food during 2004-05 to 2012-13 has grown at 3.77% CAGR, whereas household aggregate consumption expenditure on LPG has increased at 6.5% CAGR during the same period, indicating improved availability and accessibility of LPG across the country. (Both are at real price) Expenditure on food and expenditure on LPG is highly correlated at 0.9868; suggesting, with increase in affordable income, people spent as much more on food items as on LPG, both in physical and financial terms.

Table 1 presents snapshot of growth of LPG Industry in India during last two and half decade, along with its sourcing pattern.

Table 1: Trend of LPG Consumption and sourcing pattern

	LPG Consumption		Indigenous LPG Production			LPG Import			LPG Export
	Volume (TMT)	CAGR (%)	Volume (TMT)	CAGR (%)	% to Consumption	Volume (TMT)	CAGR (%)	% to Consumption	Volume (TMT)
1990-91	2415	-	2150	-	89	329	-	14	-
2000-01	7016	11.25	6149	11.08	88	853	10.00	12	-

2005-06	10456	8.31	7717	4.65	74	2883	27.58	28	53
2010-11	14331	6.51	9624	4.52	67	4484	9.24	31	154
2015-16	19623	6.49	10600	1.95	54	8959	14.85	46	195
2016-17	21240	8.24	11414	7.68	54	9826	9.68	6	NA

Source: www.ppac.org.in accessed on 17. 04. 2017 and Indian Petroleum & natural Gas Statistics, Ministry of Petroleum & Natural Gas, successive issues; 2016-17 data from Industry.

Table 1 presents a trend that shows that LPG consumption during last decade (2005-06 to 2015-16), recorded growth of 6.5% CAGR. That rate of growth was lower than the period preceding 2005-06, when the rate of growth was 8.3% CAGR. Though it is not supported by empirical analysis, we advance two hypotheses based on experience: i) demand for consumption was perhaps constrained due to inadequate import handling facilities; ii) burdened by burgeoning subsidies, which was then universal and open ended. Some reform measures were undertaken since September 2012, by way of demand management (capping of subsidized cylinders) and de-duplication exercise, together to contain the subsidy burden which touched unsustainable level of Rs 41,565 cores in 2012-13.

Customer Base

OMCs have been enrolling new households into LPG every day and this activity is being done on mission mode for last 3 years. Enrolment of new customers entails investment in equipments which commits about Rs 5,000 per year for OMCs. LPG equipment manufacturing is an ancillary job of LPG business, which is done by scores of private companies across the country.

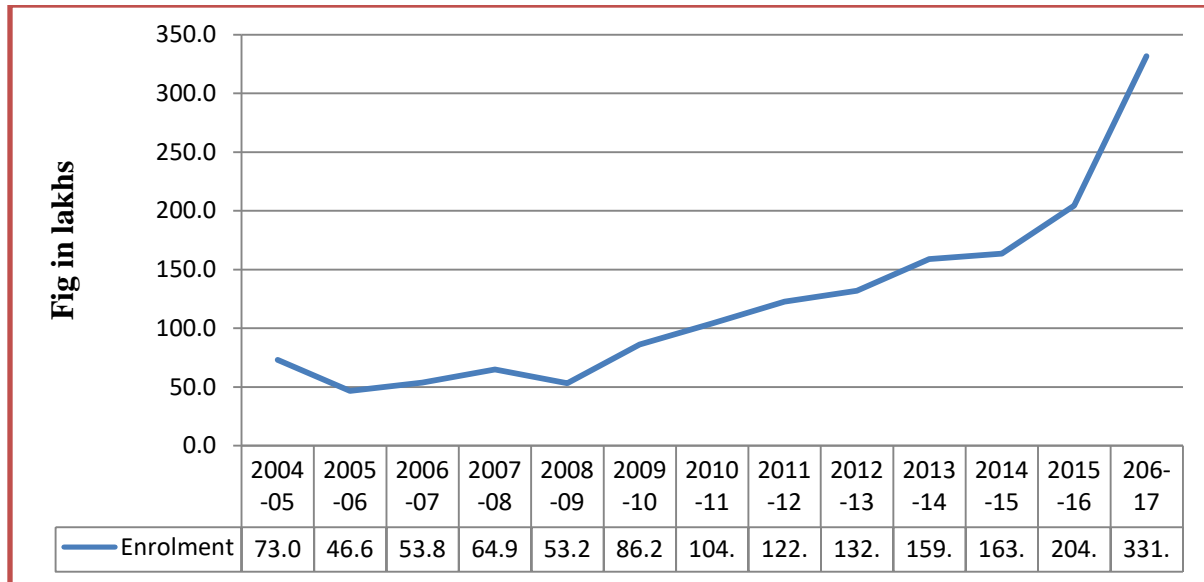


Figure 4 - Enrolment of New Customers

Source: Successive issues of Indian Petroleum and Natural Gas Statistics, Ministry of petroleum and Natural Gas, Government of India. 2016-17 – data Industry source

As figure 4 exhibits, there are three watershed years; 2009-10, 2015-16 and 2016-17. Year 2009-10 is the year in which rural penetration got a fillip through the introduction of Rajiv Gandhi Gramin LPG Vitarak (RGGLV); year 2015-16 witnessed full impact of Government's push for new enrolment through the scheme for BPL families from CSR budget and lat year 2016-17 witnessed massive enrolment through PMUY.

The accretion in customers every year adds to the customer base of the OMC. Figure 5 presents the registered customer base that OMCs have created and are servicing every day. On any given day, OMCs serve 40 lakhs of cylinders to these customers in their kitchen, winding through the lanes, by-lanes and alleys of housing societies across the length and breadth of the country. However, there are some ghost and dormant customers that are implicit in these numbers. During the process of DBTL, the ghost and dormant customers (35 million, as on 1st March 2017, data from Industry) have been weeded out. The current enrolment process involves KYC and de-duplication test which prevents further bogus enrolment.

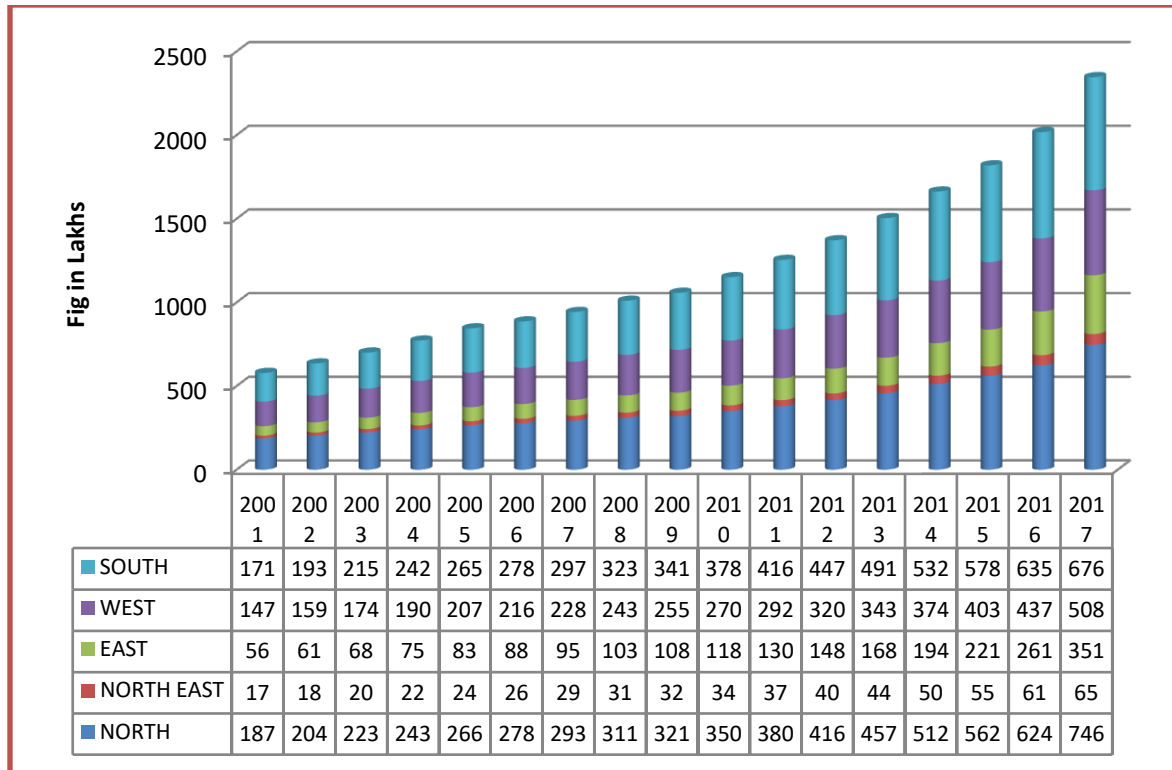


Figure 5 – Region wise LPG Customers; data as on 1st April of the year

Source: www.ppac.org.in, accessed on 02. 03. 2017; 2017 data from Industry

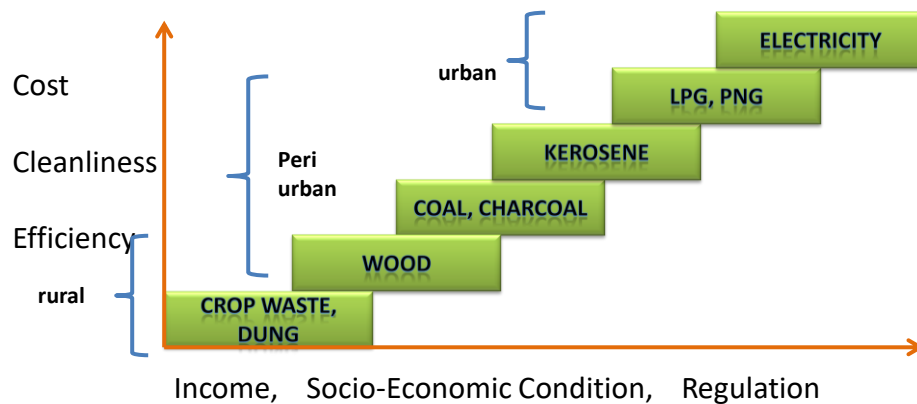
Urban – Rural Dichotomy

India today consumes 21.2 million tons of LPG; almost 90% of it is used as cooking fuel in households, rest 10% being used in commercial, industrial and auto segment. Historically, LPG consumption was urban centric; however, of late LPG usage has penetrated much into rural and semi-urban areas. With better connectivity with urban centre, every rural cluster in India today aspire the lifestyle of urban living and no other product has facilitated this purpose better than LPG.

LPG has traditionally been predominantly an urban cooking fuel. Its urban origin and urban centric growth is something similar to the story of India's urbanization and typical urban rural divide. Reasons for the urban centric growth are: First cause is the availability of LPG in urban centers to start with. Most of the Refineries where LPG is produced are located at port locations or industrial centers like Mumbai, Vizag, Kochi, Chennai, Barauni, Mathura etc. Second cause is

affordability to buy LPG, initial cost of installation and equipments. Typically urban India have better disposable income, being earned from manufacturing and service sectors and rural India is left to fend itself with income from agriculture and animal husbandry. Third cause is that urban India did not have free or cheap alternate fuels like wood, chip and dung for cooking. Fourthly, health consciousness and environmental concerns were first adopted by urban dwellers than the villagers. (10, 11)

There has been however perceptible change in the choice, life style and affordability of people in rural India. The typical rural syndrome of earthen oven fired by solid bio mass and dung cake, smothered by smoke, is rapidly on its way out. People's income has enabled them to have clean life style. There has been large mobility and exchange between rural areas and urban centers. As a result, as figure 6 depicts, households have climbed energy ladder and stacked multiple fuels - modern fuel over conventional fuel (namely liquid fuel over solid biomass and coke; LPG over liquid fuel and solid biomass).



Energy Ladder and Energy Stacking

Figure 6 - Switching Pattern of Cooking Fuel Usage

Table 2 presents the percentage of households in rural and urban areas who are using LPG as primary fuel and how that percentage has progressed over the years. (9, 13)

Table 2: Percentage of Households with LPG as Primary Source of Energy Used for Cooking

	Urban (%)	Rural (%)
1993-94	29.6	1.9
1999-2000	44.2	5.4
2004-05	57.1	8.6
2009-10	64.5	11.5
2011-12	68.4	15.0

Source: Energy Sources of Indian Households for Cooking and Lighting – 2011-12, Report No. 567, NSS 68th Round, July 2015, Ministry of Statistics and Program Implementation, Government of India

(Footnote 1)

Between 2004-05 and 2011-12, the rural sector showed an increase of 83% in the proportion of LPG-consuming households and an increase of 75% in the quantity of LPG consumption per person. The urban sector showed a rise of 20% both in proportion of LPG-consuming households and in the quantity of LPG consumption per person. (12)

Footnote 1:

Much LPG has flown into the rural bucket since 2011-12. The last National Sample Survey on the subject was conducted in 2015, for the period 2011-12. There is no alternative source for comparable data.

Several factors, besides free availability of solid bio waste, have been advanced to explain the urban rural dichotomy. Urban areas report higher per capita income, larger per capita household expenditure, higher average level of education and greater ecological consciousness. Affordability has been identified as a major factor driving consumer choice, besides availability, accessibility and awareness. (6, 7)

The rural thrust of LPG expansion took place during last 7 years. The major breakthrough into rural penetration of LPG happened when an exclusive rural distributorship format, christened as Rajiv Gandhi Gramin LPG Vitarak (RGGLV) was made to operate from 2010 onwards. That

low-cost and localized distributorship broke the urban bias of LPG distribution mode. As on end March 2017, 5761 (31% of total LPG Distributors) such Distributors are operating in the deep rural area of the country. The second boost to rural penetration happened with Pradhan Mantri Ujjwala Yojana (PMUY) scheme, by which economically backward households have been provided with LPG connection at the cost of Government of India, partly being borne by OMCs and some State Governments. As on 01. 04. 2017, 20 million households have been provided with LPG connection under the PMUY scheme.

LPG Coverage in the Country

With the massive expansion drive of LPG usage as presented above, as on end March 2017, 72.8% of country's households have been estimated to be covered with LPG connection. There is high interstate variation, as the dispersion around mean value 75.88 is 26.62. Table 3 presents 5 states with least coverage. States and UTs like Chandigarh, Delhi, Haryana, Goa and Kerala have reached a level of saturation. State wise details provided in Appendix 1.

Table 3: LPG Coverage in select States

	No of Households as per Census 2011 (in lakhs)	No. of Households Estimated at present (in lakhs)	No. of Households enrolled (active) (in lakhs)	Percentage of coverage of Households in LPG (%)
Meghalay	5.38	6.30	1.44	22.8
Jharkhand	61.82	70.24	25.83	36.8
Odisha	96.61	104.84	44.98	42.9
Bihar	189.41	218.67	99.43	45.5
Assam	63.67	70.30	32.91	46.8

Source: Industry Estimate

This geographical disparity is historically built around the socio economic fabric of India's development history. Study shows that inequality index in consumption of modern energy for cooking and heating (in 2011-12) is 33.7 against best value 0. (14)

Network of LPG Distributors

Network of Distributors are the extended arm of OMCs and constitute the nerves and veins of LPG Distribution system in India. It is extraordinarily unique feature in India that full cylinders are delivered in the customer's kitchen and the empty cylinder is collected back and money is collected at the door step with pre-printed receipt given. This also facilitates inspection of LPG installation in the kitchen from the safety and operation point of view.

OMC went overdrive to appoint new Distributors since 2010 onwards, as can be seen in figure 7. This kind of expansion in LPG network has enabled the country to reach LPG in the far flung areas. LPG Distributors are by and large very friendly to customers and loyal to their respective Company. Some of the Distributors are there in the business for more than 50 years, in their third generation. Today, the entire network is wired and many customer facing transactions are digital.

The current BJP led NDA Government at the Centre has formulated a new Distributorship selection policy in June 2016 with some welcome novel features. The process of selection of new LPG Distributors has always been transparent and equal opportunity is provided to all eligible candidates, with provision for positive discrimination for weaker and socially backward sections of the society including women. Government has ambitious plan to further expand the network. The unrepresented areas in each state has been mapped and surveyed for feasibility of setting up new LPG Distributor.

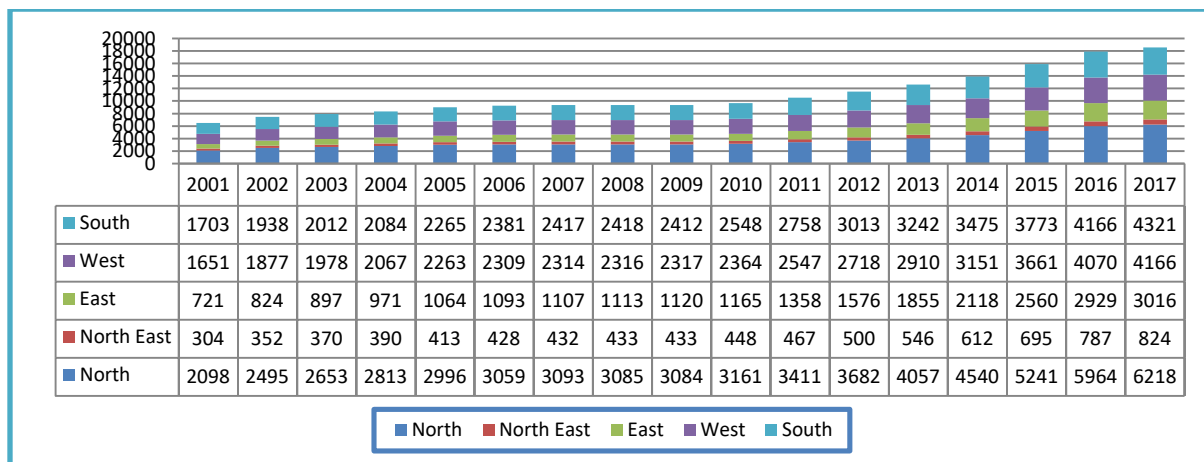


Figure 7 – Network of LPG Distributors, end January 2017

Source: www.ppac.org.in, accessed on 02. 03. 2017 and Industry Data for 2017

Sources of LPG

Indigenously India sources LPG from two sources; namely, Refineries and Natural Gas Fractionators. During 2015-16, twenty two refineries produced 8562 TMT LPG (44% of total LPG marketed in the country) and ten fractionators produced 2006 TMT LPG (10% of total LPG marketed in the country). Balance 8885 TMT, which is 46% of total LPG marketed is imported.

(15) Figure 8 shows the quantum jump that import has taken from 2009-10 onwards.

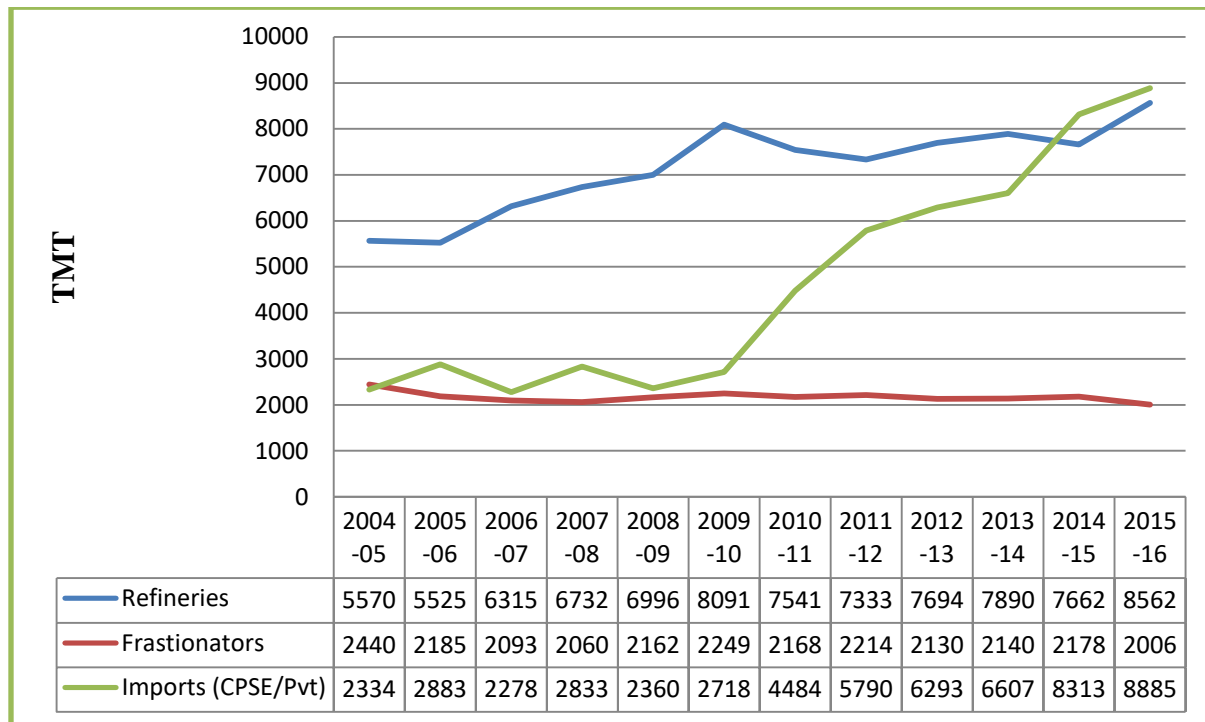


Figure 8 – LPG Sourcing Trend

There are 15 ports in the country where the imported LPG is handled. Currently, port capacity utilization is being stretched up to seam. In the emerging scenario of increasing import dependency, these ports will be playing critical role in LPG sourcing and evacuation. OMCs have planned new import facility at some ports.

Bottling

Three OMC together own 189 Bottling plants with capacity to bottle 15634 TMT LPG in a year. Each plant has storage, filling and cylinder loading and unloading facilities, with cutting edge technology. With the penetration of LPG market into hinterland, OMCs have consistently augmented their bottling capacity as is seen in the figure 9:

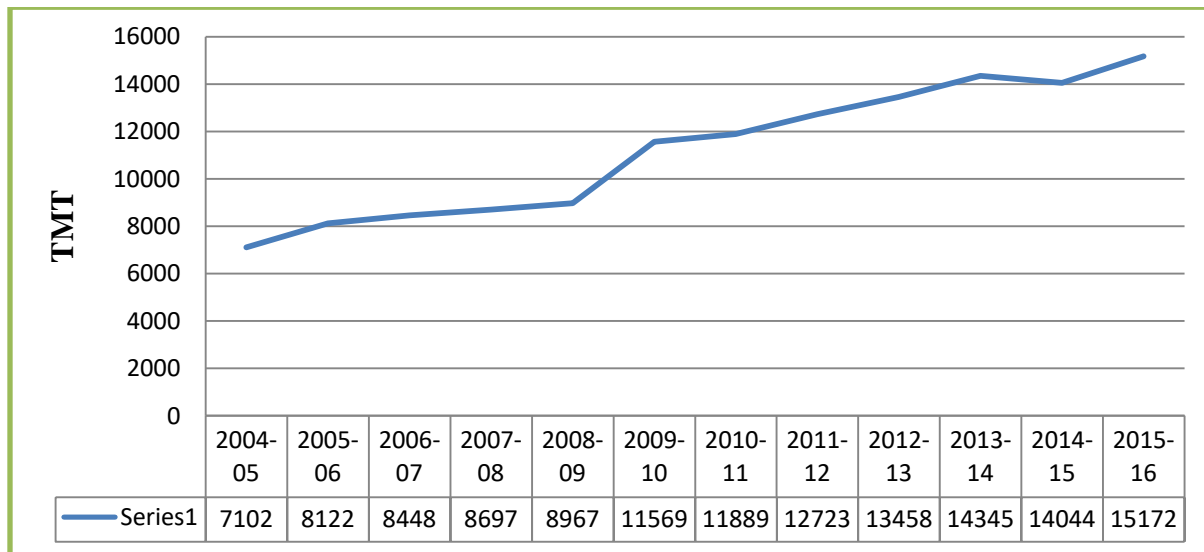


Figure 9 – Trend of Bottling Capacity of OMCs

Source: Industry data

Transport of LPG

LPG uses multimodal transport to reach from source to destination. Bulk LPG on surface is transported in wagons, tankers (bullets) and also through pipeline.

There are 4 LPG pipelines in the Country, of 2334 km length, with capacity to transport 5.3 MMT LPG. The largest of the four is Jamnagar Loni pipeline of 1414 km length, followed by Vizag Secunderabad pipeline of 618 km length. Both are owned and operated by GAIL. (15)

Reforms in LPG Marketing

The expansionary drive in LPG marketing came associated with negative offshoot of high subsidy burden on the exchequer. Subsidy on petroleum products (LPG constitutes a substantial part in it) skyrocketed since 2011-12. From the level of 4% in 2007-08 and 2% in the following year, subsidy on petroleum products in relation to total subsidy bill of Government of India, touched 39% in 2012-13. The reform measures initiated from 2014 onwards brought it down to 12% in 2015-16 and in 2016-17. Table 4 presents the subsidy burden on Government of India during last 10 years on different heads of account.

Table 4: Subsidy provided under budget of Government of India

Figures in Rs Crores

Subsidy	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Food	31328	43751	58443	63844	72822	85000	92000	117671	139419	134835
Fertilizers	32490	76603	61264	62301	70013	65613	67339	71076	72438	70000
Petroleum	2820	2852	14951	38371	68484	96880	85378	60269	30000	26947
Total										
Subsidy	66638	123206	134658	164516	211319	247493	244717	249016	241857	231782
% of										
Petroleum										
to Total	4.23	2.31	11.10	23.32	32.41	39.14	34.89	24.20	12.40	11.63

Source: Indian Petroleum and Natural Gas Statistics – 2015-16 and previous issues; Ministry of Petroleum and Natural Gas, Government of India

On the above backdrop came drive to eliminate the unwanted subsidy, to contain the subsidy bill on account of LPG and target the most deserved households and priority areas.

1. Identification and elimination of multiple LPG/CNG connections in single household (initiated in April 2009-10)
2. De-duplication verification at the time of enrolment (initiated in April 2010-11)
3. Migrating LPG business onto e-governance platform (initiated April 2010-11)
4. Capping of subsidized LPG cylinder (9 per year per household, effective September 2012, relaxed increasingly to 12 per year, effective April 2014)
5. Launching first phase of electronic transfer of subsidy to customer's account (DBTL) (effective July 2013, suspended in January 2014)
6. Re-launching the modified DBTL (effective 15th November 2014 in phase I and country-wide roll out on 1st January 2015)
7. Appeal to well-to-do sections of people to opt out of subsidy (initiated in November 2014 and gradually extending the reach to larger target section of LPG consumers)
8. Denying subsidy to households having income more than Rs 10 lakhs (from January 2016)
9. Denying subsidy to those who have not provided the Aadhaar details (effective 1st October 2016, with grace of 2 months)
10. Providing LPG connection to BPL households at State cost. (effective 1st April 2016)

Impact of the Reform Measures Taken

Elimination of Multiple Connections

Historically many households in India preferred to keep two LPG connections. The implicit objective was to have more than 2 cylinders in home and have flexibility that comes handy at the time of scarcity or non availability of LPG cylinder from anyone source.

When piped natural gas (PNG) came to some cities like Mumbai and Delhi in 1990s, those who opted for PNG were LPG customers. Such houses continued to have LPG connection in the house. In 2009, it was felt that some of those excess cylinders were floating in the market for unintended use of LPG. Even if LPG cylinders were not used, those were blocked inventory for the marketing companies and safety hazard in the house where lying idle and getting rusted. Government of India amended LPG Control Order twice, once in 2009 and second time in 2014, to say that one household will have one LPG connection. Those having PNG connection in the house, however, can retain one LPG connection and buy LPG cylinder at non-subsidized price.

Then a drive was launched to identify and block one of the multiple connections in the houses. However, customers were given option to retain any one of the two connections and terminate the other one; or to transfer the second connection to any of the family members, staying anywhere in the country.

Outcome of this exercise was some bogus connections, which were used by unscrupulous agencies for using subsidized LPG for commercial purpose, were identified and blocked. As per one estimate, 63 lakhs LPG connections were blocked. (16)

De-duplication & KYC

The suspect list of identified multiple connections (two connections having ‘same name and same address’ and ‘different name same address’) were subjected to KYC process to establish the authenticity. KYC process and de-duplication verification was made compulsory for new customer enrolment, so that more number of multiple connections was not generated.

De-duplication validation is undertaken at the time of application for enrolment of a new customer. The validation is done by 18,700 odd LPG Distributors, spread across the country. Every new enrolment checks the particulars of a new applicant with all the existing 19 crores odd customers for test of negation of duplication. A robust IT architecture makes that to happen in few hours.

Capping of subsidized Cylinders

With a view to limit the subsidy burden, Government of India introduced a cap on number of subsidized cylinders that a household is entitled to. The ceiling number was 6 cylinders a year introduced in September 2012, relaxed to 9 cylinders a year in January 2013, further relaxed to 11 cylinders in August 2013. Effective April 2014 onwards, the ceiling number of subsidized cylinder that a household is entitled to is 12.

An offshoot of capping process was that customers got option to buy cylinder for domestic consumption at non subsidized price. That was the beginning of de-subsidization process.

E-Governance of LPG

Government of India and the 3 Oil Marketing Companies took up 'Project Lakshya' in 2010. (16) Objective of this exercise was twofold: a) to bring about transparency in the subsidy administration and prevent leakage; b) to better customer transaction experience. This was a huge transformational exercise involving migrating the business of then existing 15200 LPG Distributors to the centralized server of 3 Oil marketing Companies. Each customer could view his consumption pattern and estimated subsidy availed in the website of marketing companies. MyLPG.in became a single point portal for all LPG transactions for all the OMCs.

Direct Transfer of Subsidy to LPG Customer's Account

Direct Benefit Transfer for LPG (DBTL) was launched in June 2013 in 291 Districts in 4 phases. The method was to link LPG consumer number of each customer to his Bank account through Aadhaar number, which is unique. When the LPG Distributor delivers a cylinder, physically and in his networked operating package, then customer's bank account gets credited with the subsidy amount within 24 hours. However, the scheme was jettisoned after 2 months due to many

implementation glitches. Supreme Court of India's verdict not to deprive any entitlement of the citizen for want of Aadhaar number made the scheme non operational. The BJP led NDA Government that came to power at Delhi in May 2014 saw merit in the scheme. Government of India relied on report of an expert Committee (Dhande, 2014) and re-launched the scheme effective 15 November 2014. The justification for re-launching the scheme which was once jettisoned was that DBTL was the only way the leakage of subsidy on LPG could be plugged. To obviate the Supreme Court's injunction for not making Aadhaar compulsory, Government of India used unique ID for LPG customers and linked to respective customer's bank account. All these were possible due to very high level of IT technology platform being used by Oil Industry and banking system in India. By 8th February 2017, out of 194.1 million active customers, 163.7 million, that is 84.3% of country's LPG customers have been enrolled into the DBTL process and have become 'cash transfer compliant'.

From the quantitative point of view, the reforms attempted to contain the unwanted consumption of LPG, has indeed yielded result in terms of saving subsidy on diverted use of LPG. Particularly effective tools were two: a) capping of subsidized cylinders and b) DBTL. The effect of DBTL has been on the expected lines with decline in LPG consumption for residence segment and increase in consumption by commercial segment.

Study shows, from the customer experience point of view, customer has voiced that while (s)he is aware of the changes, (s)he has seen transparency in the business process, and (s)he appreciates the way the change process was carried out, still his/her service expectation remains to be fulfilled. (17)

Voluntarily Opting Out of Subsidy

Government of India made appeal to well to do sections of population to voluntarily give up subsidy. IT system provided that option to customers in the website, which was linked to the customer master in Distributors operating package. It was appeal for nation building, backed by assurance to provide LPG connection to those who could not afford to pay for LPG. As on end February 2017, 1.05 crore customers have opted out of subsidy.

Pradhan Mantri Ujjwala Yojana

Pradhan Mantri Ujjwala Yojana (PMUY) is acclaimed to be a path breaking scheme towards making LPG available in the poorest of the poor household in the country. Allocation of Rs 8000 crores in the budget speech of Finance Minister on 28th February 2016 was considered to be the single most effective welfare measure announced in the budget 2016-17. (18, 19, 20) Further to announcement in the budget speech, Ministry of Petroleum and Natural gas approved PMUY vide note P-17018/1/2016-LPG dated 31. 03. 2016.

PMUY announces that OMCs would provide free LPG connections to women of below poverty line (BPL) households. The scheme was operational wef 1st April 2016 and was intended to cover 5 crore household over 3 years time.

The beneficiaries of the PMUY are being identified from the deprived category of households in the Socio Economic Caste Census (SECC) 2011 list. Connections are provided to the lady of the house, upholding the dignity of women and their concerns of health and engagement. Government of India provides Rs 1600 per connection and OMCs offer the balance cost Rs 1550 as loan towards the cost of stove and price of gas in the cylinder and other service charges to the LPG Distributor, if the beneficiary desired. The loan amount would be recovered from the subsidy amount of the refills that would be taken by the beneficiary.

While the selection of beneficiaries is done from the BPL families, preference is given to SC / ST and weaker sections of society. While providing the new connections to BPL households, priority is given to States which have lower LPG coverage (compared to the national average) as on 1st January 2016. PMUY scheme also has provision for State Governments or any NGO or individuals to bear that part of expenses.

Figure 10 provides how PMUY was intended to meet the prevailing deficiencies of the existing system of LPG marketing and take LPG marketing to a new normal.

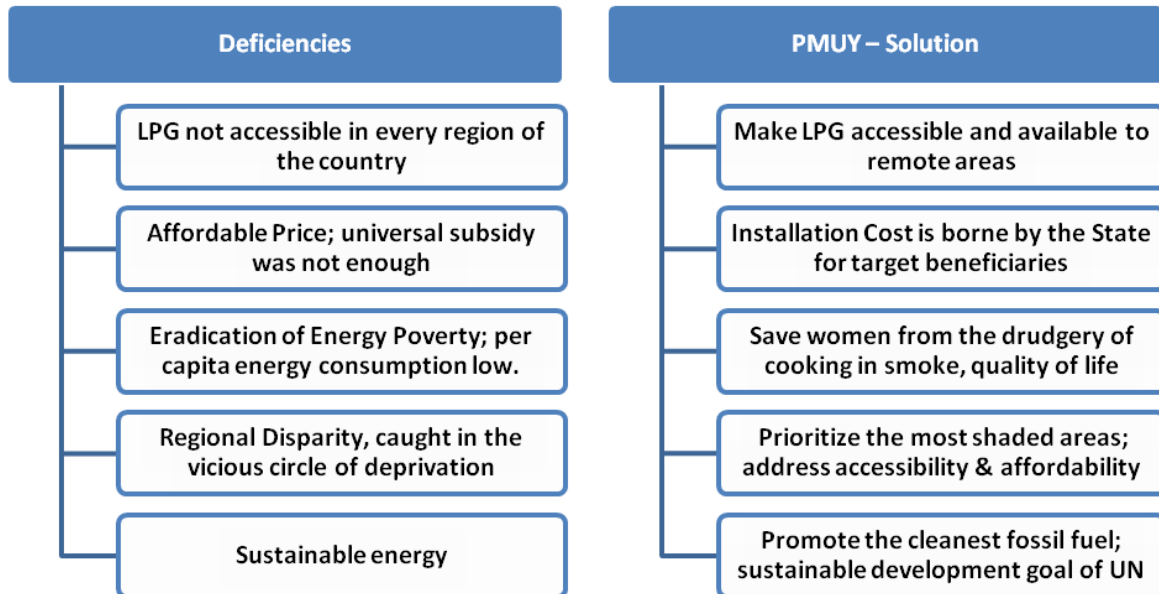


Figure 10 – Intended benefits of PMUY

Source- Author

PMUY scheme was launched by Honorable Prime Minister on 1st May 2016. Till end March 2017, during last 11 months, 20 million connections have been issued under the PMUY scheme. OMCs have provided loan to more than 10 million needy households towards the cost of accessories.

Conclusion

LPG has carved out a dignified position in India's energy ecosystem. It is racing on fast lane in the direction of green energy and clean environment. The momentum of last three years will certainly continue for next two years, when there will be a need for consolidation. However, there are challenges to overcome in the short and medium term. Strengthening the infrastructure along the supply chain is a stupendous job. Keeping the supply chain clinking all the time requires a demanding managerial attention. Sound operating practice and inbuilt safety culture, which has been the hallmark of OMCs so far, needs to be passed on through generations. Rising up to customer's expectation of prompt delivery, refined service, customer feedback redressal and emergency preparedness are going to be mammoth tasks to be delivered through LPG Distributors' network. One can perhaps be justified in saying, it is time, Indian LPG expertise looks across the shore.

LPG is a lively and adaptive business. LPG business in India has taken long strides to rise up in digital scale and automated technology. The business has always attracted attention of policy makers and common man equally. The business is centered on food, fire and family; all these carry lot of sentimental and sacred values, besides business sense.

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Appendix 1

State-wise LPG coverage as on 01.04.2017 (Fig in Lakhs)				
	As per Census 2011	Estimated at present	Active Customers	As per active customers count
CHANDIGARH	2.35	2.60	2.70	104.0%
DELHI	33.41	37.71	47.81	126.8%
HARYANA	47.18	52.89	54.13	102.3%
HIMACHAL PRADESH	14.77	15.92	14.07	88.4%
JAMMU & KASHMIR	20.15	23.04	19.64	85.2%
PUNJAB	54.10	58.67	69.01	117.6%
RAJASTHAN	125.81	142.12	110.52	77.8%
UTTAR PRADESH	329.24	369.70	275.48	74.5%
UTTRANCHAL	19.97	22.25	21.17	95.1%
SUB TOTAL NORTH	646.98	724.91	614.53	84.8%
ANDAMAN & NICOBAR	0.93	0.97	0.77	79.3%
ARUNACHAL PRADESH	2.62	3.03	1.97	64.9%
ASSAM	63.67	70.30	32.91	46.8%
BIHAR	189.41	218.67	99.43	45.5%
JHARKHAND	61.82	70.24	25.83	36.8%
MANIPUR	5.07	5.65	3.35	59.3%
MEGHALAYA	5.38	6.30	1.44	22.8%
MIZORAM	2.21	2.53	2.44	96.5%
NAGALAND	4.00	3.99	1.80	45.3%

ODISHA	96.61	104.84	44.98	42.9%
SIKKIM	1.28	1.38	1.16	83.6%
TRIPURA	8.43	9.19	4.40	47.9%
WEST BENGAL	200.67	217.52	145.69	67.0%
SUB TOTAL EAST	642.10	714.59	366.16	51.2%
CHATTISGARH	56.23	63.96	31.13	48.7%
DADRA & NAGAR HAVELI	0.73	0.98	0.75	76.3%
DAMAN & DIU	0.60	0.80	0.64	79.6%
GOA	3.23	3.39	4.55	134.3%
GUJARAT	121.82	136.12	77.58	57.0%
MADHYA PRADESH	149.68	168.16	94.25	56.0%
MAHARASHTRA	238.31	261.50	221.93	84.9%
SUB TOTAL WEST	570.59	634.91	430.82	67.9%
ANDHRA PRADESH	126.04	134.47	116.28	86.5%
KARNATAKA	131.80	144.31	115.29	79.9%
KERALA	77.16	79.46	80.15	100.9%
LAKSHADWEEP	0.11	0.11	0.04	35.6%
PUDUCHERRY	3.01	3.53	3.44	97.6%
TAMILNADU	184.93	202.48	171.71	84.8%
TELANGANA	84.21	89.84	89.21	99.3%
SUB TOTAL SOUTH	607.26	654.20	576.12	88.1%
ALL INDIA	2466.9	2728.6	1987.64	72.8%

Source: Industry Estimate