

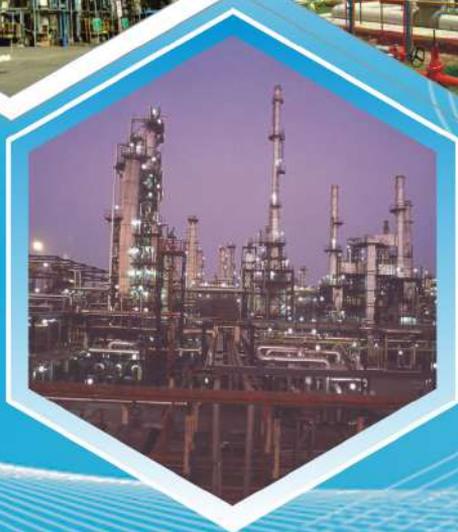
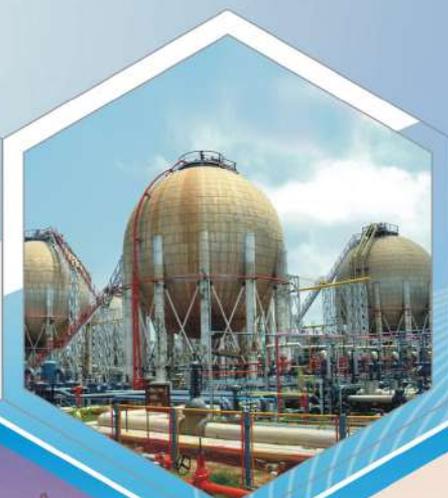


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# **READY RECKONER**

## **Oil Industry Information at a Glance**

### **June 2017**



**Petroleum Planning & Analysis Cell**  
(Ministry of Petroleum & Natural Gas)

### **Suggestions & Feedback**

Readers are invited to send their suggestions & feedback for improvement of the Ready Reckoner to:

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### **Disclaimer**

While every care is taken to check the accuracy of data & information included in the Ready Reckoner, PPAC would not be held responsible for any loss, damage etc. due to taken by any one based on information contained in this publication.

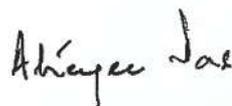
## Preface

In continuation with the objective of making available the latest data pertaining to the oil and gas sector in a concise and easily retrievable manner, the annual edition of the Ready Reckoner is being released which covers data for the financial year 2016-17.

The Ready Reckoner is intended to provide reliable statistics for use of planners, policy makers, academicians and the general public.

All Divisions of PPAC have made valuable contribution to bring out this edition. For enabling timely publication of the Ready Reckoner, cooperation of the entire oil and gas industry is acknowledged.

In order to constantly enhance the scope and usefulness of this Ready Reckoner, suggestions are welcome for enriching and augmenting its contents.



**Atreyee Das**

Director General

Petroleum Planning & Analysis Cell (PPAC)  
(Ministry of Petroleum & Natural Gas)

New Delhi  
June 13, 2017



# Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)



## Vision & Mission

### Vision

To be the most authentic official source for data and policy analysis on the hydrocarbon sector in the country.

### Mission

1. To strengthen the existing data system in PPAC by adopting the latest techniques and best practices.
2. To render effective assistance to the Ministry of Petroleum & Natural Gas in the discharge of its responsibilities, particularly pricing of petroleum products and administration of subsidy schemes.
3. To monitor and analyze developments in the domestic oil and gas sector.
4. To undertake analysis of domestic and international energy markets.
5. To develop a cooperative framework for exchange of information and conduct of studies with other countries and international organizations in the energy sector.

### Objectives

1. To ensure effective administration of the subsidy schemes notified by the Government
2. To monitor and analyze trends in prices of crude oil, petroleum products and natural gas and their impact on the oil companies and consumers, and prepare appropriate technical inputs for policy making.
3. To monitor developments in the domestic market and analyze options for policy changes in pricing, transportation and distribution of petroleum products.
4. To collect, compile and disseminate data on the domestic oil and gas sector in a continuous manner and maintain the data bank.
5. To ensure quality of data in terms of prescribed parameters such as accuracy, completeness and timeliness.
6. To prepare periodic reports on various aspects of oil and gas sector.

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# Chapter-1

## General

**Table 1.1 : Selected indicators of the Indian economy**
**General**

Sl. no.	Particulars	Source	Unit/ Base	2012-13	2013-14	2014-15	2015-16	2016-17(P)
1	Population (as on 1st March 2011)	Census of India	Billion	1.2	-	-	-	-
2	GDP at factor cost (constant prices)	MOC&I	(GR.%)	5.5 (3rd RE)	6.5 (3rd RE)	7.2 (2nd RE)	7.9 (1st RE)	7.1 (2nd AE)
3	Agricultural production (foodgrains)	MoA	Million tonne	257.1	265.0	252.0	251.6	273.4 (3rd AE)
			(GR.%)	-0.8	3.1	-4.9	-0.2	8.7
4	Index of Industrial Production*	MOSPI	(GR.%)	3.3	3.3	4.1	3.4	5.0
5	Imports	MOC&I	\$ Billion	490.7	450.2	448.0	381.0	380.4
6	Exports	MOC&I	\$ Billion	300.4	314.4	310.3	262.3	274.6
7	Trade balance	MOC&I	\$ Billion	-190.3	-135.8	-137.7	-118.7	-105.7
8	Wholesale Price Index (all commodities) (average) *	MOC&I	2011-12 = 100	106.9	112.5	113.9	109.7	111.6
9	All India Consumer Price Index (average):							
	i) Industrial workers	Labour Bureau, Govt. of India	2001=100	215.2	236.0	250.8	265.0	275.9
	ii) Agricultural labourers		1986-87=100	671.9	749.8	799.5	834.9	869.8
	iii) Rural labourers		1986-87=100	673.3	750.5	802.2	839.4	875.0
10	Foreign exchange reserves- Total (as of March 29, 2013, March 28, 2014, March 27, 2015, March 25, 2016 & March 31, 2017)	RBI	\$ Billion	292.6	303.7	341.4	355.6	370.0
11	Outstanding external liabilities (as of end of financial year)	MOF	₹ Crore	1,72,302 (RE)	1,82,729 (RE)	1,94,286 (RE)	2,08,998 (RE)	2,28,093 (Est.)
12	Outstanding internal debt (as of end of financial year)	MOF	₹ Crore	48,66,829 (RE)	54,04,420 (RE)	60,84,268 (RE)	66,82,915 (RE)	72,10,089 (Est.)
13	Central plan outlay	MOF	₹ Crore	4,98,476 (Actual)	6,03,573 (Actual)	4,20,882 (Actual)	5,82,707 (RE)	7,06,248 (BE)
14	Gross fiscal deficit	MOF	%	-4.9	-4.5	-4.1	-3.9	-3.5

**Note :** (P): Provisional, \*Revision in base year of all India index of Industrial Production and Wholesale Price Index from 2004-05 to 2011-12. RBI: Reserve Bank of India, MoF: Ministry of Finance, MOC&I: Ministry of Commerce & Industry, MoA: Ministry of Agriculture, PE: Provisional Estimates, BE: Budget Estimate; AE: Advance Estimates, RE: Revised Estimates; MOSPI: Ministry of Statistics and Programme Implementation

**Petroleum**

Sl. no.	Particulars	Source	Unit/ Base	2012-13	2013-14	2014-15	2015-16	2016-17(P)	
1	Crude oil production in India	ONGC/OIL/DGH	MMT	37.9	37.8	37.5	36.9	36.0	
2	Consumption of petroleum products in India	OMCs/PPAC	MMT	157.1	158.4	165.5	184.7	194.2	
3	Petroleum products production in India	Oil Cos	MMT	217.8	220.3	220.7	231.2	242.7	
4	Imports & exports								
	Crude oil imports	Oil Cos	\$ Billion	144.3	143.0	112.7	64.0	70.2	
	Petroleum products imports	Oil Cos & DGCIS	\$ Billion	12.6	12.5	12.1	10.0	10.6	
	Total petroleum imports (crude oil + petroleum products)	Oil Cos & DGCIS	\$ Billion	156.9	155.4	124.9	73.9	80.8	
	Petroleum products exports	Oil Cos	\$ Billion	58.8	60.7	47.3	27.1	29.1	
5	Gross petroleum imports as % of India's gross imports in value terms	MOC&I/PPAC	%	32.0	34.5	27.9	19.4	21.3	
6	Gross petroleum exports as % of India's gross exports in value terms	MOC&I/PPAC	%	19.6	19.3	15.2	10.3	10.6	
7	Import dependency (based on consumption)	PPAC	%	77.1	77.6	78.5	80.9	82.1	

**Note :** (P): Provisional, OMCs: Oil Marketing Companies, PPAC: Petroleum Planning & Analysis Cell

**Natural Gas**

Sl. no.	Particulars	Source	Unit/ Base	2012-13	2013-14	2014-15	2015-16	2016-17(P)
1	Gross Production	ONGC/OIL/DGH	MMSCMD	111.45	97.01	92.21	88.11	87.39
2	Net Production (net of flare and loss)	ONGC/OIL/DGH	MMSCMD	108.91	94.72	89.57	85.08	84.51
3	LNG Import*	LNG importing Cos	MMSCMD	47.79	48.57	50.78	58.22	67.63
4	Total Consumption including internal use (Net Production+ LNG import)		MMSCMD	156.70	143.29	140.35	143.30	152.15
5	Import dependency (based on consumption)	PPAC	%	30.50	33.90	36.18	40.63	44.45

**Note :** \*LNG imports include both term and spot cargo, MMSCMD : Million Standard Cubic Meter per Day

**Table 1.2 : Global energy consumption, 2016**

Sl.no.	Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro Electricity	Renewables	Total Energy
		(Mtoe)	(Mtoe)	(Mtoe)	(Mtoe)	(Mtoe)	(Mtoe)	(Mtoe)
	<b>World</b>	4418.2	3204.1	3732.0	592.1	910.3	419.6	13276.3
	% Share	33.3	24.1	28.1	4.5	6.9	3.2	100.0
	Per Capita Consumption (Toe)	0.60	0.44	0.51	0.08	0.12	0.06	1.81
<b>1</b>	<b>China</b>	578.7	189.3	1887.6	48.2	263.1	86.1	3053.0
	% Share	19.0	6.2	61.8	1.6	8.6	2.8	100.0
	Per Capita Consumption (Toe)	0.42	0.14	1.38	0.04	0.19	0.06	2.23
<b>2</b>	<b>USA</b>	863.1	716.3	358.4	191.8	59.2	83.8	2272.7
	% Share	38.0	31.5	15.8	8.4	2.6	3.7	100.0
	Per Capita Consumption (Toe)	2.69	2.23	1.12	0.60	0.18	0.26	7.07
<b>3</b>	<b>India</b>	212.7	45.1	411.9	8.6	29.1	16.5	723.9
	% Share	29.4	6.2	56.9	1.2	4.0	2.3	100.0
	Per Capita Consumption(Toe)	0.16	0.03	0.31	0.01	0.02	0.01	0.55
<b>4</b>	<b>Russian Federation</b>	148.0	351.8	87.3	44.5	42.2	0.2	673.9
	% Share	22.0	52.2	13.0	6.6	6.3	0.02	100.0
	Per Capita Consumption (Toe)	1.03	2.44	0.61	0.31	0.29	0.001	4.68
<b>5</b>	<b>Japan</b>	184.3	100.1	119.9	4.0	18.1	18.8	445.3
	% Share	41.4	22.5	26.9	0.9	4.1	4.2	100.0
	Per Capita Consumption (Toe)	1.45	0.79	0.94	0.03	0.14	0.15	3.51
<b>6</b>	<b>Canada</b>	100.9	89.9	18.7	23.2	87.8	9.2	329.7
	% Share	30.6	27.3	5.7	7.0	26.6	2.8	100.0
	Per Capita Consumption (Toe)	2.82	2.51	0.52	0.65	2.45	0.26	9.20
<b>7</b>	<b>Germany</b>	113.0	72.4	75.3	19.1	4.8	37.9	322.5
	% Share	35.0	22.5	23.3	5.9	1.5	11.7	100.0
	Per Capita Consumption (Toe)	1.38	0.89	0.92	0.23	0.06	0.46	3.95
<b>8</b>	<b>Brazil</b>	138.8	32.9	16.5	3.6	86.9	19.0	297.8
	% Share	46.6	11.1	5.5	1.2	29.2	6.4	100.0
	Per Capita Consumption (Toe)	0.67	0.16	0.08	0.02	0.42	0.09	1.43
<b>9</b>	<b>South Korea</b>	122.1	40.9	81.6	36.7	0.6	4.3	286.2
	% Share	42.7	14.3	28.5	12.8	0.2	1.5	100.0
	Per Capita Consumption (Toe)	2.41	0.81	1.61	0.72	0.01	0.09	5.65
<b>10</b>	<b>Iran</b>	83.8	180.7	1.7	1.4	2.9	0.1	270.7
	% Share	31.0	66.8	0.6	0.5	1.1	0.04	100.0
	Per Capita Consumption(Toe)	1.06	2.28	0.02	0.02	0.04	0.001	3.42
<b>11</b>	<b>Saudi Arabia</b>	167.9	98.4	0.1	0.0	0.0	0.02	266.5
	% Share	63.0	36.9	0.04	-	-	0.01	100.0
	Per Capita Consumption(Toe)	5.32	3.12	0.003	-	-	0.001	8.45
<b>12</b>	<b>France</b>	76.4	38.3	8.3	91.2	13.5	8.2	235.9
	% Share	32.4	16.2	3.5	38.7	5.7	3.5	100.0
	Per Capita Consumption(Toe)	1.15	0.58	0.12	1.37	0.20	0.12	3.54
<b>13</b>	<b>Mexico</b>	82.8	80.6	9.8	2.4	6.8	4.1	186.5
	% Share	44.4	43.2	5.3	1.3	3.6	2.2	100.0
	Per Capita Consumption(Toe)	0.65	0.63	0.08	0.02	0.05	0.03	1.47
<b>14</b>	<b>United Kingdom</b>	73.1	69.0	11.0	16.2	1.2	17.5	188.1
	% Share	38.9	36.7	5.8	8.6	0.6	9.3	100.0
	Per Capita Consumption(Toe)	1.12	1.06	0.17	0.25	0.02	0.27	2.89
<b>15</b>	<b>Indonesia</b>	72.6	33.9	62.7	0.0	3.3	2.6	175.0
	% Share	41.5	19.4	35.8	-	1.9	1.5	100.0
	Per Capita Consumption(Toe)	0.28	0.13	0.24	-	0.01	0.01	0.68

Source: BP Statistical Review of World Energy, June 2017

Note: Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent. For calculation of per capita consumption population figures have been taken from World Bank International Data Base for 2015.

Mtoe: Million tonnes oil equivalent, Toe: Tonne oil equivalent



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# Chapter-2

## Exploration & Crude Production

**Table 2.1 : Crude oil proved reserves**

Sl.no.	Country	At the end 2016		
		Thousand million tonnes	Thousand million barrels	Reserves /Production ratio
1	Venezuela	47.0	300.9	341.1
2	Saudi Arabia	36.6	266.5	59.0
3	Canada	27.6	171.5	105.1
4	Iran	21.8	158.4	94.1
5	Iraq	20.6	153.0	93.6
6	Russian Federation	15.0	109.5	26.6
7	Kuwait	14.0	101.5	88.0
8	United Arab Emirates	13.0	97.8	65.6
9	US	6.3	48.4	310.1
10	Libya	5.8	48.0	10.6
11	Nigeria	5.0	37.1	49.3
12	Kazakhstan	3.9	30.0	49.0
13	Qatar	3.5	25.7	17.5
14	China	2.6	25.2	36.3
15	Brazil	1.8	12.6	13.3
16	Angola	1.6	11.6	17.5
17	Algeria	1.5	12.2	21.1
18	Mexico	1.2	8.0	40.1
19	Ecuador	1.1	8.0	8.9
20	Norway	1.0	7.0	23.1
21	Azerbaijan	0.9	7.6	10.4
<b>22</b>	<b>India</b>	<b>0.7</b>	<b>5.4</b>	<b>14.6</b>
23	Oman	0.6	4.7	14.9
24	Vietnam	0.6	4.4	36.2
25	Indonesia	0.5	3.7	43.2
26	South Sudan	0.5	3.5	80.9
27	Malaysia	0.5	3.6	14.0
28	Egypt	0.5	3.5	13.7
29	Australia	0.5	3.3	10.3
30	Yemen	0.4	4.0	30.3
	<b>Sub total</b>	<b>236.6</b>	<b>1676.3</b>	
	Others	4.1	30.3	
	<b>Total World</b>	<b>240.7</b>	<b>1706.7</b>	<b>50.6</b>
	of which: OECD	36.6	244.0	28.8
	Non-OECD	204.1	1462.7	57.9
	OPEC	171.2	1220.5	84.7
	Non-OPEC	69.6	486.2	25.2
	European Union	0.7	5.1	9.3
	Commonwealth of Independent States (CIS)	20.1	148.2	28.6
	<b>Canadian oil sands: Total</b>	<b>26.9</b>	<b>165.3</b>	
	of which: Under active development	3.9	24.0	
	Venezuela: Orinoco Belt	35.7	222.3	

**Source:** BP Statistical review of World Energy, June 2017 which includes data from ICIS.

**Note: Total proved reserves of oil** - Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions. The data series for total proved oil does not necessarily meet the definitions, guidelines and practices used for determining proved reserves at company level, for instance as published by the US Securities and Exchange Commission, nor does it necessarily represent BP's view of proved reserves by country.

**Reserves-to-production (R/P) ratio** - If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that rate.

Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil.

**Table 2.2 : Crude oil production, 2016**

Sl.no.	Country	Production*	
		Million tonnes	Million barrels daily
1	Saudi Arabia	585.7	12.3
2	Russian Federation	554.3	11.2
3	US	543.0	12.4
4	Iraq	218.9	4.5
5	Canada	218.2	4.5
6	Iran	216.4	4.6
7	China	199.7	4.0
8	United Arab Emirates	182.4	4.1
9	Kuwait	152.7	3.2
10	Brazil	136.7	2.6
11	Venezuela	124.1	2.4
12	Mexico	121.4	2.5
13	Nigeria	98.8	2.1
14	Norway	90.4	2.0
15	Angola	87.9	1.8
16	Qatar	79.4	1.9
17	Kazakhstan	79.3	1.7
18	Algeria	68.5	1.6
19	Oman	49.3	1.0
20	Colombia	48.8	0.9
21	United Kingdom	47.5	1.0
22	Indonesia	43.0	0.9
23	Azerbaijan	41.0	0.8
<b>24</b>	<b>India</b>	<b>40.2</b>	<b>0.9</b>
25	Egypt	33.8	0.7
26	Malaysia	32.7	0.7
27	Ecuador	29.3	0.5
28	Argentina	28.8	0.6
29	Libya	20.0	0.4
30	Thailand	17.6	0.5
	<b>Sub total</b>	<b>4189.9</b>	<b>88.1</b>
	Others	192.5	4.0
	<b>Total World</b>	<b>4382.4</b>	<b>92.2</b>
	of which: OECD	1060.0	23.1
	Non-OECD	3322.4	69.0
	OPEC	1864.2	39.4
	Non-OPEC	2518.2	52.8
	European Union	70.8	1.5
	Commonwealth of Independent States (CIS)	694.5	14.1

**Source:** BP Statistical Review of World Energy, June 2017 which includes data from ICIS.

**Note:** \* Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids-the liquid content of natural gas where this is recovered separately). Excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas.

**Table 2.3 : Crude oil consumption, 2016**

Sl. no.	Country	Consumption *	
		Million tonnes	Thousand barrels daily
1	US	863.1	19631
2	China	578.7	12381
<b>3</b>	<b>India</b>	<b>212.7</b>	<b>4489</b>
4	Japan	184.3	4037
5	Saudi Arabia	167.9	3906
6	Russian Federation	148.0	3203
7	Brazil	138.8	3018
8	South Korea	122.1	2763
9	Germany	113.0	2394
10	Canada	100.9	2343
11	Iran	83.8	1848
12	Mexico	82.8	1869
13	France	76.4	1602
14	United Kingdom	73.1	1597
15	Indonesia	72.6	1615
16	Singapore	72.2	1382
17	Spain	62.5	1268
18	Thailand	59.0	1382
19	Italy	58.1	1232
20	Australia	47.8	1036
21	Taiwan	46.7	1046
22	United Arab Emirates	43.5	987
23	Turkey	41.2	886
24	Egypt	40.6	853
25	Netherlands	39.9	851
26	Malaysia	36.3	829
27	Argentina	31.9	687
28	Belgium	31.8	675
29	Venezuela	28.7	611
30	Pakistan	27.5	566
	<b>Sub total</b>	<b>3685.9</b>	<b>80988</b>
	Others	732.3	15570
	<b>Total World</b>	<b>4418.2</b>	<b>96558</b>
	of which: OECD	2086.8	46217
	Non-OECD	2331.4	50341
	European Union	613.3	12942
	CIS countries	195.5	4223

\* Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are also included.

Source: BP Statistical Review of World Energy, June 2017

Note: Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels, and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.

**Table 2.4 : Crude Oil: Refinery capacities\***

(Thousand barrels daily)					
Sl.no.	Country	2006	2016	Addition	% Change
1	US	17443	18621	1178	6.8
2	China	8508	14177	5669	66.6
3	Russian Federation	5524	6418	894	16.2
<b>4</b>	<b>India</b>	<b>2872</b>	<b>4620</b>	<b>1749</b>	<b>60.9</b>
5	Japan	4588	3600	-988	-21.5
6	South Korea	2633	3234	600	22.8
7	Saudi Arabia	2107	2899	792	37.6
8	Brazil	1942	2289	347	17.9
9	Germany	2390	2024	-366	-15.3
10	Iran	1772	1985	213	12.0
11	Canada	1914	1967	53	2.7
12	Italy	2526	1915	-611	-24.2
13	Spain	1362	1562	201	14.7
14	Mexico	1463	1522	59	4.0
15	Singapore	1422	1514	92	6.5
16	Venezuela	1294	1303	9	0.7
17	Netherlands	1274	1293	19	1.5
18	Thailand	1100	1235	135	12.3
19	United Kingdom	1836	1227	-608	-33.2
20	France	1959	1224	-735	-37.5
21	Indonesia	1157	1155	-2	-0.2
22	United Arab Emirates	620	1143	523	84.4
23	Taiwan	1140	988	-152	-13.3
24	Kuwait	936	936	0	0.0
25	Iraq	743	919	176	23.7
26	Egypt	810	810	0	0.0
27	Belgium	766	776	10	1.3
28	Argentina	617	657	40	6.5
29	Algeria	443	651	208	46.9
30	Turkey	613	613	0	0.0
	<b>Sub total</b>	<b>73775</b>	<b>83277</b>	<b>9502</b>	<b>12.9</b>
	Others	14445	14153	-292	-2.0
	<b>Total World</b>	<b>88220</b>	<b>97430</b>	<b>9211</b>	<b>10.4</b>
	of which: OECD	45396	44105	-1291	-2.8
	Non-OECD	42824	53325	10501	24.5
	European Union	15991	13882	-2109	-13.2
	Commonwealth of independent states (CIS)	7537	8221	684	9.1

Source: BP Statistical Review of World Energy, June 2017 which includes data from ICIS.

Note: \* Atmospheric distillation capacity at year end on a calendar-day basis.

**Table 2.5 : Indigenous crude oil production**

(Million metric tonne)					
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17(P)
<b>PSU companies</b>					
ONGC	19.5	19.2	18.6	18.5	18.3
OIL	3.7	3.5	3.4	3.2	3.3
<b>PSU total</b>	<b>23.2</b>	<b>22.7</b>	<b>22.1</b>	<b>21.8</b>	<b>21.5</b>
<b>PSU total (crore barrels)</b>	<b>17.0</b>	<b>16.6</b>	<b>16.2</b>	<b>16.0</b>	<b>15.8</b>
<b>Under PSC contracts</b>					
<b>PSC total</b>	<b>11.6</b>	<b>12.0</b>	<b>11.7</b>	<b>11.3</b>	<b>10.5</b>
<b>PSC total (crore barrels)</b>	<b>8.5</b>	<b>8.8</b>	<b>8.6</b>	<b>8.3</b>	<b>7.7</b>
<b>Total crude oil</b>	<b>34.7</b>	<b>34.7</b>	<b>33.8</b>	<b>33.1</b>	<b>32.0</b>
Condensate	3.2	3.1	3.7	3.8	4.0
<b>Total (crude oil + condensate)</b>	<b>37.9</b>	<b>37.8</b>	<b>37.5</b>	<b>36.9</b>	<b>36.0</b>
<b>Total (crude oil + condensate) (crore barrels)</b>	<b>27.8</b>	<b>27.7</b>	<b>27.5</b>	<b>27.1</b>	<b>26.4</b>

Source: Oil Companies and DGH

**Table 2.6 : Self sufficiency in petroleum products**

(Million metric tonne)					
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17(P)
<b>i) Indigenous crude oil processing</b>	<b>34.2</b>	<b>33.9</b>	<b>34.2</b>	<b>34.1</b>	<b>33.5</b>
a) Products from indigeneous crude	31.9	31.6	32.0	31.8	31.3
b) Products from fractionators (including LPG and Gas)	4.1	3.9	3.7	3.4	3.5
<b>ii) Total production from indigenous crude, condensate &amp; gas (a+b)</b>	<b>36.0</b>	<b>35.5</b>	<b>35.6</b>	<b>35.2</b>	<b>34.8</b>
<b>iii) Total domestic consumption</b>	<b>157.1</b>	<b>158.4</b>	<b>165.5</b>	<b>184.7</b>	<b>194.2</b>
<b>% Self sufficiency (ii/iii)</b>	<b>22.9</b>	<b>22.4</b>	<b>21.5</b>	<b>19.1</b>	<b>17.9</b>

Source: Oil companies

Note:

1. Production of petroleum products from indigenous crude considered at 93.3% of indigenous crude oil processing.
2. The balance demand of petroleum products is met through import of crude oil and POL products.

**Table 2.7 : Status of blocks under NELP (2016-17)**

Round	Offered	Awarded				Relinquished				Operational			
		Deep water	Shallow water	Onland	Total	Deep water	Shallow water	Onland	Total	Deep water	Shallow water	Onland	Total
NELP-I	48	7	16	1	24	5	15	1	21	2	1	0	3
NELP-II	25	8	8	7	23	8	7	5	20	0	1	2	3
NELP-III	27	9	6	8	23	9	5	5	19	0	1	3	4
NELP-IV	24	10	0	10	20	10	0	6	16	0	0	4	4
NELP-V	20	6	2	12	20	6	1	8	15	0	1	4	5
NELP-VI	55	21	6	25	52	21	2	18	41	0	4	7	11
NELP-VII	57	11	7	23	41	11	4	13	28	0	3	10	13
NELP-VIII	70	8	11	13	32	8	5	4	17	0	6	9	15
NELP-IX	34	1	3	15	19	1	2	1	4	0	1	14	15
<b>TOTAL</b>	<b>360</b>	<b>81</b>	<b>59</b>	<b>114</b>	<b>254</b>	<b>79</b>	<b>41</b>	<b>61</b>	<b>181</b>	<b>2</b>	<b>18</b>	<b>53</b>	<b>73</b>

Source: (DGH)

**Table 2.8 : Hydrocarbon reserves in India**

(Million metric tonne)						
Details of reserves in India as of 01.04.2016	Initial in place			Ultimate reserves		
	Oil	Gas	O+OEG	Oil	Gas	O+OEG
ONGC	5286	2474	7760	1507	1314	2821
OIL	799	357	1155	83	44	127
Pvt./JV	995	1362	2357	225	786	1011
<b>Total</b>	<b>7080</b>	<b>4192</b>	<b>11272</b>	<b>1816</b>	<b>2144</b>	<b>3960</b>
	Accretion of initial in place			Accretion ultimate reserves		
ONGC	57	58	115	14	17	31
OIL	-3	13	10	1	8	9
Pvt./JV	20	-98	-78	10	19	28
<b>Total</b>	<b>74</b>	<b>-27</b>	<b>47</b>	<b>25</b>	<b>43</b>	<b>68</b>

Source: DGH

Note: O+OEG: Oil and Oil Equivalent of Gas

**Table 2.9 : Domestic oil & gas production vis a vis overseas production**

Year	2012-13	2013-14	2014-15	2015-16	2016-17(P)
Total domestic production (MMTOE)	78.5	73.2	71.1	69.2	67.9
Overseas production (MMTOE)	7.3	8.8	9.9	10.1	16.2
Overseas production as % of domestic production	9.3	12.1	13.9	14.6	23.9

Source: ONGC Videsh Ltd., OIL, GAIL, IOCL and HPCL

**Table 2.10 : Coal Bed Methane (CBM) Gas development in India**

Prognosticated CBM resources	92	TCF
Established CBM resources	9.9	TCF
Total available coal bearing area	26000	Sq.KM
Blocks awarded*	33	Nos.
Commercial production of CBM Gas (April 2016-March 2017)	1.55	MMSCMD

Source : DGH

\*CBM blocks have been awarded in the states of Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu and West Bengal.

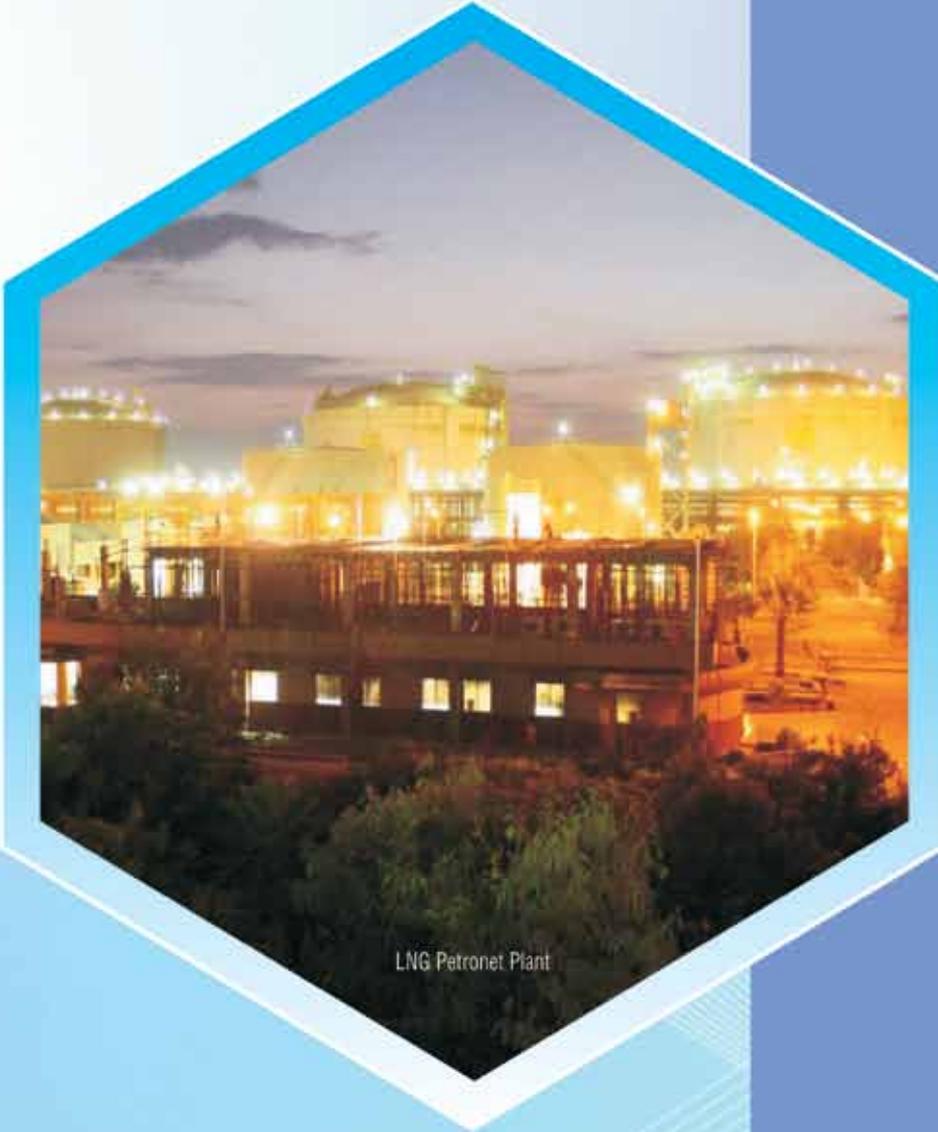
**Table 2.11 : Status of Shale Gas and oil development in India**

a) Policy Guidelines for Exploration and exploitation of Shale gas and oil	Shale gas policy was announced in October 2013, ONGC and Oil India Limited (OIL) have been allotted 50 and 06 blocks respectively for carrying out Phase-I shale gas assessment studies.
b) OIL : Activities during 2016-17	OIL has drilled one well in Jaisalmer basin. Conventional coring was carried out in Dandewala-28 (Loc. RJBF) of Jaisalmer Basin, Rajasthan. A total of 65.85 m was cored and 49.85 m of core was recovered, from which 15 nos. of 30 cm length core were selected for desorption studies, 29 nos. of 30 cm length were preserved. Further G&G studies are in progress.
c) ONGC: Activities during 2016-17	ONGC has drilled four wells in Cambay basin. ONGC took 17 conventional cores during the FY 2016-17. Following G&G studies were carried out in various wells of Cambay & KG basins. GNSGD (GN#717): Photography of Core completed. WDAV (WD#56): Adsorption Isotherm has been completed by M/s Weatherford. Rock Eval and TOC of cores completed by RGL, Vadodara. SRP, Petrophysical studies completed MYAF (MY#15): Gas composition and Rock Mechanic studies. WPGAA (WPG#1): Shale Analysis-Final summary report submitted by M/s Weatherford. Petrophysical studies, Gas composition, Adsorption Isotherm and core photography carried out. Petrophysical studies completed LNBY (LN#132): Desorption studies, Spectral Gamma Ray of cores and Lab studies carried out.

Source: DGH



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# Chapter-3

## Natural Gas

**Table 3.1 : World top 30 natural gas reserve countries**

		(Billion cubic metre)	
Sl. no.	Country	2015	2016
1	Iran	33500	33500
2	Russian Federation	32271	32271
3	Qatar	24299	24299
4	Turkmenistan	17479	17479
5	US	8714	8714
6	Saudi Arabia	8427	8427
7	United Arab Emirates	6091	6091
8	Venezuela	5702	5702
9	China	4797	5366
10	Nigeria	5284	5284
11	Algeria	4504	4504
12	Iraq	3694	3694
13	Australia	3471	3471
14	Indonesia	2775	2866
15	Canada	2171	2171
16	Egypt	1846	1846
17	Kuwait	1784	1784
18	Norway	1857	1763
19	Libya	1505	1505
<b>20</b>	<b>India</b>	<b>1252</b>	<b>1227</b>
21	Myanmar	528	1189
22	Malaysia	1169	1169
23	Azerbaijan	1148	1148
24	Uzbekistan	1086	1086
25	Kazakhstan	962	962
26	Oman	705	705
27	Netherlands	697	697
27	Vietnam	617	617
29	Ukraine	604	591
30	Pakistan	453	453
	<b>Sub total</b>	<b>179393</b>	<b>180583</b>
	Others	6026	5991
	<b>Total World</b>	<b>185419</b>	<b>186574</b>
	of which: OECD	17938	17813
	Non-OECD	167480	168761
	European Union	1302	1282
	CIS	53583	53570

Source: BP Statistical Review of World Energy, June 2017

**Table 3.2 : World top 30 natural gas producing countries**

(Billion cubic metre)			
SL. no.	Country	2015	2016
1	US	766.2	749.2
2	Russian Federation	575.1	579.4
3	Iran	189.4	202.4
4	Qatar	178.5	181.2
5	Canada	149.1	152.0
6	China	136.1	138.4
7	Norway	117.2	116.6
8	Saudi Arabia	104.5	109.4
9	Algeria	84.6	91.3
10	Australia	72.6	91.2
11	Malaysia	71.2	73.8
12	Indonesia	75.0	69.7
13	Turkmenistan	69.6	66.8
14	Uzbekistan	57.7	62.8
15	United Arab Emirates	60.2	61.9
16	Mexico	54.1	47.2
17	Nigeria	50.1	44.9
18	Egypt	44.3	41.8
19	Pakistan	42.0	41.5
20	United Kingdom	39.6	41.0
21	Netherlands	43.3	40.2
22	Thailand	39.3	38.6
23	Argentina	36.5	38.3
24	Oman	34.7	35.4
25	Trinidad & Tobago	39.6	34.5
26	Venezuela	32.4	34.3
<b>27</b>	<b>India</b>	<b>29.3</b>	<b>27.6</b>
28	Bangladesh	26.9	27.5
29	Brazil	23.1	23.5
30	Kazakhstan	19.0	19.9
	<b>Sub total</b>	<b>3261.2</b>	<b>3282.3</b>
	Others	269.3	269.3
	<b>Total World</b>	<b>3530.6</b>	<b>3551.6</b>
	of which: OECD	1284.5	1281.6
	Non-OECD	2246.1	2270.0
	European Union	119.8	118.2
	CIS	757.6	764.3

Source: BP Statistical Review of World Energy, June 2017

**Table 3.3 : World top 30 natural gas consuming countries**

		(Billion cubic metre)	
Sl. no.	Country	2015	2016
1	US	773.2	778.6
2	Russian Federation	402.8	390.9
3	China	194.8	210.3
4	Iran	190.8	200.8
5	Japan	113.4	111.2
6	Saudi Arabia	104.5	109.4
7	Canada	102.5	99.9
8	Mexico	87.1	89.5
9	Germany	73.5	80.5
10	United Kingdom	68.1	76.7
11	United Arab Emirates	73.8	76.6
12	Italy	61.4	64.5
13	Other Middle East	51.0	52.3
14	Uzbekistan	50.2	51.4
15	Egypt	47.8	51.3
<b>16</b>	<b>India</b>	<b>45.7</b>	<b>50.1</b>
17	Argentina	48.2	49.6
18	Thailand	48.7	48.3
19	Pakistan	43.5	45.5
20	South Korea	43.6	45.5
21	Malaysia	41.8	43.0
22	France	38.9	42.6
23	Turkey	43.6	42.1
24	Qatar	43.9	41.7
25	Australia	42.9	41.1
26	Algeria	39.4	40.0
27	Indonesia	40.4	37.7
28	Brazil	41.7	36.6
29	Venezuela	34.5	35.6
30	Netherlands	31.5	33.6
	<b>Sub total</b>	<b>3023.4</b>	<b>3076.8</b>
	Others	456.8	466.1
	<b>Total World</b>	<b>3480.1</b>	<b>3542.9</b>
	of which: OECD	1611.4	1644.1
	Non-OECD	1868.7	1898.8
	European Union	399.1	428.8
	Former Soviet Union	555.4	546.7

Source: BP Statistical Review of World Energy, June 2017

**Table 3.4 : Natural gas at a glance**

Particulars	(MMSCMD)				
	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
Gross Production	111.45	97.01	92.21	88.11	87.39
Net Production ( net of flare and loss)	108.91	94.72	89.57	85.08	84.51
LNG Import*	47.79	48.57	50.78	58.22	67.63
Total Consumption including internal use (Net Production+ LNG import)	156.70	143.29	140.35	143.30	152.15
Total Consumption (in BCM)	57.2	52.3	51.2	52.4	55.5
Total Consumption (in MMSCM)	57197	52302	51229	52448	55534

Source: ONGC / OIL/ DGH / PLL/ HLPL/ GSPCL / GAIL/ RIL/IOCL/TPL/BPCL

**Note:**

\*LNG import includes both term and spot cargos

LNG import data in Million Metric Tonne (MMT), converted to MMSCM, 1MMT=1325 MMSCM

BCM= Billion Cubic Meter

MMSCMD : Million Standard Cubic Meter per day

MMT= Million Metric Tonne

**Table 3.5 : PNG data as on 31.03.2017**

State	Geographical area covered	Entity	PNG connections		
			Domestic	Industrial	Commercial
Haryana	Sonipat, Faridabad, Gurgaon	Gail Gas Limited, Adani Gas Limited *, Haryana City Gas Distribution Ltd*	54414	241	166
Andhra Pradesh	Kakinada, Vijayawada, Kovvur	Bhagyanagar Gas Limited, Godavari Gas Pvt. Ltd.	3902	0	41
Telangana	Hyderabad	Bhagyanagar Gas Limited	2706	5	5
Assam	Tinsukia, Dibrugarh, Sivasagar, Jorhat, Golaghat	Assam Gas Company Limited	30023	400	1002
Gujarat	Gandhinagar, Mehsana, Sabarkantha, Gandhinagar, Nadiad, Halol, Hazira, Rajkot, Khambhat, Palej, Valsad, Navsari, Surendernagar, Surat, Ankleshwar, Bhavnagar, Vadodara, Ahmedabad, Anand	Sabarmati Gas Ltd., Gujarat Gas Ltd., Adani Gas Ltd., Vadodara Gas Ltd., Hindustan Petroleum Corpn. Ltd., Charotar Gas Sahakari Mandali Ltd.	1653663	4200	14766
Madhya Pradesh	Dewas, Vijapur, Gwalior, Indore including Ujjain, Pithampur	Gail Gas Limited, Aavantika Gas Limited	13888	99	63
Maharashtra	Pune City including Pimpri Chinchwad along with adjoining contiguous areas of Hinjewadi, Chakan & Talegaon GA, Mumbai & Greater Mumbai, Thane City and adjoining contiguous areas including Mira Bhayender, Navi Mumbai, Thane City, Ambernath, Bhiwandi, Kalyan, Dombivli, Badlapur, Ulhasnagar, Panvel, Kharghar, Talaja, Raigarh, Thane	Maharashtra Natural Gas Limited, Mahanagar Gas Limited, Gujarat Gas Limited	999868	191	3387
Delhi/NCR	National Capital Territory of Delhi (including Noida & Ghaziabad)	Indraprastha Gas Limited	742205	962	1903
Rajasthan	Kota	Gail Gas Limited	157	16	1
Tripura	Agartala	Tripura Natural Gas Company Limited	28669	50	366
Karnataka	Bengaluru	Gail Gas Limited	2446	3	17
Uttar Pradesh	Meerut, Mathura, Agra, Kanpur, Bareilly, Lucknow, Moradabad, Firozabad, Khurja, Divyapur, Allahabad	Gail Gas Limited, Sanwariya Gas, Green Gas Limited, Central U.P. Gas Limited, Siti Energy Limited, Adani Gas Limited, Indian Oil-Adani Gas Pvt. Ltd.	51195	500	272
Chandigarh	Chandigarh	Indian Oil-Adani Gas Pvt. Ltd.	2350	0	0
Kerala	Ernakulam	Indian Oil-Adani Gas Pvt. Ltd.	102	0	2
Dadra & Nagar Haveli	UT of Dadra & Nagar Haveli	Gujarat Gas Limited	58	3	5
<b>Total</b>			<b>3585646</b>	<b>6670</b>	<b>21996</b>

Source : CGD companies

\* Provisionally authorized

**Table 3.6: CNG activities in India as on 31.03.2017**

(Sales in TMT)						
State	Company name	No. of companies	2013-14	2014-15	2015-16	2016-17 (P)
Gujarat	Adani Energy Ltd., Gujarat Gas Ltd., (An amalgamated entity of Gujarat State Petroleum Corporation Gas Company Ltd. and Gujarat Gas Company Ltd.), Sabarmati Gas Ltd. (SGL), Hindustan Petroleum Corporation Ltd. (HPCL), Vadodara Gas Ltd. (JV of GAIL Gas Ltd. and Vadodara Mahanagar Seva Sadan), Charotar Gas Sahkari Mandali Ltd.	6	463.50	475.90	503.05	546.31
Delhi	Indraprastha Gas Ltd. (IGL), New Delhi	1	697.60	717.10	738.30	803.84
Rajasthan (Kota)	GAIL Gas Ltd.	1	1.60	2.60	3.68	4.27
Maharashtra	Mahanagar Gas Ltd. (MGL) Mumbai and Maharashtra Natural Gas Ltd. (MNGL), Pune	2	476.00	531.40	565.01	592.59
Andhra Pradesh / Telangana	Bhagyanagar Gas Ltd. (BGL) and Hyderabad, Godavari Gas Pvt. Ltd., Hyderabad	2	24.60	25.80	27.45	28.53
Uttar Pradesh	Green Gas Ltd., Lucknow, Central UP Gas Ltd., Kanpur, Siti Energy Ltd., GAIL Gas Ltd., Sanwaria Gas Ltd., Indraprastha Gas Ltd., Adani Gas Ltd., Indian Oil-Adani Gas Pvt. Ltd.	8	162.60	184.80	211.61	245.42
Tripura	Tripura Natural Gas Co. Ltd. (TNGCL), Agartala.	1	6.80	9.50	11.19	12.30
Madhya Pradesh	Aavantika Gas Ltd. (Indore) and GAIL Gas Ltd.	2	15.90	16.60	19.19	21.59
Haryana	Haryana City Gas Ltd., GAIL Gas Ltd. and Adani Gas Ltd.	3	78.20	72.30	74.59	109.00
West Bengal	Great Eastern Energy Corporation Ltd.	1	1.15	1.24	1.36	1.64
Karnataka	GAIL Gas Ltd.	1	0.00	0.00	0.00	0.01
Chandigarh	Indian Oil-Adani Gas Pvt. Ltd.	1	0.00	0.00	0.00	0.00
<b>Total</b>		<b>21*</b>	<b>1927.95</b>	<b>2037.24</b>	<b>2155.44</b>	<b>2365.50</b>

Source : CGD companies

Note : \*GAIL Gas Ltd. is operating in five States, Adani Gas in three States, Bhagyanagar Gas Ltd, Indraprastha Gas Ltd. and Indian Oil-Adani Gas Pvt. Ltd. are operating in two States. Hence, their number is taken once only.

**Table 3.7: CNG stations and vehicles as on 31.03.2017**

State	Company name	No. of CNG stations	No. of CNG vehicles
Gujarat	Adani Energy Ltd., Gujarat Gas Ltd., (An amalgamated entity of Gujarat State Petroleum Corporation Gas Company Ltd. and Gujarat Gas Company Ltd.), Sabarmati Gas Ltd., Hindustan Petroleum Corporation Ltd., Vadodara Gas Ltd. (JV of GAIL Gas Ltd. and Vadodara Mahanagar Seva Sadan), Charotar Gas Sahkari Mandali Ltd.	396	1094973
Delhi / NCR	Indraprastha Gas Ltd. (IGL), New Delhi	421	939475
Maharashtra	Mahanagar Gas Ltd. (MGL) Mumbai, Maharashtra Natural Gas Ltd. (MNGL), Pune	245	685883
Andhra Pradesh / Telangana	Bhagyanagar Gas Ltd. (BGL), Hyderabad, Godavari Gas Pvt. Ltd., Hyderabad	42	39281
Rajasthan	Gail Gas Ltd.	3	5688
Uttar Pradesh	Green Gas Ltd., Lucknow, Central UP Gas Ltd., Kanpur, Siti Energy Ltd., Adani Energy Ltd., GAIL Gas Ltd., Sanwaria Gas Ltd., Indian Oil-Adani Gas Pvt. Ltd.	54	117686
Tripura	Tripura Natural Gas Co. Ltd., Agartala.	5	9438
Madhya Pradesh	Aavantika Gas Ltd. Indore, GAIL Gas Ltd.	24	23310
Haryana	Haryana City Gas Ltd, GAIL Gas Ltd., Adani Gas Ltd.	31	125227
West Bengal	Great Eastern Energy Corporation Ltd.	7	3172
Karnataka	Gail Gas Ltd.	3	135
Chandigarh	Indian Oil-Adani Gas Pvt. Ltd.	2	1000
<b>All India</b>		<b>1233</b>	<b>3045268</b>

Source : CGD companies

**Table 3.8 : LNG terminals (Operational)**

Sl. no.	Name of Terminal	Promoters	Capacity (MMTPA)	Capacity Utilization (%) 2016-17
1	Dahej (Gujarat)	Petronet LNG Ltd. (PLL)	10 MMTPA up to July, 2016 increased to 15 MMTPA from August, 2016 (Average Capacity for 2016-17 - 13.13 MMTPA)	105.31 (Average utilization for 2016-17)
2	Hazira (Gujarat)	Hazira LNG Pvt. Ltd. (HLPL)	5 MMTPA	69.63
3	Dabhol (Maharashtra)	Ratnagiri Gas and Power Pvt. Ltd. (RGPPPL- JV of GAIL & NTPC)	1.692 MMTPA presently without breakwater to be increased to 5 MMTPA	57.07
4	Kochi (Kerala)	Petronet LNG Ltd. (PLL)	5 MMTPA	5.46

Sources: LNG operating companies

**Table 3.9 : Domestic natural gas price and gas price ceiling**

Period	Domestic natural gas price in US\$/MMBTU (GCV basis)*	Gas price ceiling in US\$/MMBTU (GCV basis)**
November 2014 - March 2015	5.05	-
April 2015 - September 2015	4.66	-
October 2015 - March 2016	3.82	-
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.50	5.30
April 2017-September 2017	2.48	5.56

**Note:**

\* As per the "New Domestic Natural Gas Pricing Guidelines,2014" issued by Ministry of Petroleum & Natural Gas vide notification No. 22013/27/2012-ONG D.V.

\*\* As per the notification issued by Ministry of Petroleum and Natural Gas vide O-22013/27/2012-ONG-D-V(Vol-II) dated 21.03.2016 on marketing including pricing freedom for the gas to be produced from Discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas.



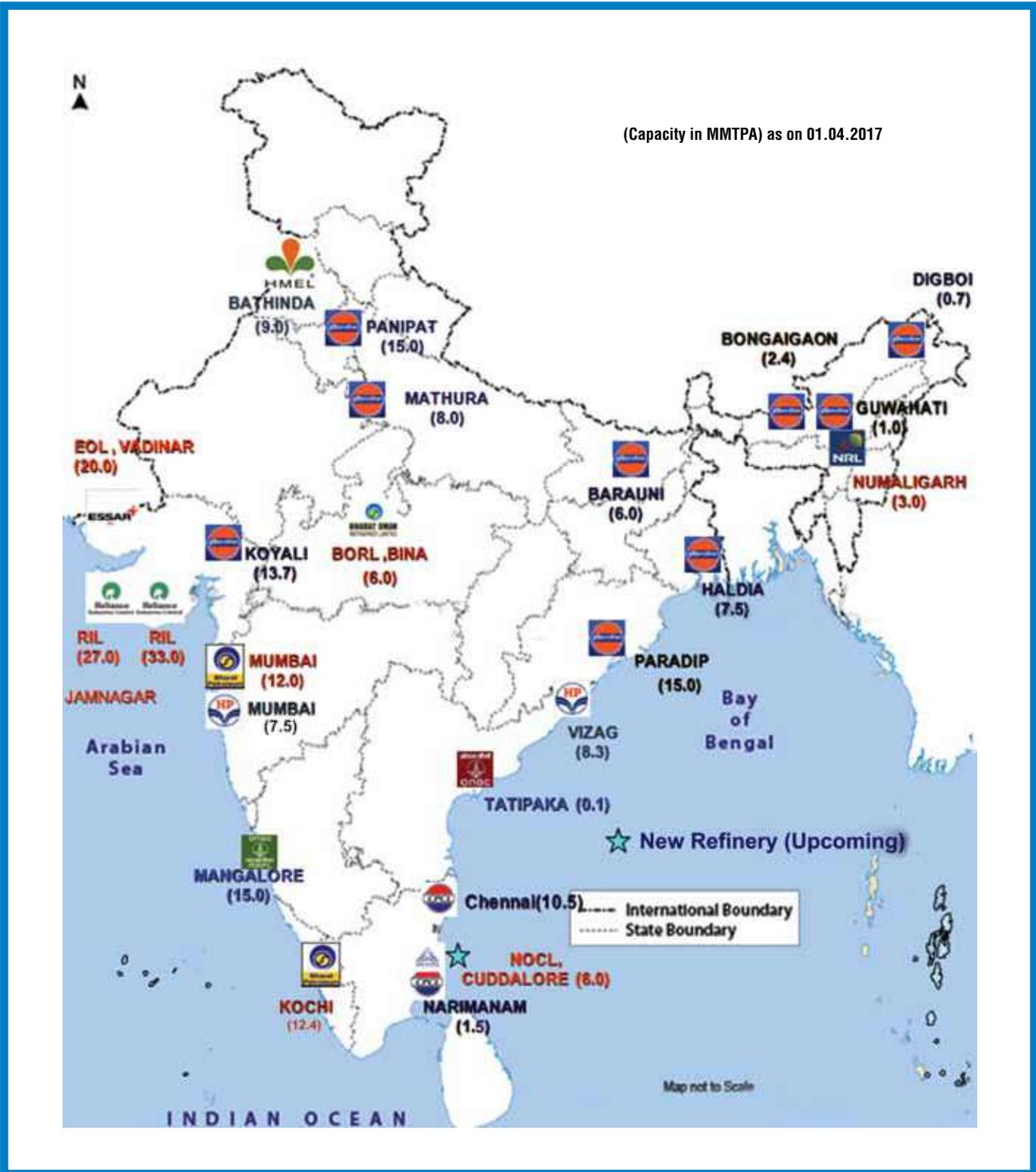
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# Chapter-4

## Refining & Production

## Map of Refineries in India





**Table 4.1 : Refineries: Installed capacity and crude oil processing**

Sl. no.	Refinery	Installed capacity (MMTPA)					Crude oil processing (MMT)				
		01.04.2013	01.04.2014	01.04.2015	01.04.2016	01.04.2017	2012-13	2013-14	2014-15	2015-16	2016-17(P)
1	Barauni	6.0	6.0	6.0	6.0	6.0	6.3	6.5	5.9	6.5	6.5
2	Koyali	13.7	13.7	13.7	13.7	13.7	13.2	13.0	13.3	13.8	14.0
3	Haldia	7.5	7.5	7.5	7.5	7.5	7.5	8.0	7.7	7.8	7.7
4	Mathura	8.0	8.0	8.0	8.0	8.0	8.6	6.6	8.5	8.9	9.2
5	Panipat	15.0	15.0	15.0	15.0	15.0	15.1	15.1	14.2	15.3	15.6
6	Guwahati	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
7	Digboi	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5
8	Bongaigaon	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.5
9	Paradip	-	-	-	15.0	15.0	-	-	-	1.8	8.2
	<b>IOCL total</b>	<b>54.2</b>	<b>54.2</b>	<b>54.2</b>	<b>69.2</b>	<b>69.2</b>	<b>54.6</b>	<b>53.1</b>	<b>53.6</b>	<b>58.0</b>	<b>65.2</b>
10	Mumbai	6.5	6.5	6.5	6.5	7.5	7.7	7.7	7.4	8.0	8.5
11	Visakh	8.3	8.3	8.3	8.3	8.3	8.0	7.8	8.8	9.2	9.3
12	HMEL-Bathinda	9.0	9.0	9.0	9.0	9.0	4.9	9.3	7.3	10.7	10.5
	<b>HPCL total</b>	<b>23.8</b>	<b>23.8</b>	<b>23.8</b>	<b>23.8</b>	<b>24.8</b>	<b>20.7</b>	<b>24.8</b>	<b>23.5</b>	<b>27.9</b>	<b>28.4</b>
13	Mumbai	12.0	12.0	12.0	12.0	12.0	12.7	12.7	12.8	13.4	13.5
14	Kochi	9.5	9.5	9.5	9.5	12.4	10.1	10.3	10.4	10.7	11.8
15	BORL-Bina	6.0	6.0	6.0	6.0	6.0	5.7	5.4	6.2	6.4	6.4
	<b>BPCL total</b>	<b>27.5</b>	<b>27.5</b>	<b>27.5</b>	<b>27.5</b>	<b>30.4</b>	<b>28.6</b>	<b>28.4</b>	<b>29.4</b>	<b>30.5</b>	<b>31.7</b>
16	Manali	10.5	10.5	10.5	10.5	10.5	9.1	10.1	10.2	9.1	9.8
17	CBR	1.0	1.0	1.0	1.0	1.5	0.6	0.6	0.5	0.5	0.5
	<b>CPCL total</b>	<b>11.5</b>	<b>11.5</b>	<b>11.5</b>	<b>11.5</b>	<b>12.0</b>	<b>9.7</b>	<b>10.6</b>	<b>10.8</b>	<b>9.6</b>	<b>10.3</b>
18	Numaligarh	3.0	3.0	3.0	3.0	3.0	2.5	2.6	2.8	2.5	2.7
19	Tatipaka	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20	MRPL-Mangalore	15.0	15.0	15.0	15.0	15.0	14.4	14.6	14.6	15.5	16.0
	<b>ONGC total</b>	<b>15.1</b>	<b>15.1</b>	<b>15.1</b>	<b>15.1</b>	<b>15.1</b>	<b>14.5</b>	<b>14.7</b>	<b>14.7</b>	<b>15.6</b>	<b>16.1</b>
21	RIL-Jamnagar (DTA)	33.0	33.0	33.0	33.0	33.0	32.6	30.3	30.9	32.4	32.8
22	RIL-Jamnagar (SEZ)	27.0	27.0	27.0	27.0	27.0	35.9	37.7	37.2	37.1	37.4
23	EOL-Vadinar	20.0	20.0	20.0	20.0	20.0	19.8	20.2	20.5	19.1	20.9
	<b>All India</b>	<b>215.1</b>	<b>215.1</b>	<b>215.1</b>	<b>230.1</b>	<b>234.5</b>	<b>218.8</b>	<b>222.5</b>	<b>223.3</b>	<b>232.9</b>	<b>245.4</b>

Source: Oil companies

**Table 4.2 : High Sulphur (HS) & Low Sulphur (LS) crude oil processing**

(Million metric tonne)						
Sl. no.	Type of crude	2012-13	2013-14	2014-15	2015-16	2016-17(P)
1	HS crude	153.0	160.2	161.4	166.1	177.6
2	LS crude	65.8	62.2	61.9	66.7	67.8
	<b>Total crude</b>	<b>218.8</b>	<b>222.5</b>	<b>223.3</b>	<b>232.9</b>	<b>245.4</b>
	Share of HS crude in total crude processing	69.9%	72.0%	72.3%	71.3%	72.4%

Source: Oil companies

**Table 4.3 : Imported crude & indigenous crude oil processing**

(Million metric tonne)						
Sl. no.	Indigenous/ Imported crude	2012-13	2013-14	2014-15	2015-16	2016-17(P)
1	Imported crude	184.7	188.6	189.0	198.8	211.9
2	Indigenous crude	34.2	33.9	34.2	34.1	33.5
	<b>Total crude</b>	<b>218.8</b>	<b>222.5</b>	<b>223.3</b>	<b>232.9</b>	<b>245.4</b>
	Share of imported crude in total crude processing	84.4%	84.8%	84.7%	85.4%	86.3%

Source: Oil companies

**Table 4.4 : Production of petroleum products**

(Million metric tonne)					
	2012-13	2013-14	2014-15	2015-16	2016-17(P)
<b>A) From crude oil/refineries</b>					
<b>Light ends</b>	<b>63.0</b>	<b>62.6</b>	<b>64.6</b>	<b>70.6</b>	<b>75.0</b>
of which: LPG	7.7	7.9	7.7	8.6	9.2
MS	30.1	30.3	32.2	35.3	36.5
Naphtha	17.2	17.0	16.2	16.8	18.6
Others	8.0	7.4	8.5	9.9	10.7
<b>Middle distillates</b>	<b>112.5</b>	<b>117.3</b>	<b>117.5</b>	<b>122.9</b>	<b>127.9</b>
of which: SKO	8.0	7.4	7.6	7.4	5.9
ATF	10.1	11.2	11.1	11.8	13.8
HSD	91.1	93.8	94.3	98.6	102.1
LDO	0.4	0.4	0.4	0.4	0.6
Others	3.0	4.6	4.2	4.7	5.4
<b>Heavy ends</b>	<b>38.2</b>	<b>36.6</b>	<b>34.9</b>	<b>34.4</b>	<b>36.4</b>
of which: Furnace Oil	14.5	13.0	11.5	10.3	11.8
LSHS	1.3	0.5	0.7	0.4	0.3
Lube Oil	0.9	0.9	0.9	1.0	1.0
Bitumen	4.7	4.8	4.7	5.2	5.2
Others	16.8	17.4	17.1	17.5	18.2
<b>Total production</b>	<b>213.7</b>	<b>216.4</b>	<b>217.1</b>	<b>227.9</b>	<b>239.2</b>
<b>B) From natural gas/fractionators</b>					
<b>Total production</b>	<b>4.1</b>	<b>3.9</b>	<b>3.7</b>	<b>3.4</b>	<b>3.5</b>
of which: LPG	2.1	2.1	2.2	2.0	2.1
Naphtha	1.7	1.5	1.2	1.1	1.2
SKO	0.1	0.1	0.1	0.1	0.03
HSD	0.02	0.02	0.01	0.01	0.01
Others	0.2	0.2	0.2	0.2	0.2
<b>Total indigenous production</b>	<b>217.8</b>	<b>220.3</b>	<b>220.7</b>	<b>231.2</b>	<b>242.7</b>

Source: Oil companies

**Table 4.5 : Production of petroleum products : All sources**

(Million metric tonne)					
Major products	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
HSD	91.1	93.8	94.3	98.6	102.1
MS	30.1	30.3	32.2	35.3	36.5
Naphtha	18.9	18.5	17.5	17.9	19.8
FO	14.5	13.0	11.5	10.3	11.8
ATF	10.1	11.2	11.1	11.8	13.8
LPG	9.8	10.0	9.8	10.6	11.3
SKO	8.1	7.4	7.6	7.5	6.0
Bitumen	4.7	4.8	4.7	5.2	5.2
LSHS	1.3	0.5	0.7	0.4	0.3
Lubes	0.9	0.9	0.9	1.0	1.0
LDO	0.4	0.4	0.4	0.4	0.6
Others#	28.0	29.5	30.0	32.2	34.4
<b>Total</b>	<b>217.8</b>	<b>220.3</b>	<b>220.7</b>	<b>231.2</b>	<b>242.7</b>

Source: Oil companies

Note : # Others include products like Propylene, Solvents (Hexane, Benzene, Toluene, Xylene and Specialty solvents), Reformate, Mineral Turpentine Oil, Carbon Black Feed Stock, Raw and Calcined Petroleum Coke, Waxes, Sulphur etc.

**Table 4.6 : Production vs consumption of petroleum products**

(Million metric tonne)			
Year	Consumption \$	Production from refineries & other sources*	Surplus (+) / Deficit (-)
	(A)	(B)	(B)-(A)
1997-98	84.3	64.7	-19.6
1998-99	90.6	68.4	-22.2
1999-00	97.1	82.9	-14.2
2000-01	100.1	99.6	-0.5
2001-02	100.4	104.3	3.9
2002-03	104.1	108.7	4.5
2003-04	107.8	117.6	9.9
2004-05	111.6	122.7	11.1
2005-06	113.2	124.1	10.9
2006-07	120.7	140.1	19.3
2007-08	128.9	149.9	20.9
2008-09	133.6	157.4	23.8
2009-10	137.8	185.0	47.2
2010-11	141.0	195.8	54.8
2011-12	148.1	204.0	55.9
2012-13	157.1	217.8	60.8
2013-14	158.4	220.3	61.9
2014-15	165.5	220.7	55.2
2015-16	184.7	231.2	46.6
2016-17 (P)	194.2	242.7	48.5

Note:

\$ includes direct imports by private parties

\*Fractionators and gas processing plants

**Table 4.7 : Gross Refining Margins (GRM) of Refineries**

(\$/bbl)

Company	Refinery	2012-13	2013-14	2014-15	2015-16	2016-17
<b>PSU refineries</b>						
IOCL	Barauni	2.40	6.68	(1.20)	2.93	6.52
	Koyali	4.61	4.52	4.79	6.80	7.55
	Haldia	0.85	2.84	(1.51)	3.96	6.80
	Mathura	0.55	2.10	(2.19)	3.30	7.01
	Panipat	3.34	3.62	(1.97)	4.15	7.95
	Guwahati	9.52	6.38	8.68	15.88	22.14
	Digboi	20.81	15.41	13.73	16.17	24.49
	Bongaigaon	5.26	6.71	(0.26)	11.09	20.15
	Paradip	NA	NA	NA	(0.65)	4.22
	<b>Average</b>		<b>3.16</b>	<b>4.24</b>	<b>0.27</b>	<b>5.06</b>
BPCL	Kochi	5.36	4.80	3.17	6.87	5.16
	Mumbai	4.67	3.95	3.97	6.37	5.36
	<b>Average</b>	<b>4.97</b>	<b>4.33</b>	<b>3.62</b>	<b>6.59</b>	<b>5.03</b>
HPCL	Mumbai	2.08	5.38	4.88	8.09	6.95
	Visakh	2.08	1.50	1.12	5.46	5.51
	<b>Average</b>	<b>2.08</b>	<b>3.43</b>	<b>2.84</b>	<b>6.68</b>	<b>6.20</b>
CPCIL	Chennai	0.99	4.08	1.97	5.27	6.05
MRPL	Mangalore	2.45	2.67	(0.64)	5.20	7.75
NRL	Numaligarh	10.52	12.09	16.67	23.68	8.50
<b>JV refineries</b>						
BORL	Bina	7.00	7.70	6.10	11.70	11.80
<b>Private refineries</b>						
RIL	Jamnagar	9.20	8.10	8.60	10.80	11.00
Essar	Vadinar	7.96	7.98	8.37	10.81	*
Singapore		7.74	5.62	6.36	7.52	5.83

**Source:**

Indian refineries - published results/ information provided by oil companies

Singapore - Reuters

\* Not available

NA - Not applicable as refinery operation not commenced.

**Table 4.8 : GRM of North East refineries excluding excise duty benefit**

(\$/bbl)

Company	Refinery	2012-13	2013-14	2014-15	2015-16	2016-17
IOCL	Guwahati	3.43	0.88	0.96	1.26	1.12
	Digboi	13.25	8.50	5.42	4.16	7.73
	Bongaigaon	0.25	2.34	(6.51)	0.08	6.03
NRL	Numaligarh	4.86	6.98	9.46	8.06	8.50

**Source:** Information provided by oil companies

**Table 4.9 : Distillate yield of PSU refineries**

(Distillate %)						
Company	Refinery	2012-13	2013-14	2014-15	2015-16	2016-17
IOCL	Barauni	86.1	87.9	87.3	88.7	85.3
	Koyali	78.0	78.4	80.1	83.1	81.0
	Haldia	69.3	68.5	69.0	69.6	66.7
	Mathura	73.3	68.9	71.9	74.7	73.6
	Panipat	82.0	82.0	82.4	83.8	84.1
	Guwahati	79.7	83.1	81.1	80.8	83.5
	Digboi	73.7	73.5	74.8	69.7	75.3
	Bongaigaon	82.3	85.9	84.0	84.5	83.8
	Paradip	-	-	-	-	75.3
CPCL	Manali	68.0	72.1	71.5	71.4	71.6
	CBR	87.5	85.1	71.6	79.3	78.2
HPCL	Mumbai	74.6	72.6	75.9	76.0	77.6
	Visakh	72.1	75.7	78.8	75.7	74.0
BPCL	Mumbai	80.5	81.0	81.8	84.3	86.1
	Kochi	78.9	81.9	84.7	85.7	85.2
NRL	Numaligarh	91.1	92.2	90.7	89.9	90.5
MRPL	Mangalore	76.5	74.6	72.3	76.9	77.4
<b>PSU oil cos. average</b>		<b>77.3</b>	<b>77.7</b>	<b>78.3</b>	<b>79.9</b>	<b>79.3</b>

**Source:** CHT

**Table 4.10 : Fuel & Loss**

Sl. no.	Company	Refinery	2013-14			2014-15			2015-16			2016-17 (P)		
			Throughput (Million tonne)	Fuel & Loss		Throughput (Million tonne)	Fuel & Loss		Throughput (Million tonne)	Fuel & Loss		Throughput (Million tonne)	Fuel & Loss	
				Qty (Million tonne)	%		Qty (Million tonne)	%		Qty (Million tonne)	%		Qty (Million tonne)	%
1	IOCL	Barauni	6.5	0.6	9.0	5.9	0.5	9.2	6.5	0.6	8.8	6.5	0.6	9.3
2		Koyali	13.0	1.3	9.7	13.3	1.3	9.6	13.8	1.3	9.2	14.0	1.3	9.3
3		Haldia	8.0	0.7	9.2	7.7	0.7	8.7	7.8	0.7	8.7	7.7	0.7	8.8
4		Mathura	6.6	0.6	8.9	8.5	0.7	8.2	8.9	0.7	8.1	9.2	0.7	7.9
5		Panipat	15.1	1.5	10.0	14.2	1.4	10.2	15.3	1.5	9.7	15.6	1.5	9.3
6		Guwahati	1.0	0.1	11.6	1.0	0.1	12.1	0.9	0.1	12.9	0.9	0.1	13.1
7		Digboi	0.7	0.1	10.0	0.6	0.1	10.3	0.6	0.1	11.3	0.5	0.1	13.2
8		Bongaigaon	2.3	0.2	9.7	2.4	0.2	9.2	2.4	0.2	8.5	2.5	0.2	8.3
9		Paradip	-	-	-	-	-	-	1.8	0.5	25.1	8.2	1.3	16.0
		<b>IOCL Total</b>	<b>53.1</b>	<b>5.1</b>	<b>9.6</b>	<b>53.6</b>	<b>5.0</b>	<b>9.4</b>	<b>58.0</b>	<b>5.6</b>	<b>9.6</b>	<b>65.2</b>	<b>6.5</b>	<b>9.9</b>
10	HPCL	Mumbai	7.7	0.5	6.9	7.4	0.6	7.6	8.0	0.6	7.8	8.5	0.6	7.2
11		Visakh	7.8	0.6	7.6	8.8	0.7	7.4	9.2	0.7	7.7	9.3	0.7	7.3
12		HMEL-Bathinda	9.3	0.6	6.4	7.3	0.5	6.5	10.7	0.7	6.4	10.5	0.7	6.3
		<b>HPCL Total</b>	<b>24.8</b>	<b>1.7</b>	<b>6.9</b>	<b>23.5</b>	<b>1.7</b>	<b>7.2</b>	<b>27.9</b>	<b>2.0</b>	<b>7.2</b>	<b>28.4</b>	<b>2.0</b>	<b>6.9</b>
13	BPCL	Mumbai	12.7	0.7	5.2	12.8	0.6	4.8	13.4	0.6	4.4	13.5	0.6	4.4
14		Kochi	10.3	0.6	6.3	10.4	0.7	6.3	10.7	0.6	5.9	11.8	0.7	6.1
15		BORL-Bina	5.4	0.5	8.6	6.2	0.5	7.7	6.4	0.5	7.0	6.4	0.6	8.9
16		Numaligarh	2.6	0.3	10.3	2.8	0.3	10.3	2.5	0.3	10.2	2.7	0.3	10.7
		<b>BPCL Total</b>	<b>31.0</b>	<b>2.0</b>	<b>6.6</b>	<b>32.2</b>	<b>2.0</b>	<b>6.3</b>	<b>33.0</b>	<b>1.9</b>	<b>5.9</b>	<b>34.4</b>	<b>2.2</b>	<b>6.3</b>
17	CPCL	Manali	10.1	0.9	9.0	10.2	0.9	8.9	9.1	0.9	9.6	9.8	0.9	9.4
18		CBR	0.6	0.03	4.8	0.5	0.02	4.3	0.5	0.03	4.6	0.5	0.03	4.8
		<b>CPCL Total</b>	<b>10.6</b>	<b>0.9</b>	<b>8.8</b>	<b>10.8</b>	<b>0.9</b>	<b>8.7</b>	<b>9.6</b>	<b>0.9</b>	<b>9.4</b>	<b>10.3</b>	<b>0.9</b>	<b>9.1</b>
19	ONGC	Tatipaka	0.1	0.001	1.3	0.1	0.001	1.4	0.1	0.001	1.7	0.1	0.003	4.1
20		MRPL-Mangalore	14.6	1.1	7.9	14.6	1.5	10.1	15.5	1.5	9.8	16.0	1.6	10.3
		<b>ONGC Total</b>	<b>14.7</b>	<b>1.2</b>	<b>7.9</b>	<b>14.7</b>	<b>1.5</b>	<b>10.1</b>	<b>15.6</b>	<b>1.5</b>	<b>9.8</b>	<b>16.1</b>	<b>1.6</b>	<b>10.2</b>
21	RIL	Jamnagar (DTA)	30.3	2.6	8.5	30.9	2.3	7.5	32.4	2.6	8.0	32.8	2.5	7.5
22		Jamnagar (SEZ)	37.7	3.3	8.8	37.2	3.2	8.7	37.1	3.4	9.2	37.4	3.3	8.9
23	EOL	Vadinar	20.2	1.0	5.1	20.5	1.1	5.3	19.1	1.1	5.8	20.9	1.2	5.6
		<b>Total</b>	<b>222.5</b>	<b>17.9</b>	<b>8.0</b>	<b>223.3</b>	<b>17.8</b>	<b>8.0</b>	<b>232.9</b>	<b>19.1</b>	<b>8.2</b>	<b>245.4</b>	<b>20.2</b>	<b>8.2</b>

Source: Oil companies

**Table 4.11 : Specific energy consumption (MBN number) of PSU refineries**

Company	Refinery	(MBTU/Bbl/NRGF)				
		2012-13	2013-14	2014-15	2015-16 (New MBN)	2016-17 (New MBN)
IOCL	Barauni	58.1	60.5	61.8	81.0	80.5
	Koyali	58.0	59.4	57.1	75.8	74.8
	Haldia	54.9	52.7	51.2	80.1	84.4
	Mathura	59.0	60.5	60.0	73.6	72.5
	Panipat	50.6	49.9	49.0	70.3	64.8
	Guwahati	65.0	58.6	63.7	121.9	111.1
	Digboi	65.0	61.5	60.8	112.4	114.2
	Bongaigaon	74.9	72.9	69.0	91.3	90.3
CPCL	Manali	67.9	64.0	64.5	96.1	92.5
	CBR	102.3	123.2	118.6	113.1	117.9
HPCL	Mumbai	82.6	75.4	79.8	90.5	87.9
	Visakh	85.0	83.6	83.7	81.6	78.9
BPCL	Mumbai	65.5	66.6	69.2	75.1	71.4
	Kochi	79.4	77.4	79.8	77.8	86.3
NRL	Numaligarh	53.3	53.5	51.5	71.1	72.3
MRPL	Mangalore	61.0	60.9	67.5	80.3	79.6
<b>PSU oil cos. average</b>		<b>62.7</b>	<b>61.9</b>	<b>62.9</b>	<b>79.7</b>	<b>78.3</b>

Source: Oil companies

**Table 4.12 : Import / export of crude oil and petroleum products**

Import / export	Crude oil & petroleum products	2013-14			2014-15			2015-16			2016-17 (P)		
		Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value	
		Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)
I M P O R T*	Crude oil	189.2	143.0	864875	189.4	112.7	687416	202.9	64.0	416579	213.9	70.2	470589
	<b>Products</b>												
	LPG	6.6	6.1	37213	8.3	6.0	36571	9.0	3.9	25778	11.0	4.7	31904
	Petrol	0.2	0.2	1481	0.4	0.4	2301	1.0	0.6	4207	0.5	0.2	1617
	Naphtha	1.0	1.0	6044	1.0	0.7	4592	2.9	1.5	9581	2.8	1.3	8212
	Aviation Turbine Fuel	0	0	0	0.1	0.1	706	0.3	0.1	889	0.36	0.2	1149
	Kerosene	0	0	0	0.03	0.03	172	0.04	0.02	158	0	0	0
	Diesel	0.1	0.1	452	0.1	0.1	670	0.2	0.1	605	1.00	0.4	2928
	Lubes	2.1	2.1	12985	2.1	2.1	12702	2.3	1.4	9478	2.1	1.2	8225
	Fuel Oil/LSHS	1.3	0.9	5759	0.9	0.6	3659	1.2	0.4	2380	1.0	0.3	1889
	Bitumen	0.2	0.1	801	0.5	0.3	1623	0.9	0.3	1832	0.9	0.2	1497
	Others**	5.1	1.8	11162	7.7	1.9	11649	11.7	1.6	10454	16.3	2.0	12997
	<b>Total product import</b>	<b>16.7</b>	<b>12.5</b>	<b>75896</b>	<b>21.3</b>	<b>12.1</b>	<b>74644</b>	<b>29.5</b>	<b>10.0</b>	<b>65361</b>	<b>35.9</b>	<b>10.6</b>	<b>70418</b>
<b>Total import (crude oil + product)</b>	<b>205.9</b>	<b>155.4</b>	<b>940771</b>	<b>210.7</b>	<b>124.9</b>	<b>762060</b>	<b>232.3</b>	<b>73.9</b>	<b>481940</b>	<b>249.8</b>	<b>80.8</b>	<b>541008</b>	
E X P O R T	<b>Products</b>												
	LPG	0.2	0.3	1589	0.3	0.2	1455	0.2	0.1	785	0.3	0.2	1168
	Petrol	15.2	15.4	92977	16.0	13.5	81971	16.8	9.1	59575	15.4	7.9	52920
	Naphtha	8.3	7.6	46059	7.0	5.2	31619	7.1	3.1	20057	8.8	3.7	24733
	Aviation Turbine Fuel	5.7	5.5	33246	5.5	4.2	25413	5.7	2.4	16007	7.3	3.3	22294
	Kerosene	0.02	0.02	98	0.02	0.01	81	0.01	0.01	35	0.02	0.01	54
	Diesel	26.5	24.3	148138	25.6	18.9	115149	24.0	10.2	66492	27.3	11.9	79857
	LDO	0.03	0.02	135	0.01	0.005	28	0	0	0	0.1	0.1	343
	Lubes	0.02	0.03	138	0.01	0.02	100	0.02	0.02	127	0.01	0.02	104
	Fuel Oil/LSHS	6.2	3.7	22407	4.8	2.3	14251	2.8	0.7	4471	2.2	0.6	3896
	Bitumen	0.1	0.1	321	0.09	0.04	245	0.1	0.03	176	0.04	0.01	37
	Others***	5.5	3.8	23169	4.7	3.0	18267	3.8	1.4	9054	4.0	1.4	9514
<b>Total product export</b>	<b>67.9</b>	<b>60.7</b>	<b>368279</b>	<b>63.9</b>	<b>47.3</b>	<b>288580</b>	<b>60.5</b>	<b>27.1</b>	<b>176780</b>	<b>65.5</b>	<b>29.1</b>	<b>194920</b>	
<b>Net import</b>	<b>138.1</b>	<b>94.8</b>	<b>572492</b>	<b>146.8</b>	<b>77.6</b>	<b>473481</b>	<b>171.8</b>	<b>46.9</b>	<b>305160</b>	<b>184.3</b>	<b>51.8</b>	<b>346088</b>	
<b>Net product export</b>	<b>51.2</b>	<b>48.2</b>	<b>292383</b>	<b>42.6</b>	<b>35.1</b>	<b>213936</b>	<b>31.1</b>	<b>17.1</b>	<b>111419</b>	<b>29.6</b>	<b>18.4</b>	<b>124502</b>	

Source: Oil companies & DGCIS

**Note:**

- \* Import does not include LNG imports
- \*\* Other imports include Pet coke, Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE & Reformate etc.
- \*\*\* Other exports include VGO, Benzene, Hexane, MTO, Pet coke, CBFS & Sulphur etc.

**Table 4.13 : Exchange rates of Indian Rupee (₹)**

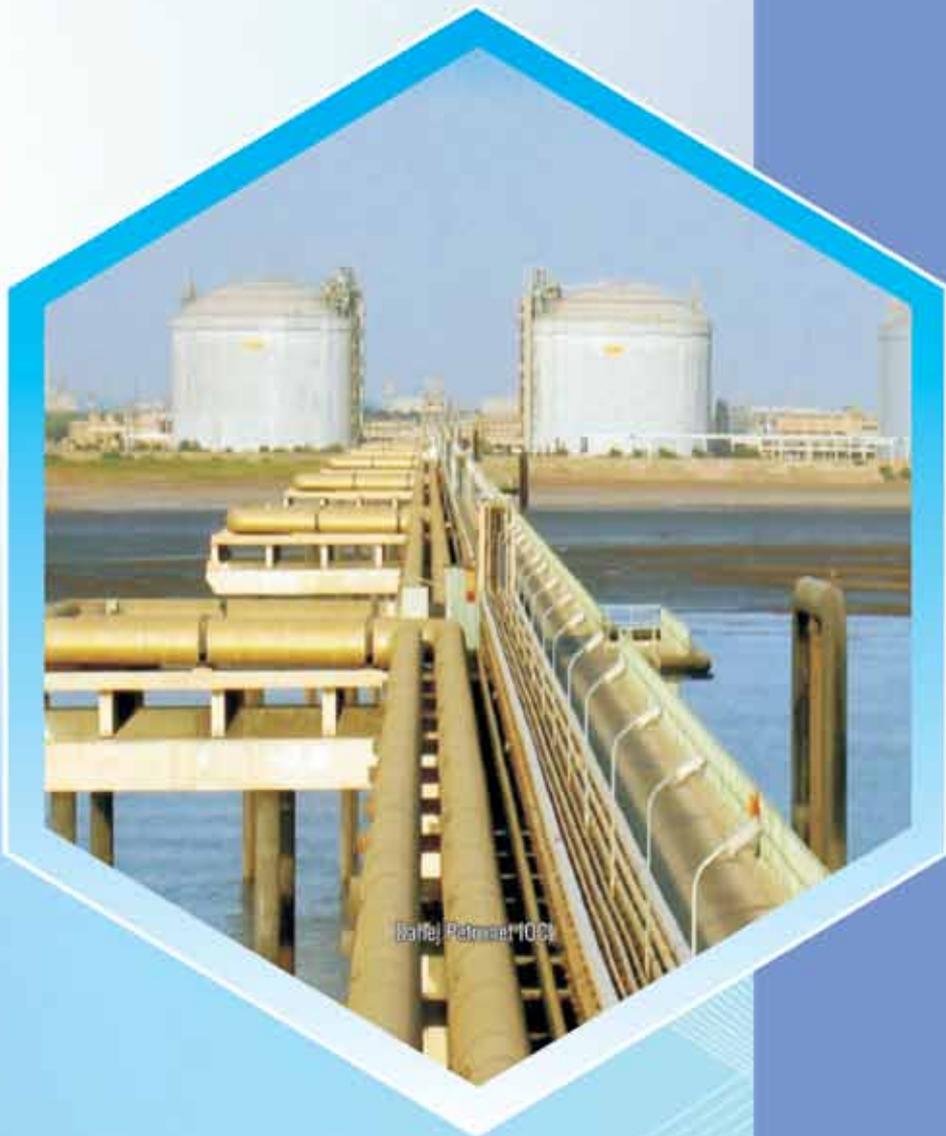
Year	US dollar (\$)	British pound (£)	Euro (€)	Japanese yen (¥)
<b>Indian rupee (₹) / foreign currency</b>				
2002-03	48.41	74.84	48.07	0.40
2003-04	45.92	77.74	54.01	0.41
2004-05	44.95	82.95	56.55	0.42
2005-06	44.28	79.02	53.88	0.39
2006-07	45.29	85.72	58.11	0.39
2007-08	40.24	80.80	56.99	0.35
2008-09	45.91	78.45	65.14	0.46
2009-10	47.42	75.88	67.08	0.51
2010-11	45.58	70.88	60.21	0.53
2011-12	47.95	76.40	65.90	0.61
2012-13	54.45	86.02	70.06	0.66
2013-14	60.50	96.23	81.14	0.60
2014-15	61.15	98.56	77.47	0.56
2015-16	65.46	98.76	72.31	0.55
2016-17	67.09	87.71	73.61	0.62
2017-18 (up to 31.05.2017)	64.46	82.44	70.27	0.58
<b>2017 : Month wise</b>				
Jan-17	68.08	83.86	72.33	0.59
Feb-17	67.08	83.82	71.46	0.59
Mar-17	65.88	81.24	70.34	0.58
Apr-17	64.51	81.54	69.17	0.59
May-17	64.42	83.21	71.23	0.57

**Source:** Reserve Bank of India (RBI) website.

**Note :** The rates are average for the period.



Analysis • Knowledge • Information



Water Pipeline 1001

# Chapter-5

## Major Pipelines in India

## Map of Pipeline Network in India



**Table 5.1 : Gas pipeline network as on 31.03.2017**

Network/Region	Entity	Length (Kms)	Design capacity (mmscmd)	Pipeline size	Average flow 2016-17 (mmscmd)	% Capacity utilisation 2016-17
Hazira-Vijaipur-Jagdishpur Pipeline/ Gas rehabilitation and expansion project Pipeline/Dahej-Vijaipur Pipeline & Spur / Vijaipur Dadri Pipeline	GAIL	4659.00	53.00	36"	33.16	62.57
DVPL-GREP Upgradation (DVPL-2 & VDPL)	GAIL	1119.00	54.00	48"	28.26	52.33
*Chhainsa-Jhajjar-Hissar Pipeline (CJPL) (Including Spur lines) commissioned up to Sultanpur, Jhajjar-Hissar under hold (111 Km)	GAIL	265.00	5.00	36"/16"	0.97	19.34
Dahej-Uran-Panvel Pipeline (DUPL/ DPPL) including Spur Lines	GAIL	875.00	19.90	30"/18"	12.62	63.41
*Dadri-Bawana-Nangal Pipeline (DBPL), Dadri-Bawana: 106 Km, Bawana-Nangal: 501 KM, Spur Line of BNPL: 196 Km.	GAIL	834.80	31.00	36"/30"/ 24"/18"	4.66	15.03
Dabhol-Bengaluru Pipeline (Including spur)	GAIL	1097.00	16.00	36"/4"	1.17	7.32
Kochi-Koottanad-Bengaluru-Mangalore (Phase-1)	GAIL	48.00	6.00	16"/4"	1.03	17.08
Assam (Lakwa)	GAIL	8.00	2.50	24"	0.37	14.80
Tripura (Agartala)	GAIL	61.00	2.30	12"	1.44	62.61
Ahmedabad	GAIL	133.00	2.91	12"	0.26	8.93
Rajasthan (Focus Energy)	GAIL	151.40	2.35	12"	1.44	61.28
Bharuch, Vadodara (Undera) including RLNG+RIL	GAIL	538.00	15.42	24"/16"	4.08	26.47
Mumbai	GAIL	129.00	7.03	26"	6.31	89.76
KG Basin (including RLNG+RIL)	GAIL	881.00	16.00	18"	5.31	33.19
Cauvery Basin	GAIL	278.00	8.66	18"	2.65	30.59
East-West Pipeline (RGTL)	Reliance	1480.00	80.00	48"	17.00	21.25
GSPL network including spur lines	GSPL	2612.00	43.00	Assorted	25.33	58.91
Assam regional network	AGCL, DNPL	816.80	3.24	16" and others	2.25	69.44
Dadri-Panipat	IOCL	140.41	9.50	30"/10"	4.34	45.70
Uran-Trombay	ONGC	24.00	6.00	20"	3.80	63.33
<b>Total</b>		<b>16150.41</b>	<b>383.81</b>		<b>156.44</b>	

Source : Pipeline operating companies

Note :

GSPL network average flow is as on 31.12.2016

\*CJPL and DBPL pipelines are the extension of DVPL-2 / VDPL

**Table 5.2 : Gas pipeline under execution / construction (as on 31.03.2017)**

Sl. no.	Network/Region	Entity	Length in Kms	Design capacity (mmscmd)	Pipeline size	Status of pipeline laid (Km)
1	Kochi - Kottanad - Bengaluru - Mangalore	GAIL(India) Ltd.	1063	16.00	24"/18"/12"	55.45
2	Dabhol - Bengaluru (DBPL)	GAIL(India) Ltd.	315	16.00	36"/30"/24"/18"	77.27
3	Surat - Paradip*	GAIL(India) Ltd.	2112	74.81	36"/24"/18"	0
4	Jagdishpur - Haldia - Bokaro-Dhamra (JHBDPL) (Phase-I, 755 Km, 7.44 MMSCMD capacity)	GAIL(India) Ltd.	2539	16.00	30"/24"/18"/12"/8"/4"	86.6
5	Mallavaram - Bhilwada*	GSPC India Transco Ltd	2042	78.25	42"/36"/30"/24"/18"/12"	0
6	Mehsana - Bathinda *	GSPC India Gasnet Ltd	2052	77.11	36"/24"/18"/12"	0
7	Bathinda -Jammu-Srinagar*	GSPC India Gasnet Ltd	725	42.42	24"/18"/16"/12"/8"/6"	0
8	Kakinada - Vizag-Srikakulam *	AP Gas Distribution Corporation.	391	90.00	24"/18"	0
9	Shadol-Phulpur *	Reliance Gas Pipelines Ltd	312	3.50	16"	304
10	Ennore- Nellore*	Gas Transmission India Pvt. Ltd	250	36.00	24"/18"	0
11	Ennore-Thiruvallur-Bengaluru-Puducherry-Nagapattinam-Madurai-Tuticorin*	Indian Oil Corporation Ltd.	1385	84.67	28"/24"/16"/12"/10"	0
12	Jaigarh-Mangalore*	H-Energy Pvt. Ltd.	635	17.00	24"	0
<b>Total</b>			<b>13821</b>			

Source : PNGRB, GAIL (India) Ltd, Pipeline authorized companies

\*Competitive bidding.

**Table 5.3 : Major crude oil pipelines in India**

Onshore / offshore oil pipelines								
Existing pipelines	Oil company	Onshore/ Offshore	Length in Kms.	Annual capacity (MMT)	2016-17			Remarks
					Capacity as on 31.03.2017 (MMT)	Actual quantity (MMT)	Utilisation %	
				(MMT)	(MMT)	(MMT)		
CTF (Central Tank Farm) Kalol to CTF Nawagam - New (New line commissioned in Aug'2010)	ONGC	Onshore	62.5	3.1	3.1	1.0	32.8	
Nawagam-Koyali (18" line)		Onshore	78.4	5.4	5.4	2.2	41.2	
Nawagam-Koyali (14" line)		Onshore	78.4	3.3	3.3	1.4	41.2	78 km X 14" Nawagam-Koyali line was given on lease to IOC in 2000 and was handed back to ONGC on 1st Apr.'10. The line was restored and re-commissioned in Oct.'12.
MHN-NGM (Mehsana-Nawagam) trunk line - New (New crude oil trunk line commissioned. Under operation since Dec'2010)		Onshore	77.0	2.3	2.3	2.1	91.5	
CTF (Central Tank Farm), Ankleshwar to Koyali oil pipeline (AKCL- Ankleshwar Koyali Crude Line) (1)		Onshore	94.8	2.2	2.2	0.9	38.8	
CTF (Central Tank Farm), Ankleshwar to CPF (Central Processing Facility), Gandhar		Onshore	44.3	0.4	0.4	0.0	0.0	Crude oil from CTF Ankleshwar was being dispatched to CPF, Gandhar through 8" X 44.30 km pipeline up to 25.8.2013. Crude oil dispatched includes crude oil of PSC and JV also. After damage / rupture of 8" CTF to CPF line on 25.08.2013, this line is not in use.
CPF (Central Processing Facility), Gandhar to Saraswani 'T' point		Onshore	56.7	1.8	1.8	0.7	37.3	Length and capacity includes length capacity of branch lines from GNAQ (well) and Dabka meeting at Magnad 'T' point and Mobha 'T' point respectively.
Akholjuni- Koyali oil pipe line (Commissioned in July 2010). Akholjuni to Laxmipura 'T' point		Onshore	65.5	0.5	0.5	0.2	33.8	
Lakwa-Moran oil line (New)		Onshore	17.5	1.5	1.5	0.2	14.7	New line commissioned on 22.08.2016
Lakwa-Moran oil line (Old)		Onshore	14.6	1.5	1.5	0.1	7.4	
Geleki-Jorhat oil line		Onshore	48.5	1.5	1.5	0.5	31.4	
Borholla- Jorhat line		Onshore	42.8	0.6	0.6	0.1	23.2	
NRM (Narimanam) to CPCL (Chennai Petroleum Corporation Limited)		Onshore	4.9	0.7	0.7	0.3	37.8	
KSP-WGGS to TPK Refinery (Kesnapalli-West-Group Gathering Station to Tatipaka)		Onshore	13.5	0.1	0.1	0.0	19.3	
GMAA EPT (Gopavaram Early Production Terminal) to S. Yanam Unloading Terminal (3.5 Km long and 4"). New line commissioned on 28.07.10		Onshore	3.5	0.1	0.1	0.1	70.0	
Mumbai High - Uran - Trunk (MUT) 30" pipeline	Offshore	204.0	15.6	15.6	9.3	59.6		
Heera - Uran - Trunk (HUT) 24" pipeline	Offshore	81.0	11.5	11.5	3.6	30.9		
Bombay-Uran Trunk (BUT) 30" pipeline	Offshore	203.0	6.4	6.4	0.01	0.1	Derated capacity: 6.38 MMTPA. (Design capacity: 18 MMTPA)	
Salaya-Mathura pipeline (SMPL) (1)	IOCL	Onshore	2576.0	25.0	23.6	26.1	110.7	
Paradip-Haldia-Barauni pipeline (PHBPL) (2)		Onshore	1447.0	15.2	11.0	16.6	150.4	
Mundra-Panipat pipeline		Onshore	1194.0	8.4	8.4	8.6	102.6	
Duliajan-Digboi-Bongaigaon-Barauni pipeline	OIL	Onshore	1193.0	8.4	8.4	6.6	78.4	
Mangla-Bhogat pipeline	CAIRN	Onshore	660.0	8.7	8.7	8.1	92.8	
Mundra- Bathinda pipeline	HMPL	Onshore	1017.0	9.0	9.0	10.5	116.9	
Vadinar-Bina pipeline	BPCL / BORL	Onshore	937.0	6.0	6.0	6.4	107.0	

Source: Oil companies

Note:

ONGC:

(1) CTF Ankleshwar to Makan 'T' point section i.e. HOEC Junction (about 47.51 km) of CTF Ankleshwar-Koyali Refinery trunk pipeline was not in use up to August 2013. After damage / rupture of 8" CTF to CPF line on 25.08.2013, CTF to Koyali Trunk pipeline is in use from 31.08.2013 for dispatch of Ankleshwar crude oil including PSC & JV. CTF Ankleshwar to Koyali Crude Line (AKCL) actual quantity includes Ankleshwar, PSC, JV and Cambay crude oil also.

IOCL:

(1) SMPL SV section Surendranagar-Virangam loopline commissioned on 07.08.2016. Capacity augmented to 25 MMTPA. Virangam-Sidhpur 28" line and Abu Road-Rajola section 28" line commissioned in 2016-17.

(2) PHBPL Capacity augmented from 11 MMTPA to 15.2 MMTPA with commissioning of Balasore pump station on 29.03.2017

**Table 5.4 : Major petroleum products pipeline in India**

Pipeline	Oil company	Onshore/offshore	Length in KMs	Annual capacity (MMT)	2016-17			
					Capacity as on 31.03.2017 (MMT)	Actual quantity (MMT)	Utilisation %	
<b>Petroleum products pipelines</b>								
Barauni - Kanpur pipeline	IOCL	Onshore	745	3.5	3.5	2.5	72.0	
Guwahati -Siliguri pipeline		Onshore	435	1.4	1.4	2.0	139.5	
Haldia-Barauni pipeline		Onshore	526	1.25	1.25	1.4	115.8	
Haldia-Mourigram-Rajbandh pipeline		Onshore	277	1.35	1.35	1.8	130.7	
Koyali-Ahmedabad pipeline		Onshore	116	1.1	1.1	0.8	74.7	
Koyali-Sanganer pipeline		Onshore	1288	4.6	4.6	3.5	77.0	
Koyali-Ratlam pipeline		Onshore	265	2	2	1.5	73.2	
Koyali-Dahej pipeline		Onshore	197	2.6	2.6	0.5	19.4	
Mathura-Tundla pipeline		Onshore	56	1.2	1.2	0.4	55.9	
Mathura-Bharatpur pipeline		Onshore	21			0.3		
Mathura-Delhi pipeline		Onshore	147	3.7	3.7	2.6	71.5	
Panipat-Amabala-Jalandhar (Including Kurukshetra-Roorkee-Najibabad branch line)		Onshore	434	3.5	3.5	3.0	84.7	
Panipat-Delhi (Including Sonapat-Meerut branch line) pipeline		Onshore	189	3	3	1.2	38.4	
Panipat Bijwasan ATF Pipeline (1)		Onshore	111					
Panipat-Bathinda pipeline		Onshore	219	1.5	1.5	1.5	100.3	
Panipat-Rewari pipeline		Onshore	155	2.1	2.1	1.6	77.8	
Chennai-Trichy-Madurai pipeline		Onshore	683	2.3	2.3	2.8	120.2	
Chennai - Meenambakkam ATF pipeline		Onshore	95	0.18	0.18	0.2	103.3	
Chennai-Bengaluru pipeline		Onshore	290	2.45	2.45	1.5	60.2	
Digboi - Tinsukia pipeline		Onshore	75	1	1	0.4	43.5	
Devangonthi - Devanhalli pipeline		Onshore	36	0.66	0.66	0.2	33.5	
Paradip-Raipur-Ranchi pipeline (PRRPL) (2)		Onshore	857	5	5	0.9	18.2	
Mumbai-Manmad-Bijwasan pipeline		BPCL	Onshore	1389	6.0	6.0	6.7	110.9
Bina-Kota pipeline	Onshore		259	4.4	4.4	3.0	67.4	
ATF P/L Mumbai Refinery (MR)-Santacruz	Onshore		15	1.4	1.4	0.9	60.0	
ATF P/L Kochi Refinery (KR)-Kochi airport	Onshore		34	0.6	0.6	0.2	39.5	
Kota - Jobner pipeline (1)	Onshore		210	1.7	1.7	0.4	23.2	
Cochin-Coimbatore-Karur (CCK) pipeline	Petronet CCK	Onshore	293	3.3	3.3	2.8	84.2	
Mumbai-Pune-Solapur pipeline	HPCL	Onshore	508	4.3	4.3	4.1	96.1	
Vizag-Vijaywada-Secunderabad pipeline		Onshore	572	5.4	5.4	5.0	93.4	
Mundra-Delhi pipeline		Onshore	1054	5.0	5.0	2.5	50.1	
Ramanandi-Bahadurgarh pipeline		Onshore	243	4.7	4.7	4.7	100.2	
Ramanandi-Bathinda pipeline		Onshore	30	1.1	1.1	0.9	76.7	
Awa-Salawas pipeline		Onshore	93	2.3	2.3	0.6	26.2	
Bahadurgarh-Tikrikalan pipeline		Onshore	14	0.8	0.8	0.5	71.5	
Rewari- Kanpur Pipeline (1)		Onshore	443	8.0	8.0	1.9	23.9	
ATF pipeline from Mumbai Refinery to Mumbai Airport		Onshore	19.65	1.1	1.1	0.4	37.3	
Mangalore-Hassan-Bengaluru (MHB) pipeline (1)		Petronet MHB	Onshore	362	2.1	2.1	3.4	160.0
Numaligarh-Siliguri pipeline		OIL	Onshore	654	1.7	1.7	1.8	103.5
<b>LPG pipelines</b>								
Panipat-Jalandhar pipeline	IOCL	Onshore	274	0.7	0.7	0.6	81.9	
Mumbai-Uran pipeline (2)	BPCL	Onshore/offshore	28	0.8	0.8	0.4	45.8	
Mangalore-Hassan-Mysore-Solur LPG (2)	HPCL	Onshore	356	1.9	1.9	0.1	5.9	
Jamnagar-Loni pipeline	GAIL	Onshore	1414	2.5	2.5	2.4	97.5	
Vizag-Secunderabad pipeline		Onshore	618	1.3	1.3	0.9	69.5	

Source: Oil companies

Note:

IOCL

(1) Bijwasan Panipat Naphtha Pipeline was converted to dedicated ATF service in June 2016

(2) In PRRPL, pipeline connectivity to Sambalpur, Jharsugudha, Raipur and Korba along with delivery of products to these terminals commenced in 2016-17

BPCL

(1) Kota-Jobner Pipeline is a branch pipeline of Mumbai Manmad Bijwasan pipeline with annual capacity of 1.7 MMTPA & its throughput is included in MMBPL & BKPL.

(2) LPG Pipeline :Throughput of MUPL :BPCL-313.67TMT & HPCL :52.5 TMT

HPCL

(1) Rewari Kanpur pipeline was commissioned on 08.10.2015.

(2) Mangalore-Hassan-Mysore-Solur LPG commissioned on 23.10.16

**Mangalore-Hassan-Bengaluru (MHB) pipeline**

(1) 5.60 MMT is designed capacity and 2.143 MMT is modified revised capacity.



Analysis • Knowledge • Information



## Chapter-6

## Sales

**Table 6.1 : Consumption of petroleum products**

(Million metric tonnes)

Products	11 <sup>th</sup> Plan					12 <sup>th</sup> Plan				
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
LPG	12.0	12.2	13.1	14.3	15.3	15.6	16.3	18.0	19.6	21.5
MS	10.3	11.3	12.8	14.2	15.0	15.7	17.1	19.1	21.8	23.8
Naphtha	13.3	13.9	10.1	10.7	11.2	12.3	11.3	11.1	13.3	13.3
ATF	4.5	4.4	4.6	5.1	5.5	5.3	5.5	5.7	6.3	7.0
SKO	9.4	9.3	9.3	8.9	8.2	7.5	7.2	7.1	6.8	5.4
HSD	47.7	51.7	56.2	60.1	64.8	69.1	68.4	69.4	74.6	76.0
LDO	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Lubes	2.3	2.0	2.5	2.4	2.6	3.2	3.3	3.3	3.6	3.4
FO/LSHS	12.7	12.6	11.6	10.8	9.3	7.7	6.2	6.0	6.6	7.2
Bitumen	4.5	4.7	4.9	4.5	4.6	4.7	5.0	5.1	5.9	5.9
Others	11.6	10.9	12.0	9.6	11.1	15.6	17.7	20.4	25.6	30.3
<b>All India</b>	<b>128.9</b>	<b>133.6</b>	<b>137.8</b>	<b>141.0</b>	<b>148.1</b>	<b>157.1</b>	<b>158.4</b>	<b>165.5</b>	<b>184.7</b>	<b>194.2</b>
<b>Growth (%)</b>	<b>6.8</b>	<b>3.6</b>	<b>3.2</b>	<b>2.3</b>	<b>5.0</b>	<b>6.0</b>	<b>0.9</b>	<b>4.5</b>	<b>11.6</b>	<b>5.2</b>

**Source:** Oil Companies and Directorate General of Commercial Intelligence and Statistics (DGCIS)  
(Oil company sales + private imports = consumption)

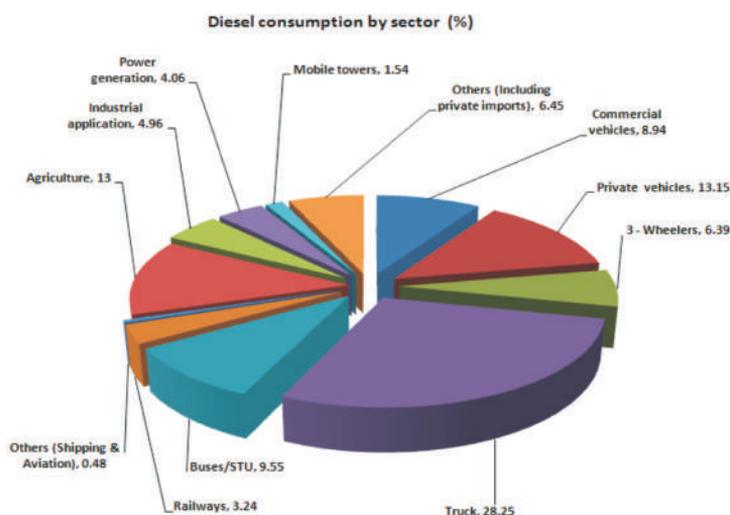
**Table 6.2 : Petroleum products demand & Gross Domestic Product (GDP) during Plan periods**

Plan period	7 <sup>th</sup> Plan (1985-90)	8 <sup>th</sup> Plan (1992-97)	9 <sup>th</sup> Plan (1997-02)	10 <sup>th</sup> Plan (2002-07)	11 <sup>th</sup> Plan (2007-12)	12 <sup>th</sup> Plan (2012-17)
POL demand CAGR (%)	6.9	6.8	4.9	3.8	4.2	5.6
GDP growth CAGR (%)	6.0	6.8	5.5	7.7	7.9	6.9

**Note:** As per new series

**End-use analysis of HSD sales (as of 2012-13)**

Sl. no.	End-use sectors	% of Total sales *
(I)	(II)	(III)
<b>1</b>	<b>Transport, of which</b>	<b>70.00</b>
a	Commercial vehicles	8.94
b	Private vehicles	13.15
c	3 - Wheelers	6.39
d	Truck	28.25
e	Buses/STU	9.55
f	Railways	3.24
g	Others (Shipping & Aviation)	0.48
<b>2</b>	<b>Agriculture</b>	<b>13.00</b>
<b>3</b>	<b>Industrial application</b>	<b>4.96</b>
<b>4</b>	<b>Power generation</b>	<b>4.06</b>
<b>5</b>	<b>Mobile towers</b>	<b>1.54</b>
<b>6</b>	<b>Others (Including private imports)</b>	<b>6.45</b>
	<b>Total</b>	<b>100.0</b>



\* Figures include consumption through retail & direct sales. End use sector wise break up as per PPAC survey and direct sales as reported by oil companies for the year 2012-13.

**Table 6.3 : State-wise sales of selected petroleum products : 2016-17 (P)**

(Sales figures in thousand metric tonnes)										
State/UT	LPG		MS		SKO		HSD		Total (All products)*	
	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Total sales	Per capita sales (Kg)
Chandigarh	52.2	49.5	97.0	91.9	0.1	0.1	102.1	96.8	388.0	367.9
Delhi	797.8	47.6	906.1	54.1	0.8	0.0	1267.5	75.7	4881.7	291.4
Haryana	674.7	26.6	873.3	34.4	31.4	1.2	4952.3	195.3	10722.8	422.9
Himachal Pradesh	142.3	20.7	183.1	26.7	17.6	2.6	586.1	85.5	1707.6	249.0
Jammu and Kashmir	172.1	13.7	209.6	16.7	135.5	10.8	585.0	46.6	1257.5	100.2
Punjab	823.5	29.7	805.8	29.1	50.9	1.8	3348.1	120.9	6345.1	229.0
Rajasthan	1107.9	16.1	1298.3	18.9	279.0	4.1	5211.5	75.9	10983.2	160.1
Uttar Pradesh	2703.4	13.5	2423.4	12.1	915.2	4.6	7705.6	38.6	15926.7	79.8
Uttarakhand	249.6	24.7	263.8	26.1	27.7	2.7	721.8	71.3	1486.2	146.9
<b>SUB TOTAL NORTH</b>	<b>6723.4</b>	<b>18.2</b>	<b>7060.3</b>	<b>19.2</b>	<b>1458.1</b>	<b>4.0</b>	<b>24479.9</b>	<b>66.4</b>	<b>53698.8</b>	<b>145.7</b>
Andaman & Nicobar Islands	9.5	24.9	15.1	39.7	3.8	10.1	126.7	333.5	186.0	489.5
Bihar	943.8	9.1	610.1	5.9	549.0	5.3	2181.3	21.0	4755.6	45.8
Jharkhand	249.8	7.6	375.1	11.4	170.5	5.2	1633.1	49.5	2920.6	88.6
Odisha	476.8	11.4	614.9	14.7	220.3	5.3	2331.1	55.6	5176.9	123.4
West Bengal	1427.0	15.6	725.5	7.9	616.6	6.7	3096.1	33.9	7505.2	82.2
<b>SUB TOTAL EAST</b>	<b>3106.9</b>	<b>11.5</b>	<b>2340.7</b>	<b>8.7</b>	<b>1560.3</b>	<b>5.8</b>	<b>9368.3</b>	<b>34.6</b>	<b>20544.3</b>	<b>76.0</b>
Arunachal Pradesh	17.8	12.9	35.4	25.6	13.2	9.5	132.4	95.8	224.9	162.7
Assam	325.0	10.4	307.8	9.9	225.4	7.2	860.7	27.6	2235.9	71.7
Manipur	23.7	8.7	41.8	15.4	12.2	4.5	80.1	29.4	163.2	59.9
Meghalaya	18.8	6.3	73.0	24.6	17.8	6.0	299.2	100.9	428.0	144.4
Mizoram	22.1	20.3	24.9	22.8	4.7	4.3	61.5	56.3	117.3	107.5
Nagaland	19.9	10.1	34.4	17.4	7.2	3.6	64.3	32.5	132.3	66.8
Sikkim	12.9	21.2	16.5	27.2	10.1	16.7	60.7	99.9	104.3	171.7
Tripura	37.6	10.2	41.5	11.3	26.9	7.3	90.5	24.6	214.7	58.5
<b>SUB TOTAL NORTH EAST</b>	<b>477.8</b>	<b>10.5</b>	<b>575.4</b>	<b>12.6</b>	<b>317.5</b>	<b>7.0</b>	<b>1649.4</b>	<b>36.2</b>	<b>3620.5</b>	<b>79.4</b>
Chhattisgarh	232.4	9.1	452.8	17.7	94.8	3.7	1494.8	58.5	2910.2	113.9
Dadra & Nagar Haveli	16.6	48.5	19.6	57.2	1.3	3.8	206.7	602.9	438.3	1278.4
Daman & Diu	10.0	41.3	20.6	84.7	0.4	1.8	102.4	421.7	219.6	904.2
Goa	62.6	42.9	162.2	111.3	2.0	1.4	343.8	235.9	779.6	534.8
Gujarat	970.9	16.1	1665.6	27.6	387.1	6.4	4994.1	82.7	18987.9	314.5
Madhya Pradesh	838.7	11.6	1109.5	15.3	333.5	4.6	3211.9	44.2	6962.3	95.9
Maharashtra	2634.5	23.4	3025.0	26.9	413.1	3.7	8071.3	71.8	19337.5	172.1
<b>SUB TOTAL WEST</b>	<b>4765.8</b>	<b>17.5</b>	<b>6455.1</b>	<b>23.7</b>	<b>1232.4</b>	<b>4.5</b>	<b>18425.0</b>	<b>67.5</b>	<b>49635.3</b>	<b>181.9</b>
Andhra Pradesh	1014.4	20.5	944.6	19.1	151.3	3.1	3467.4	70.2	6584.8	133.4
Karnataka	1448.4	23.7	1799.1	29.4	205.7	3.4	5936.9	97.1	11459.4	187.5
Kerala	852.3	25.5	1238.0	37.1	80.0	2.4	2536.6	76.0	5724.4	171.5
Lakshadweep	0.3	5.1	0.0	0.0	0.7	11.3	12.6	195.6	13.8	213.8
Puducherry	41.5	33.3	120.1	96.5	3.0	2.4	337.5	271.2	542.6	436.0
Tamil Nadu	1910.2	26.5	2254.7	31.3	281.8	3.9	6468.0	89.7	13285.5	184.2
Telangana	836.5	23.7	976.9	27.7	105.2	3.0	3294.9	93.4	6133.5	173.8
<b>SUB TOTAL SOUTH</b>	<b>6103.6</b>	<b>24.2</b>	<b>7333.3</b>	<b>29.0</b>	<b>827.8</b>	<b>3.3</b>	<b>22054.0</b>	<b>87.3</b>	<b>43743.9</b>	<b>173.2</b>
<b>All India</b>	<b>21177.5</b>	<b>17.5</b>	<b>23764.8</b>	<b>19.6</b>	<b>5396.0</b>	<b>4.5</b>	<b>75976.5</b>	<b>62.8</b>	<b>171242.8</b>	<b>141.5</b>

Source: Oil companies

Note:

\* Total (all product) sales include other petroleum products such as Naphtha, FO, ATF, Lubricants, Bitumen, etc.

- Per capita sales figures are based on provisional sales figures for the period April 2016-March 2017

- Population figures have been taken from Census of India, 2011

Highest per capita

**Table 6.4 : PDS SKO allocation**

State/UT	2012-13	2013-14	2014-15	2015-16	2016-17
Chandigarh	3960	3528	3324	2988	0
Delhi	53904	21636	0	0	0
Haryana	95076	91260	90144	88344	66252
Himachal Pradesh	25140	24660	24636	24144	18120
Jammu & Kashmir	94698	94698	90198	81180	73056
Punjab	103884	90132	89664	85380	74334
Rajasthan	510960	508764	505284	495180	371400
Uttar Pradesh	1602148	1590000	1589388	1557600	1168212
Uttarakhand	37932	36168	35916	35196	31692
<b>SUB TOTAL NORTH</b>	<b>2527702</b>	<b>2460846</b>	<b>2428554</b>	<b>2370012</b>	<b>1803066</b>
Andaman & Nicobar Islands	7236	6912	6408	5772	5160
Bihar	817212	814068	812964	796704	710736
Jharkhand	269988	268704	267936	262572	219696
Odisha	399768	398988	397680	389724	292296
West Bengal	964464	963528	962580	943332	788868
<b>SUB TOTAL EAST</b>	<b>2458668</b>	<b>2452200</b>	<b>2447568</b>	<b>2398104</b>	<b>2016756</b>
Arunachal Pradesh	11556	11479	11460	10320	9288
Assam	328152	327966	327924	321372	289248
Manipur	25344	24967	24960	23388	21060
Meghalaya	25944	25943	25944	25428	22884
Mizoram	7836	7800	7416	6672	6012
Nagaland	17100	17100	17088	16752	15084
Sikkim	6348	6348	6348	5712	4296
Tripura	39180	39179	39180	38400	34560
<b>SUB TOTAL NORTH EAST</b>	<b>461460</b>	<b>460782</b>	<b>460320</b>	<b>448044</b>	<b>402432</b>
Chhattisgarh	186240	180072	175788	172272	135384
Dadra & Nagar Haveli	2280	2280	2040	1836	1656
Daman & Diu	912	876	876	828	756
Goa	5460	5244	5244	5136	4620
Gujarat	673584	673416	670752	657336	493008
Madhya Pradesh	625980	625668	625572	589824	442368
Maharashtra	945720	730464	695844	626256	563640
<b>SUB TOTAL WEST</b>	<b>2440176</b>	<b>2218020</b>	<b>2176116</b>	<b>2053488</b>	<b>1641432</b>
Andhra Pradesh	465996	465996	320580	266676	225696
Karnataka	522888	522888	522768	509832	287532
Kerala	125196	120192	120180	117780	88344
Lakshadweep	1008	1008	1008	984	936
Puducherry	4668	4440	4344	4260	3840
Tamil Nadu	482244	348696	348696	341724	307560
Telengana	-	-	145404	174480	155436
<b>SUB TOTAL SOUTH</b>	<b>1602000</b>	<b>1463220</b>	<b>1462980</b>	<b>1415736</b>	<b>1069344</b>
<b>All India</b>	<b>9490006</b>	<b>9055068</b>	<b>8975538</b>	<b>8685384</b>	<b>6933030</b>

Source: MoP&NG

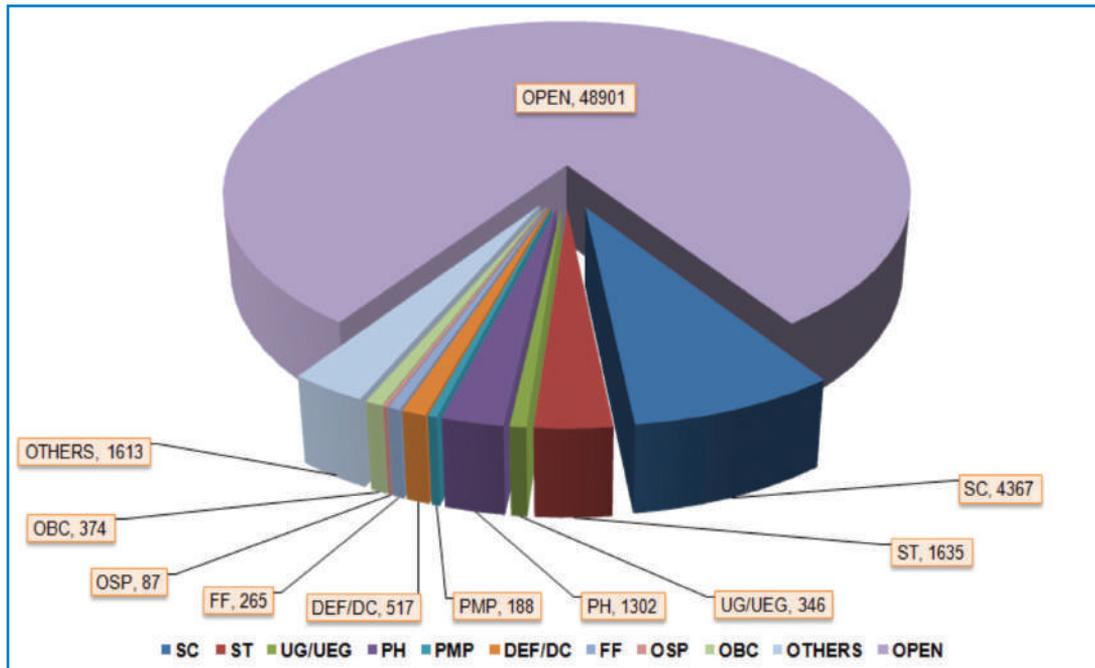
Note: Delhi and Chandigarh have been declared Kerosene free from Q3, 2013-14 and Q1, 2016-17 respectively. Panjab and Haryana have been declared Kerosene free from Q1, 2017-18.

**Table 6.5 : Oil industry Retail Outlets & SKO / LDO agencies**

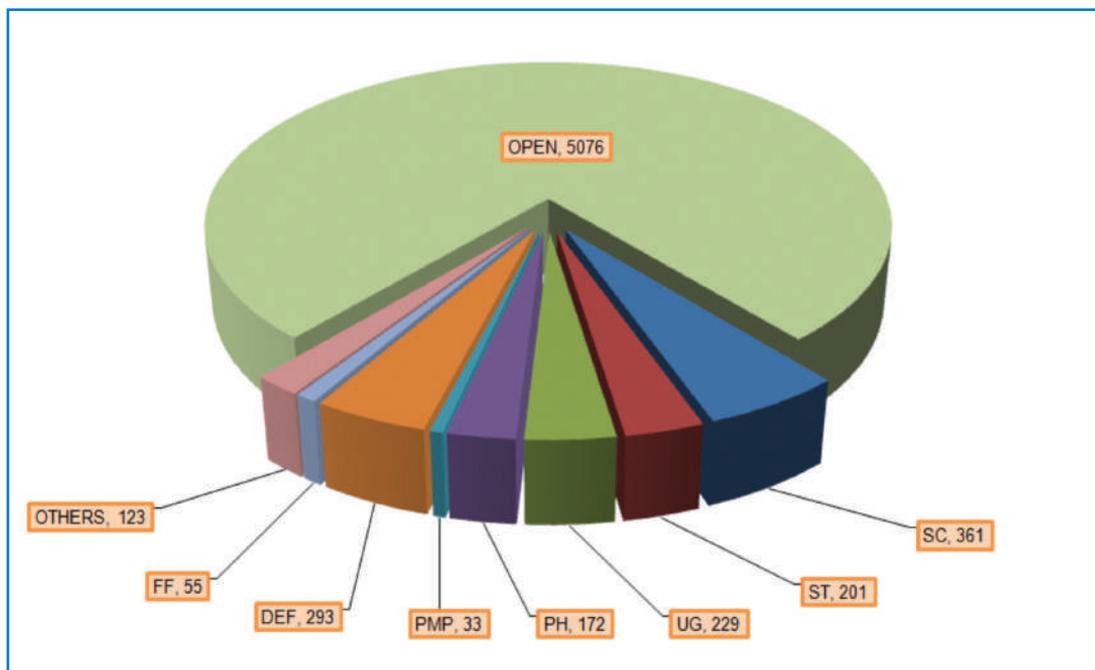
State/UT	No. of Retail Outlets					No. of SKO / LDO dealers				
	As on 01.04.2013	As on 01.04.2014	As on 01.04.2015	As on 01.04.2016	As on 01.04.2017 (P)	As on 01.04.2013	As on 01.04.2014	As on 01.04.2015	As on 01.04.2016	As on 01.04.2017 (P)
Chandigarh	41	41	41	41	41	12	12	12	12	12
Delhi	408	403	394	395	396	116	116	117	116	116
Haryana	2151	2333	2419	2534	2726	143	142	141	141	141
Himachal Pradesh	359	361	382	396	414	26	26	26	26	26
Jammu and Kashmir	453	469	475	485	494	47	47	47	47	47
Punjab	3193	3229	3248	3316	3380	242	241	241	239	237
Rajasthan	3135	3327	3465	3736	4116	251	250	252	250	250
Uttar Pradesh	5680	6013	6247	6616	7069	695	695	696	696	696
Uttarakhand	483	505	514	551	570	72	72	73	73	73
<b>SUB TOTAL NORTH</b>	<b>15903</b>	<b>16681</b>	<b>17185</b>	<b>18070</b>	<b>19206</b>	<b>1604</b>	<b>1601</b>	<b>1605</b>	<b>1600</b>	<b>1598</b>
Andaman & Nicobar Islands	9	9	9	10	12	2	2	2	2	2
Bihar	2167	2316	2385	2511	2604	373	372	372	372	372
Jharkhand	1027	1062	1082	1151	1189	86	86	87	87	87
Odisha	1369	1438	1464	1560	1640	177	177	177	177	177
West Bengal	2120	2183	2178	2244	2298	469	469	458	458	458
<b>SUB TOTAL EAST</b>	<b>6692</b>	<b>7008</b>	<b>7118</b>	<b>7476</b>	<b>7743</b>	<b>1107</b>	<b>1106</b>	<b>1096</b>	<b>1096</b>	<b>1096</b>
Arunachal Pradesh	70	71	71	71	74	33	33	33	33	33
Assam	720	753	759	788	828	359	359	359	359	359
Manipur	73	80	83	85	85	36	36	36	36	36
Meghalaya	170	175	179	190	198	35	35	35	35	35
Mizoram	30	32	33	36	37	19	19	19	19	19
Nagaland	68	68	68	69	70	19	19	19	19	19
Sikkim	43	44	46	47	50	12	12	12	12	12
Tripura	56	63	64	67	68	40	40	40	40	40
<b>SUB TOTAL NORTH EAST</b>	<b>1230</b>	<b>1286</b>	<b>1303</b>	<b>1353</b>	<b>1410</b>	<b>553</b>	<b>553</b>	<b>553</b>	<b>553</b>	<b>553</b>
Chhattisgarh	886	998	1040	1108	1176	109	109	108	108	108
Dadra & Nagar Haveli	21	27	31	31	31	2	2	2	2	2
Daman & Diu	25	31	31	31	32	5	5	5	5	5
Goa	104	109	111	114	115	21	21	22	22	22
Gujarat	2770	2910	3050	3384	3765	493	493	480	480	478
Madhya Pradesh	2630	2873	3005	3269	3528	279	279	285	284	284
Maharashtra	4644	5025	5207	5419	5684	775	774	769	767	767
<b>SUB TOTAL WEST</b>	<b>11080</b>	<b>11973</b>	<b>12475</b>	<b>13356</b>	<b>14331</b>	<b>1684</b>	<b>1683</b>	<b>1671</b>	<b>1668</b>	<b>1666</b>
Andhra Pradesh	4502	4710	2811	3004	3197	603	603	394	394	394
Karnataka	3306	3621	3737	3836	4027	325	322	325	324	323
Kerala	1880	1900	1932	2009	2048	242	242	237	237	237
Lakshadweep	0	0	0	0	0	0	0	0	0	0
Puducherry	144	150	153	156	160	8	8	8	8	8
Tamil Nadu	4340	4541	4616	4702	5039	465	465	468	466	466
Telangana	0	0	2088	2228	2434	0	0	202	202	202
<b>SUB TOTAL SOUTH</b>	<b>14172</b>	<b>14922</b>	<b>15337</b>	<b>15935</b>	<b>16905</b>	<b>1643</b>	<b>1640</b>	<b>1634</b>	<b>1631</b>	<b>1630</b>
<b>All India</b>	<b>49077</b>	<b>51870</b>	<b>53418</b>	<b>56190</b>	<b>59595</b>	<b>6591</b>	<b>6583</b>	<b>6559</b>	<b>6548</b>	<b>6543</b>

Source: Oil companies (Includes dealers of private oil companies)

**Category wise retail outlets as on 01.04.2017 : Total nos. 59595**



**Category wise SKO/LDO agencies as on 01.04.2017 : Total nos. 6543**



**Source:** Oil companies

**Note:**

- (1) SC: Scheduled Caste; ST: Scheduled Tribe; UG: Unemployed Graduate; UEG: Unemployed Engineering Graduate.; PH: Physically Handicapped; DEF: Defence Category; FF: Freedom Fighter; OSP: Outstanding Sports Persons, OBC: Other Backward Classes ; PMP: Para Military/Police/Govt. Personnel, Others: Includes Social Worker Category, Dealerships given on compassionate grounds/ under discretionary quota, 2/3 wheeler outlets and Company Owned and Operated outlets, Operation Vijay.
- (2) Open category also includes private retail outlets for which category-wise breakup is not available.

**Table 6.6 : Industry marketing infrastructure as on 01.04.2017 (P)**

Particulars	IOCL	BPCL	HPCL	RIL	ESSAR	Shell	Others	Total
POL terminal/depots (Nos.)	131	83	82	18\$	2	-	6*	322
Aviation fuel stations (Nos.)	104	42	37	27	-	-	1@	211
Retail Outlets (total) (Nos.)	26212	13983	14412	1400	3499	85	4^	59595
LPG distributors (total) (Nos.) (PSUs only)	9570	4684	4532	-	-	-	-	18786
SKO/LDO agencies (Nos.)	3904	1001	1638	-	-	-	-	6543
LPG bottling plants (Nos.) (PSUs only)	91	50	47	-	-	-	1#	189
LPG bottling capacity (TMTPA) (PSUs only)	8905	3663	3672	-	-	-	24~	16264
Rural ROs (Nos.)	7051	2492	3056	127	1168	11	-	13905
RGGLVY (Nos.)	2899	1455	1407	-	-	-	-	5761
LPG registered domestic consumers (Nos. crore) (PSUs only)	11.39	5.95	6.12	-	-	-	-	23.5

Source: Oil companies

Note:

\$ RIL- 5 Terminals and 13 mini Depots

\* MRPL-4 and NRL-2; @ Shell MRPL-1; ^ MRPL-4

# NRL-1; ~ NRL-24

**Table 6.8 : Break-up of consumption data (PSU and Private)**

(Thousand metric tonne)

Product	2014-15			2015-16			2016-17 (P)		
	PSU	Private	Total	PSU	Private	Total	PSU	Private	Total
LPG	17571	429	18000	19134	489	19623	21177	371	21548
MS	18588	487	19075	21079	768	21847	22518	1247	23765
Naphtha	4814	6268	11082	4790	8481	13271	4903	8351	13254
ATF	5319	404	5723	5629	632	6262	6187	832	7019
SKO	7087	0	7087	6826	0	6826	5396	0	5396
HSD	68701	715	69416	72092	2555	74647	71446	4566	76012
LDO	365	0	365	407	0	407	448	0	448
Lubes	1162	2148	3310	1312	2259	3571	1339	2075	3414
FO/LSHS	5167	794	5961	5665	968	6632	6007	1181	7188
Bitumen	4366	707	5073	4819	1118	5938	4721	1168	5889
PetCoke	2391	12167	14557	3483	15815	19297	3952	19636	23589
Others	2085	3785	5870	2299	4053	6352	2803	3889	6692
<b>Total</b>	<b>137616</b>	<b>27904</b>	<b>165520</b>	<b>147535</b>	<b>37139</b>	<b>184674</b>	<b>150897</b>	<b>43317</b>	<b>194214</b>

Source: Oil companies

Note : Private consumption also include private imports



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# Chapter-7

## LPG

**Table 7.1 : LPG marketing at a glance**

(Thousand metric tonne )					
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
<b>LPG Production</b>	<b>9830</b>	<b>10032</b>	<b>9840</b>	<b>10600</b>	<b>11252</b>
<b>LPG Consumption</b>	<b>15601</b>	<b>16294</b>	<b>18000</b>	<b>19623</b>	<b>21548</b>
<b>PSU Sales</b>	<b>15202</b>	<b>15925</b>	<b>17571</b>	<b>19134</b>	<b>21177</b>
Domestic	13569	14412	16040	17182	18870
Non-Domestic	1166	1074	1051	1464	1776
Bulk	253	246	316	317	364
Auto LPG	214	194	164	171	167
<b>Imports</b>					
PSU Imports	5902	6199	7884	8470	10672
Private Imports	398	369	429	489	371
(Number in lakhs)					
	2012-13	2013-14	2014-15	2015-16	2016-17 (P)
<b>Enrolment (domestic)</b>	<b>131.6</b>	<b>159.1</b>	<b>163.4</b>	<b>204.5</b>	<b>331.7</b>
As on 1 <sup>st</sup> of April	2013	2014	2015	2016	2017
<b>LPG Customers (registered)</b>	<b>1522.8</b>	<b>1682.6</b>	<b>1840.1</b>	<b>2041.1</b>	<b>2371.4</b>
<b>of which</b>					
Domestic customers	1503.9	1662.6	1819.0	2017.9	2346.1
Non-domestic customers	18.9	20.1	21.1	23.3	25.3
<b>LPG Active domestic customers</b>	<b>-</b>	<b>-</b>	<b>1485.6</b>	<b>1662.5</b>	<b>1987.6</b>
<b>DBC Customers (registered)</b>	<b>748.7</b>	<b>827.4</b>	<b>917.0</b>	<b>1019.0</b>	<b>1089.3</b>
(Nos.)					
<b>LPG Distributors</b>	<b>12610</b>	<b>13896</b>	<b>15930</b>	<b>17916</b>	<b>18786</b>
<b>of which</b>					
Urban	7095	7172	7334	7492	7677
Urban/Rural	1731	1885	2263	2852	3152
Rural	1729	1803	1891	2086	2196
RGGLVY	2055	3036	4442	5486	5761
<b>Auto LPG dispensing stations (ALDS)</b>	<b>667</b>	<b>678</b>	<b>681</b>	<b>676</b>	<b>675</b>
<b>LPG Markets (excluding RGGLVY)</b>	<b>5105</b>	<b>5245</b>	<b>5485</b>	<b>5805</b>	<b>6015</b>
(Thousand metric tonne per annum)					
<b>Bottling capacity (rated)</b>	<b>-</b>	<b>13515</b>	<b>14044</b>	<b>15172</b>	<b>16264</b>
(Thousand metric tonne)					
<b>Gross tankage</b>	<b>771</b>	<b>777</b>	<b>781</b>	<b>869</b>	<b>878</b>

Source: Oil companies & Directorate General of Commercial Intelligence and Statistics (DGCIS)

Note:

1. Data in respect of enrolment, customers, distributors, ALDS and rated bottling capacity pertains to PSU OMCs only.
2. Gross tankage includes LPG tankage at all refineries and fractionators, PSU OMCs bottling plants and LPG tankage available to PSU OMCs at import locations.
3. MOPNG vide letter no. P-20019/2/2016-LPG dated 23 June 2016 has issued unified guidelines for selection of LPG distributors. In the said guidelines, LPG distributor categories have been redefined. The number of LPG distributorships of PSU OMCs as on 1.4.2017 under various categories as per the new guidelines are: Sheheri (7677), Rurban (3152), Gramin (4668) and Durgam (3289). In Table 7.2 distributorships have been given as per new classification. Historical data and data for current year is given as per extant classification for comparison.

**Table 7.2 : Number of LPG distributors of PSUs as on 31.03.2017 (P)**

					(Nos.)
State/UT	Sheheri Vitrak	Rurban Vitrak	Gramin Vitrak	Durgam Kshetriya Vitrak	Total
Chandigarh	27	0	0	0	27
Delhi	321	0	0	0	321
Haryana	240	84	109	46	479
Himachal Pradesh	69	11	62	24	166
Jammu & Kashmir	128	37	32	49	246
Punjab	332	185	170	72	759
Rajasthan	418	152	318	175	1063
Uttar Pradesh	972	615	936	436	2959
Uttarakhand	108	97	31	17	253
<b>Sub Total North</b>	<b>2615</b>	<b>1181</b>	<b>1658</b>	<b>819</b>	<b>6273</b>
Arunachal Pradesh	5	5	24	25	59
Assam	126	106	133	82	447
Manipur	15	13	15	39	82
Meghalaya	21	9	9	10	49
Mizoram	11	6	12	25	54
Nagaland	15	11	11	23	60
Sikkim	8	1	3	3	15
Tripura	17	9	25	11	62
<b>Sub Total North East</b>	<b>218</b>	<b>160</b>	<b>232</b>	<b>218</b>	<b>828</b>
Andaman & Nicobar Islands	0	2	3	0	5
Bihar	238	228	373	237	1076
Jharkhand	159	37	77	119	392
Odisha	170	85	119	202	576
West Bengal	393	132	326	158	1009
<b>Sub Total East</b>	<b>960</b>	<b>484</b>	<b>898</b>	<b>716</b>	<b>3058</b>
Chhattisgarh	103	73	40	158	374
Dadra & Nagar Haveli	2	0	0	0	2
Daman & Diu	3	0	0	0	3
Goa	44	2	5	0	51
Gujarat	414	104	123	118	759
Madhya Pradesh	461	212	115	452	1240
Maharashtra	970	161	377	248	1756
<b>Sub Total West</b>	<b>1997</b>	<b>552</b>	<b>660</b>	<b>976</b>	<b>4185</b>
Andhra Pradesh	312	171	280	113	876
Karnataka	513	119	207	168	1007
Kerala	225	116	217	36	594
Lakshadweep	1	0	0	0	1
Puducherry	15	7	2	1	25
Tamilnadu	549	274	297	125	1245
Telangana	272	88	217	117	694
<b>Sub Total South</b>	<b>1887</b>	<b>775</b>	<b>1220</b>	<b>560</b>	<b>4442</b>
<b>All India</b>	<b>7677</b>	<b>3152</b>	<b>4668</b>	<b>3289</b>	<b>18786</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)

Note: MOPNG vide letter no. P-20019/2/2016-LPG dated 23 June 2016 has issued unified guidelines for selection of LPG distributors. In the said guidelines, LPG distributor categories have been redefined as above.

**Table 7.3 : LPG domestic customer population (registered) of PSU OMCs as on 31.03.2017 (P)**

(Number in lakhs)		
State/UT	Total	Double bottle connection (DBC)
Chandigarh	4.26	2.80
Delhi	64.88	42.79
Haryana	64.81	37.00
Himachal Pradesh	20.82	11.64
Jammu & Kashmir	27.22	15.12
Punjab	88.27	46.27
Rajasthan	121.76	66.30
Uttar Pradesh	325.56	113.94
Uttarakhand	28.64	13.44
<b>Sub Total North</b>	<b>746.23</b>	<b>349.30</b>
Arunachal Pradesh	2.76	2.03
Assam	42.93	17.70
Manipur	4.47	3.20
Meghalaya	2.09	1.30
Mizoram	3.14	2.21
Nagaland	2.57	2.10
Sikkim	1.76	0.92
Tripura	5.51	2.67
<b>Sub Total North East</b>	<b>65.22</b>	<b>32.13</b>
Andaman & Nicobar Islands	1.01	0.92
Bihar	109.82	39.20
Jharkhand	30.49	13.79
Odisha	51.88	18.33
West Bengal	158.05	59.28
<b>Sub Total East</b>	<b>351.24</b>	<b>131.52</b>
Chhattisgarh	35.74	14.56
Dadra & Nagar Haveli	0.82	0.55
Daman & Diu	0.75	0.43
Goa	5.91	4.53
Gujarat	96.43	63.69
Madhya Pradesh	111.63	43.97
Maharashtra	256.50	127.81
<b>Sub Total West</b>	<b>507.79</b>	<b>255.55</b>
Andhra Pradesh	145.07	42.96
Karnataka	130.49	76.84
Kerala	91.13	64.43
Lakshadweep	0.05	0.04
Puducherry	3.99	2.22
Tamilnadu	194.38	98.44
Telangana	110.45	35.83
<b>Sub Total South</b>	<b>675.56</b>	<b>320.76</b>
<b>All India</b>	<b>2346.05</b>	<b>1089.25</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)

**Table 7.4: LPG coverage (estimated) as on 31.03.2017 (P)**

(Number in lakhs)				
State/UT	No. of households Census 2011	Estimated households as on 31.03.2017	Active connections as on 31.03.2017	LPG coverage (%)
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
Uttarakhand	19.97	22.25	21.17	95.1
<b>Sub Total North</b>	<b>646.98</b>	<b>724.91</b>	<b>614.53</b>	<b>84.8</b>
Arunachal Pradesh	2.62	3.03	1.97	64.9
Assam	63.67	70.30	32.91	46.8
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
Sikkim	1.28	1.38	1.16	83.6
Tripura	8.43	9.19	4.40	47.9
<b>Sub Total North East</b>	<b>92.66</b>	<b>102.35</b>	<b>49.45</b>	<b>48.3</b>
Andaman & Nicobar Islands	0.93	0.97	0.77	79.3
Bihar	189.41	218.67	99.43	45.5
Jharkhand	61.82	70.24	25.83	36.8
Odisha	96.61	104.84	44.98	42.9
West Bengal	200.67	217.52	145.69	67.0
<b>Sub Total East</b>	<b>549.44</b>	<b>612.24</b>	<b>316.71</b>	<b>51.7</b>
Chhattisgarh	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	56.1
Maharashtra	238.31	261.50	221.93	84.9
<b>Sub Total West</b>	<b>570.59</b>	<b>634.91</b>	<b>430.82</b>	<b>67.9</b>
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
Tamil Nadu	184.93	202.48	171.71	84.8
Telangana	84.21	89.84	89.21	99.3
<b>Sub Total South</b>	<b>607.26</b>	<b>654.2</b>	<b>576.12</b>	<b>88.1</b>
<b>All India</b>	<b>2466.93</b>	<b>2728.61</b>	<b>1987.64</b>	<b>72.8</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)

**Table 7.5 : LPG domestic customers enrolment (14.2 kg/5 kg) by PSU OMCs during 2016-17**

(Number in lakhs)

State/UT	14.2 Kg	5 Kg	Total
Chandigarh	0.14	0.0000	0.14
Delhi	1.90	0.0003	1.90
Haryana	7.10	0.0000	7.10
Himachal Pradesh	0.71	0.0000	0.71
Jammu & Kashmir	3.84	0.0016	3.84
Punjab	7.39	0.0004	7.39
Rajasthan	22.46	0.0002	22.46
Uttar Pradesh	77.33	0.0239	77.35
Uttarakhand	2.55	0.0000	2.55
<b>Sub Total North</b>	<b>123.40</b>	<b>0.0265</b>	<b>123.42</b>
Arunachal Pradesh	0.16	0.0000	0.16
Assam	3.64	0.0000	3.64
Manipur	0.28	0.0000	0.28
Meghalaya	0.12	0.0000	0.12
Mizoram	0.07	0.0000	0.07
Nagaland	0.14	0.0001	0.14
Sikkim	0.08	0.0000	0.08
Tripura	0.39	0.0000	0.39
<b>Sub Total North East</b>	<b>4.88</b>	<b>0.0001</b>	<b>4.88</b>
Andaman & Nicobar Islands	0.08	0.0000	0.08
Bihar	33.45	0.0053	33.45
Jharkhand	7.10	0.0006	7.10
Odisha	12.75	0.0144	12.76
West Bengal	36.15	0.0002	36.15
<b>Sub Total East</b>	<b>89.53</b>	<b>0.0204</b>	<b>89.55</b>
Chhattisgarh	12.17	0.0003	12.17
Dadra & Nagar Haveli	0.07	0.0000	0.07
Daman & Diu	0.04	0.0000	0.04
Goa	0.20	0.0001	0.21
Gujarat	11.01	0.0000	11.01
Madhya Pradesh	26.04	0.0004	26.04
Maharashtra	22.97	0.0005	22.97
<b>Sub Total West</b>	<b>72.49</b>	<b>0.0012</b>	<b>72.50</b>
Andhra Pradesh	10.67	0.0000	10.67
Karnataka	9.72	0.0072	9.73
Kerala	3.14	0.0000	3.14
Lakshadweep	0.00	0.0000	0.00
Puducherry	0.12	0.0000	0.12
Tamil Nadu	11.73	0.0000	11.73
Telangana	6.00	0.0001	6.00
<b>Sub Total South</b>	<b>41.38</b>	<b>0.0074</b>	<b>41.39</b>
<b>All India</b>	<b>331.68</b>	<b>0.0557</b>	<b>331.73</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)



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# Chapter-8 Prices and Taxes

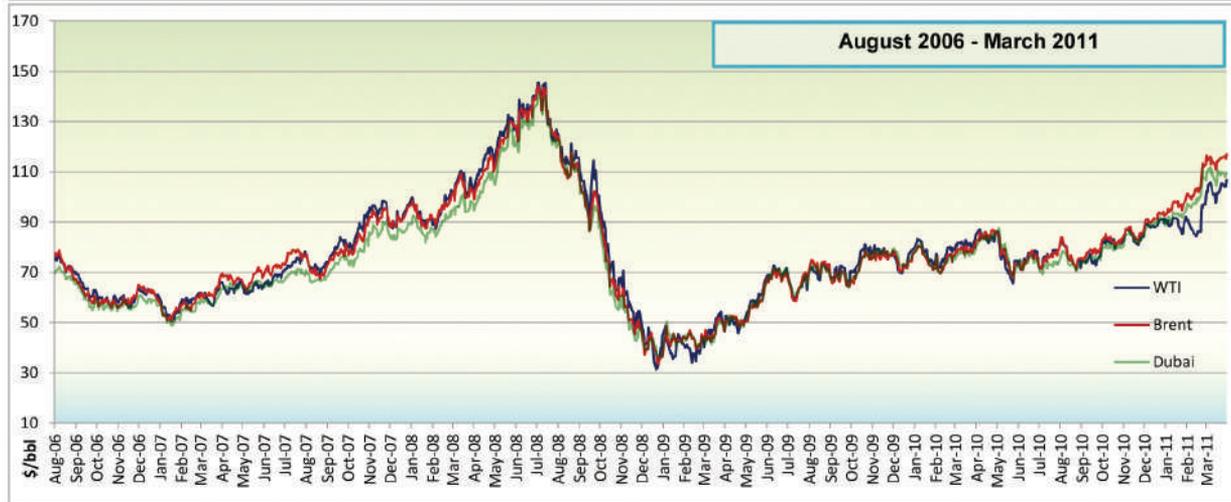
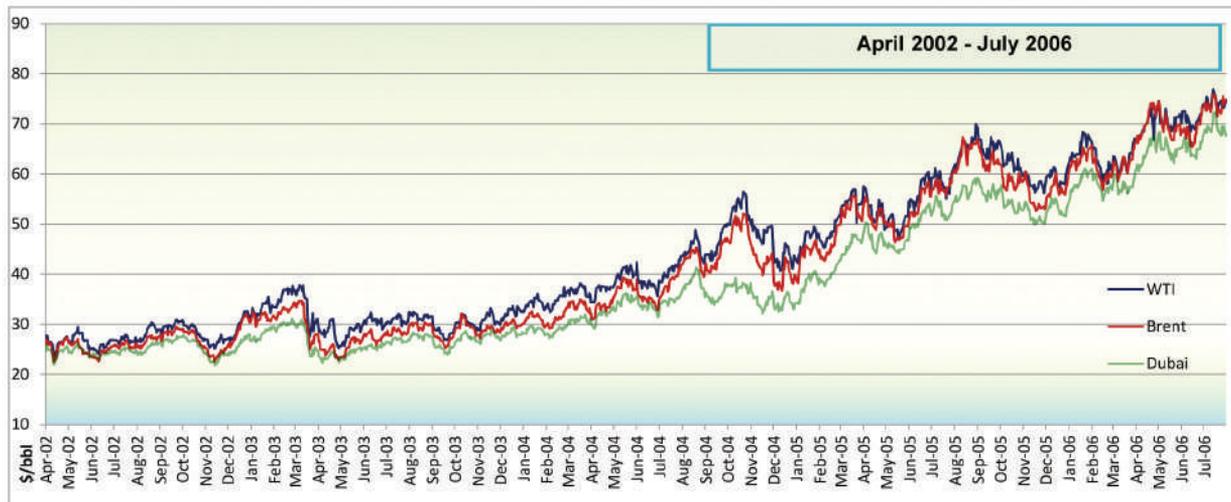
**Table 8.1 : Price of crude oil in India**

Year	Indian basket crude oil (\$/bbl)
2002-03	26.60
2003-04	27.98
2004-05	39.21
2005-06	55.72
2006-07	62.46
2007-08	79.25
2008-09	83.57
2009-10	69.76
2010-11	85.09
2011-12	111.89
2012-13	107.97
2013-14	105.52
2014-15	84.16
2015-16	46.18
2016-17	47.56
2017-18 (up to 31.05.2017)	51.48
<b>2017 : Month wise</b>	
Jan-17	54.08
Feb-17	54.86
Mar-17	51.47
Apr-17	52.49
May-17	50.57

**Note:**

1. The Indian basket of Crude Oil (for 2016-17) represents a derived basket comprising of Sour grade (Oman & Dubai average) and Sweet grade (Brent Dated) of crude oil processed in Indian refineries in the ratio of 71.03:28.97 during 2015-16.
2. Prices of diesel & kerosene are for Arab Gulf market, LPG price is Saudi Aramco CP based on 60:40 butane / propane ratio and price of petrol is for Singapore market.

## Trend in prices of International benchmark crude oils



**Trend in price of indian basket crude oil and petroleum products in international markets**



**Table 8.2 : Price build-up of PDS SKO at Mumbai**

Sl. no.	Elements	Unit	Effective 1 <sup>st</sup> June 2017
1*	FOB Price at Arab Gulf of jet / kero (kerosene)	\$/bbl	59.82
2*	Add: Ocean freight from AG to Indian ports	\$/bbl	1.73
3	C&F (cost & freight) price	\$/bbl	61.56
	<b>or</b>	₹/litre	24.59
4*	Import charges (insurance/ocean loss/ LC charge/port dues)	₹/litre	0.21
5*	<b>Customs duty</b>	₹/litre	<b>NIL</b>
6*	<b>Import Parity Price (IPP) (at 29.5<sup>a</sup> C) (sum of 3 to 5)</b>	₹/litre	<b>24.80</b>
7*	<b>Refinery Transfer Price (RTP) for PDS Kerosene** (price paid by the oil marketing companies to refineries)</b>	₹/litre	<b>24.80</b>
8*	Add : Inland freight and delivery charges	₹/litre	0.79
9*	Add : State Specific Costs (SSC)	₹/litre	0.48
10*	Add : Marketing cost of OMCs	₹/litre	0.36
11*	Add : Marketing margin of OMCs	₹/litre	0.21
12	<b>Total cost price (sum of 7 to 11) (Before excise duty, VAT and wholesale &amp; retailer commission)</b>	₹/litre	<b>26.65</b>
13*	Less: Under-recovery to OMCs	₹/litre	8.86
14	<b>Price charged to dealers (depot price) (12-13) (Excluding excise duty &amp; VAT)</b>	₹/litre	<b>17.78</b>
15*	Add : Excise duty	₹/litre	-
16*	Add : Wholesaler & retailer commission and other charges fixed by state Government	₹/litre	1.80
17*	Add : VAT (including VAT on wholesaler & retailer commission) applicable for Mumbai	₹/litre	0.59
18	<b>Retail Selling Price (RSP) at Mumbai (sum of 14 to 17)</b>	₹/litre	<b>20.17</b>

\* The explanatory notes are given in Table 8.3.

\*\*Monthly RTP is weighted average of all Indian pricing ports.

**Table 8.3 : Element wise explanation of price build up of PDS kerosene**

Sl. no.	Elements	Description
1	FOB price	FOB (free on board) daily quotes of jet/kerosene at Arab Gulf including premium / discount published by Platts and Argus publications are averaged for previous month.
2	Ocean freight	Ocean freight from Arab Gulf to destination Indian ports as per world scale freight rates adjusted for AFRA.
4	Import charges	Import charges comprises of insurance, ocean loss, LC charges & port dues applicable on import of product.
5	Customs duty	Customs duty on PDS kerosene is nil.
6	Import Parity Price (IPP)	IPP represents the price that importers would pay in case of actual import of kerosene at the respective Indian ports. Import parity principle is as per the 'PDS Kerosene and LPG (Domestic) Subsidy Scheme, 2002'.
7	Refinery Transfer Price (RTP)	RTP based on Import Parity Price, the price paid by OMCs to refineries.
8	Inland freight & delivery charges	It comprises of average freight from ports to inland locations and delivery charges.
9	State Specific Costs (SSC)	In order to neutralise the under-recoveries to the oil companies caused by various irrecoverable/ non-recoverable taxes and levies of state/union territories/municipal corporations, a state specific surcharge/cost is considered in the selling prices of petroleum products.
10 & 11	Marketing cost & margin	Marketing cost & margin are as fixed in the 'PDS Kerosene and LPG (Domestic) Subsidy Scheme, 2002'.
13	Under recovery to OMCs	Difference between desired price (based on import parity) and actual selling price (excluding excise duty, VAT, wholesale & retail dealer commission and other charges) represents under-recoveries to OMCs
15	Excise Duty	Excise duty on PDS kerosene is nil.
16	Wholesale & retail dealer commission and other charges fixed by state Government	Commission fixed for wholesale & retail dealer and other charges like delivery charges by district authorities / state Government.
17	VAT (Sales Tax)	VAT at applicable rate in respective state. It varies from state to state. Currently in Mumbai, VAT on PDS kerosene is 3.00%.

**Table 8.4 : Price build-up of domestic LPG at Delhi**

Sl. no.	Elements	Unit	Effective 1 <sup>st</sup> June 2017
1*	FOB Price at Arab Gulf (AG) of LPG	\$/MT	395.72
2*	Add: Ocean freight from AG to Jamnagar	\$/MT	18.27
3	C&F (Cost & Freight) price	\$/MT	413.99
	<b>or</b>	₹/cylinder	378.49
4*	Import charges (insurance/ocean loss/ LC charge/port dues)	₹/cylinder	4.20
5*	Customs Duty	₹/cylinder	NIL
<b>6*</b>	<b>Import Parity Price (IPP) (sum of 3 to 5)</b>	<b>₹/cylinder</b>	<b>382.69</b>
<b>7*</b>	<b>Refinery Transfer Price (RTP) for domestic LPG** (price paid by the oil marketing companies to refineries)</b>	<b>₹/cylinder</b>	<b>382.69</b>
8*	Add: Storage / distribution cost & return on investment	₹/cylinder	9.82
9*	Add: Bottling charges	₹/cylinder	20.58
10*	Add: Charges for cylinder cost	₹/cylinder	18.11
11*	Add: Inland freight	₹/cylinder	33.29
<b>12</b>	<b>Bottling plant cost before stock loss and working capital (sum of 7 to 11)</b>	<b>₹/cylinder</b>	<b>464.48</b>
13*	Add: Cost of working capital	₹/cylinder	1.98
<b>14</b>	<b>Cost price at LPG bottling plant (sum of 12 to 13)</b>	<b>₹/cylinder</b>	<b>466.46</b>
15*	Add: Delivery charges	₹/cylinder	10.00
16*	Add: State Specific Costs (SSC)	₹/cylinder	Nil
17*	Add : Uncompensated Costs (import costs, recovery for non-revision, rounding-off & delivery charges)	₹/cylinder	28.59
<b>18</b>	<b>Market determined price (sum of 14 to 17)</b>	<b>₹/cylinder</b>	<b>505.05</b>
19*	Add : VAT (including VAT on distributor commission) applicable for Delhi	₹/cylinder	-
20*	Add : Distributor commission	₹/cylinder	47.63
<b>21</b>	<b>Retail Selling Price (RSP) (sum of 18 to 20)</b>	<b>₹/cylinder</b>	<b>552.68</b>
<b>22</b>	<b>RSP at Delhi (Rounded)</b>	<b>₹/cylinder</b>	<b>552.50</b>
23*	Less: Cash compensation on LPG by Government to consumers under DBTL	₹/cylinder	77.26
24*	Less: Cash compensation on LPG by OMCs, towards 'Uncompensated Costs' charged in the current RSP, to consumers	₹/cylinder	28.59
<b>25</b>	<b>Effective cost to consumer after subsidy (22-23-24)</b>	<b>₹/cylinder</b>	<b>446.65</b>

\* The explanatory notes are given in table 8.5.

\*\*Monthly RTP is weighted average of all Indian pricing ports.

**Table 8.5 : Element wise explanation of price build up of domestic LPG**

Sl. no.	Elements	Description
1	FOB price	FOB (free on board) of LPG is weighted average of Saudi Aramco contract price (CP) for butane (60%) & propane (40%) for previous month and also includes daily quotes of premium / discount (published by Platts Gaswire) averaged for previous month.
2	Ocean freight	Ocean freight from Arab Gulf to destination Indian port (i.e. Jamnagar) based on charter hire rates obtained from Clarkson Shipping Intelligence weekly.
4	Import charges	Import charges comprises of insurance, ocean loss, LC charges & port dues applicable on import of LPG.
5	Customs duty	Custom duty on domestic LPG is nil.
6	Import Parity Price (IPP)	IPP represents the price that importers would pay in case of actual import of product at the respective Indian ports. Import parity principle is as envisaged in the 'PAHAL (DBTL) Scheme, 2014'.
7	Refinery Transfer Price (RTP)	RTP is based on import parity price. This is the price paid by the oil marketing companies to domestic refineries for purchase of finished petroleum products at refinery gate.
8	Storage/distribution cost & return on investment	Storage/distribution cost & return on investment as fixed under notified 'PAHAL (DBTL) Scheme, 2014'.
9	Bottling charges	The cost incurred towards filling LPG in 14.2 Kg. cylinders as per notified 'PAHAL (DBTL) Scheme, 2014'.
10	Charges for cylinder cost	
11	Inland freight	It comprises of freight from port to inland locations i.e. bottling plant.
13	Cost of working capital	Interest on working capital for 18 days stock holding at SBI prime lending rate (PLR) as fixed under notified 'PAHAL (DBTL) Scheme, 2014'.
15	Delivery charges	It comprises of freight from bottling plant to distributor.
16	State Specific Costs (SSC)	In order to neutralise the under-recoveries to the oil companies caused by various irrecoverable/non-recoverable taxes and levies of state/union territories/municipal corporations, a state specific surcharge/cost is considered in the selling prices of petroleum products. In case of Delhi it is nil.
17	Uncompensated costs (import costs, recovery for non-revision, rounding-off & delivery charges)	In the price buildup, oil marketing companies are charging the consumers on account of import costs, recovery for non-revision in prices, rounding-off & differential delivery charges of ₹ 9.90/cyl. All these costs are not compensated to OMCs as per the PAHAL (DBTL) scheme.
19	VAT (sales Tax)	VAT at applicable rate in respective states. It varies from state to state (up to a maximum of 5% as domestic LPG is 'Declared Goods' under CST Act). Currently VAT at Delhi is nil.
20	Distributor commission	LPG distributor commission ₹ 47.63/Cylinder (including additional distributor commission) is as approved by MoP&NG.
23 & 24	Cash compensation to consumer under DBTL (including impact of uncompensated cost to OMCs)	Under DBTL Scheme, the difference between the price of domestic subsidized & non-subsidized LPG is being transferred to bank account of consumers by OMCs. This also includes the uncompensated amount which is borne by the OMCs.

**Table 8.6 : Summarised buildup of Retail Selling Price (RSP) of petrol at Delhi**

w.e.f. 1<sup>st</sup> June 2017

Particulars	₹/Litre *
Refinery Transfer Price (RTP) on landed cost basis for BS IV petrol (price paid by the Oil Marketing Companies (OMCs) to refineries)	26.01
Price charged to dealers (excluding excise duty and VAT)	28.64
Add : Excise duty @ ₹21.48/litre	21.48
Add : Dealer's commission	2.57
Add : VAT (including VAT on dealer's commission) applicable for Delhi @ 27%	14.22
<b>RSP at Delhi (rounded)</b>	<b>66.91</b>

\*As per IOCL.

**Table 8.7 : Summarised buildup of Retail Selling Price (RSP) of diesel at Delhi**

w.e.f. 1<sup>st</sup> June 2017

Particulars	₹/Litre *
Refinery Transfer Price (RTP) on landed cost basis for BS IV diesel (price paid by the Oil Marketing Companies (OMCs) to refineries)	26.01
Price charged to dealers (excluding excise duty and VAT)	28.69
Add : Excise duty @ ₹ 17.33/litre	17.33
Add : Dealer's commission	1.65
Add : VAT (including VAT on dealer's commission) applicable for Delhi @ 16.75% & Air ambience charges (pollution cess) ₹ 250/KL	8.28
<b>RSP at Delhi (rounded)</b>	<b>55.94</b>

\*As per IOCL.

**Table 8.8 : Summarised buildup of Retail Selling Price (RSP) of PDS kerosene at Mumbai**

w.e.f. 1 <sup>st</sup> June 2017	
Particulars	₹ / litre
Refinery Transfer Price (RTP) for PDS kerosene (price paid by the Oil Marketing Companies (OMCs) to refineries)	24.80
Total cost price -before excise duty, VAT and dealer's commission	26.65
Less: Under-recovery to OMCs	8.86
Price charged to dealers (depot price) - excluding VAT and dealer's commission	17.78
Add : Excise duty	-
Add : Wholesaler & retailer commission and other charges fixed by state Government	1.80
Add : VAT (including VAT on wholesaler & retailer commission) applicable for Mumbai	0.59
<b>RSP at Mumbai (rounded)</b>	<b>20.17</b>

**Table 8.9 : Summarised buildup of Retail Selling Price (RSP) of domestic LPG at Delhi**

w.e.f. 1 <sup>st</sup> June 2017	
Particulars	₹/14.2 KG Cylinder
Refinery Transfer Price (RTP) for domestic LPG (price paid by the Oil Marketing Companies (OMCs) to refineries)	382.69
Price charged to distributor (market determined price)	505.05
Add : Distributors' commission	47.63
Add : VAT (including VAT on distributor's commission) applicable for Delhi	-
<b>RSP at Delhi (rounded)</b>	<b>552.50</b>
Less: Cash compensation by Government to consumers under DBTL	77.26
Less: Cash compensation by OMCs towards 'Uncompensated Costs' charged in the current RSP, to consumers	28.59
<b>Effective cost to consumer after subsidy</b>	<b>446.65</b>

## Share of taxes in Retail Selling Price (RSP) of petroleum products

 Table 8.10 : Share of taxes in RSP of petrol effective 1<sup>st</sup> June 2017 at Delhi

Particulars	₹/Litre	Share in RSP
Price excluding taxes and dealers' commission	28.11	42.0%
Customs duty	0.53	
Excise duty	21.48	
<b>Total central taxes</b>	<b>22.01</b>	<b>32.9%</b>
Price charged to dealers - depot price	50.12	
VAT (Including VAT on dealer's commission)	14.22	
<b>Total state taxes</b>	<b>14.22</b>	<b>21.3%</b>
<b>Total taxes</b>	<b>36.23</b>	<b>54.1%</b>
Dealer's commission	2.57	3.8%
<b>RSP per litre (rounded)</b>	<b>66.91</b>	<b>100.0%</b>

 Table 8.11 : Share of taxes in RSP of diesel effective 1<sup>st</sup> June 2017 at Delhi

Particulars	₹/Litre	Share in RSP
Price excluding taxes and dealer's commission	28.15	50.3%
Customs duty	0.53	
Excise duty	17.33	
<b>Total central taxes</b>	<b>17.86</b>	<b>31.9%</b>
Price charged to dealers - depot price	46.01	
VAT (Including VAT on dealer's commission)	8.28	
<b>Total state taxes</b>	<b>8.28</b>	<b>14.8%</b>
<b>Total taxes</b>	<b>26.14</b>	<b>46.7%</b>
Dealer's commission	1.65	2.9%
<b>RSP per litre (rounded)</b>	<b>55.94</b>	<b>100.0%</b>

 Table 8.12 : Break up of central excise duty on petrol & diesel (effective 31<sup>st</sup> Jan 2016)

Particular	(₹/Litre)	
	Petrol	Diesel
Basic duty	9.48	11.33
Additional excise duty (road cess)	6.00	6.00
Special additional excise duty	6.00	-
<b>Total excise duty</b>	<b>21.48</b>	<b>17.33</b>

## Note :

1. The prices of petrol and diesel are as per IOCL at Delhi.
2. Customs duty on petrol and diesel as per June 2017, 1<sup>st</sup> fortnight RTP.

**Share of taxes in Retail Selling Price (RSP) of petroleum products**
**Table 8.13 : Share of taxes in RSP of PDS kerosene effective 1<sup>st</sup> June 2017 at Mumbai**

Particulars	₹/Litre	Share in RSP
Total price before Government levies	26.64	
Less : Under-recovery to OMCs	8.86	
<b>Price excluding taxes and dealers' commission</b>	<b>17.78</b>	<b>88.2%</b>
Customs duty	-	
Excise duty	-	
<b>Total central taxes</b>	<b>0.00</b>	<b>0.0%</b>
VAT (Including VAT on wholesaler and retailer commission)	0.59	
<b>Total state taxes</b>	<b>0.59</b>	<b>2.9%</b>
<b>Total taxes</b>	<b>0.59</b>	<b>2.9%</b>
Wholesaler and retailer commission	1.80	8.9%
<b>RSP per litre (rounded)</b>	<b>20.17</b>	<b>100.0%</b>

**Table 8.14 : Share of taxes in RSP of domestic LPG effective 1<sup>st</sup> June 2017 at Delhi**

Particulars	₹/Cylinder	Share in RSP
Price excluding taxes and distributors' commission	505.06	91.4%
Customs duty	-	
Excise duty	-	
<b>Total central taxes</b>	<b>0.00</b>	<b>0.0%</b>
VAT (including VAT on distributors' commission)	-	
<b>Total state taxes</b>	<b>0.00</b>	<b>0.0%</b>
<b>Total taxes</b>	<b>0.00</b>	<b>0.0%</b>
Distributor's commission	47.63	8.62%
<b>RSP per cylinder (rounded)</b>	<b>552.50</b>	<b>100.0%</b>
Less: Cash compensation by Government to consumers under DBTL	77.26	
Less: Cash compensation by OMCs towards 'Uncompensated Costs' charged in the current RSP to consumer	28.59	
<b>Effective cost to consumer after DBTL subsidy</b>	<b>446.65</b>	

**Table 8.15 : Weightage of petroleum products in Wholesale Price Index (WPI)**

Product	Weight in %
High Speed Diesel (HSD)	3.10
Petrol	1.60
Naphtha	0.87
Furnace Oil (FO)	0.67
LPG	0.64
Aviation Turbine Fuel (ATF)	0.32
Lube Oils	0.29
Bitumen	0.23
Kerosene	0.19
Petroleum Coke	0.05
<b>Total</b>	<b>7.96</b>

Source : Website of Office of the Economic Adviser, Ministry of Commerce & Industry

**Table 8.16 : Estimated impact of increase in Retail Selling Price (RSP) of major petroleum products on inflation (WPI index)**

Product	Increase in RSP	Increase in inflation (WPI index)
Petrol	₹ 1/ litre	0.03%
Diesel	₹ 1/ litre	0.08%
PDS kerosene	₹ 1/ litre	0.01%
Domestic LPG	₹ 10/ cylinder	0.02%

Note: Based on April 2017 WPI index (2011-12 Series).

### Important terms in pricing of petroleum products

- 1. Import Parity Price (IPP)** - IPP represents the price that importers would pay in case of actual import of product at the respective Indian ports. This includes the following elements:
  - i. FOB Price, ii. Ocean freight, iii. Insurance, iv. Customs duty, v. Port dues etc.
- 2. Export Parity Price (EPP)** - EPP represents the price which oil companies would realize on export of petroleum products. This includes the following elements:
  - i. FOB Price
  - ii. Advance License Benefit for duty free import of crude oil pursuant to export of refined products (currently nil)
- 3. Trade Parity Price (TPP)** - TPP is weighted average price of IPP and EPP with the weights of 80 and 20 respectively.
- 4. Refinery Gate Price / Refinery Transfer Price (RGP/RTP)** - This is the price paid by the Oil Marketing Companies (OMCS) to refineries for purchase of finished petroleum products at refinery gate.
- 5. Retail Selling Price (RSP)** - This is the final price, inclusive of all duties and taxes, charged to the consumers.

### Dealer's / distributor's commission on petroleum products

**Table 8.17 : Dealer's commission on petrol & diesel**

(Figures in ₹ /KL)

Effective date	Petrol	Diesel
As on 1-Apr-04	707.00	425.00
21-Jun-05	778.00	467.00
01-Aug-05	848.00	509.00
01-Mar-07	894.00	529.00
16-May-07	1024.00	600.00
23-May-08	1052.00	631.00
27-Oct-09	1125.00	673.00
07-Sep-10	1218.00	757.00
01-Jul-11	1499.00	912.00
27-Oct-12	1794.00	1089.00
21-Dec-13	₹ 1390.15/KL + 0.883% of product billable price	1186.00
23-Oct-14	₹ 1499.37/KL + 0.887% of product billable price	₹ 1116.09/KL + 0.290% of product billable price
01-Aug-15	₹ 1749.86/KL + 0.883% of product billable price	₹ 1301.70/KL + 0.286% of product billable price
16-Nov-15	₹ 1750.08/KL + 0.883% of product billable price	₹ 1301.88/KL + 0.286% of product billable price
01-Jun-16	₹ 1750.29/KL + 0.883% of product billable price	₹ 1302.06/KL + 0.286% of product billable price
05-Oct-16	₹ 1868.14/KL + 0.875% of Product Billable Price	₹ 1389.35/KL + 0.280% of Product Billable Price
16-Nov-16	₹ 2006.33/KL + 0.875% of Product Billable Price	₹ 1491.72/KL + 0.28% of Product Billable Price
01-Apr-17	₹ 2020.38/KL + 0.859% of Product Billable Price*	₹ 1502.13/KL + 0.267% of Product Billable Price*

\*The current dealer commission on Petrol is ₹ 2568.92/ KL and on Diesel is ₹ 1646.58/KL as on 1.6.2017 at Delhi (as per HPCL).

**Table 8.18 : Wholesale dealer's commission on PDS kerosene**

(₹/KL)

Effective date	With Form XV	Other than Form XV
As on 01-April-04	204.00	161.00
01-Mar-07	243.00	200.00
24-May-08	255.00	212.00
07-Jul-09	263.00	220.00
07-Sep-10	275.00	232.00
28-Dec-12	438.24	377.73
21-Oct-14	536.09	475.58
05-Feb-16	714.18	649.16
28-Oct-16	787.82	723.87

**Table 8.19: Distributor's commission on domestic LPG**

(₹/ Cylinder)

Effective date	14.2 KG cyl.	Additional commission for sale at market determined price (₹/14.2 KG cyl.)	5 KG cyl.
As on 01-April-04	16.71	NA	8.60
01-Mar-07	19.05	NA	9.81
04-Jun-08	20.54	NA	10.58
30-Jun-09	21.94	NA	11.30
01-Jul-11	25.83	NA	13.30
07-Oct-12	37.25	0.75	18.63
11-Dec-13	40.71	0.75	20.36
23-Oct-14	44.06	0.82	22.03
09-Dec-15	45.83	0.26	22.67
01-Jan-16	45.83	0.33	22.67
01-Feb-16	45.83	0.22	22.67
01-Mar-16	45.83	0.13	22.67
01-May-16	45.83	0.15	22.67
01-Jun-16	45.83	0.18	22.67
01-Jul-16	45.83	0.16	22.67
01-Aug-16	45.83	0.09	22.67
01-Sep-16	45.83	0.06	22.67
01-Oct-16	45.83	0.09	22.67
28-Oct-16	47.48	0.09	23.74
01-Nov-16	47.48	0.14	23.74
01-Dec-16	47.48	0.21	23.74
01-Feb-17	47.48	0.30	23.74
01-Mar-17	47.48	0.43	23.74
01-Apr-17	47.48	0.40	23.74
01-May-17	47.48	0.27	23.74
01-Jun-17	47.48	0.15	23.74

Source: MoP&amp;NG circulars &amp; OMCs

**Table 8.20 : Revisions in RSP of petroleum products at Delhi since 01.04.2010**

Date	Petrol	Diesel	PDS kerosene	Domestic LPG	Reason
	(₹/litre)			(₹/14.2 Kg cyl.)	
01.04.2010	47.93	38.10	9.32	310.35	Prices as on 1.4.2010
26.06.2010	51.43	40.10	12.32	345.35	Increase in prices
01.07.2010	51.45	40.12			Increase in siding - shunting charges
20.07.2010		37.62			VAT reduction in Delhi
08.09.2010	51.56	37.71	12.33		Revision in dealer's commission
21.09.2010	51.83				Increase in price
17.10.2010	52.55				Increase in price
02.11.2010	52.59	37.75	12.37		Increase in siding - shunting charges
09.11.2010	52.91				Increase in price
16.12.2010	55.87				Increase in price
15.01.2011	58.37				Increase in price
18.01.2011			12.73		Increase in transportation charges
15.05.2011	63.37				Increase in price
25.06.2011		41.12	14.83	395.35	Increase in prices
01.07.2011	63.70	41.29		399.00	Increase in siding & shunting charges/ dealer's commission
16.09.2011	66.84				Increase in price
01.10.2011		40.91			Rebate of ₹ 0.375 per litre in VAT on Diesel at Delhi
04.11.2011	68.64				Increase in price
16.11.2011	66.42				Reduction in price
01.12.2011	65.64				Reduction in price
24.05.2012	73.18				Increase in price
03.06.2012	71.16				Reduction in price
18.06.2012	70.24	41.29			Rebate on petrol / Removal of rebate on diesel in Delhi
29.06.2012	67.78				Reduction in price
24.07.2012	68.48				Increase in price
01.08.2012	68.46	41.32			Revision in siding - shunting charges

**Table 8.20: Cont.1**

Date	Petrol	Diesel	PDS kerosene	Domestic LPG		Reason
	(₹/litre)			Subsidized	Non-subsidized	
				(₹/14.2 Kg cyl.)		
14.09.2012		46.95				Increase in price
18.09.2012					756.50	Price notified for non-subsidized domestic LPG
01.10.2012					883.50	Increase in price
03.10.2012			14.79			Revision in siding - shunting charges
07.10.2012				410.50	895.50	Increase in domestic LPG distributor's commission
09.10.2012	67.90					Reduction in price
27.10.2012	68.19	47.15				Increase in dealer's commission
01.11.2012					922.50	Increase in price
02.11.2012					895.50	Reduction in price
16.11.2012	67.24					Reduction in price
16.01.2013	67.56					Removal of rebate in VAT at Delhi
18.01.2013	67.26	47.65			942.00	Increase (diesel & non-subsidized domestic LPG)/ reduction (petrol) in prices
28.01.2013			14.96			Increase in dealer's commission
16.02.2013	69.06	48.16				Increase in prices
01.03.2013					904.50	Reduction in price
02.03.2013	70.74					Increase in price
16.03.2013	68.34					Reduction in price
23.03.2013		48.67				Increase in price
01.04.2013	68.31	48.63			901.50	Revision in siding - shunting charges / reduction in price of non-subsidized domestic LPG
02.04.2013	67.29					Reduction in price
16.04.2013	66.09	48.67				Reduction in petrol price/ Increase in delivery charges of diesel
01.05.2013	63.09				847.00	Reduction in prices
11.05.2013		49.69				Increase in price
01.06.2013	63.99	50.25			802.00	Increase (petrol and diesel) / reduction (non-subsidized domestic LPG) in prices
16.06.2013	66.39					Increase in price
29.06.2013	68.58					Increase in price & delivery charges of petrol
01.07.2013		50.26			832.00	Increase in delivery charges of diesel/ increase in price of non-subsidized domestic LPG
02.07.2013		50.84				Increase in price
15.07.2013	70.44					Increase in price
01.08.2013	71.28	51.40			875.00	Increase in prices
01.09.2013	74.10	51.97			932.50	Increase in prices
14.09.2013	76.06					Increase in price
01.10.2013	72.40	52.54			1004.00	Increase (diesel & non-subsidized domestic LPG)/ reduction (petrol) in price

**Table 8.20: Continued**

Date	Petrol	Diesel	PDS kerosene	Domestic LPG		Reason
	(₹/litre)			Subsidized	Non-subsidized	
				(₹/14.2 Kg cyl.)		
01.11.2013	71.02	53.10			954.50	Increase (diesel)/ reduction (petrol & non-subsidized domestic LPG) in price
01.12.2013		53.67			1017.50	Increase in prices
11.12.2013				414.00	1021.00	Increase in distributor's commission on domestic LPG
21.12.2013	71.52	53.78				Increase in price of petrol & Increase in dealer's commission on petrol and diesel
04.01.2014	72.43	54.34			1241.00	Increase in prices
01.02.2014		54.91			1134.00	Increase (diesel)/ reduction (non-subsidized domestic LPG) in price
01.03.2014	73.16	55.48			1080.50	Increase (petrol & diesel)/ reduction (non-subsidized domestic LPG) in Price
01.04.2014	72.26	55.49			980.50	Reduction in prices (petrol & non-subsidized domestic LPG)/ increase in delivery charges of diesel
16.04.2014	71.41					Reduction in price
01.05.2014					928.50	Reduction in price
16.05.2014		56.71				Increase in price
01.06.2014		57.28			905.00	Increase (diesel)/ reduction (non-subsidized domestic LPG) in price
07.06.2014	71.51					Increase in price
25.06.2014	71.56				906.00	Increase in rail freight
01.07.2014	73.60	57.84			922.50	Increase in prices
01.08.2014	72.51	58.40			920.00	Increase (diesel)/ reduction (petrol & non-subsidized domestic LPG) in price
16.08.2014	70.33					Reduction in price
31.08.2014	68.51	58.97				Increase (diesel)/ reduction (petrol) in price
01.09.2014					901.00	Reduction in price
01.10.2014	67.86				880.00	Reduction in price
15.10.2014	66.65					Reduction in price
19.10.2014		55.60				Reduction in price
23.10.2014				417.00	883.50	Increase in domestic LPG distributor's commission
01.11.2014	64.24	53.35	<b>15.14*</b>		865.00	Reduction in price/ price of PDS kerosene at Mumbai
01.12.2014	63.33	52.51			752.00	Reduction in prices
16.12.2014	61.33	50.51				Reduction in prices
01.01.2015					708.50	Reduction in price
17.01.2015	58.91	48.26				Reduction in prices
01.02.2015					605.00	Reduction in price
04.02.2015	56.49	46.01				Reduction in prices
16.02.2015	57.31	46.62	<b>15.24</b>			Increase in dealer's commission
01.03.2015	60.49	49.71			610.00	Increase in prices

**Table 8.20 : Continued**

Date	Petrol	Diesel	PDS kerosene	Domestic LPG		Reason
	₹/litre			RSP	Effective cost after DBTL subsidy#	
				₹/14.2 Kg cyl.)		
01.04.2015	60.00	48.50		621.00	417.82	Increase (non-subsidized domestic LPG)/ reduction (petrol and diesel) in prices
16.04.2015	59.20	47.20				Reduction in prices
1.05.2015	63.16	49.57		616.00		Increase (petrol and diesel) / reduction (domestic LPG) in prices
16.05.2015	66.29	52.28				Increase in prices
01.06.2015				626.50		Increase in price
16.06.2015	66.93	50.93				Increase (petrol) / reduction (diesel) in price
01.07.2015	66.62	50.22		608.50		Reduction in prices
16.07.2015	66.90	49.72				Reduction in price & increase in VAT rates at Delhi
01.08.2015	64.47	46.12		585.00		Reduction in prices
15.08.2015	63.20	44.95				Reduction in prices
01.09.2015	61.20	44.45		559.50		Reduction in prices
01.10.2015		44.95		517.50		Increase (diesel)/ reduction (domestic LPG) in price
16.10.2015		45.90				Increase in prices
01.11.2015	60.70	45.93		545.00		Decrease (petrol) / Increase (domestic LPG) in price / Increase in delivery charges of petrol & diesel
16.11.2015	61.06	46.80				Increase in prices
01.12.2015	60.48	46.55		606.50		Increase (domestic LPG)/ reduction (petrol and diesel) in price
09.12.2015				608.00	419.26	Increase in distributor's commission on domestic LPG
16.12.2015	59.98	46.09				Reduction in prices
01.01.2016	59.35	45.03		657.50	419.33	Increase (domestic LPG)/ reduction (petrol and diesel) in price / increase in additional distributor's commission on LPG
02.01.2016	59.35	45.03				Increase in excise duty on petrol and diesel without increase in RSPs
16.01.2016	59.03	44.18				Reduction in price along with increase in excise duty
19.01.2016	59.99	44.71				Increase in VAT rates at Delhi
31.01.2016	59.99	44.71				Increase in excise duty on petrol and diesel without increase in RSP
01.02.2016	59.95	44.68		575.00	419.22	Reduction in delivery charges of petrol and diesel/ reduction in price and additional distributor's commission of domestic LPG
18.02.2016	59.63	44.96				Reduction in price of petrol and increase in price of diesel
01.03.2016	56.61	46.43		513.50	419.13	Reduction in price of petrol/ increase in price of diesel/ reduction in additional distributor's commission of domestic LPG
04.03.2016			15.42			Increase in dealer's commission
17.03.2016	59.68	48.33				Increase in prices
01.04.2016				509.50		Reduction in price
05.04.2016	61.87	49.31				Increase in prices
16.04.2016	61.13	48.01				Reduction in prices
25.04.2016			15.36			Reduction in SSC on PDS kerosene in Mumbai

**Table 8.20 : Continued**

Date	Petrol	Diesel	PDS kerosene	Domestic LPG		Reason
	(₹/litre)			RSP	Effective cost after DBTL subsidy#	
				(₹/14.2 Kg cyl.)		
01.05.2016	62.19	50.95		527.50	419.15	Increase in prices of petrol, diesel & non-subsidized domestic LPG/ increase in additional distributor's commission on domestic LPG
17.05.2016	63.02	51.67				Increase in prices
01.06.2016	65.60	53.93		548.50	419.18	Increase in prices of petrol, diesel & non-subsidized domestic LPG/ increase in additional distributors' commission on domestic LPG
03.06.2016			15.02			Reduction in SSC on PDS kerosene in Mumbai
16.06.2016	65.65	55.19				Increase in prices
01.07.2016	64.76	54.70		537.50	421.16	Reduction in prices of petrol, diesel & non subsidized domestic LPG/ increase in price of subsidized domestic LPG / reduction in additional distributors' commission of domestic LPG
07.07.2016			15.27			Increase in price of PDS SKO
16.07.2016	62.51	54.28				Reduction in prices
01.08.2016	61.09	52.27	15.53	487.00	423.09	Reduction in prices of petrol, diesel & non sub. domestic LPG/ increase in price of subsidized domestic LPG / reduction in addl. distributor commission of domestic LPG
16.08.2016	60.09	50.27	15.68			Reduction in prices of petrol and diesel/ Increase in SSC on PDS SKO at Mumbai
01.09.2016	63.47	52.94	15.94	466.50	425.06	Increase in prices of petrol, diesel, PDS kerosene & subsidized domestic LPG / Reduction in price of non sub. domestic LPG/ reduction in LPG additional distributor commission
16.09.2016	64.21	52.59	16.19			Increase (petrol & PDS SKO)/ reduction (diesel) in price
21.09.2016			16.40			Increase in SKO retailers' commission at Mumbai
01.10.2016	64.58	52.51	16.66	490.00	427.09	Increase in prices of Petrol, Non Sub. Domestic LPG, Subsidized domestic LPG and PDS Kerosene/ Reduction in price of Diesel/ Increase in LPG Addl. distributor commission
05.10.2016	64.72	52.61				Increase in dealers' commission on petrol and diesel
16.10.2016	66.45	55.38	16.92			Increase in prices of petrol, diesel and PDS kerosene
28.10.2016				492.00	428.59	Increase in distributors' commission
01.11.2016			17.17	529.50	430.64	Increase in prices of non subsidized domestic LPG, subsidized domestic LPG and PDS kerosene/ Increase in LPG additional distributors' commission
06.11.2016	67.62	56.41				Increase in prices of Petrol and Diesel
16.11.2016	65.93	54.71	17.51			Decrease in prices of Petrol & Diesel (including dealers' commission) / Increase in price of PDS Kerosene
01.12.2016	66.10	54.57	17.76	584.00	432.71	Increase in price of Petrol & decrease in price of Diesel (including dealers' commission) / Increase in prices of Non Sub. Domestic LPG, Subsidized domestic LPG and PDS Kerosene/ Increase in LPG Addl. Distributor comm.
16.12.2016			18.02			Increase in price of PDS kerosene
17.12.2016	68.94	56.68				Increase in prices of petrol and diesel
01.01.2017			18.28	585.00	434.71	Increase in price of PDS Kerosene / Non Sub. Domestic LPG, Subsidized domestic LPG
02.01.2017	70.60	57.82				Increase in prices of petrol and diesel

**Table 8.20 : Continued**

Date	Petrol	Diesel	PDS kerosene	Domestic LPG		Reason
	₹/litre			RSP	Effective cost after DBTL subsidy#	
				₹/14.2 Kg cyl.)		
16.01.2017	71.14	59.02	18.54			Increase in prices of petrol, diesel and PDS Kerosene
01.02.2017			18.77	651.50	434.80	Increase in price of PDS Kerosene / Non Sub. Domestic LPG, Subsidized domestic LPG
01.03.2017				737.50	434.93	Increase in price of Non Sub. Domestic LPG/ Additional Distributors commission on Subsidized domestic LPG
01.04.2017	66.29	55.61		723.00	440.90	Decrease in price of Petrol, Diesel & Non Sub. Domestic LPG / Increase in prices of Subsidized domestic LPG and / Decrease in LPG Addl. Distributor comm.
07.04.2017			19.03			Increase in prices of PDS Kerosene
16.04.2017	68.07	56.83	19.29			Increase in price of Petrol, Diesel & PDS Kerosene
01.05.2017	68.09	57.35	19.65	631.00	442.77	Increase in price of Petrol, Diesel, PDS SKO & Sub. Domestic LPG / Decrease in prices of Non-Subsidized domestic LPG and Decrease in LPG Addl. Distributor comm.
16.05.2017	65.32	54.90	19.91			Decrease in price of Petrol and Diesel & Increase in prices of PDS SKO
01.06.2017	66.91	55.94	20.17	552.50	446.65	Increase in price of Petrol, Diesel, PDS SKO & Sub. Domestic LPG / Decrease in prices of Non-Subsidized domestic LPG and Decrease in LPG Addl. Distributor comm.
	<b>66.91</b>	<b>55.94</b>	<b>20.17*</b>	<b>552.50</b>	<b>446.65#</b>	<b>RSP as on 1<sup>st</sup> June 2017</b>

**Note :**

1. Prices of petrol since 26.6.2010, non subsidized domestic LPG since 13.9.2012 and diesel since 19.10.2014 are as per IOCL.
2. \* Since there is 'Nil' allocation of PDS kerosene in Delhi currently, RSP of PDS kerosene from 1.11.2014 onwards is at Mumbai.
3. # effective 1<sup>st</sup> January 2015, modified DBTL scheme has been implemented in the entire country. The effective cost to consumer is after DBTL subsidy.

**Table 8.21 : Selling price of diesel for bulk consumers in major cities**

					(₹/Litre)				
Date	Delhi	Kolkata	Mumbai	Chennai	Date	Delhi	Kolkata	Mumbai	Chennai
18-Jan-13	56.88	61.30	64.11	60.85	01-Mar-15	48.31	53.03	55.73	51.63
01-Feb-13	56.95	61.37	64.19	60.92	02-Apr-15	47.13	52.01	54.44	50.36
16-Feb-13	58.57	63.06	65.98	62.68	16-Apr-15	45.83	50.86	53.01	48.97
01-Mar-13	59.73	64.27	67.25	63.93	01-May-15	48.20	52.94	55.61	51.52
16-Mar-13	56.79	61.20	64.01	60.75	16-May-15	50.90	55.62	58.59	54.43
01-Apr-13	54.84	59.51	61.95	58.69	16-Jun-15	49.55	54.22	57.11	52.98
16-Apr-13	54.77	59.46	61.88	58.62	01-Jul-15	48.84	53.52	56.32	52.21
01-May-13	51.81	56.37	58.61	55.42	16-Jul-15	48.29	51.53	53.84	49.78
16-May-13	52.76	57.36	59.66	56.44	01-Aug-15	44.50	48.26	49.80	45.82
23-May-13	52.76	57.36	60.79	56.44	15-Aug-15	43.33	47.26	48.56	44.61
01-Jun-13	54.61	59.28	62.83	58.44	01-Sep-15	42.83	46.84	48.03	44.09
16-Jun-13	56.17	60.91	64.55	60.12	01-Oct-15	43.33	47.26	50.56	44.61
01-Jul-13	58.78	63.63	66.62	62.95	16-Oct-15	44.27	48.07	51.57	45.59
02-Jul-13	58.79	63.62	66.61	62.94	01-Nov-15	44.30	48.10	51.60	45.62
16-Jul-13	60.40	65.30	68.39	64.68	16-Nov-15	45.17	48.85	52.52	46.53
01-Aug-13	60.72	65.63	68.75	65.03	01-Dec-15	44.92	48.65	52.26	46.29
16-Aug-13	61.74	66.69	69.86	66.13	16-Dec-15	44.46	48.26	51.77	45.82
01-Sep-13	64.45	69.50	72.85	69.05	01-Jan-16	43.41	47.35	50.64	44.72
16-Sep-13	67.45	72.63	76.17	72.30	16-Jan-16	42.56	46.63	49.74	43.83
01-Oct-13	63.50	68.50	71.78	68.05	19-Jan-16	43.07	46.63	49.74	43.83
16-Oct-13	63.25	68.24	71.50	67.78	01-Feb-16	43.04	46.60	49.71	43.80
01-Nov-13	62.97	67.95	71.19	67.48	18-Feb-16	43.32	46.83	50.00	44.09
16-Nov-13	63.06	68.04	71.29	67.57	01-Mar-16	44.78	48.07	51.54	45.59
01-Dec-13	63.86	68.88	72.18	68.44	17-Mar-16	46.68	49.25	53.53	47.54
01-Jan-14	63.51	68.51	71.79	68.06	05-Apr-16	47.65	50.08	54.56	48.55
05-Jan-14	63.51	68.66	72.97	68.08	16-Apr-16	46.36	48.98	51.97	47.21
01-Feb-14	61.95	67.03	71.25	66.39	01-May-16	49.29	51.46	55.05	50.23
16-Feb-14	62.97	68.09	72.37	67.49	07-May-16	48.77	51.46	55.05	50.23
01-Mar-14	63.63	68.78	73.10	68.20	17-May-16	50.02	52.54	55.25	51.54
16-Mar-14	62.33	67.43	71.67	66.80	01-Jun-16	52.28	54.60	57.65	53.88
01-Apr-14	60.89	65.93	70.08	65.25	16-Jun-16	53.53	55.86	58.98	55.19
16-Apr-14	60.41	65.44	69.56	64.73	01-Jul-16	53.04	54.66	58.44	55.36
01-May-14	61.83	66.91	71.12	66.26	16-Jul-16	52.62	54.95	58.03	54.23
16-May-14	60.38	65.41	69.52	64.70	01-Aug-16	50.62	53.06	55.90	52.15
01-Jun-14	59.18	64.16	68.20	63.40	16-Aug-16	48.63	51.35	54.07	50.08
16-Jun-14	57.87	62.80	66.75	61.99	01-Sep-16	51.29	53.63	56.90	52.85
01-Jul-14	60.41	65.52	69.10	64.70	16-Sep-16	50.94	53.33	56.53	52.48
16-Jul-14	59.32	64.39	67.90	63.53	01-Oct-16	50.86	53.27	56.44	52.40
01-Aug-14	58.60	63.64	67.10	62.75	16-Oct-16	53.62	55.96	59.38	55.27
16-Aug-14	59.12	64.18	67.68	63.31	06-Nov-16	54.65	56.99	60.47	56.34
01-Sep-14	57.80	62.81	66.23	61.89	16-Nov-16	52.84	55.18	58.54	54.45
16-Sep-14	57.37	62.36	65.75	61.42	01-Dec-16	52.70	55.04	58.39	54.31
19-Oct-14	54.00	58.85	62.03	57.78	17-Dec-16	54.80	57.15	60.63	56.50
01-Nov-14	51.94	56.70	59.74	55.56	02-Jan-17	55.94	58.28	61.83	57.68
01-Dec-14	51.10	55.83	58.83	54.66	16-Jan-17	57.13	59.48	63.10	58.92
16-Dec-14	49.13	53.78	56.65	52.53	01-Apr-17	53.73	56.08	59.49	57.01
17-Jan-15	46.88	51.77	54.17	50.10	16-Apr-17	54.95	57.30	60.79	58.32
04-Feb-15	44.64	49.77	51.69	47.68	01-May-17	55.47	57.82	61.33	58.87
16-Feb-15	45.25	50.32	52.37	48.34	01-Jun-17	54.06	56.49	59.80	57.33

Source : HPCL

**Table 8.22 : Retail Selling Price (RSP) of major products in India & neighbouring countries**

Indian rupees (₹)/ litre/ cyl.				
Country	Petrol	Diesel	Kerosene	Domestic LPG
India	66.91 <sup>^</sup>	55.94 <sup>^</sup>	20.17 <sup>#</sup>	446.65 <sup>*</sup>
Pakistan	43.63	50.51	27.30	1101.34
Bangladesh	69.64	52.64	52.64	643.93
Sri Lanka	49.78	40.42	18.72	638.47
Nepal	64.25	49.06	49.06	870.37

\*Effective cost after DBTL subsidy effective 01.06.2017

# at Mumbai effective 01.06.2017

<sup>^</sup> as per IOCL effective 01.06.2017

Source: Website of following companies: Pakistan- Pakistan State Oil (www.psopk.com); Bangladesh- Bangladesh Petroleum Corporation (www.bpc.gov.bd); Nepal- Nepal Oil Corporation (www.nepaloil.com.np); Sri Lanka- Petrol; Diesel & Kerosene- Ceylon Petroleum Corporation (www.ceypetco.gov.in); LPG- Litro Gas Lanka (www.litrogas.com); Exchange rate - www.oanda.com

Note: Prices for neighboring countries as on 01.06.2017

### Retail Selling Price (RSP) & % of taxes in RSP of petrol and diesel in developed countries vis-a-vis India

**Table 8.23 : Price and tax in Indian rupees (₹) / litre**

Country	Petrol				Diesel			
	RSP	Ex-tax price	Taxes	% of taxes	RSP	Ex-tax price	Taxes	% of taxes
India	66.91	30.68	36.23	54%	55.94	29.80	26.14	47%
France	98.31	35.49	62.82	64%	87.33	34.23	53.10	61%
Germany	98.46	36.62	61.83	63%	83.03	36.69	46.34	56%
Italy	108.67	37.82	70.85	65%	98.38	37.18	61.20	62%
Spain	87.26	39.65	47.61	55%	78.24	38.80	39.44	50%
UK	98.00	33.28	64.72	66%	100.41	35.28	65.14	65%
Japan	77.23	38.99	38.24	50%	64.78	41.36	23.42	36%
Canada	55.67	37.10	18.57	33%	51.51	37.15	14.37	28%
USA	41.22	33.42	7.81	19%	44.00	35.09	8.90	20%

**Table 8.24 : Price and tax in US dollars (\$) / Litre**

Country	Petrol				Diesel			
	RSP	Ex-tax price	Taxes	% of taxes	RSP	Ex-tax price	Taxes	% of taxes
India	1.04	0.48	0.56	54%	0.87	0.46	0.41	47%
France	1.52	0.55	0.97	64%	1.35	0.53	0.82	61%
Germany	1.53	0.57	0.96	63%	1.29	0.57	0.72	56%
Italy	1.68	0.59	1.10	65%	1.53	0.58	0.95	62%
Spain	1.35	0.61	0.74	55%	1.21	0.60	0.61	50%
UK	1.52	0.52	1.00	66%	1.56	0.55	1.01	65%
Japan	1.20	0.60	0.59	50%	1.00	0.64	0.36	36%
Canada	0.86	0.58	0.29	33%	0.80	0.58	0.22	28%
USA	0.64	0.52	0.12	19%	0.68	0.54	0.14	20%

**Note :**

- Prices of petrol and diesel in France, Germany, Italy, Spain, UK, Japan, Canada & USA as per the IEA report for April 2017 and average exchange rate of April 2017 considered for conversion: ₹ 64.51/USD. (VAT excluded from prices for automotive diesel for France, Italy, Spain and UK as it is refunded to industry.)
- Prices in India as of 1.6.2017 as per IOCL. Average exchange rate of May 2017 (up to 31.05.2017) considered for conversion ₹ 64.42/\$.

**Table 8.25 : Retail Selling Price (RSP) of petroleum products at state/UT capitals as on 01.06.2017**

State/Union Territory	City	Petrol	Diesel	Domestic LPG
		₹/litre		₹/14.2 KG cylinder
<b>States</b>				
Andhra Pradesh	Vizag**	72.21	62.05	577.50
Arunachal Pradesh	Itanagar	63.66	53.85	638.50
Assam	Guwahati	70.28	59.21	625.50
Bihar	Patna	69.99	59.54	646.50
Chhattisgarh	Raipur	68.42	61.30	616.50
Goa	Panjim	61.05	58.62	562.00
Gujarat	Gandhinagar	68.86	62.24	572.50
Haryana	Ambala	66.69	55.96	573.50
Himachal Pradesh	Shimla	68.01	56.45	614.50
Jammu & Kashmir	Srinagar	71.95	59.61	666.50
Jharkhand	Ranchi	69.04	59.40	619.50
Karnataka	Bengaluru	71.74	59.87	561.00
Kerala	Thiruvananthapuram	71.27	61.24	572.50
Madhya Pradesh	Bhopal	<b>74.64</b>	<b>63.24</b>	603.00
Maharashtra	Mumbai	78.44	61.67	554.00
Manipur	Imphal	65.51	54.49	718.00
Meghalaya	Shillong	66.66	55.95	615.50
Mizoram	Aizawl	63.44	53.77	695.50
Nagaland	Kohima	65.78	54.70	596.50
Odisha	Bhubaneswar	67.13	61.11	579.50
Punjab	Jullunder	72.20	56.26	605.00
Rajasthan	Jaipur	69.94	60.17	<b>541.00</b>
Sikkim	Gangtok	70.10	57.90	<b>728.50</b>
Tamil Nadu	Chennai	69.93	59.22	559.50
Telangana	Hyderabad	71.42	61.01	632.00
Tripura	Agartala	63.29	54.41	691.50
Uttarakhand	Dehradun	71.13	58.01	595.00
Uttar Pradesh	Lucknow	69.82	57.38	592.50
West Bengal	Kolkata	69.52	58.28	570.50
<b>Union territory</b>				
Andaman & Nicobar Islands	Port Blair	<b>57.95</b>	<b>52.78</b>	623.00
Chandigarh	Chandigarh**	67.20	56.88	573.50
Daman & Diu	Daman*	65.27	56.71	569.50
Dadra & Nagar Haveli	Silvasa*	65.39	56.82	577.00
Delhi	New Delhi	66.91	55.94	552.50
Puducherry	Puducherry**	65.59	57.83	557.50

\*\* Pilot cities on daily pricing for Petrol &amp; Diesel

Source: IOCL (\* as per HPCL)

<b>Highest</b>	Lowest
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**Table 8.26 : Retail Selling Price (RSP) of PDS kerosene at major cities as on 01.06.2017**

State	City	₹/litre
Maharashtra	Mumbai	20.17
Tamil Nadu	Chennai *	13.60
West Bengal	Kolkata *	21.21

Source: OMCs

Note: The allocation of PDS kerosene in Delhi is nil presently.

\*Subject to confirmation by local authorities

**Table 8.27 : Customs and excise duty rates on petroleum products as on 01.04.2017**

Particulars	Customs duty			Central excise duty		
	Basic customs duty	Additional customs duty (CVD)	Additional customs duty	Basic cenvat duty	Special additional excise duty	Additional excise duty
Crude oil	NIL + ₹ 50/MT as NCCD	Nil	-	Nil+ Cess @20% + ₹ 50/ MT as NCCD	-	-
Petrol	2.5%	₹ 9.48/ltr + ₹ 6.00/ltr SAD	₹ 6.00/ltr	₹ 9.48/ltr	₹ 6.00/ltr	₹ 6.00/ltr
Petrol (branded)	-	-	-	₹ 10.66/ltr	₹ 6.00/ltr	₹ 6.00/ltr
High speed diesel	2.5%	₹ 11.33/ltr	₹ 6.00/ltr	₹ 11.33/ltr	-	₹ 6.00/ltr
High speed diesel (branded)	-	-	-	₹ 13.69/ltr	-	₹ 6.00/ltr
LPG	Domestic	Nil	Nil	-	Nil	-
	Non-domestic	5.0%	8.0%	-	8.0%	-
Kerosene	PDS	Nil	Nil	-	Nil	-
	Non PDS	5.0%	14.0%	-	14.0%	-
Aviation Turbine Fuel (ATF)	Nil	14.0% *	-	14.0% *	-	-
Naphtha	Fertilizer	Nil	Nil	-	Nil	-
	Non-fertilizer	5.0%	14.0%	-	14.0%	-
Butane / propane	Domestic	Nil	Nil	-	Nil	-
	Non-domestic	2.5%	8.0%	-	8.0%	-
Bitumen & asphalt	5.0%	14.0%	-	14.0%	-	-
Furnace Oil (FO)	Fertilizer	Nil	Nil	-	Nil	-
	Non-fertilizer	5.0%	14.0%	-	14.0%	-
Light Diesel Oil (LDO)	5.0%	14% + ₹ 2.50/ ltr	-	14% + ₹ 2.50/ ltr	-	-
Liquefied Natural Gas (LNG)	2.5%	Nil	-	Nil	-	-
Low Sulphur Heavy Stock (LSHS)/ HPS & other residuals	Fertilizer	5.0%	Nil	-	Nil	-
	Non-fertilizer	5.0%	14.0%	-	14.0%	-
Lube oil/greases	5.0%	14.0%	-	14.0%	-	-
Natural gas [gaseous state]	5.0%	Nil	-	Nil	-	-
Natural gas [compressed]	5.0%	14.0%	-	14.0%	-	-
Petroleum coke	2.5%	14.0%	-	14.0%	-	-
Petroleum jelly	5.0%	14.0%	-	14.0%	-	-
Transformer oil	5.0%	14.0%	-	14.0%	-	-
Waxes all types	5.0%	14.0%	-	14.0%	-	-

**Note :**

1. Additional Duty of Customs @4% would be levied in lieu of sales tax / VAT except petrol, diesel, SKO(PDS), LPG(domestic), coal, coke and petroleum gases and fuels of Chapter 27 on direct imports for consumption.
2. In addition to above, education cess @2% on aggregate duties is charged w.e.f. 09.07.2004 and additional 1% is charged w.e.f. 01.03.2007. However, education cess has been removed on Excise duty effective 1st March 2015.
3. \*8% for supply to Schedule Commuter Airlines (SCA) from the Regional Connectivity Scheme (RCS) airports.

**Table 8.28 : Effective rates of sales tax/VAT levied by various states/UTs as on 01.06.2017**

Sl. no.	State/Union Territory		Petrol	Diesel	PDS kerosene	Domestic LPG
			% of capital city rate before VAT			
<b>States</b>						
1	Andhra Pradesh		35.20	30.92	5.00	5.00
2	Arunachal Pradesh		20.00	12.50	4.00	4.00
3	Assam		29.00	20.00	2.00	4.00
4	Bihar		26.00	19.00	6.00	1.00
5	Chhattisgarh		29.89	27.13	4.00	Nil
6	Goa		15.00	22.00	5.02	0.50
7	Gujarat		28.96	28.96	Nil	5.00
8	Haryana		26.25	17.22	Nil	Nil
9	Himachal Pradesh		27.00	16.00	Nil	4.00
10	Jammu & Kashmir		29.60	18.04	5.00	Nil
11	Jharkhand		31.66	24.63	2.00	3.70
12	Karnataka		36.50	24.95	5.50	1.00
13	Kerala		34.09	26.92	5.00	4.04
14	Madhya Pradesh		39.78	30.19	5.00	Basic VAT - Entry tax - 7.10
15	Maharashtra	Mumbai, Thane & Navi Mumbai	47.39	28.28	3.00	3.00
		(Rest of State)	46.72	25.29	3.00	3.00
16	Manipur		25.00	14.50	Nil	5.00
17	Meghalaya		22.63	14.61	Nil	Nil
18	Mizoram		20.00	12.00	Nil	1.79
19	Nagaland		24.68	14.18	5.25	5.35
20	Odisha		27.26	27.26	1.00	1.00
21	Punjab		36.13	17.34	6.05	4.40
22	Rajasthan		32.96	25.77	Nil	Nil
23	Sikkim		30.92	17.88	4.50	4.50
24	Tamil Nadu		34.00	25.00	5.00	Nil
25	Telangana		35.20	27.00	5.00	5.00
26	Tripura		20.00	13.50	Nil	1.50
27	Uttarakhand		33.07	21.00	Nil	5.00
28	Uttar Pradesh		33.14	20.37	4.04	Nil
29	West Bengal		26.89	18.49	Nil	Nil
<b>Union territories</b>						
30	Andaman & Nicobar Islands		Nil	Nil	Nil	Nil
31	Chandigarh		24.76	16.75	5.00	Nil
32	Dadra & Nagar Haveli		20.00	15.00	5.00	5.00
33	Daman & Diu		20.00	15.00	5.00	5.00
34	Delhi		27.00	17.38	5.00	Nil
35	Lakshadweep		Nil	Nil	Nil	Nil
36	Puducherry		20.15	16.65	Nil	0.50

(As per details provided by HPCL/IOCL)

**Note:**

- Effective rate includes VAT, cess, entry tax, additional tax & surcharge recoverable in price.
- In Dadra & Nagar Haveli, Daman & Diu, Chandigarh, Puducherry, Meghalaya and Nagaland (for LPG), there is no depot/plant of OMCs and products are brought in from other states, hence CST @ 2% is also applicable (except for LPG in Puducherry)
- For petrol & diesel, VAT at applicable rates is also levied on dealer's commission in Delhi, Gujarat, Haryana, Madhya Pradesh, Punjab, Dadra & Nagar Haveli, Daman & Diu, Chandigarh, Puducherry and on petrol in Meghalaya.
- For domestic LPG, VAT at applicable rates is also levied on distributor's commission by all states and UTs except Assam.
- Himachal Pradesh has granted rebate on VAT whereby VAT is payable on selling price as reduced by GOI subsidy.
- As per Kerala state Government notification dated 20.1.2014, "for the sale of domestic LPG by Indian oil corporation Limited, Hindustan Petroleum Corporation Limited, Bharat Petroleum Corporation Limited and their agencies, no tax shall be levied on the amount of subsidy granted by the central Government to such corporations and passed on to the consumers during the sale of the same by the said corporations and their agencies". Thus, rate of LPG domestic for supplies as per DBTL scheme exempted to the extent of Subsidy granted by GOI.
- In Jharkhand, VAT rate of domestic LPG remains same but for charging VAT, sale price of subsidized domestic LPG under DBTL scheme will be same as sale price of subsidized domestic LPG which does not come under DBTL scheme.

**Table 8.29 : Actual rate of Sales Tax/ VAT and Other Taxes Levied by State/UT Governments on major petroleum products as on 01.06.2017**

Sl. no.	State/ Union Territory	Petrol	Diesel	PDS kerosene	Domestic LPG	
<b>State</b>						
1	Andhra Pradesh	31% VAT + ₹ 4/litre VAT	22.25% VAT + ₹ 4/litre VAT	5% VAT	5% VAT	
2	Arunachal Pradesh	20% VAT	12.50% VAT	4% VAT	4% VAT	
3	Assam	29% VAT or Rs. 14 per litre, whichever is higher	20% VAT or ₹ 8.75 per litre, whichever is higher	2% VAT	4% VAT	
4	Bihar	26% VAT	19% VAT	6% VAT	1% VAT	
5	Chhattisgarh	1% entry tax + 25% VAT + ₹ 2/litre VAT	1% entry tax + 25% VAT + ₹ 1/litre VAT	4% VAT	Nil	
6	Gujarat	24% VAT+ 4% Cess on Town Rate & VAT	24% VAT + 4 % Cess on Town Rate & VAT	Nil	5% VAT	
7	Goa	15% VAT + 0.5% Green cess	22% VAT + 0.5% Green cess	5% VAT + 0.5% Green cess	0.5% Green cess	
8	Himachal Pradesh	27% VAT	16% VAT	Nil	4% VAT (refer note 1)	
9	Haryana	25% VAT+5% additional tax on VAT	16.40% VAT+5% additional tax on VAT	Nil	Nil	
10	Jharkhand	22% or ₹ 15/litre whichever is higher VAT + ₹ 1000/KL cess	22% or ₹ 8.37/litre whichever is higher VAT + ₹ 1000/KL cess	2% VAT	5% VAT (refer note 2)	
11	Jammu & Kashmir	24% MST+ ₹ 3000/KL employment cess	16% MST+ ₹ 1000/KL employment cess	5% VAT	Nil	
12	Kerala	31.80% sales tax+ ₹ 1/litre additional sales tax + 1% cess	24.52% sales tax+ ₹ 1/litre additional sales tax + 1% cess	5% VAT	5% VAT (refer Note no. 3)	
13	Karnataka	5% entry tax+ 30% sales tax	5% entry tax+19% sales tax	5.50% VAT	1% VAT	
14	Madhya Pradesh	1% entry tax + 31 % VAT + ₹ 4/litre VAT	1% entry Tax + 27% VAT + ₹ 1.50/litre VAT	5% VAT	2% entry tax+5 % VAT	
15	Maharashtra	Mumbai, Thane & Navi Mumbai	26% VAT+ ₹ 11/Litre additional tax	24% VAT + ₹ 2/KL additional tax	3% VAT	3% VAT
	(Rest of State)	25% VAT+ ₹ 11/Litre additional tax	21% VAT + ₹ 2/KL additional tax	3% VAT	3% VAT	
16	Manipur	25% VAT	14.50% VAT	Nil	5 % VAT	
17	Meghalaya	22% VAT + 2% surcharge	13.5% VAT +2% surcharge	Nil	Nil	
18	Mizoram	20% VAT	12% VAT	Nil	1.79% VAT	
19	Nagaland	23.5% VAT +5% surcharge	13.5% VAT+ 5% surcharge	5% VAT+5% surcharge	5% VAT+5% surcharge	
20	Odisha	1% entry Tax + 26% VAT	1% entry Tax+ 26% VAT	1% entry Tax	1% entry Tax	
21	Punjab	₹ 2050/KL (cess) +28% VAT+10% additional tax on VAT	₹ 1050/KL (cess)+13.40% VAT+10% additional tax on VAT	5.5% VAT+10% additional tax on VAT	4% VAT+10% additional tax on VAT	
22	Rajasthan	30% VAT+ ₹ 1500/KL road development cess	22% VAT+ ₹ 1750/KL road development cess	Nil	Nil	
23	Sikkim	25% VAT+ ₹ 3000/KL cess + ₹ 100/KL sikkim consumer welfare fund	17.5% VAT + ₹ 2500/KL cess + ₹ 100/KL sikkim consumer welfare fund	4.50% VAT	4.50% VAT	
24	Tamil Nadu	34% VAT	25% VAT	5% VAT	Nil	
25	Telangana	35.20% VAT	27% VAT	5% VAT	5% VAT	
26	Tripura	20% VAT	13.50% VAT	Nil	1.50% VAT	
27	West Bengal	25% or ₹ 13.12/litre whichever is higher as sales tax+ ₹ 1000/KL cess	17% or ₹ 7.70/litre whichever is higher as sales tax + Rs 1000/KL cess - ₹ 290/KL sales tax rebate	Nil	Nil	
28	Uttar Pradesh	26.80% or ₹ 16.74 per litre whichever is higher as VAT	17.48% or ₹ 9.41 per litre whichever is higher as VAT	4% VAT +1% additional tax on VAT	Nil	
29	Uttarakhand	25% or ₹ 17/litre whichever is higher as VAT	21% VAT or ₹ 9/litre whichever is higher as VAT	Nil	5% VAT (refer note4)	
<b>Union territories</b>						
30	Andaman & Nicobar Islands	Nil	Nil	Nil	Nil	
31	Chandigarh	₹ 10/KL cess +24.74% VAT	₹ 10/KL cess + 16.40% VAT	5% VAT	Nil	
32	Dadra & Nagar Haveli	20% VAT	15% VAT	5% VAT	5% VAT	
33	Daman & Diu	20% VAT	15% VAT	5% VAT	5% VAT	
34	Delhi	27% VAT	₹ 250/KL air ambience charges + 16.75% VAT	5% VAT	Nil	
35	Lakshadweep	Nil	Nil	Nil	Nil	
36	Puducherry	20.15% VAT	16.65% VAT	Nil	0.50% VAT for DBTL / 1 % VAT for Non-DBTL	

**Source :** OMCs

**Note :**

- Himachal Pradesh has granted rebate on VAT whereby VAT is payable on selling price as reduced by GOI subsidy (DBTL).
- VAT rate of domestic LPG remains same but for charging VAT, sale price of subsidized domestic LPG under DBTL scheme will be same as sale price of subsidized domestic LPG which does not come under DBTL scheme.
- Rate of LPG Domestic for supplies as per DBTL scheme exempted to the extent of subsidy granted by GOI.
- VAT rebate on amount of subsidy granted by GOI, to seller of LPG for Domestic use at every point of sale provided rebate is passed on to purchaser

**Table 8.30 : Contribution of petroleum sector to exchequer**

(₹ crore)					
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
<b>1. Contribution to Central exchequer</b>					
<b>A. Tax/ duties on crude oil &amp; petroleum products</b>					
Cess on crude oil	16285	16183	15934	15470	13285
Royalty on crude oil / gas	4366	4551	3858	4885	4649
Customs duty	4540	5042	4767	7446	9521
Excise duty	73310	77982	99184	178591	242691
Service tax	1591	2092	2181	2837	2956
Others	247	241	295	307	399
<b>Sub total (A)</b>	<b>100339</b>	<b>106090</b>	<b>126219</b>	<b>209536</b>	<b>273502</b>
<b>B. Dividend to Government/ income tax etc.</b>					
Corporate/ income tax	21385	23326	23727	24642	31593
Dividend income to central Government	9266	9164	9197	10217	17501
Dividend distribution tax	2269	2951	3500	4590	6197
Profit petroleum on exploration of oil/ gas*	9367	11369	9423	9457	5742
<b>Sub total (B)</b>	<b>42287</b>	<b>46810</b>	<b>45847</b>	<b>48907</b>	<b>61032</b>
<b>Total contribution to Central exchequer (A+B)</b>	<b>142626</b>	<b>152900</b>	<b>172066</b>	<b>258443</b>	<b>334534</b>
<b>2. Contribution to State exchequer</b>					
<b>C. Tax/ duties on crude oil &amp; petroleum products</b>					
Royalty on crude oil / gas	13306	14493	14159	7932	10791
Sales tax/ VAT	115036	129045	137157	142848	166378
Octroi/ duties (incl. electricity duty)	3391	4156	3838	2712	3524
Entry tax / others	4288	4748	5372	6622	7742
<b>Sub total (C)</b>	<b>136021</b>	<b>152442</b>	<b>160526</b>	<b>160114</b>	<b>188435</b>
<b>D. Dividend to Government/ direct tax etc.</b>					
<b>Dividend income to state Government</b>	<b>14</b>	<b>18</b>	<b>28</b>	<b>95</b>	<b>183</b>
<b>Sub total (D)</b>	<b>14</b>	<b>18</b>	<b>28</b>	<b>95</b>	<b>183</b>
<b>Total contribution to State exchequer (C+D)</b>	<b>136035</b>	<b>152460</b>	<b>160554</b>	<b>160209</b>	<b>188618</b>
<b>Total contribution of petroleum sector to exchequer (1+2)</b>	<b>278660</b>	<b>305360</b>	<b>332620</b>	<b>418652</b>	<b>523152</b>

Note :

- Information as per details provided by oil companies.
- Profit petroleum on exploration of oil/ gas as provided by MOP&NG.

**Table 8.31 : Contribution of taxes and duties on petroleum products to Central exchequer vis-a-vis payout by Government**

(₹ crore)					
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
<b>Tax/ duties on petroleum products to Central exchequer (a)</b>	<b>100339</b>	<b>106090</b>	<b>126219</b>	<b>209536</b>	<b>273502</b>
<b>Payout by Government</b>					
Cash assistance by Government towards OMCs' under recoveries	100000	70772	27308	10245	7595
Subsidy on PDS kerosene and domestic LPG <sup>^</sup>	2730	2580	0	0	3293
Freight subsidy on PDS kerosene and domestic LPG <sup>^</sup>	23	21	23	0	0
Gas subsidy for North East <sup>^</sup>	627	625	661	660	745
Total DBTL subsidy claims (including permanent advance and project management expenditure)	0	3912	3971	22011	12986
Total PMUY Claims(including PME & IEC)	0	0	0	0	2999
Total DBTK Subsidy Claims	0	0	0	0	11
<b>Total payout by Government (b)</b>	<b>103380</b>	<b>77910</b>	<b>31963</b>	<b>32916</b>	<b>27629</b>
<b>Net contribution to central exchequer (a-b)</b>	<b>-3041</b>	<b>28180</b>	<b>94256</b>	<b>176620</b>	<b>245873</b>

<sup>^</sup> Cash payout under the subsidy schemes is on payment basis.

**Table 8.32 : State wise collection of sales tax/ VAT by petroleum sector**

						(₹ Crore)
Sl. no.	State/Union territory	2012-13	2013-14	2014-15	2015-16	2016-17
<b>States</b>						
1	Andhra Pradesh	11282	12604	8777	7806	8908
2	Arunachal Pradesh	39	54	56	54	26
3	Assam	1948	2160	2268	2163	2571
4	Bihar	2790	2931	2885	3638	4501
5	Chhattisgarh	1987	2397	2645	2617	3200
6	Goa	379	388	478	534	650
7	Gujarat	13572	14610	15879	14701	15958
8	Haryana	3964	4591	5112	5976	7000
9	Himachal Pradesh	182	204	234	263	317
10	Jammu & Kashmir	844	941	951	1004	1110
11	Jharkhand	1478	1825	2076	2476	2967
12	Karnataka	7215	7800	8668	8652	11103
13	Kerala	4515	5173	5378	6121	6899
14	Madhya Pradesh	5417	6232	6832	7631	9160
15	Maharashtra	17359	19141	19795	19417	23160
16	Manipur	82	102	116	114	117
17	Meghalaya	2	3	2	1	1
18	Mizoram	60	44	58	53	48
19	Nagaland	60	64	83	80	78
20	Odisha	2098	2520	2865	3027	4283
21	Punjab	3386	3853	4179	4907	5833
22	Rajasthan	6045	7396	8373	9211	10591
23	Sikkim	48	66	74	98	105
24	Tamil Nadu	11379	12297	12316	11004	12563
25	Telangana	0	0	4527	6391	7552
26	Tripura	159	160	180	197	168
27	Uttar Pradesh	10344	11607	12579	14175	15850
28	Uttarakhand	825	1049	1157	1221	1414
29	West Bengal	4818	5510	5563	5869	6427
<b>Union territories</b>						
30	Andaman & Nicobar Islands	0	0	0	41	0
31	Chandigarh	71	74	84	75	54
32/ 33	Dadra and Nagar Haveli/ Daman & Diu	84	115	149	152	156
34	Delhi	2575	3108	2798	3158	3589
35	Lakshadweep	0	0	0	0	0
36	Puducherry	27	29	22	18	22
<b>TOTAL</b>		<b>115036</b>	<b>129045</b>	<b>137157</b>	<b>142848</b>	<b>166378</b>

Source: Oil companies

**Table 8.33 : Profit After Tax (PAT) of oil companies**

(₹ Crore)					
Companies	2012-13	2013-14	2014-15	2015-16	2016-17
<b>PSU upstream companies</b>					
ONGC	20926	22095	17733	16004	17900
OIL	3589	2981	2510	2330	1549
GAIL	4022	4375	3039	2299	3503
<b>Total</b>	<b>28537</b>	<b>29451</b>	<b>23282</b>	<b>20633</b>	<b>22951</b>
<b>PSU downstream Oil Marketing Companies (OMCs)</b>					
IOCL	5005	7019	5273	10399	19106
BPCL	2643	4061	5085	7432	8039
HPCL	905	1734	2733	3863	6209
<b>Total</b>	<b>8553</b>	<b>12814</b>	<b>13091</b>	<b>21694</b>	<b>33355</b>
<b>PSU stand alone refineries</b>					
MRPL	(757)	601	(1712)	1148	3642
CPCL	(1767)	(304)	(39)	771	1030
NRL	144	371	718	1222	2101
<b>Total</b>	<b>(2380)</b>	<b>668</b>	<b>(1033)</b>	<b>3141</b>	<b>6773</b>
<b>PSU consultancy companies</b>					
EIL	629	480	308	258	325
<b>Total</b>	<b>629</b>	<b>480</b>	<b>308</b>	<b>258</b>	<b>325</b>
<b>Private sector companies</b>					
RIL	20879	22493	23566	27630	31425
EOL	(1180)	126	1522	2162	*
<b>Total</b>	<b>19699</b>	<b>22619</b>	<b>25088</b>	<b>29792</b>	<b>31425</b>

Source: Published results/ information provided by oil companies.

\* Not available

**Table 8.34 : Financial details of oil companies**

2015-16									
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL
(₹ Crore)									
Net sales / income from operation	349321	189098	179281	77796	9265	51614	39632	25980	10029
Profit Before Interest and Tax (PBIT)	18840	11214	6378	23402	3810	3813	1751	1097	1905
Interest	3000	563	640	11	346	640	578	309	22
Tax	5440	3219	1875	7387	1133	874	25	17	661
Profit After Tax (PAT)	10399	7432	3863	16004	2330	2299	1148	771	1222
Net worth	73657	27159	18356	151023	22302	30314	6420	3297	3958
Borrowings (loan fund)	52469	15976	21337	0	9199	8118	6820	3560	498
<b>Ratios</b>									
PAT as % of turnover (net sales)	3.0%	3.9%	2.2%	20.6%	25.1%	4.5%	2.9%	3.0%	12.2%
Debt (loan fund) to equity ratio	0.71	0.59	1.16	0.00	0.41	0.27	1.06	1.08	0.13
Earning Per Share (EPS)	42.83	102.78	114.08	18.70	38.76	18.12	6.55	48.98	16.62

2016-17									
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL
(₹ Crore)									
Net sales / income from operation	438692	241859	213489	77489	9188	48789	59415	40586	13947
Profit Before Interest and Tax (PBIT)	29767	11539	9556	26437	2543	5890	6049	1638	3170
Interest	3445	496	536	1222	397	479	519	273	22
Tax	7215	3003	2812	7316	598	1908	1888	335	1047
Profit After Tax (PAT)	19106	8039	6209	17900	1549	3503	3642	1030	2101
Net worth	99729	29668	20347	185538	22647	32349	10070	3314	5181
Borrowings (loan fund)	54820	23159	21250	0	8948	5062	6609	5498	505
<b>Ratios</b>									
PAT as % of turnover (net sales)	4.36%	3.32%	2.91%	23.10%	16.86%	7.18%	6.13%	2.54%	15.06%
Debt (loan fund) to equity ratio	0.55	0.78	1.04	0.00	0.40	0.16	0.66	1.66	0.10
Earning Per Share (EPS)	40.31	61.31	61.12	13.95	19.32	20.71	20.79	69.15	28.55

Source : Published results/ Information provided by oil companies

**Table 8.35 : Total subsidy on petroleum products & natural gas**

(₹ Crore)					
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Petrol	0	0	0	0	0
Diesel	92061	62837	10935	0	0
PDS kerosene	29410	30574	24799	11496	7595
Domestic LPG	39558	46458	36580	18	0
<b>Total under-recoveries (A)</b>	<b>161029</b>	<b>139869</b>	<b>72314</b>	<b>11515</b>	<b>7595</b>
PDS Kerosene and Domestic LPG Subsidy Scheme, 2002*	2730	2580	0	0	3293
Freight Subsidy (For Far-Flung Areas) Scheme, 2002*	23	21	23	0	0
Natural gas subsidy for North East*	627	625	661	660	745
<b>Total Fiscal Subsidies (B)</b>	<b>3380</b>	<b>3226</b>	<b>684</b>	<b>660</b>	<b>4038</b>
Total DBTL subsidy (claims)	0	3869	3971	16056	12133
Permanent Advance (PA) / one time incentive*	0	0	0	5755	853
Project Management Expenditure (PME)*	0	43	0	200	0
<b>Total DBTL related subsidies (C)</b>	<b>0</b>	<b>3912</b>	<b>3971</b>	<b>22011</b>	<b>12986</b>
<b>PMUY (Claims)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2999</b>
<b>PME &amp; IEC under PMUY*</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total PMUY related subsidy (D)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2999</b>
<b>DBTK Subsidy (claims) (E)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>
<b>Total subsidy/ under-recovery on petroleum products &amp; natural gas (A+B+C+D+E)</b>	<b>164409</b>	<b>147007</b>	<b>76969</b>	<b>34186</b>	<b>27629</b>

\*on payment basis.

**Table 8.36 : Under-recoveries and burden sharing**

(₹ Crore)						
Sl. no.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
<b>A</b>	<b>Under-recovery - product wise</b>	<b>161029</b>	<b>139869</b>	<b>72314</b>	<b>11515</b>	<b>7595</b>
	MS	0	0	0	0	0
	HSD	92061	62837	10935	0	0
	Domestic LPG	39558	46458	36580	18	0
	PDS Kerosene	29410	30574	24799	11496	7595
<b>B</b>	<b>Under-recovery - company wise</b>	<b>161029</b>	<b>139869</b>	<b>72314</b>	<b>11515</b>	<b>7595</b>
	IOCL	85793	72938	39758	7757	5149
	BPCL	38990	34463	16141	1798	1173
	HPCL	36246	32468	16416	1960	1273
<b>C</b>	<b>Government - cash assistance - company wise</b>	<b>100000</b>	<b>70772</b>	<b>27308</b>	<b>10245</b>	<b>7595</b>
	( % of under-recovery)	62.1%	50.6%	37.8%	89.0%	100.0%
	IOCL	53278	37182	14960	6885	5149
	BPCL	21897	18374	7290	1598	1173
	HPCL	24825	15215	5058	1761	1273
<b>D</b>	<b>Upstream oil companies - discount on crude oil &amp; product</b>	<b>60000</b>	<b>67021</b>	<b>42822</b>	<b>1251</b>	<b>0</b>
	( % of under-recovery)	37.3%	47.9%	59.2%	10.9%	0.0%
	ONGC	(49421)	(56384)	(36300)	(1096)	0
	OIL	(7892)	(8737)	(5523)	(155)	0
	GAIL	(2687)	(1900)	(1000)	0	0
	<b>Total - discount given</b>	<b>(60000)</b>	<b>(67021)</b>	<b>(42822)</b>	<b>(1251)</b>	<b>0</b>
	IOCL	31967	34674	23597	863	0
	BPCL	16844	15577	8363	198	0
	HPCL	11189	16771	10862	190	0
	<b>Total - discount received</b>	<b>60000</b>	<b>67021</b>	<b>42822</b>	<b>1251</b>	<b>0</b>
<b>E</b>	<b>Borne by OMCs</b>	<b>1029</b>	<b>2076</b>	<b>2184</b>	<b>18</b>	<b>0</b>
	( % of under-recovery)	0.6%	1.5%	3.0%	0.2%	0.00%
	IOCL	548	1083	1201	9	0
	BPCL	249	512	487	1	0
	HPCL	232	482	496	8	0



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# Chapter-9 Miscellaneous

**Table 9.1 : Average international Calorific Values of different fuels**

A.	Oil products	M Cals/tonne or K Cal/Kg
	NGL	12135
	Kerosene	10638
	Motor Gasoline	11135
	Fuel Oil	10440
B.	Natural gas production (average) - India	8000-9480 K cal/SCM
C.	India	M Cals/tonne or K Cal/Kg
	Charcoal	6900
	Hard coal	5000
	Firewood	4750
	Lignite-Brown coal	2310

Source : Indian Petroleum & Natural Gas Statistics, MOP&NG

Conversion factor : 1 K Cal = 4.19 K Joules

### Conversion factors

**Table 9.2 : Weight to volume conversion**

Product	Weight (MT)	Volume (KL)	BBL	To convert volume at 29.5° C to volume at 15°C multiply by
Petrol	1	1.4110	8.88	0.9830
Diesel	1	1.2100	7.61	0.9879
Kerosene	1	1.2850	8.08	0.9864
ATF	1	1.2880	8.10	0.9862
Light Diesel Oil	1	1.1720	7.37	0.9877
Furnace Oil	1	1.0710	6.74	0.9899
Crude Oil	1	1.1700	7.33	

Source: Indian Petroleum & Natural Gas Statistics / Petrol and Diesel are as per BS-IV norms

**Table 9.3 : Volume conversion**

1 US Bbl.	159 Litres
1 US Gallon	3.78 Litres
1 Kilo Litre (KL)	6.29 Bbl.
1 US Bbl.	42 Gallons
1 MBD (million barrels per day)	50 MMTPA

**Table 9.4 : Contents of LPG & Natural Gas**

Natural Gas	Contains 60-95 % Methane
LPG	Contains Propane (40%) & Butane (60%)

**Table 9.5 : Natural gas conversions**

1 SCM (Standard Cubic Meter)	= 1 cubic metre @ 1 atmosphere pressure and 15.56 °C	
1 Cubic Metre	= 35.31 Cubic feet	
1 BCM(Billion Cubic Metre) / Year of gas (consumption or production)	= 2.74 MMSCMD	365 Days a Year
1 TCF (Trillion Cubic Feet) of Gas Reserve	= 3.88 MMSCMD	100% Recoverable for 20 years @ 365 days / Annum)
1 MMTPA of LNG	= 3.60 MMSCMD	Molecular Weight of 18 @ 365 days/Annum)
1 MT of LNG	= 1314 SCM	Molecular Weight of 18
Gross Calorific Value (GCV)	= 10000 Kcal/ SCM	
Net Calorific Value (NCV)	= 90% of GCV	
1 Million BTU (MMBTU)	= 25.2 SCM	@10000 Kcal/SCM; 1 MMBTU= 252,000 Kcal)
Specific Gravity of Gas	= 0.62	Molecular Weight of Dry Air=28.964 gm/mole)
Density of Gas	= 0.76 Kg/SCM	Molecular Weight of Gas 18 gm/mol
Gas required for 1 MW of Power generation	= 4541 SCM per Day	Station Heat Rate (SHR);~1720 Kcal/Kwh-NCV (50% Thermal Efficiency); Natural Gas GCV-@10000Kcal/SCM
Power Generation from 1 MMSC-MD Gas	= 220 MWH	Station Heat Rate (SHR);~1720 Kcal/Kwh-NCV (50% Thermal Efficiency); Natural Gas GCV-@10000Kcal/SCM

Source : GAIL (India) Ltd.

**Table 9.6 : Major end use of petroleum products**

Product	Major end use
LPG	Domestic and auto fuel. Also for industrial application where technically essential.
Naphtha	Feedstock/fuel for fertiliser units, feedstock for petrochemical sector and fuel for power plants.
MS	Fuel for passenger cars, taxies, two & three wheelers.
ATF	Fuel for aircrafts.
SKO	Fuel for cooking & lighting.
HSD	Fuel for transport sector (railways/road), agriculture (tractors, pumpsets, threshers, etc.) and captive power generation.
LDO	Fuel for agricultural pumpsets, small industrial units, start up fuel for power generation.
FO/LSHS	Secondary fuel for thermal power plants, fuel/feedstock for fertiliser plants, industrial units.
Bitumen	Surfacing of roads.
Lubes	Lubrication for automotive and industrial applications.
Other products (Benzene, Toluene, MTO, LABFS, CBFS, Paraffin wax etc.)	Feedstock for value added products.

**Information about key officers of MoP&NG**

Department	Name (S/Shri)	Designation	Telephone No.	Fax No.
<b>Secretary</b>	<b>Kapil Dev Tripathi</b>	<b>Secretary</b>	<b>23383501</b>	<b>23070723</b>
			<b>23383562</b>	
	Manish Makhija	PS to Secretary	23383501/23383562	
<b>Additional Secretary</b>		<b>Additional Secretary</b>	<b>23381052</b>	<b>23386090</b>
	Narender S Negi	PPS to Additional Secretary	23381052	
<b>Finance</b>		<b>Additional Secretary &amp; FA</b>	<b>23381704</b>	<b>23074226</b>
	Prasanna Ranjan	PPS to AS & FA	23381704	
	<b>Sukh Ram Meena</b>	<b>DDG(IFD)</b>	<b>23389459</b>	<b>23383585</b>
	<b>Ms Perin Devi</b>	<b>Dir (IFD)</b>	<b>23386965</b>	<b>23386965</b>
<b>Economic &amp; Statistics</b>	<b>Ms Urvashi Sadhwani</b>	<b>Sr. Adviser</b>	<b>23385823</b>	<b>23383752</b>
	K S N Rao	PPS to Sr. Adviser	23385823	
	<b>Ms Indrani Kaushal</b>	<b>Economic Adviser</b>	<b>23383753</b>	<b>23383752</b>
<b>Exploration</b>	<b>Amar Nath</b>	<b>Jt. Secretary (E)</b>	<b>23381832</b>	<b>23070562</b>
	V.K. Suman	PPS to JS (E)	23381832	
	<b>Diwakar Nath Misra</b>	<b>Dir (Exploration-I/III &amp; Vig.)</b>	<b>23388764</b>	<b>23388764</b>
	<b>Sanjay Kumar Jain</b>	<b>Dir (Exploration - II)</b>	<b>23386526</b>	<b>23303100</b>
<b>Refinery and Administration</b>	<b>Sandeep Poundrik</b>	<b>Joint Secretary (Refineries) &amp; CVO</b>	<b>23386935</b>	<b>23382673</b>
	T Satish Kumar	PS to JS (R )	23386935	
	<b>Vijay Sharma</b>	<b>Director (S&amp;P and CA)</b>	<b>23073069</b>	<b>23383585</b>
	<b>Ms Anuradha S. Chagti</b>	<b>Director (Admin &amp; FP)</b>	<b>23383678</b>	<b>23383100</b>
	<b>Ajit Kumar</b>	<b>DS (R)</b>	<b>23387936</b>	
<b>Marketing</b>	<b>Ashutosh Jindal</b>	<b>Joint Secretary (M)</b>	<b>23382418</b>	<b>23384401</b>
	Sampooran Singh	PPS to JS(M)	23382418	23384401
	<b>Alok Tripathi</b>	<b>Dir. (D &amp; MC)</b>	<b>23070593</b>	
	<b>K M Mahesh</b>	<b>DS (LPG)</b>	<b>23387404</b>	<b>23383100</b>
<b>Gas Projects</b>	<b>Ashish Chatterjee</b>	<b>Joint Secretary (GP)</b>	<b>23073165</b>	<b>23398804</b>
	Ms Shikha Khurana	PS to JS(GP)	23073165	
	<b>Ms Kiran Vasudeva</b>	<b>DS (GP)</b>	<b>23387467</b>	<b>23383100</b>
<b>International Cooperation</b>	<b>Sunjay Sudhir</b>	<b>Joint Secretary (IC)</b>	<b>23382583</b>	<b>23073475</b>
	Ms Savita Sen	PPS to JS (IC)	23382583	
	<b>Praphullachandra Sharma</b>	<b>DS (I/C)</b>	<b>23383508</b>	<b>23383100</b>
<b>General</b>	<b>Ms Sushma Rath</b>	<b>Joint Secretary (General)</b>	<b>23386407</b>	<b>23383100</b>
	Madhu Kumar	PA to JS (G)	23386407	
	<b>Vijay Gopal Mangal</b>	<b>DS(Gen)</b>	<b>23381029</b>	<b>23383100</b>

**Information about key officers of PPAC**

Department	Name (S/Shri)	Designation	Telephone No.	Fax No.
<b>Director General's office</b>	<b>Ms. Atreyee Das</b>	<b>Director General</b>	<b>24361616</b>	<b>24361253</b>
	P R Nair	PS to Director General	24361081	
<b>Finance</b>		<b>Director (Finance)</b>	<b>24360356</b>	<b>24364227</b>
	Ms. Satbir Hira	PS to Director (F)	24360356	24364227
<b>Demand &amp; Economic Studies</b>	<b>Rohit Dawar</b>	<b>Addl. Director I/C (D&amp;ES)</b>	<b>24362486 / 24306181</b>	<b>24361253</b>
<b>Supply</b>	<b>Ms. B M Sujatha</b>	<b>Addl. Director I/C (S)</b>	<b>24360352 / 24306141</b>	<b>24361253</b>
<b>Administration</b>	<b>Sunil Kumar</b>	<b>Jt. Director I/C (HR&amp;C)</b>	<b>24361717 / 24306111</b>	<b>24364225</b>
<b>IT</b>	<b>Ms. Maninder Kaur Narula</b>	<b>Jt. Director I/C (IT)</b>	<b>24306151</b>	<b>24361253</b>
<b>Marketing</b>	<b>R K Gupta</b>	<b>Jt. Director I/C (Mktg.)</b>	<b>24360489 / 24306171</b>	<b>24361253</b>
<b>Gas</b>	<b>Jitender Sharma</b>	<b>Jt. Director I/C (Gas)</b>	<b>24306143</b>	<b>24361253</b>

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