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Azadi Ka  
Amrit Mahotsav



# India's Oil & Gas READY RECKONER

Oil Industry Information  
at a Glance

June  
2022

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

### **Suggestions & Feedback**

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

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PPAC also thanks various organizations from the Oil & Gas sector for providing useful inputs for inclusion in the Ready Reckoner.

### **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 action taken by any one based on information contained in this publication.

# Preface

Petroleum Planning & Analysis Cell (PPAC), an attached office of the Ministry of Petroleum & Natural Gas (MoPNG), Government of India, collects and analyses data on the Oil and Gas sector. It disseminates many reports on the Oil & Gas sector to various stakeholders. The data is obtained from Public Sector companies, Government agencies as well as the Private companies. Given the ever-increasing demand for energy and transition of energy to renewables and Biofuels, Policy makers and Analysts need to be well informed about the updated trends in the Oil & Gas industry. PPAC, publishes the 'Ready Reckoner' bi-annually, a massive data bank for Oil & Gas industry of the country. Ready Reckoner June – 2022 edition contains the latest information for FY2021-22 and historical time series data in nine broad chapters for policymakers, academicians, analysts, market researchers & the industry in a single volume.

India has achieved various major milestones in the energy space over the last one year and has achieved some targets well ahead of time. Some of these are listed below:

- India released detailed “Roadmap for Ethanol Blending Programme in India 2020-25” in June-2021 preponing 20% ethanol blending to 2025-26.
- India launched “National Hydrogen Mission’ on 75th Independence Day with a target production of 5 million tonnes of Green Hydrogen by 2030.
- The Government has set a target of 15% energy share of natural gas by 2030 from the current 6.7% share along with expansion of natural gas grid to about 33,500 Km from the current 21,715 Km.
- The Central Government has taken up several green finance initiatives for ‘Decarbonization of Transport’.
- The Union Cabinet has approved ‘Deregulation of sale of domestically produced Crude Oil’ granting marketing freedom for all Exploration & production operators in the country.
- Government extended Universal service Obligations (USO) for all Retail Outlets (ROs) in India ensuring availability of Motor Spirit (MS) and High-Speed Diesel (HSD) for all time during working hours without any discrimination among the customers.

During FY 2021-22, PPAC also undertook/ co-ordinated several studies/activities, some of which are mentioned below:

- a) Roadmap to reduce India’s import dependence in Energy
- b) Energy Demand Projection Model (EDPM) for assessing consumption of all POL

products during 2020-2045,

- c) Review on definition of remote retail outlets,
- d) Data Governance Quality Index (DGQI) for data quality assessment of schemes under MoP&NG,
- e) Strategies to increase the share of Gas consumption in the primary energy mix by 2030
- f) Study on LPG outlook for next 10 years

PPAC publishes the Oil & Gas industry data on its website [www.ppac.gov.in](http://www.ppac.gov.in). This data is obtained from the Public Sector Oil & Gas Companies, Government bodies and Private Companies. The collected metadata are processed and debugged by various layers of checking before it is published in Ready Reckoner or some other e-platform.

In this version of Ready Reckoner, some newly introduced features are: -

- Sectoral end use analysis for POL for 2021-22
- Alternate fuel infrastructure at Retail Outlets
- 2021-22 at a glance

The Ready Reckoner is also published on PPAC's website (<https://www.ppac.gov.in>) and on our mobile app - PPACE which can be downloaded on mobile device through both Google Play Store and Apple Store. The publication of Ready Reckoner is a concerted effort by all Divisions of PPAC and I would like to place on record my sincere appreciation of the diligent efforts of the officers and staff of PPAC who have contributed in bringing out this edition in a timely manner. Cooperation of the Oil & Gas industry and various organizations is sincerely acknowledged for their timely inputs.

PPAC welcomes feedback and suggestions for broadening the coverage and contents of the data being disseminated through this publication. The comments and feedback may be sent to [epankaj.sharma@ppac.gov.in](mailto:epankaj.sharma@ppac.gov.in) and [dirgen@ppac.gov.in](mailto:dirgen@ppac.gov.in).



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

## Objectives

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

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# Chapter-1 General

# 2021-22 at a Glance

## Consumption

- Overall consumption of POL for the FY22 in India was recorded at 204.23 metric tonnes (MT) with a growth of 5.1% over the previous financial year. India has maintained its position as the third-largest global energy consumer behind China and the USA.
- Motor Spirit (MS) continues to be a growth driver in the Oil consumption in India with a growth of 10.3% over FY21 & surpassing the pre-pandemic volumes. High-Speed Diesel (HSD), the highest volume product, achieved a growth of 5.5% over FY21, but it remained below the pre-pandemic levels recording 92.8% of 2019-20 volumes.
- The sales of Aviation Turbine Fuel (ATF) in FY22 remained at 62.6% of the pre-pandemic volumes, despite recording a growth of 35.4% during FY 22 as compared to the previous year.
- Government of India, with the aim of ensuring India's energy security, has been promoting the Ethanol Blended Petrol (EBP) Programme. The target of 20% ethanol blending was advanced from 2030 to 2025-26. In this regard, the PSU Oil Marketing Companies (OMCs) crossed the 10% blending of ethanol in MS in February 2022 at 10.49% and continued the trend there after.
- OMCs are currently providing the facility of alternate fuels at 7,771 (Retail Outlets) ROs across India. This includes 31 standalone Compressed Bio-Gas (CBG) selling outlets and 3,740 CNG stations. The EV charging infrastructure has been added at 3,284 Retail outlets
- LPG consumption recorded a volume of 28.58 MMT in FY22 which is 7.6% higher than pre pandemic year.
- Pradhan Mantri Ujjwala Yojana saw launch of the second phase of the scheme called PMUY 2.0. There were 30.53 crore active domestic LPG customers as on 01.04.2022. Out of these, 8.99 crore are PMUY – Ujjawala beneficiaries.

## Supply

- Indigenous Crude Oil production including condensate in FY22 was 29.7 MMT.

Share of ONGC was 65.5 %, share of OIL was 10.1 % and Production Sharing Contracts (PSC) has 24.4 % those of the total production.

- As of April 2022, India's oil refining capacity stood at 251.2 million metric tonnes per annum (MMTPA), making it the second-largest refiner in Asia & fourth largest in the World.
- Indian refiners processed 241.7 MMT during FY22 which is 9.0 % higher than FY21. Overall Capacity utilization by Indian refineries was 97.0 % as compared to 89.1 % in FY21.
- Exports of POL products increased by 10.5% during FY22 as compared to previous year.
- As of 01.04.2022, total length of crude oil pipeline network across India is 10,419 km with capacity of 147.9 MMTPA. During FY22 the utilization of the crude oil pipelines increased by 5.7 percentage. Product pipelines including LPG pipelines have a total network of 18,820 km and 115.7 MMTPA capacity.

### **Natural Gas**

- Domestic Gross Production of Natural Gas showed an increase of ~18.7% from the previous FY i.e. an increase of 5,352 MMSCM from 28,672 MMSCM in the FY21 to 34,024 MMSCM in the FY22.
- LNG Imports in volume terms declined by ~6.8% i.e. from 33,031 MMSCM in the FY21 to 30,776 MMSCM in the FY22.
- In terms of infrastructure, in comparison to numbers last year, number of CNG stations increased by ~43.2% to 4,433 against 3,095 CNG stations in 2020-21.
- As of July 2022, there was about 21,715 km long Natural Gas pipeline network which is operational in the country. In order to make available natural gas across the country, it has been envisaged to develop additional about 11,785 km pipelines.

### **Finance**

- The monthly average price of Indian basket of crude oil rose to \$112.87 per barrel at the end of the financial year in March 2022 from \$63.40 per barrel at the beginning in April 2021.

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

General								
Sl. no.	Particular	Source	Unit/ Base	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
1	Population-(World Bank database)@	Census of India	Billion	1.34	1.35	1.37	1.38	-
2	GDP At constant (2011-12 Prices)	MoC&I	Growth %	6.8 3rd RE	6.5 2nd RE	4.0 1st RE	-6.6 1st RE	8.7 PE (2021-22)
3	Agricultural production (Foodgrains)	MoA	Million tonne	285.0	285.2	297.5	310.7	314.5 3rd AE
			Growth %	3.6	0.1	4.3	4.5	1.2
4	Index of Industrial Production (Base: 2011-12)	MoSPI	Growth %	4.4	3.8	-0.8	-8.4	11.4 <sup>†</sup> QE
5	Imports <sup>^</sup>	MoC&I	\$ Billion	465.6	514.1	474.7	394.4	611.9
6	Exports <sup>^</sup>	MoC&I	\$ Billion	303.5	330.1	313.4	291.8	419.7
7	Trade balance	MoC&I	\$ Billion	-162.1	-184.0	-161.3	-102.6	-192.2
8	Wholesale Price Index (all commodities) (average)	MoC&I	2011-12 = 100	114.9	119.8	121.8	123.4	139.4
9	All India Consumer Price Index (average):							
	i) Industrial workers	Labour Bureau, Govt. of India	*2001=100 #2016=100	284.4*	299.9*	322.5*	119.0#	127.7
	ii) Agricultural labourers		1986-87=100	888.9	907.3	979.6	1033.7	1108.0
	iii) Rural labourers		1986-87=100	895.1	915.1	986.0	1039.9	1119.0
10	Foreign exchange reserves- Total\$	RBI	\$ Billion	424.4	411.9	475.6	579.3	617.6
11	Outstanding external liabilities (as of end of financial year)	MoF	₹ Crore	2,50,090	2,69,961	2,99,250	3,88,472	4,29,403 (RE)
12	Outstanding internal debt (as of end of financial year)	MoF	₹ Crore	79,84,787	88,13,254	99,47,402	1,17,39,338	1,31,58,490
13	Centrally Sponsored Schemes & other transfers	MoF	₹ Crore	4,58,259	4,77,967	6,31,969	7,61,408 (RE)	6,41,686 (RE)
14	Gross fiscal deficit	MoF	%	3.5	3.4	4.6	9.5 (RE)	3.4

**Note :** @ Population figures have been taken from World Bank International Data Base for 2020; # Avg. of Apr-Aug 2020 as base year changed to 2016 from 2001 wef Sep 2020; <sup>†</sup>IIP is for the month of April; <sup>\*</sup>Apr'21 growth rate to be interpreted considering COVID since Mar'20; #Avg. of September 2020-Mar'21 as base year changed to 2016 from 2001 wef Sep 2020; @2020-21-as on March 26, 2021, 2021-22 - as on March 26, 2022 and May 2022-as on May 27, 2022; <sup>^</sup>Imports & Exports are for Merchandise; E: Estimates(P): Provisional; MoA: Ministry of Agriculture; MoF: Ministry of Finance; MoC&I: Ministry of Commerce & Industry; MoSPI: Ministry of Statistics and Programme Implementation; RBI: Reserve Bank of India; E: Estimates; PE: Provisional Estimates; QE: Quick Estimates; AE: Advance Estimates; RE: Revised Estimates; FE: Final Estimates

Petroleum								
Sl. no.	Particular	Source	Unit/ Base	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
1	Crude oil production in India	ONGC/OIL/DGH	MMT	35.7	34.2	32.2	30.5	29.7
2	Consumption of petroleum products in India	OMCs/PPAC	MMT	206.2	213.2	214.1	194.3	204.2
3	Petroleum products production in India	Oil Cos	MMT	254.3	262.4	262.9	233.5	254.3
4	Imports & exports							
	Crude oil imports	Oil Cos	\$ Billion	87.8	111.9	101.4	62.2	120.4
	Petroleum products imports	Oil Cos & DGCIS	\$ Billion	13.6	16.3	17.7	14.8	25.2
	Total petroleum imports (crude oil + petroleum products)	Oil Cos & DGCIS	\$ Billion	101.4	128.3	119.1	77.0	145.7
	Petroleum products exports	Oil Cos	\$ Billion	34.9	38.2	35.8	21.4	44.4
5	Gross petroleum imports as % of India's gross imports in value terms	MOC&I/PPAC	%	21.8	24.9	25.1	19.5	23.8
6	Gross petroleum exports as % of India's gross exports in value terms	MOC&I/PPAC	%	11.5	11.6	11.4	7.3	10.6
7	Import dependency (based on consumption)	PPAC	%	82.9	83.8	85.0	84.4	85.6

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

Natural gas								
Sl. no.	Particular	Source	Unit/ Base	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
1	Gross Production	ONGC/OIL/DGH	MMSCM	32,649	32,875	31,184	28,672	34,024
2	Net Production (net of flare and loss)	ONGC/OIL/DGH	MMSCM	31,731	32,058	30,257	27,784	33,131
3	LNG Import	LNG importing Cos, DGCIS	MMSCM	27,439	28,740	33,887	33,031	30,776
4	Total Consumption including internal use (Net Production+ LNG import)		MMSCM	59,170	60,798	64,144	60,815	63,907
5	Import dependency (based on consumption)	PPAC	%	46.4	47.3	52.8	54.3	48.2

**Note :** MMSCMD : Million Standard Cubic Meter Per Day

**Table 1.2 : Global primary energy consumption, 2021**

Sl. no.	Country	Unit	Oil	Natural Gas	Coal	Nuclear Energy	Hydro Electricity	Renewables	Total Energy
1	China	Mtoe	709.94	325.37	2056.56	87.91	292.27	270.08	3742.13
	Percentage share	%	18.97	8.69	54.96	2.35	7.81	7.22	100%
	Per capita consumption	Toe	0.50	0.23	1.46	0.06	0.21	0.19	2.65
2	USA	Mtoe	817.56	710.31	252.30	176.71	57.93	178.51	2193.33
	Percentage share	%	37.27	32.38	11.50	8.06	2.64	8.14	100%
	Per capita consumption	Toe	2.47	2.14	0.76	0.53	0.17	0.54	6.62
3	India	Mtoe	218.24	53.41	479.44	9.47	36.04	42.68	839.30
	Percentage share	%	26.00	6.36	57.12	1.13	4.29	5.09	100%
	Per capita consumption	Toe	0.16	0.04	0.35	0.01	0.03	0.03	0.61
4	Russian Federation	Mtoe	155.61	407.78	81.43	47.98	48.23	1.46	742.49
	Percentage share	%	20.96	54.92	10.97	6.46	6.50	0.20	100%
	Per capita consumption	Toe	1.08	2.83	0.57	0.33	0.33	0.01	5.15
5	Japan	Mtoe	153.42	89.03	114.50	13.21	17.45	31.39	419.00
	Percentage share	%	36.62	21.25	27.33	3.15	4.17	7.49	100%
	Per capita consumption	Toe	1.22	0.71	0.91	0.10	0.14	0.25	3.33
6	Canada	Mtoe	96.74	102.39	11.45	19.84	85.62	13.79	329.83
	Percentage share	%	29.33	31.04	3.47	6.01	25.96	4.18	100%
	Per capita consumption	Toe	2.54	2.69	0.30	0.52	2.25	0.36	8.67
7	Germany	Mtoe	97.08	77.78	50.49	14.89	4.29	54.40	298.93
	Percentage share	%	32.48	26.02	16.89	4.98	1.44	18.20	100%
	Per capita consumption	Toe	1.17	0.94	0.61	0.18	0.05	0.65	3.59
8	Brazil	Mtoe	103.40	34.75	17.00	3.17	81.57	57.04	296.93
	Percentage share	%	34.82	11.70	5.73	1.07	27.47	19.21	100%
	Per capita consumption	Toe	0.49	0.16	0.08	0.01	0.38	0.27	1.40
9	Iran	Mtoe	75.33	207.17	1.77	0.76	3.35	0.41	288.78
	Percentage share	%	26.09	71.74	0.61	0.26	1.16	0.14	100%
	Per capita consumption	Toe	0.90	2.47	0.02	0.01	0.04	0.00	3.44
10	South Korea	Mtoe	125.08	53.74	72.46	34.09	0.69	10.49	296.55
	Percentage share	%	42.18	18.12	24.44	11.50	0.23	3.54	100%
	Per capita consumption	Toe	2.41	1.04	1.40	0.66	0.01	0.20	5.72
11	Saudi Arabia	Mtoe	152.91	100.77	0.09	0.00	0.00	0.19	253.96
	Percentage share	%	60.21	39.68	0.03	-	-	0.07	100%
	Per capita consumption	Toe	4.39	2.89	0.00	-	-	0.01	7.29
12	France	Mtoe	67.49	36.98	5.55	81.84	13.03	17.66	222.56
	Percentage share	%	30.32	16.62	2.50	36.77	5.86	7.93	100%
	Per capita consumption	Toe	1.00	0.55	0.08	1.21	0.19	0.26	3.30
13	Indonesia	Mtoe	65.67	31.86	78.32	0.00	5.55	15.04	196.44
	Percentage share	%	33.43	16.22	39.87	-	2.83	7.66	100%
	Per capita consumption	Toe	0.24	0.12	0.29	-	0.02	0.06	0.72
14	United Kingdom	Mtoe	57.91	66.11	5.02	9.90	1.13	29.62	169.69
	Percentage share	%	34.13	38.96	2.96	5.83	0.66	17.46	100%
	Per capita consumption	Toe	0.86	0.98	0.07	0.15	0.02	0.44	2.52
15	Mexico	Mtoe	59.39	75.80	5.53	2.57	7.81	9.23	160.33
	Percentage share	%	37.04	47.28	3.45	1.60	4.87	5.76	100%
	Per capita consumption	Toe	0.46	0.59	0.04	0.02	0.06	0.07	1.24
	Sub total	Mtoe	2955.76	2373.26	3231.93	502.35	654.97	731.99	10450.25
	Others	Mtoe	1318.34	1095.68	589.16	101.78	305.88	220.58	86.80
	Total World	Mtoe	4274.10	3468.94	3821.09	604.12	960.85	952.57	10537.05
	Percentage share	%	40.56	32.92	36.26	5.73	9.12	9.04	100%
	Per capita consumption	Toe	0.55	0.45	0.49	0.08	0.12	0.12	1.36

**Source:** BP Statistical Review of World Energy, 2022.

**Note:** For calculation of per capita consumption population figures have been taken from World Bank International Data Base for 2020.

Conversion factor used for Oil as per product basket of 1 Mtoe = 0.0431 Exajoules, for all other fuels 1 Mtoe = 0.0419 Exajoules. (Approximate conversion factors from BP Statistical Review of World Energy, 2021)

**Mtoe:** Million tonnes of oil equivalent, **Toe:** Tonnes of oil equivalent  
 Figures are for Calendar year







# **Chapter-2**

## **Exploration & Crude Oil Production**

**Table 2.1: World top 30 crude oil proved reserves countries**

S. no.	Country	at end 2020		
		Thousand million tonnes	Thousand million barrels	Reserves/Production ratio
1	Venezuela	48.0	303.8	*
2	Saudi Arabia	40.9	297.5	73.6
3	Canada	27.1	168.1	89.4
4	Iran	21.7	157.8	139.8
5	Iraq	19.6	145.0	96.3
6	Russian Federation	14.8	107.8	27.6
7	Kuwait	14.0	101.5	103.2
8	United Arab Emirates	13.0	97.8	73.1
9	US	8.2	68.8	11.4
10	Libya	6.3	48.4	339.2
11	Nigeria	5.0	36.9	56.1
12	Kazakhstan	3.9	30.0	45.3
13	China	3.5	26.0	18.2
14	Qatar	2.6	25.2	38.1
15	Brazil	1.7	11.9	10.8
16	Algeria	1.5	12.2	25.0
17	Angola	1.1	7.8	16.1
18	Norway	1.0	7.9	10.8
19	Azerbaijan	1.0	7.0	26.7
20	Mexico	0.9	6.1	8.7
21	Oman	0.7	5.4	15.4
<b>22</b>	<b>India</b>	<b>0.6</b>	<b>4.5</b>	<b>16.1</b>
23	Vietnam	0.6	4.4	58.1
24	Other Africa	0.5	3.8	33.2
25	South Sudan	0.5	3.5	56.4
26	Egypt	0.4	3.1	14.0
27	Republic of Congo	0.4	2.9	25.7
28	Yemen	0.4	3.0	86.7
29	Malaysia	0.4	2.7	12.5
30	Argentina	0.3	2.5	11.3
	<b>Sub total</b>	<b>240.5</b>	<b>1703.3</b>	
	Others	3.9	29.0	
	<b>Total World</b>	<b>244.4</b>	<b>1732.4</b>	<b>53.5</b>
	of which: OECD	38.3	260.0	25.2
	Non-OECD	206.1	1472.4	66.9
	OPEC	172.0	1216.0	106.8
	Non-OPEC	72.4	516.4	24.6
	European Union	0.3	2.4	16.8
	Canadian oil sands: Total	26.2	161.4	
	of which: Under active development	3.1	18.9	
	Venezuela: Orinoco Belt	42.0	261.8	

**Source:** BP Statistical Review of World Energy, July 2022; \* More than 500 years.

**Notes:** 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 reserves 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. Canadian oil sands 'under active development' are an official estimate. Venezuelan Orinoco Belt reserves are based on the OPEC Secretariat and government announcements. Reserves and R/P ratio for Canada includes Canadian oil sands. Reserves and R/P ratio for Venezuela includes the Orinoco Belt. Saudi Arabia's oil reserves include NGLs from 2017. Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil. Shares of total and R/P ratios are calculated using thousand million barrels figures.

**Table 2.2: World top 30 crude oil producing countries, 2021**

S. no.	Country	Production*	
		Million tonnes	Million barrels daily
1	US	711	16.6
2	Russian Federation	536	10.9
3	Saudi Arabia	515	11.0
4	Canada	267	5.4
5	Iraq	201	4.1
6	China	199	4.0
7	Iran	168	3.6
8	United Arab Emirates	164	3.7
9	Brazil	157	3.0
10	Kuwait	131	2.7
11	Mexico	96	1.9
12	Norway	94	2.0
13	Kazakhstan	86	1.8
14	Nigeria	78	1.6
15	Qatar	73	1.7
16	Libya	60	1.3
17	Algeria	58	1.4
18	Angola	57	1.2
19	Oman	47	1.0
20	United Kingdom	41	0.9
21	Colombia	39	0.7
22	Azerbaijan	35	0.7
<b>23</b>	<b>India</b>	<b>34</b>	<b>0.7</b>
24	Indonesia	34	0.7
25	Venezuela	33	0.7
26	Egypt	30	0.6
27	Argentina	29	0.6
28	Malaysia	26	0.6
29	Ecuador	25	0.5
30	Australia	18	0.4
	<b>Sub total</b>	<b>4042</b>	<b>86</b>
	Others	179	3.8
	<b>Total World</b>	<b>4221</b>	<b>89.9</b>
	of which: OECD	1286	28.4
	Non-OECD	2936	61.5
	OPEC	1494	31.7
	Non-OPEC	2727	58.1
	European Union #	18	0.4

**Source:** BP Statistical Review of World Energy, June 2022

\* Includes crude oil, shale oil, oil sands, condensates (lease condensate or gas condensates that require further refining) and NGLs (natural gas liquids - ethane, LPG and naphtha separated from the production of natural gas).

Excludes liquid fuels from other sources such as biofuels and synthetic derivatives of coal and natural gas. This also excludes liquid fuel adjustment factors such as refinery processing gain. Excludes oil shales/kerogen extracted in solid form.

# Excludes Estonia, Latvia and Lithuania prior to 1985 and Croatia and Slovenia prior to 1990.

**Table 2.3: World top 30 crude oil consuming countries, 2021**

S. no.	Million tonnes	Consumption*	
		Million tonnes	Million barrels daily
1	US	803.6	18.7
2	China	718.5	15.4
<b>3</b>	<b>India</b>	<b>220.5</b>	<b>4.9</b>
4	Russian Federation	153.4	3.4
5	Saudi Arabia	152.4	3.6
6	Japan	151.7	3.3
7	South Korea	122.0	2.8
8	Brazil	102.2	2.3
9	Canada	96.0	2.2
10	Germany	95.5	2.0
11	Iran	73.9	1.7
12	Singapore	69.5	1.3
13	France	66.7	1.4
14	Indonesia	64.3	1.5
15	Mexico	58.4	1.4
16	United Kingdom	57.3	1.2
17	Spain	57.3	1.2
18	Italy	54.5	1.2
19	Thailand	50.5	1.2
20	Turkey	44.6	0.9
21	Australia	44.2	0.9
22	Taiwan	43.6	1.0
23	United Arab Emirates	41.6	1.0
24	Western Africa	38.4	0.9
25	Netherlands	35.3	0.7
26	Iraq	34.5	0.7
27	Malaysia	33.0	0.8
28	Poland	31.7	0.7
29	Belgium	30.0	0.6
30	Egypt	29.3	0.6
	<b>sub total</b>	<b>3574.6</b>	<b>79.6</b>
	Others	671.1	14.5
	<b>Total World</b>	<b>4245.7</b>	<b>94.1</b>
	of which: OECD	1914.1	42.9
	Non-OECD	2331.6	51.1
	European Union #	492.3	10.4

**Source:** BP Statistical Review of World Energy, June 2022

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

# Excludes Estonia, Latvia and Lithuania prior to 1985 and Croatia and Slovenia prior to 1990.

**Notes:** 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: World top 30 crude oil refining capacities\* countries**

(Thousand barrels daily)					
S.no.	Country	2011	2021	ADDITION	% CHANGE
1	US	17367	17941	574	3.3
2	China	13015	16990	3976	30.5
3	Russian Federation	5673	6861	1188	20.9
<b>4</b>	<b>India</b>	<b>3795</b>	<b>5018</b>	<b>1223</b>	<b>32.2</b>
5	South Korea	2864	3572	708	24.7
6	Japan	4274	3285	(989)	-23.1
7	Saudi Arabia	2107	2905	798	37.9
8	Iran	1950	2508	558	28.6
9	Brazil	2014	2303	289	14.3
10	Germany	2077	2121	43	2.1
11	Canada	2005	1954	(51)	-2.5
12	Italy	2276	1900	(376)	-16.5
13	Spain	1542	1586	45	2.9
14	Mexico	1606	1558	(47)	-3.0
15	Singapore	1427	1461	34	2.4
16	Kuwait	936	1430	494	52.8
17	Venezuela	1303	1303	0	0.0
18	United Arab Emirates	707	1246	539	76.2
19	Thailand	1230	1245	15	1.2
20	Netherlands	1276	1238	(38)	-3.0
21	United Kingdom	1787	1197	(590)	-33.0
22	France	1610	1140	(470)	-29.2
23	Taiwan	1197	1131	(67)	-5.6
24	Indonesia	1099	1094	(6)	-0.5
25	Malaysia	601	955	354	58.9
26	Iraq	935	919	(16)	-1.7
27	Turkey	596	822	226	37.9
28	Egypt	810	795	(15)	-1.9
29	Algeria	652	657	5	0.7
30	Belgium	788	645	(143)	-18.1
	<b>Sub total</b>	<b>79519</b>	<b>87778</b>	<b>8259</b>	<b>10.4</b>
	Others	15532	14134	(1398)	-9.0
	<b>Total World</b>	<b>95051</b>	<b>101912</b>	<b>6861</b>	<b>9.7</b>
	of which: OECD	45552	43730	(1822)	-4.0
	Non-OECD	49499	58182	8682	17.5
	European Union #	13432	12310	(1122)	-8.4

Source: BP Statistical Review of World Energy, June 2022

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

# Excludes Estonia, Latvia and Lithuania prior to 1985 and Croatia and Slovenia prior to 1990.

**Table 2.5 : Indigenous crude oil and condensate production**

(Million metric tonne)					
Particulars	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
<b>PSU companies</b>					
ONGC	20.8	19.6	19.2	19.1	18.5
OIL	3.4	3.3	3.1	2.9	3.0
<b>PSU total</b>	<b>24.2</b>	<b>22.9</b>	<b>22.4</b>	<b>22.0</b>	<b>21.5</b>
<b>PSC total</b>	<b>9.9</b>	<b>9.6</b>	<b>8.2</b>	<b>7.1</b>	<b>7.0</b>
<b>Total crude oil</b>	<b>34.0</b>	<b>32.5</b>	<b>30.5</b>	<b>29.1</b>	<b>28.4</b>
Condensate	1.6	1.7	1.6	1.4	1.2
<b>Total (crude oil + condensate)</b>	<b>35.7</b>	<b>34.2</b>	<b>32.2</b>	<b>30.5</b>	<b>29.7</b>
<b>Total (crude oil + condensate) (crore barrels)</b>	<b>26.2</b>	<b>25.1</b>	<b>23.6</b>	<b>22.4</b>	<b>21.8</b>

Source: Oil companies and DGH(P): Provisional

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

(Million metric tonne)					
Particulars	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
i) Indigenous crude oil processing	32.8	31.7	29.3	28.0	27.0
a) Products from indigeneous crude	30.6	29.6	27.3	26.1	25.2
b) Products from fractionators	4.6	4.9	4.8	4.2	4.1
ii) Total production from indigenous crude and condensate (a+b)	35.2	34.5	32.1	30.3	29.3
iii) Total domestic consumption	206.2	213.2	214.1	194.3	202.7
Percentage of self sufficiency (ii/iii)	17.1%	16.2%	15.0%	15.6%	14.4%

Source: Oil companies(P): Provisional

**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 (A) : Status of blocks under New Exploration Licensing Policy (NELP) (as on 01.04.2022)**

Round	Launch Year	Offered	Awarded				Relinquished/ Proposed for Relinquishment/ Termination Notice Sent				Operational			
			Deep/ Water	Shallow Water	Onland	Total	Deep/ Water	Shallow Water	Onland	Total	Deep/ Water	Shallow Water	Onland	Total
NELP-I	1999	48	7	16	1	24	5	15	1	21	2	1	0	3
NELP-II	2000	25	8	8	7	23	8	8	6	22	0	0	1	1
NELP-III	2002	27	9	6	8	23	9	5	5	19	0	1	3	4
NELP-IV	2003	24	10	0	10	20	10	0	7	17	0	0	3	3
NELP-V	2005	20	6	2	12	20	6	1	9	16	0	1	3	4
NELP-VI	2006	55	21	6	25	52	21	4	21	46	0	2	4	6
NELP-VII	2007	57	11	7	23	41	11	4	20	35	0	3	3	6
NELP-VIII	2009	70	8	11	13	32	8	9	12	29	0	2	1	3
NELP-IX	2010	34	1	3	15	19	1	2	9	12	0	1	6	7
<b>TOTAL</b>		<b>360</b>	<b>81</b>	<b>59</b>	<b>114</b>	<b>254</b>	<b>79</b>	<b>48</b>	<b>90</b>	<b>217</b>	<b>2</b>	<b>11</b>	<b>24</b>	<b>37</b>

Source: DGH

**Table 2.7(B): Status of blocks under OALP round of HELP and DSF Rounds (as on 01.04.2022)**

Round	Launch Year	Offered	Awarded				Relinquished/ Proposed For Relinquishment				Operational			
			Deep/ Ultra Deep Water	Shallow Water	Onland	Total	Deep/ Ultra Deep Water	Shallow Water	Onland	Total	Deep/ Ultra Deep Water	Shallow Water	Onland	Total
OALP Round-I	2018	55	1	8	46	55	0	0	4	4	1	8	42	51
OALP Round-II	2019	14	1	5	8	14	0	0	0	0	1	5	7	13
OALP Round-III	2019	23	1	3	14	18	0	0	3	3	1	3	9	13
OALP Round-IV	2019	7	0	0	7	7	0	0	0	0	0	0	7	7
OALP Round-V	2020	11	1	2	8	11	0	0	0	0	1	2	8	11
OALP Round-VI	2021	21	2	4	15	21	0	0	0	0	Awarded on 27.04.2022. To be Operational after grant of PEL			
OALP Round-VII	2021	8	1	2	5	8	0	0	0	0	To be awarded			
DSF Round-I	2016	46	0	7	23	30	0	4	7	11	0	3	16	19
DSF Round-II	2018	25	0	9	15	24	0	1	4	5	0	8	11	19
<b>TOTAL</b>		<b>210</b>	<b>7</b>	<b>40</b>	<b>141</b>	<b>188</b>	<b>0</b>	<b>5</b>	<b>18</b>	<b>23</b>	<b>4</b>	<b>29</b>	<b>100</b>	<b>133</b>

Source: DGH

Note: NELP: New Exploration Licensing Policy

HELP: Hydrocarbon Exploration Licensing Policy

OALP: Open Acreage Licensing Policy

DSF: Discovered Small Fields

**Table 2.8 : Domestic oil & gas production vis a vis overseas production**

Year	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
Total domestic production (MMTOE)	68.3	67.1	63.4	59.2	63.7
Overseas production (MMTOE)	22.7	24.7	24.5	21.9	21.8
Overseas production as percentage of domestic production	33.2	36.8	38.7	37.0	34.2

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

**Table 2.9 : Coal Bed Methane (CBM) Gas development in India**

Prognosticated CBM resources	91.8	TCF
Established CBM resources	10.4	TCF
CBM Resources (33 Blocks)	62.8	TCF
Total available coal bearing areas (India)	32760	Sq. KM
Total available coal bearing areas with MoPNG/DGH	21659	Sq. KM
Area awarded	16613	Sq. KM
Blocks awarded	32	Nos.
Exploration initiated*	10669.6	Sq. KM
Production of CBM gas October 2021-March 2022(P)	338.772	MMSCM

\*Area considered if any boreholes were drilled in the awarded block. ST CBM Block awarded & relinquished twice- in CBM Round II and Round IV

Source: DGH

**Table 2.10: Status of Shale Gas and Oil development in India ( As on 01.04.2022)**

Policy Guidelines for Exploration & exploitation of Shale gas and oil	<p>Shale gas and oil exploration policy was announced in October, 2013. ONGC and OIL India Ltd have been allotted 50 and 6 blocks respectively for assessment under Phase-I. ONGC identified 50 blocks in 4 basins and OIL identified 6 blocks in 2 basins in Phase-I.</p> <p>Under Hydrocarbon Exploration and Licensing Policy (HELP), 2016 the single licence will enable the contractor to explore conventional as well as unconventional oil and gas resources including CBM, shale gas/oil, tight gas and gas hydrates under a single license.</p> <p>In August 2018, the Government of India notified a Policy framework for Exploration and exploitation of Unconventional hydrocarbons in existing acreages under existing Production Sharing Contracts (PSC), Coal Bed Methane (CBM) Contracts and Nomination fields.</p>				
Oil and Natural Gas Corporation Limited (ONGC): Activities up to 2021-22	<b>Basin</b>	<b>Phase-I Blocks</b>	<b>MWP Wells</b>	<b>Blocks Taken up for Drilling</b>	<b>Actual Wells Drilled</b>
	Cambay	28	29	16	17
	KG	10	13	6	8
	Cauvery	9	12	1	3
	Assam	3	3	2	2
	<b>Total</b>	<b>50</b>	<b>57</b>	<b>25</b>	<b>30</b>
Oil India Limited (OIL): Activities up to 2021-22	<b>Basin</b>	<b>Phase-I Blocks</b>	<b>MWP Wells</b>	<b>Blocks Taken up for Drilling</b>	<b>Actual Wells Drilled</b>
	Jaisalmer	1	2	1	1
	Assam	5	6	0	3
	<b>Total</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>4</b>

MWP : Minimum Work Programme



# Chapter-3

## Natural Gas

**Table 3.1 : World top 30 natural gas reserve countries, 2020**

(Billion cubic metres)		
Sl. no.	Country	2020
1	Russian Federation	37392
2	Iran	32101
3	Qatar	24665
4	Turkmenistan	13601
5	US	12619
6	China	8399
7	Venezuela	6260
8	Saudi Arabia	6019
9	United Arab Emirates	5939
10	Nigeria	5473
11	Iraq	3529
12	Azerbaijan	2504
13	Australia	2390
14	Canada	2354
15	Algeria	2279
16	Kazakhstan	2257
17	Egypt	2138
18	Kuwait	1695
19	Other Africa	1569
20	Libya	1430
21	Norway	1429
<b>22</b>	<b>India</b>	<b>1320</b>
23	Indonesia	1252
24	Ukraine	1091
25	Malaysia	908
26	Uzbekistan	845
27	Oman	666
27	Vietnam	646
29	Israel	589
30	Myanmar	432
	Others	388
	<b>Total World</b>	<b>187977</b>
	of which: OECD	20280
	Non-OECD	167795
	European Union	442

**Source:** BP Statistical Review of World Energy, July 2022

Figures are for Calendar year

**Table 3.2 : World top 30 natural gas producing countries, 2021**

(Billion cubic metres)		
Sl. no.	Country	2021
1	US	934
2	Russian Federation	702
3	Iran	257
4	China	209
5	Qatar	177
6	Canada	172
7	Australia	147
8	Saudi Arabia	117
9	Norway	114
10	Algeria	101
11	Turkmenistan	79
12	Malaysia	74
13	Egypt	68
14	Indonesia	59
15	United Arab Emirates	57
16	Uzbekistan	51
17	Nigeria	46
18	Oman	42
19	Argentina	39
20	United Kingdom	33
21	Pakistan	33
22	Kazakhstan	32
23	Azerbaijan	32
24	Thailand	32
25	Mexico	29
<b>26</b>	<b>India</b>	<b>29</b>
27	Trinidad & Tobago	25
28	Brazil	24
29	Bangladesh	24
30	Venezuela	24
	<b>Sub total</b>	<b>3761</b>
	Others	276
	<b>Total World</b>	<b>4037</b>
	of which: OECD	1503
	Non-OECD	2534
	European Union	44

**Source:** BP Statistical Review of World Energy, June 2022

**Note:** As per BP Statistics India is at 26th position with Natural Gas Production at 28.5 BCM in calendar year 2021 while as per MoPNG/PPAC Net Natural Gas Production of India (after excluding flare & loss and internal consumption) during 2021 has been 27.7 BCM

Figures are for Calendar year

**Table 3.3 : World top 30 natural gas consuming countries, 2021**

(Billion cubic metres)		
Sl. no.	Country	2021
1	US	827
2	Russian Federation	475
3	China	379
4	Iran	241
5	Canada	119
6	Saudi Arabia	117
7	Japan	104
8	Germany	91
9	Mexico	88
10	United Kingdom	77
11	Italy	73
12	United Arab Emirates	69
13	South Korea	63
<b>14</b>	<b>India</b>	<b>62</b>
15	Egypt	62
16	Turkey	57
17	Thailand	47
18	Uzbekistan	46
19	Argentina	46
20	Algeria	46
21	Pakistan	45
22	France	43
23	Malaysia	41
24	Brazil	40
25	Qatar	40
26	Australia	39
27	Indonesia	37
28	Turkmenistan	37
29	Netherlands	35
30	Spain	34
	<b>Sub total</b>	<b>3479</b>
	Others	558
	<b>Total World</b>	<b>4037</b>
	of which: OECD	1795
	Non-OECD	2243
	European Union	397

**Source:** BP Statistical Review of World Energy, July 2022

Figures are for Calendar year



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

(MMSCM)					
	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
Gross production	32649	32873	31184	28672	34024
Net Production (net of flare and loss)	31731	32056	30257	27784	33131
LNG import	27439	28740	33887	33031	30776
Total Consumption including internal use (Net Production+ LNG import)	59170	60796	64144	60815	63907
<b>Total consumption (in BCM)</b>	<b>59.2</b>	<b>60.8</b>	<b>64.1</b>	<b>60.8</b>	<b>63.9</b>

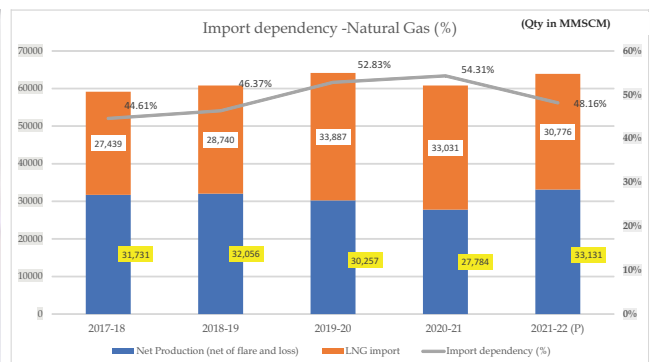
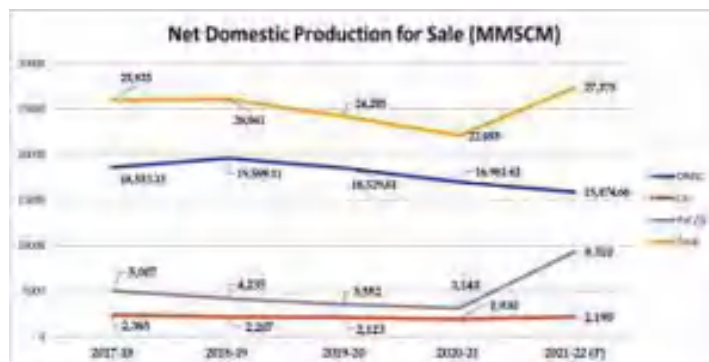
**Table 3.5 : Natural gas production**

(MMSCM)					
	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
<b>ONGC</b>					
<b>A) Gross Production</b>	<b>23429</b>	<b>24675</b>	<b>23746</b>	<b>21872</b>	<b>20629</b>
B) Flared	450	449	520	458	515
C) Internal Use	4427	4629	4697	4432	4239
D) Loss	0	0	0	0	0
<b>D) =A-B-C Net Production for Sale</b>	<b>18553</b>	<b>19597</b>	<b>18529</b>	<b>16982</b>	<b>15875</b>
<b>Oil India Limited</b>					
<b>A) Gross Production</b>	<b>2881</b>	<b>2722</b>	<b>2668</b>	<b>2480</b>	<b>2893</b>
B) Flared	114	122	155	164	200
C) Internal Use	398	382	377	371	470
D) Loss	5	12	13	14	32
<b>D) =A-B-C Net Production for Sale</b>	<b>2365</b>	<b>2207</b>	<b>2123</b>	<b>1930</b>	<b>2190</b>
<b>PSC/JVs fields</b>					
<b>A) Gross Production</b>	<b>6338</b>	<b>5477</b>	<b>4770</b>	<b>4321</b>	<b>10502</b>
B) Flared	261	153	185	199	98
C) Internal Use	981	1007	978	925	1047
D) Loss	89	81	54	53	47
<b>E) =A-B-C-D Net Production for Sale</b>	<b>5007</b>	<b>4235</b>	<b>3552</b>	<b>3143</b>	<b>9310</b>
<b>Grand Total</b>					
<b>A) Gross Production</b>	<b>32649</b>	<b>32873</b>	<b>31184</b>	<b>28672</b>	<b>34024</b>
B) Flared	824	724	860	822	813
C) Internal Use	5806	6017	6052	5729	5756
D) Loss	94	93	67	67	80
<b>E) =A-B-C-D Net Production for Sale</b>	<b>25925</b>	<b>26039</b>	<b>24205</b>	<b>22055</b>	<b>27375</b>

Source: Domestic Gas Producers / DGH / LNG Importing companies / DGCIS

Note: 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



**Table No. 3.6 : 'PNG Connections Data' (as on 31.03.2022)**

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	PNG connections		
				Domestic	Commercial	Industrial
1.	Andhra Pradesh	East Godavari District (EAAA)	Godavari Gas Private Limited	49800	5	1
2.		Kakinada	Bhagyanagar Gas Limited	61436	144	3
3.		Krishna District (EAAA)	Megha Engineering & Infrastructure Limited	17605	127	21
4.		Vijaywada	Bhagyanagar Gas Limited	48658	78	1
5.		West Godavari District	Godavari Gas Private Limited	51107	12	2
<b>Andhra Pradesh Total</b>				<b>228606</b>	<b>366</b>	<b>28</b>
6.	Andhra Pradesh, Karnataka & Tamil Nadu	Chittoor, Kolar and Vellore Districts	AGP City Gas Private Limited	0	0	1
<b>Andhra Pradesh, Karnataka &amp; Tamil Nadu Total</b>				<b>0</b>	<b>0</b>	<b>1</b>
7.	Assam	Cachar, Hailakandi & Karimganj Districts	Purba Bharati Gas Private Limited	340	0	0
8.		Upper Assam	Assam Gas Company Limited	42108	1265	418
<b>Assam Total</b>				<b>42448</b>	<b>1265</b>	<b>418</b>
9.	Bihar	Arwal, Jehanabad, Bhojpur and Buxar Districts	Indian Oil Corporation Limited	6247	0	0
10.		Aurangabad, Kaimur & Rohtas Districts	Indian Oil Corporation Limited	1767	1	0
11.		Begusarai District	Think Gas Begusarai Private Limited	1457	2	0
12.		Gaya & Nalanda Districts	Indian-Oil Adani Gas Private Limited	0	0	0
13.		Lakhisarai, Munger and Bhagalpur Districts	Indian Oil Corporation Limited	5849	0	0
14.		Muzaffarpur, Vaishali, Saran and Samastipur Districts	Indian Oil Corporation Limited	8682	0	0
15.		Patna District	GAIL (India) Limited	49736	31	1
<b>Bihar Total</b>				<b>73738</b>	<b>34</b>	<b>1</b>
16.	Bihar & Jharkhand	Nawada and Koderma Districts	Indian Oil Corporation Limited	1162	0	0
17.		Sheikhpura, Jamui and Deoghar Districts	Indian Oil Corporation Limited	3977	0	0
<b>Bihar &amp; Jharkhand Total</b>				<b>5139</b>	<b>0</b>	<b>0</b>
18.	Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	Chandigarh	Indian-Oil Adani Gas Private Limited	22603	85	17
<b>Chandigarh (UT), Haryana, Punjab &amp; Himachal Pradesh Total</b>				<b>22603</b>	<b>85</b>	<b>17</b>
19.	Dadra & Nagar Haveli and Daman & Diu (UT)	UT of Dadra & Nagar Haveli	Gujarat Gas Limited	8787	51	53
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu (UT) Total</b>				<b>8787</b>	<b>51</b>	<b>53</b>
20.	Dadra & Nagar Haveli and Daman & Diu (UT)	UT of Daman	Indian-Oil Adani Gas Private Limited	4889	32	37
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu (UT) Total</b>				<b>4889</b>	<b>32</b>	<b>37</b>
21.	Dadra & Nagar Haveli and Daman & Diu (UT) & Gujarat	Diu & Gir Somnath Districts	IRM Energy Private Limited	452	1	0
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu (UT) &amp; Gujarat Total</b>				<b>452</b>	<b>1</b>	<b>0</b>
22.	Goa	North Goa District	Goa Natural Gas Private Limited	9864	11	15
23.		South Goa District	Indian-Oil Adani Gas Private Limited	26	0	7
<b>Goa Total</b>				<b>9890</b>	<b>11</b>	<b>22</b>
24.	Gujarat	Ahmedabad City and Daskroi Area	Adani Total Gas Limited	482501	3127	860
25.		Ahmedabad District (EAAA)	Gujarat Gas Limited	103	0	0
26.		Amreli District	Gujarat Gas Limited	7496	36	2
27.		Anand area including Kanjari & Vadtal Villages (in Kheda District)	Charotar Gas Sahakari Mandali Limited	41287	700	158
28.		Anand District (EAAA)	Gujarat Gas Limited	40393	251	21

Table 3.6 : Continued

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	PNG connections		
				Domestic	Commercial	Industrial
29.	Gujarat	Banaskantha District	IRM Energy Private Limited	33521	146	12
30.		Bhavnagar	Gujarat Gas Limited	51987	364	84
31.		Dahej Vagra Taluka	Gujarat Gas Limited	1177	15	42
32.		Dahod District	Gujarat Gas Limited	3686	9	25
33.		Gandhinagar**	Gujarat Gas Limited	135800	567	25
34.		Gandhinagar Mehsana Sabarkantha	Sabarmati Gas Limited	230337	1018	388
35.		Hazira	Gujarat Gas Limited	37660	129	17
36.		Jamnagar	Gujarat Gas Limited	31554	181	124
37.		Kutch (West)	Gujarat Gas Limited	3864	36	2
38.		Nadiad	Gujarat Gas Limited	67743	410	23
39.		Narmada (Rajpipla) District	Gujarat Gas Limited	1086	1	0
40.		Navsari	Gujarat Gas Limited	110658	271	54
41.		Panchmahal District	Gujarat Gas Limited	19508	112	86
42.		Patan District	Sabarmati Gas Limited	16966	53	9
43.		Rajkot	Gujarat Gas Limited	288275	1135	1542
44.		Surat, Bharuch, Ankleshwar	Gujarat Gas Limited	729763	9301	1034
45.		Surendranagar	Gujarat Gas Limited	26850	263	369
46.		Vadodara*	Adani Total Gas Limited	616	1	86
47.		Vadodara	Vadodara Gas Limited	197392	2715	16
48.		Valsad	Gujarat Gas Limited	116840	379	707
<b>Gujarat Total</b>				<b>2677063</b>	<b>21220</b>	<b>5686</b>
49.	Haryana	Ambala & Kurukshetra Districts	HPOIL Gas Private Limited	9650	0	0
50.		Faridabad*	Adani Total Gas Limited	73579	299	450
51.		Gurugram*	Haryana City Gas Distribution Limited	24558	157	276
52.		Jhajjar District	Haryana City Gas (KCE) Private Limited	24	0	0
53.		Kaithal District	Indraprastha Gas Limited	20922	0	0
54.		Karnal District	Indraprastha Gas Limited	14562	10	37
55.		Nuh and Palwal Distircts	Adani Total Gas Limited	5372	6	44
56.		Panipat District	Indian-Oil Adani Gas Private Limited	17111	15	41
57.		Rewari District	Indraprastha Gas Limited	13996	43	98
58.		Rohtak District	Bharat Petroleum Corporation Limited	5426	0	0
59.		Sonipat	GAIL Gas Limited	29245	35	163
60.		Sonipat District (EAAA) & Jind District	Hindustan Petroleum Corporation Limited	6374	0	1
61.		Yamunanagar District	Bharat Petroleum Corporation Limited	6225	0	0
62.		Gurugram*	Indraprastha Gas Limited	19835	101	32
<b>Haryana Total</b>				<b>246879</b>	<b>666</b>	<b>1142</b>
63.	Himachal Pradesh	Bilaspur, Hamirpur & Una Districts	Bharat Petroleum Corporation Limited	2260	0	0
<b>Himachal Pradesh Total</b>				<b>2260</b>	<b>0</b>	<b>0</b>
64.	Jharkhand	Bokaro, Hazaribagh & Ramgarh Districts	Indian Oil Corporation Limited	4294	1	0
65.		East Singhbhum District	GAIL (India) Limited	21000	0	0
66.		Giridih & Dhanbad Districts	GAIL Gas Limited	9950	0	0
67.		Ranchi District	GAIL (India) Limited	33385	0	0
68.		Seraikela-Kharsawan District	GAIL Gas Limited	12116	0	0
<b>Jharkhand Total</b>				<b>80745</b>	<b>1</b>	<b>0</b>

Table 3.6 : Continued

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	PNG connections		
				Domestic	Commercial	Industrial
69.	Karnataka	Ballari & Gadag Districts	Bharat Petroleum Corporation Limited	454	0	0
70.		Belgaum District	Megha Engineering & Infrastructure Limited	18792	99	30
71.		Bengaluru Rural and Urban Districts	GAIL Gas Limited	225764	159	140
72.		Bidar District	Bharat Petroleum Corporation Limited	1307	0	0
73.		Chitradurga & Davanagere Districts	bharat Petroleum Corporation Limited	867	0	0
74.		Dakshina Kannada District*	GAIL Gas Limited	20329	0	0
75.		Dharwad District	Indian-Oil Adani Gas Private Limited	16173	8	3
76.		Mysuru, Mandya and Chamarajanagar Districts	AGP City Gas Private Limited	0	0	1
77.		Ramanagara District	Maharashtra Natural Gas Limited	24310	1	10
78.		Tumkur District	Megha Engineering & Infrastructure Limited	23520	135	51
<b>Karnataka Total</b>				<b>331516</b>	<b>402</b>	<b>235</b>
79.	Kerala	Alapuzha, Kollam and Thiruvananthapuram Districts	AGP City Gas Private Limited	0	0	3
80.		Ernakulam District	Indian-Oil Adani Gas Private Limited	17734	15	9
<b>Kerala Total</b>				<b>17734</b>	<b>15</b>	<b>12</b>
81.	Madhya Pradesh	Ashoknagar District	Indian Oil Corporation Limited	542	0	0
82.		Bhopal & Rajgarh Districts	Think Gas Bhopal Private Limited	16760	12	4
83.		Dewas	GAIL Gas Limited	16016	25	27
84.		Dhar District	Naveriya Gas Private Limited	1222	18	2
85.		Guna District	Indian Oil Corporation Limited	983	0	0
86.		Gwalior	Aavantika Gas Limited	37484	50	12
87.		Indore (including Ujjain City)	Aavantika Gas Limited	76586	127	295
88.		Morena District	Indian Oil Corporation Limited	1049	0	0
89.		Raisen, Shajapur and Sehore Districts	GAIL Gas Limited	1132	0	1
90.		Rewa District	Indian Oil Corporation Limited	1632	0	0
91.		Satna & Shandol Districts	Bharat Petroleum Corporation Limited	1580	0	0
92.		Sidhi and Singrauli Districts	Bharat Petroleum Corporation Limited	52	0	0
<b>Madhya Pradesh Total</b>				<b>155038</b>	<b>232</b>	<b>341</b>
93.	Maharashtra	Ahmednagar & Aurangabad Districts	Bharat Petroleum Corporation Limited	4175	4	1
94.		Kolhapur District	HPOIL Gas Private Limited	17461	0	0
95.		Latur & Osmanabad Districts	Unison Enviro Private Limited	470	0	0
96.		Mumbai & Greater Mumbai	Mahanagar Gas Limited	1033456	3222	15
97.		Palghar District & Thane Rural	Gujarat Gas Limited	5589	21	98
98.		Pune City including Pimpri - Chichwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon	Maharashtra Natural Gas Limited	405593	430	255
99.		Pune District (EAAA)	Torrent Gas Pune Limited	7381	7	29
100.		Raigarh District (EAAA)	Mahanagar Gas Limited	53030	0	1
101.		Ratnagiri District	Unison Enviro Private Limited	4374	3	33
102.		Sangli & Satara Districts	Bharat Petroleum Corporation Limited	13556	0	0
103.		Sindhudurg District	Maharashtra Natural Gas Limited	4198	0	0
104.		Thane urban and adjoining Municipalities	Mahanagar Gas Limited	778106	1026	76
<b>Maharashtra Total</b>				<b>2327389</b>	<b>4713</b>	<b>508</b>
105.	Maharashtra & Gujarat	Valsad (EAAA), Dhule & Nashik Districts	Maharashtra Natural Gas Limited	105051	2	5
<b>Maharashtra &amp; Gujarat Total</b>				<b>105051</b>	<b>2</b>	<b>5</b>

**Table 3.6 : Continued**

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	PNG connections		
				Domestic	Commercial	Industrial
106.	National Capital Territory of Delhi (UT)	National Capital Territory of Delhi	Indraprastha Gas Limited	1261605	3134	1708
<b>National Capital Territory of Delhi (UT) Total</b>				<b>1261605</b>	<b>3134</b>	<b>1708</b>
107.	Odisha	Cuttack District	GAIL (India) Limited	14776	0	0
108.		Ganjam, Nayagarh & Puri Districts	GAIL Gas Limited	5260	0	0
109.		Jagatsinghpur & Kendrapara Districts	Bharat Petroleum Corporation Limited	400	0	0
110.		Jajpur & Kendujhar Districts	Bharat Petroleum Corporation Limited	1499	0	0
111.		Khordha District	GAIL (India) Limited	31564	2	0
112.		Sundargarh & Jharsuguda Districts	GAIL Gas Limited	7097	0	0
<b>Odisha Total</b>				<b>60596</b>	<b>2</b>	<b>0</b>
113.	Punjab	Amritsar District	Gujarat Gas Limited	14086	83	8
114.		Bhatinda District	Gujarat Gas Limited	3136	5	0
115.		Fatehgarh Sahib District	IRM Energy Private Limited	1752	32	88
116.		Jalandhar District (EAAA), Kapurthala & SBS Nagar Districts	Think Gas Ludhiana Private Limited	6984	3	1
117.		Ludhiana District (EAAA), Barnala & Moga Districts	Think Gas Ludhiana Private Limited	5312	3	8
118.		Rupnagar District	Bharat Petroleum Corporation Limited	4950	1	0
119.	SAS Nagar District (EAAA), Patiala & Sangrur Districts	Torrent Gas Private Limited	745	15	4	
<b>Punjab Total</b>				<b>36965</b>	<b>142</b>	<b>109</b>
120.	Rajasthan	Ajmer, Pali and Rajsamand Districts	Indraprastha Gas Limited	114579	0	0
121.		Alwar (Other than Bhiwadi) & Jaipur Districts	Torrent Gas Jaipur Private Limited	0	0	2
122.		Barmer, Jaisalmer & Jodhpur Districts	AGP CGD India Private Limited	2043	5	12
123.		Bhilwara & Bundi Districts	Adani Total Gas Limited	120	1	1
124.		Bhiwadi (in Alwar District)	Haryana City Gas Distribution (Bhiwadi) Limited	3630	2	123
125.		Jalore and Sirohi Districts	Gujarat Gas Limited	1	0	0
126.		Kota	Rajasthan State Gas Limited	18819	18	15
127.		Kota District (EAAA), Baran & Chittorgarh (Only Rawatbhata Taluka) Districts	Torrent Gas Private Limited	146	0	0
<b>Rajasthan Total</b>				<b>139338</b>	<b>26</b>	<b>153</b>
128.	Tamil Nadu	Kanchipuram District	AGP CGD India Private Limited	0	0	2
<b>Tamil Nadu Total</b>				<b>0</b>	<b>0</b>	<b>2</b>
129.	Telangana	Hyderabad	Bhagyanagar Gas Limited	160234	57	69
130.		Medak, Siddipet & Sangareddy Districts	Torrent Gas Private Limited	548	0	11
131.		Nalgonda Suryapet & Yadadri Bhuvanagiri Districts	Megha Engineering & Infrastructure Limited	1475	3	3
<b>Telangana Total</b>				<b>162257</b>	<b>60</b>	<b>83</b>
132.	Tripura	Agartala	Tripura Natural Gas Company Limited	44569	497	62
133.		West Tripura (EAAA) District	Tripura Natural Gas Company Limited	9555	4	0
<b>Tripura Total</b>				<b>54124</b>	<b>501</b>	<b>62</b>
134.	Uttar Pradesh	Agra	Green Gas Limited	102109	61	17
135.		Allahabad	Indian-Oil Adani Gas Private Limited	13024	43	8
136.		Allahabad District (EAAA), Bhadohi & Kaushambi Districts	Indian-Oil Adani Gas Private Limited	696	3	0
137.		Amethi, Pratapgarh & Raebareli Districts	Bharat Petroleum Corporation Limited	1824	0	0

Table 3.6 : Continued

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	PNG connections		
				Domestic	Commercial	Industrial
138.	Uttar Pradesh	Auraiya, Kanpur Dehat & Etawah Districts	Torrent Gas Private Limited	1744	2	3
139.		Bagpat District	Bagpat Green Energy Private Limited	4879	2	0
140.		Bareilly	Central UP Gas Limited	48846	145	24
141.		Bareilly (EAAA) District, Pilibhit and Rampur Districts	Hindustan Petroleum Corporation Limited	3100	0	0
142.		Bulandshahr (part) District	Indian-Oil Adani Gas Private Limited	0	0	4
143.		Faizabad & Sultanpur Districts	Green Gas Limited	841	0	0
144.		Farrukhabad, Etah and Hardoi Districts	Hindustan Petroleum Corporation Limited	3550	0	0
145.		Gautam Budh Nagar District*	Indraprastha Gas Limited	288734	703	1076
146.		Ghaziabad & Hapur Districts	Indraprastha Gas Limited	277740	359	407
147.		Gonda and Barabanki Districts	Torrent Gas Private Limited	37	0	1
148.		Jhansi	Central UP Gas Limited	8431	0	0
149.		Kanpur	Central UP Gas Limited	114462	285	93
150.		Kanpur (EAAA) District, Fatehpur and Hamirpur Districts	Indraprastha Gas Limited	21483	0	0
151.		Khurja	Adani Total Gas Limited	11761	9	264
152.		Lucknow	Green Gas Limited	88057	57	11
153.		Mainpuri and Kannauj Districts	Hindustan Petroleum Corporation Limited	2450	0	0
154.		Mathura	Sanwariya Gas Limited	4605	49	88
155.		Meerut	GAIL Gas Limited	52516	31	49
156.		Meerut District (EAAA), Muzaffarnagar & Shamli Districts	Indraprastha Gas Limited	26708	16	0
157.		Mirzapur, Chandauli and Sonbhadra Districts	GAIL Gas Limited	5142	0	0
158.		Moradabad	Torrent Gas Moradabad Limited	13041	30	129
159.		Moradabad (EAAA) District	Torrent Gas Private Limited	3334	1	4
160.		Saharanpur District	Bharat Petroleum Corporation Limited	10122	0	0
161.		Shahjahanpur and Budaun Districts	Hindustan Petroleum Corporation Limited	2843	0	0
162.	Unnao (EAAA) District	Green Gas Limited	0	0	0	
163.	Varanasi District	GAIL (India) Limited	51112	47	9	
164.	Gorakhpur, Sant Kabir Nagar & Kushinagar Districts	Torrent Gas Private Limited	400	1	1	
<b>Uttar Pradesh Total</b>				<b>1163591</b>	<b>1844</b>	<b>2188</b>
165.	Uttar Pradesh & Rajasthan	Firozabad (Taj Trapezium Zone)	GAIL Gas Limited	18958	9	339
<b>Uttar Pradesh &amp; Rajasthan Total</b>				<b>18958</b>	<b>9</b>	<b>339</b>
166.	Uttar Pradesh and Uttrakhand	Bijnor and Nainital Districts	Hindustan Petroleum Corporation Limited	4872	0	0
<b>Uttar Pradesh and Uttrakhand Total</b>				<b>4872</b>	<b>0</b>	<b>0</b>
167.	Uttrakhand	Dehradun District	GAIL Gas Limited	23546	0	0
168.		Haridwar District	Haridwar Natural Gas Private Limited	24667	1	1
169.		Udham Singh Nagar District	Indian-Oil Adani Gas Private Limited	11921	39	64
<b>Uttrakhand Total</b>				<b>60134</b>	<b>40</b>	<b>65</b>
<b>Grand Total</b>				<b>9302667</b>	<b>34854</b>	<b>13215</b>

Source: PNGRB

Note/Remarks:-

1. All the GAs where PNG connections/CNG Stations have been established is considered as Operational.

2. Under normal conditions. Operation of any particular GA commences within around one year of authorization.

3. EAAA stands for Excluding/Except Area Already Authorized | \* stands for Sub-Judice | # stands for authorization of GA cancelled | ## stands for the data which is not provided by the CGD Entity

Disclaimer: While every care has been taken to provide the accurate data as per submissions by the authorized entities, PPAC shall not be held responsible for any loss, damage etc. due to action taken by any one based on information provided by PPAC



**Table 3.7: CNG Sales in India**

(Sales in TMT) #								
Sl. no.	State (s) / Union Territory	Company name	No. of companies (as on 01.04.2022)	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
1.	Andhra Pradesh*	AGP City Gas Private Limited, Bhagyanagar Gas Limited, Godavari Gas Private Limited, Indian Oil Corporation Limited, Megha Engineering & Infrastructure Limited	5	32	31	21	13	33
2.	Andhra Pradesh, Karnataka and Tamil Nadu	AGP City Gas Private Limited	1	0	0	0	0	0.1
4.	Assam	Assam Gas Company Limited	1	0	0	0.02	0.05	0.06
5.	Bihar	GAIL (India) Limited, Indian Oil-Adani Gas Private Limited, Think Gas Begusarai Pvt Limited, Indian Oil	4	0.0	0.0	2	5	15
6.	Chandigarh, Haryana, Punjab & Himachal Pradesh	Indian Oil-Adani Gas Private Limited	1	5	15	21	14	25
7.	Dadra & Nagar Haveli and Daman & Diu**	Gujarat Gas Limited	1	0	0	3	2	3
		Indian Oil-Adani Gas Private Limited	1	1	2	2	1.37	3
8.	Delhi NCT***	Indraprastha Gas Limited	1	1016	1144	1033	785	1015
9.	Goa	Goa Natural Gas Private Limited, Indian Oil-Adani Gas Private Limited	2	0	0	0.03	0.15	1.05
10.	Gujarat **	Adani Total Gas Limited, Charotar Gas Sahakari Mandali Limited, Gujarat Gas Limited, Hindustan Petroleum Corporation Limited, IRM Energy Private Limited, Sabarmati Gas Limited, Torrent Gas Private Limited, Vadodara Gas Limited	8	612	662	745	649	945
11.	Gujarat & UT of Dadra & Nagar Haveli and Daman & Diu	IRM Energy Private Limited	1	0	0	0.07	1.36	3.82
12.	Haryana	Adani Total Gas Limited, Bharat Petroleum Corporation Limited, GAIL Gas Limited, Haryana City Gas (KCE) Private Limited, Haryana City Gas Distribution (Bhiwadi) Limited, Haryana City Gas Distribution Ltd., Hindustan Petroleum Corporation Limited, HPOIL Gas Private Limited, Indian Oil-Adani Gas Private Limited, Indraprastha Gas Limited	10	144	179	197	173	303
13.	Haryana & Himachal Pradesh	Indian Oil-Adani Gas Private Limited	1	0	0	0	0.08	0.7
14.	Haryana & Punjab	Gujarat Gas Limited	1	0	0	0	1.4	5
15.	Himachal Pradesh	Bharat Gas Resources Limited	1	0	0	0	0	0.2
16.	Jharkhand	GAIL (India) Limited, GAIL Gas Limited, Indian Oil Corporation Limited, Bharat Gas Resources Limited	4	0	0	0.34	1.2	4
17.	Karnataka	Adani Total Gas Limited, AGP City Gas Private Limited, GAIL Gas Limited, Indian Oil-Adani Gas Private Limited, Maharashtra Natural Gas Limited, Megha Engineering & Infrastructure Limited, Unison Enviro Private Limited, Bharat Gas Resources Limited	8	0	0.3	1	3	15
18.	Kerala	AGP City Gas Private Limited, Indian Oil-Adani Gas Private Limited	2	0	1	6	4	12
19.	Kerala & Puducherry	Indian Oil-Adani Gas Private Limited	1	0	0	0	0	0.2
20.	Madhya Pradesh	Aavantika Gas Limited, GAIL Gas Limited, Gujarat Gas Limited, Indian Oil Corporation Limited, Naveriya Gas Private Limited, Rajasthan State Gas Limited, Think Gas Bhopal Private Limited, Bharat Gas Resources Limited	8	25	31	34	24	45
21.	Madhya Pradesh & Rajasthan	Gujarat Gas Limited	1	0	0	0	0.26	3
22.	Maharashtra	Bharat Gas resources Limited, Bharat Petroleum Corporation Limited, Gujarat Gas Limited, HPOIL Gas Private Limited, Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Torrent Gas Pune Limited, Unison Enviro Private Limited	8	630	702	738	504	812
23.	Maharashtra & Gujarat	Maharashtra Natural Gas Limited	1	0	0	0	1.4	5.6
24.	Odisha	Adani Total Gas Limited, GAIL (India) Limited, GAIL Gas Limited	3	0	1	3	2	4
25.	Puducherry (UT) & Tamil Nadu	Torrent Gas Private Limited	1	0	0	0	0.001	0.04
26.	Punjab	Bharat Petroleum Corporation Limited, Gujarat Gas Limited, IRM Energy Private Limited, Think Gas Ludhiana Private Limited, Torrent Gas Private Limited	5	0	1	7	14	43

Sl. no.	State (s) / Union Territory	Company name	No. of companies (as on 01.04.2022)	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
27.	Rajasthan	Adani Total Gas Limited, AGP City Gas Private Limited, Dholpur CGD Private Limited, Gujarat Gas Limited, Indraprastha Gas Limited, Rajasthan State Gas Limited, Torrent Gas Jaipur Private Limited, Torrent Gas Private Limited, Haryana City Gas Distribution (Bhiwadi) Limited	9	5	7	9	15	47
28.	Tamil Nadu	Adani Total Gas Limited, AGP CGD India Pvt Ltd, Indian Oil Corporation Limited, Torrent Gas Chennai Private Limited	4	0	0	0	0.004	2
29.	Telangana*	Bhagyanagar Gas Limited, Megha Engineering & Infrastructure Limited, Torrent Gas Private Limited	3	0	0	13	9	33
30.	Tripura	Tripura Natural Gas Company Limited	1	13	15	16	18	20
31.	Uttar Pradesh	Adani Total Gas Limited, Baggat Green Energy Private Limited, Bharat Petroleum Corporation Limited, Central UP Gas Limited, GAIL (India) Limited, GAIL Gas Limited, Green Gas Limited, Hindustan Petroleum Corporation Limited, Indian Oil-Adani Gas Private Limited, Indraprastha Gas Limited, Sanwariya Gas Limited, Torrent Gas Moradabad Limited, Torrent Gas Private Limited, Bharat Gas Resources Limited	14	153	282	392	339	545
32.	Uttar Pradesh & Uttarakhand	Hindustan Petroleum Corporation Limited	1	0	0	0	0.359	2
33.	Uttar Pradesh & Madhya Pradesh	Adani Total Gas Limited	1	0	0	0.001	0.402	8
34.	Uttarakhand Private Limited	GAIL Gas Limited, Haridwar Natural Gas Private Limited, Indian Oil-Adani Gas	3	0	0.1	1	5	12
35.	West Bengal	Bengal Gas Company Limited, Indian Oil-Adani Gas Private Limited, Hindustan Petroleum Corporation Limited	3	2	3	2	2	4
	<b>Total</b>			<b>2638</b>	<b>3076</b>	<b>3247</b>	<b>2589</b>	<b>3968</b>

**Source :** CGD companies (# Data subject to change based on inputs provided by CGD entities)

**Notes:** From the FY 2019-20 entries for \* Andhra Pradesh & Telangana are reported separately. Prior to this AP & Telangana were taken together. \*\* Dadra & Nagar Haveli and Daman & Diu are reported separately from Gujarat State\*\*\* Delhi contains information for Delhi NCT only. Remaining entries of the NCR GAs are added into respective State.



Floating CNG Station for CNG operated Boats, Varanasi

**Table No. 3.8 : State/UT wise CNG Station [as on 31.03.2022 (P)]**

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations
1.	Andhra Pradesh	Anantapur and YSR (Kadapa) Districts	AGP City Gas Private Limited	13
2.		East Godavari District (EAAA)	Godavari Gas Private Limited	15
3.		Kakinada	Bhagyanagar Gas Limited	13
4.		Krishna District (EAAA)	Megha Engineering & Infrastructure Limited	19
5.		Sri Potti Sriramulu Nellore District	AGP City Gas Private Limited	9
6.		Srikakulam, Visakhapatnam & Vizianagaram Districts	Indian Oil Corporation Limited	9
7.		Vijaywada	Bhagyanagar Gas Limited	34
8.		West Godavari District	Godavari Gas Private Limited	16
<b>Andhra Pradesh Total</b>				<b>128</b>
9.	Andhra Pradesh, Karnataka & Tamil Nadu	Chittoor, Kolar and Vellore Districts	AGP City Gas Private Limited	15
<b>Andhra Pradesh, Karnataka &amp; Tamil Nadu Total</b>				<b>15</b>
10.		Upper Assam	Assam Gas Company Limited	1
<b>Assam Total</b>				<b>1</b>
11.	Bihar	Arwal, Jehanabad, Bhojpur and Buxar Districts	Indian Oil Corporation Limited	4
12.		Aurangabad, Kaimur & Rohtas Districts	Indian Oil Corporation Limited	2
13.		Begusarai District	Think Gas Begusarai Private Limited	7
14.		Gaya & Nalanda Districts	Indian-Oil Adani Gas Private Limited	8
15.		Muzaffarpur, Vaishali, Saran and Samastipur Districts	Indian Oil Corporation Limited	10
16.		Patna District	GAIL (India) Limited	16
<b>Bihar Total</b>				<b>47</b>
17.	Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	Chandigarh	Indian-Oil Adani Gas Private Limited	23
<b>Chandigarh (UT), Haryana, Punjab &amp; Himachal Pradesh Total</b>				<b>23</b>
18.	Dadra & Nagar Haveli and Daman & Diu (UT)	UT of Dadra & Nagar Haveli	Gujarat Gas Limited	7
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu (UT) Total</b>				<b>7</b>
19.	Dadra & Nagar Haveli and Daman & Diu (UT)	UT of Daman	Indian-Oil Adani Gas Private Limited	4
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu (UT) Total</b>				<b>4</b>
20.	Daman and Diu & Daman & Diu (UT) Gujarat	Diu & Gir Somnath Districts	IRM Energy Private Limited	13
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu (UT) &amp; Gujarat Total</b>				<b>13</b>
21.	Goa	North Goa District	Goa Natural Gas Private Limited	6
22.		South Goa District	Indian-Oil Adani Gas Private Limited	4
<b>Goa Total</b>				<b>10</b>
23.	Gujarat	Ahmedabad City (Only for CNG)	Hindustan Petroleum Corporation Limited	22
24.		Ahmedabad City and Daskroi Area	Adani Total Gas Limited	81
25.		Ahmedabad District (EAAA)	Gujarat Gas Limited	8
26.		Amreli District	Gujarat Gas Limited	14
27.		Anand area including Kanjari & Vadtal Villages(in Kheda District)	Charotar Gas Sahakari Mandali Limited	10
28.		Anand District (EAAA)	Gujarat Gas Limited	35
29.		Banaskantha District	IRM Energy Private Limited	33
30.		Barwala & Ranpur Talukas	Adani Total Gas Limited	4
31.		Bhavnagar	Gujarat Gas Limited	38
32.		Dahej Vagra Taluka	Gujarat Gas Limited	5
33.		Dahod District	Gujarat Gas Limited	17

**Table 3.8 : Continued**

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations
34.	Gujarat	Gandhinagar **	Gujarat Gas Limited	16
35.		Gandhinagar Mehsana Sabarkantha	Sabarmati Gas Limited	134
36.		Hazira	Gujarat Gas Limited	1
37.		Jamnagar	Gujarat Gas Limited	30
38.		Junagadh District	Torrent Gas Private Limited	16
39.		Kheda District (EAAA) & Mahisagar District	Adani Total Gas Limited	19
40.		Kutch (West)	Gujarat Gas Limited	18
41.		Nadiad	Gujarat Gas Limited	39
42.		Narmada (Rajpipla) District	Gujarat Gas Limited	8
43.		Navsari	Gujarat Gas Limited	26
44.		Navsari District (EAAA), Surat District (EAAA), Tapi District (EAAA) & the Dangs District	Adani Total Gas Limited	8
45.		Panchmahal District	Gujarat Gas Limited	32
46.		Patan District	Sabarmati Gas Limited	24
47.		Porbandar District	Adani Total Gas Limited	9
48.		Rajkot	Gujarat Gas Limited	84
49.		Surat, Bharuch, Ankleshwar	Gujarat Gas Limited	112
50.		Surendranagar	Gujarat Gas Limited	27
51.		Surendranagar District (EAAA) & Morbi District (EAAA)	Adani Total Gas Limited	10
52.		Vadodara*	Adani Total Gas Limited	6
53.		Vadodara	Vadodara Gas Limited	25
54.		Valsad	Gujarat Gas Limited	26
<b>Gujarat Total</b>				<b>937</b>
55.	Haryana	Ambala & Kurukshetra Districts	HPOIL Gas Private Limited	13
56.		Bhiwani, Charkhi Dadri & Mahendragarh Districts	Adani Total Gas Limited	25
57.		Faridabad*	Adani Total Gas Limited	27
58.		Gurugram*	Haryana City Gas Distribution Limited	31
59.		Hisar District	HCG (KCE) Private Limited	2
60.		Jhajjar District	Haryana City Gas (KCE) Private Limited	4
61.		Kaithal District	Indraprastha Gas Limited	10
62.		Karnal District	Indraprastha Gas Limited	14
63.		Nuh and Palwal Distircts	Adani Total Gas Limited	26
64.		Panipat District	Indian-Oil Adani Gas Private Limited	13
65.		Rewari District	Indraprastha Gas Limited	24
66.		Rohtak District	Bharat Petroleum Corporation Limited	10
67.		Sonipat	GAIL Gas Limited	24
68.		Sonipat District (EAAA) & Jind District	Hindustan Petroleum Corporation Limited	18
69.		Yamunanagar District	Bharat Petroleum Corporation Limited	7
70.	Gurugram*	Indraprastha Gas Limited	15	
<b>Haryana Total</b>				<b>263</b>
71.	Haryana & Himachal Pradesh	Panchkula District (EAAA), Sirmaur, Shimla &	Indian-Oil Adani Gas Private Limited	9
<b>Haryana &amp; Himachal Pradesh Total</b>				<b>9</b>
72.	Haryana & Punjab	Sirsa, Fatehabad and Mansa (Punjab) Districts	Gujarat Gas Limited	16

**Table 3.8 : Continued**

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations
<b>Haryana &amp; Punjab Total</b>				<b>16</b>
73.	Himachal Pradesh	Bilaspur, Hamirpur & Una Districts	Bharat Petroleum Corporation Limited	7
<b>Himachal Pradesh Total</b>				<b>7</b>
74.	Jharkhand	Bokaro, Hazaribagh & Ramgarh Districts	Indian Oil Corporation Limited	18
75.		Chatra and Palamu Districts	Bharat Petroleum Corporation Limited	4
76.		East Singhbhum District	GAIL (India) Limited	4
77.		Giridih & Dhanbad Districts	GAIL Gas Limited	8
78.		Ranchi District	GAIL (India) Limited	6
79.		Seraikela-Kharsawan District	GAIL Gas Limited	9
<b>Jharkhand Total</b>				<b>49</b>
80.	Karnataka	Bagalkot, Koppal and Raichur Districts	AGP City Gas Private Limited	11
81.		Ballari & Gadag Districts	Bharat Petroleum Corporation Limited	7
82.		Belgaum District	Megha Engineering & Infrastructure Limited	3
83.		Bengaluru Rural and Urban Districts	GAIL Gas Limited	53
84.		Bidar District	Bharat Petroleum Corporation Limited	6
85.		Chikkamagaluru, Hassan and Kodagu Districts	AGP City Gas Private Limited	11
86.		Chitradurga & Davanagere Districts	bharat Petroleum Corporation Limited	8
87.		Dakshina Kannada District*	GAIL Gas Limited	27
88.		Dharwad District	Indian-Oil Adani Gas Private Limited	6
89.		Kalaburagi and Vijayapura Districts	AGP City Gas Private Limited	8
90.		Mysuru, Mandya and Chamarajanagar Districts	AGP City Gas Private Limited	15
91.		Ramanagara District	Maharashtra Natural Gas Limited	11
92.		Tumkur District	Megha Engineering & Infrastructure Limited	2
93.		Udupi District	Adani Total Gas Limited	5
94.		Uttara Kannada, Haveri and Shivamogga Districts	AGP City Gas Private Limited	9
<b>Karnataka Total</b>				<b>182</b>
95.	Kerala	Alapuzha, Kollam and Thiruvananthapuram Districts	AGP City Gas Private Limited	17
96.		Ernakulam District	Indian-Oil Adani Gas Private Limited	11
97.		Kozhikode & Wayanad Districts	Indian-Oil Adani Gas Private Limited	13
98.		Malappuram District	Indian-Oil Adani Gas Private Limited	13
99.		Palakkad & Thrissur Districts	Indian-Oil Adani Gas Private Limited	26
<b>Kerala Total</b>				<b>80</b>
100.	Kerala & Puducherry	Kannur, Kasaragod & Mahe Districts	Indian-Oil Adani Gas Private Limited	9
<b>Kerala &amp; Puducherry Total</b>				<b>9</b>
101.	Madhya Pradesh	Ashoknagar District	Indian Oil Corporation Limited	2
102.		Bhopal & Rajgarh Districts	Think Gas Bhopal Private Limited	31
103.		Dewas	GAIL Gas Limited	3
104.		Dhar District	Naveriya Gas Private Limited	3
105.		Guna District	Indian Oil Corporation Limited	3
106.		Gwalior	Aavantika Gas Limited	21
107.		Gwalior (EAAA) District and Sheopur District	Rajasthan State Gas Limited	2
108.		Indore (including Ujjain City)	Aavantika Gas Limited	50
109.		Morena District	Indian Oil Corporation Limited	3

Table 3.8 : Continued

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations
110.		Raisen, Shajapur and Sehore Districts	GAIL Gas Limited	18
111.		Rewa District	Indian Oil Corporation Limited	5
112.		Satna & Shandol Districts	Bharat Petroleum Corporation Limited	4
113.		Shivpuri District	Think Gas Bhopal Private Limited	3
114.		Sidhi and Singrauli Districts	Bharat Petroleum Corporation Limited	2
115.		Ujjain (EAAA) District, Dewas (EAAA) District and Indore (EAAA) District	Gujarat Gas Limited	12
		<b>Madhya Pradesh Total</b>		<b>162</b>
116.	Madhya Pradesh and Chhattisgrah	Anuppur, Bilaspur and Korba Districts	Adani Total Gas Limited	3
		<b>Madhya Pradesh and Chhattisgrah Total</b>		<b>3</b>
117.	Madhya Pradesh and Rajasthan	Jhabua, Banswara, Ratlam and Dungarpur Districts	Gujarat Gas Limited	21
		<b>Madhya Pradesh and Rajasthan Total</b>		<b>21</b>
118.	Madhya Pradesh and	Jhansi (EAAA) District, Bhind, Jalaun, Lalitpur and Datia Districts Uttar Pradesh	Adani Total Gas Limited	13
		<b>Madhya Pradesh and Uttar Pradesh Total</b>		<b>13</b>
119.	Maharashtra	Ahmednagar & Aurangabad Districts	Bharat Petroleum Corporation Limited	33
120.		Kolhapur District	HPOIL Gas Private Limited	14
121.		Latur & Osmanabad Districts	Unison Enviro Private Limited	10
122.		Mumbai & Greater Mumbai	Mahanagar Gas Limited	149
123.		Palghar District & Thane Rural	Gujarat Gas Limited	25
124.		Pune City including Pimpri - Chichwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon	Maharashtra Natural Gas Limited	100
125.		Pune District (EAAA)	Torrent Gas Pune Limited	47
126.		Raigarh District (EAAA)	Mahanagar Gas Limited	23
127.		Ratnagiri District	Unison Enviro Private Limited	16
128.		Sangli & Satara Districts	Bharat Petroleum Corporation Limited	17
129.		Sindhudurg District	Maharashtra Natural Gas Limited	8
130.		Solapur District	IMC Limited	6
131.		Thane urban and adjoining Municipalities	Mahanagar Gas Limited	123
		<b>Maharashtra Total</b>		<b>571</b>
132.	Maharashtra & Gujarat	Valsad (EAAA), Dhule & Nashik Districts	Maharashtra Natural Gas Limited	48
		<b>Maharashtra &amp; Gujarat Total</b>		<b>48</b>
133.	National Capital Territory of Delhi (UT)	National Capital Territory of Delhi	Indraprastha Gas Limited	456
		<b>National Capital Territory of Delhi (UT) Total</b>		<b>456</b>
134.	Odisha	Balasore, Bhadrak & Mayurbhanj Districts	Adani Total Gas Limited	7
135.		Cuttack District	GAIL (India) Limited	7
136.		Ganjam, Nayagarh & Puri Districts	GAIL Gas Limited	5
137.		Khordha District	GAIL (India) Limited	11
138.		Sundargarh & Jharsuguda Districts	GAIL Gas Limited	4
		<b>Odisha Total</b>		<b>34</b>
139.	Puducherry & Tamil Nadu	Karaikal & Nagapattinam Districts	Torrent Gas Private Limited	7
		<b>Puducherry &amp; Tamil Nadu Total</b>		<b>7</b>
140.	Punjab	Amritsar District	Gujarat Gas Limited	18



Table 3.8 : Continued

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations
141.	Punjab	Bhatinda District	Gujarat Gas Limited	14
142.		Fatehgarh Sahib District	IRM Energy Private Limited	7
143.		Ferozepur, Faridkot and Sri Muktsar Sahib Districts	Gujarat Gas Limited	17
144.		Hoshiarpur and Gurdaspur Districts	Gujarat Gas Limited	27
145.		Jalandhar ##	Jay Madhok Energy Private Limited led Consortium	3
146.		Jalandhar District (EAAA), Kapurthala & SBS Nagar Districts	Think Gas Ludhiana Private Limited	14
147.		Ludhiana #	Jay Madhok Energy Private Limited led Consortium	3
148.		Ludhiana District (EAAA), Barnala & Moga Districts	Think Gas Ludhiana Private Limited	18
149.		Rupnagar District	Bharat Petroleum Corporation Limited	12
150.		SAS Nagar District (EAAA), Patiala & Sangrur Districts	Torrent Gas Private Limited	23
<b>Punjab Total</b>				<b>156</b>
151.	Rajasthan	Ajmer, Pali and Rajsamand Districts	Indraprastha Gas Limited	44
152.		Alwar (Other than Bhiwadi) & Jaipur Districts	Torrent Gas Jaipur Private Limited	23
153.		Barmer, Jaisalmer & Jodhpur Districts	AGP CGD India Private Limited	18
154.		Bhilwara & Bundi Districts	Adani Total Gas Limited	12
155.		Bhiwadi (in Alwar District)	Haryana City Gas Distribution (Bhiwadi) Limited	1
156.		Chittorgarh (Other than Rawatbhata Taluka) & Udaipur Districts	Adani Total Gas Limited	25
157.		Dholpur District	Dholpur CGD Private Limited	5
158.		Jalore and Sirohi Districts	Gujarat Gas Limited	18
159.		Kota	Rajasthan State Gas Limited	9
160.		Kota District (EAAA), Baran & Chittorgarh (Only Rawatbhata Taluka) Districts	Torrent Gas Private Limited	13
<b>Rajasthan Total</b>				<b>168</b>
161.	Tamil Nadu	Chennai & Tiruvallur Districts	Torrent Gas Chennai Private Limited	34
162.		Coimbatore District	Indian Oil Corporation Limited	10
163.		Cuddalore, Nagapattinam & Tiruvarur Districts	Adani Total Gas Limited	19
164.		Kanchipuram District	AGP CGD India Private Limited	12
165.		Ramanathapuram District	AGP CGD India Private Limited	3
166.		Salem District	Indian Oil Corporation Limited	2
167.		Tiruppur District	Adani Total Gas Limited	28
<b>Tamil Nadu Total</b>				<b>108</b>
168.	Telangana	Bhadradi Kothagudem & Khamman Districts	Megha Engineering & Infrastructure Limited	2
169.		Hyderabad	Bhagyanagar Gas Limited	88
170.		Jagtial, Peddapalli, Karimnagar & Rajanna Sircilla Districts	Indian Oil Corporation Limited	2
171.		Jangaon, Jayashankar Bhupalpally, Mahabubabad, Warangal Urban & Warangal Rural Districts	Megha Engineering & Infrastructure Limited	3
172.		Medak, Siddipet & Sangareddy Districts	Torrent Gas Private Limited	15
173.		Medchal-Malkajgiri, Ranga Reddy & Vikarabad Districts	Megha Engineering & Infrastructure Limited	4
174.		Nalgonda Suryapet & Yadadri Bhuvanagiri Districts	Megha Engineering & Infrastructure Limited	3
<b>Telangana Total</b>				<b>117</b>
175.	Tripura	Agartala	Tripura Natural Gas Company Limited	6
176.		Gomati District	Tripura Natural Gas Company Limited	6
177.		West Tripura (EAAA) District	Tripura Natural Gas Company Limited	6
<b>Tripura Total</b>				<b>18</b>
178.	Uttar Pradesh	Agra	Green Gas Limited	28



**Table 3.8 : Continued**

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations	
179.	Uttar Pradesh	Allahabad	Indian-Oil Adani Gas Private Limited	7	
180.		Allahabad District (EAAA), Bhadohi & Kaushambi Districts	Indian-Oil Adani Gas Private Limited	11	
181.		Amethi, Pratapgarh & Raebareilly Districts	Bharat Petroleum Corporation Limited	14	
182.		Auraiya, Kanpur Dehat & Etawah Districts	Torrent Gas Private Limited	21	
183.		Azamgarh, Mau and Ballia Districts	Torrent Gas Private Limited	21	
184.		Bagpat District	Bagpat Green Energy Private Limited	8	
185.		Bareilly	Central UP Gas Limited	18	
186.		Bareilly (EAAA) District, Pilibhit and Rampur Districts	Hindustan Petroleum Corporation Limited	24	
187.		Basti and Ambedkarnagar Districts	Torrent Gas Private Limited	13	
188.		Bulandshahr (part) District	Indian-Oil Adani Gas Private Limited	9	
189.		Bulandshahr District (EAAA), Aligarh & Hathras Districts	Indian-Oil Adani Gas Private Limited	16	
190.		Faizabad & Sultanpur Districts	Green Gas Limited	6	
191.		Farrukhabad, Etah and Hardoi Districts	Hindustan Petroleum Corporation Limited	20	
192.		Gautam Budh Nagar District*	Indraprastha Gas Limited	53	
193.		Ghaziabad & Hapur Districts	Indraprastha Gas Limited	62	
194.		Gonda and Barabanki Districts	Torrent Gas Private Limited	19	
195.		Jaunpur and Ghazipur Districts	Indian-Oil Adani Gas Private Limited	6	
196.		Jhansi	Central UP Gas Limited	7	
197.		Kanpur	Central UP Gas Limited	45	
198.		Kanpur (EAAA) District, Fatehpur and Hamirpur Districts	Indraprastha Gas Limited	14	
199.		Khurja	Adani Total Gas Limited	7	
200.		Lucknow	Green Gas Limited	41	
201.		Mainpuri and Kannauj Districts	Hindustan Petroleum Corporation Limited	13	
202.		Mathura	Sanwariya Gas Limited	9	
203.		Meerut	GAIL Gas Limited	19	
204.		Meerut District (EAAA), Muzaffarnagar & Shamli Districts	Indraprastha Gas Limited	18	
205.		Mirzapur, Chandauli and Sonbhadra Districts	GAIL Gas Limited	15	
206.		Moradabad	Torrent Gas Moradabad Limited	7	
207.		Moradabad (EAAA) District	Torrent Gas Private Limited	17	
208.		Saharanpur District	Bharat Petroleum Corporation Limited	10	
209.		Shahjahanpur and Budaun Districts	Hindustan Petroleum Corporation Limited	20	
210.		Unnao (EAAA) District	Green Gas Limited	2	
211.		Varanasi District	GAIL (India) Limited	15	
212.		Gorakhpur, Sant Kabir Nagar & Kushinagar Districts	Torrent Gas Private Limited	21	
		<b>Uttar Pradesh Total</b>			<b>636</b>
213.		Uttar Pradesh & Rajasthan	Firozabad (Taj Trapezium Zone)	GAIL Gas Limited	36
	<b>Uttar Pradesh &amp; Rajasthan Total</b>			<b>36</b>	
214.	Uttar Pradesh and Uttrakhand	Bijnor and Nainital Districts	Hindustan Petroleum Corporation Limited	16	
	<b>Uttar Pradesh and Uttrakhand Total</b>			<b>16</b>	
215.	Uttrakhand	Dehradun District	GAIL Gas Limited	13	
216.		Haridwar District	Haridwar Natural Gas Private Limited	4	
217.		Udham Singh Nagar District	Indian-Oil Adani Gas Private Limited	9	
	<b>Uttrakhand Total</b>			<b>26</b>	

Sl. no.	State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	CNG Stations
218.	West Bengal	Burdwan District	Indian-Oil Adani Gas Private Limited	19
219.		Howrah (EAAA) District and Hoogly (EAAA) District	Hindustan Petroleum Corporation Limited	4
220.		Kolkata Municipal Corporation and Parts of Adjoining Districts	Bengal Gas Company Limited	5
221.		Nadia (EAAA) District and North 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	8
222.		South 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	1
<b>West Bengal Total</b>				<b>37</b>
<b>Grand Total</b>				<b>4433</b>

Source: PNGRB

**Note/Remarks:-**

1. All the GAs where PNG connections/CNG Stations have been established the considered as Operational.
2. Under normal conditions. Operation of any particular GA commences within around one year of authorization.
3. EAAA stands for Excluding/Except Area Already Authorized | \* stands for Sub-Judice | # stands for authorization of GA cancelled | ## stands for the data not provided by the CGD Entity

**Table 3.9 : LNG terminals (Operational)**

Sl. no.	Location	Promoters	Capacity as on 01.04.2022	% Capacity utilisation (Apr-March 2022)
1.	Dahej	Petronet LNG Ltd (PLL)	17.5 MMTPA	87.53
2.	Hazira	Shell Energy India Pvt. Ltd.	5.2 MMTPA	47.15
3.	Dabhol	Konkan LNG Limited	*5 MMTPA	85.08
4.	Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	20.72
5.	Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	13.00
6.	Mundra	GSPC LNG Limited	5 MMTPA	19.3
<b>Total Capacity</b>			<b>42.7 MMTPA</b>	

\* To increase to 5 MMTPA with breakwater. Only HP stream of capacity of 2.9 MMTPA is commissioned

**Table 3.10 : Import of Liquefied Natural Gas (LNG)**

Financial Year	LNG import quantity/value				
	MMT	MMSCM	Million Btu	Value (Mn. USD)	USD /MMBtu
2017-18	20.7	27,439	1,088,847,280	8,051	7.4
2018-19	21.7	28,740	1,140,494,327	10,253	9.0
2019-20	25.6	33,886	1,344,684,149	9,489	7.1
2020-21	24.9	33,031	1,310,768,505	7,864	6.0
2021-22 (P)	23.2	30,776	1,221,273,902	13,382	11.0

Source: LNG importing companies & DGCIS

Conversion of MMSCM to MMBtu is based on approximation of 1 Million BTU (MMBTU) = 25.2 SCM. (@10000 Kcal/SCM; 1 MMBtu = 252000 Kcal)

**Table 3.11 : Domestic Natural Gas Price and Gas Price Ceiling**

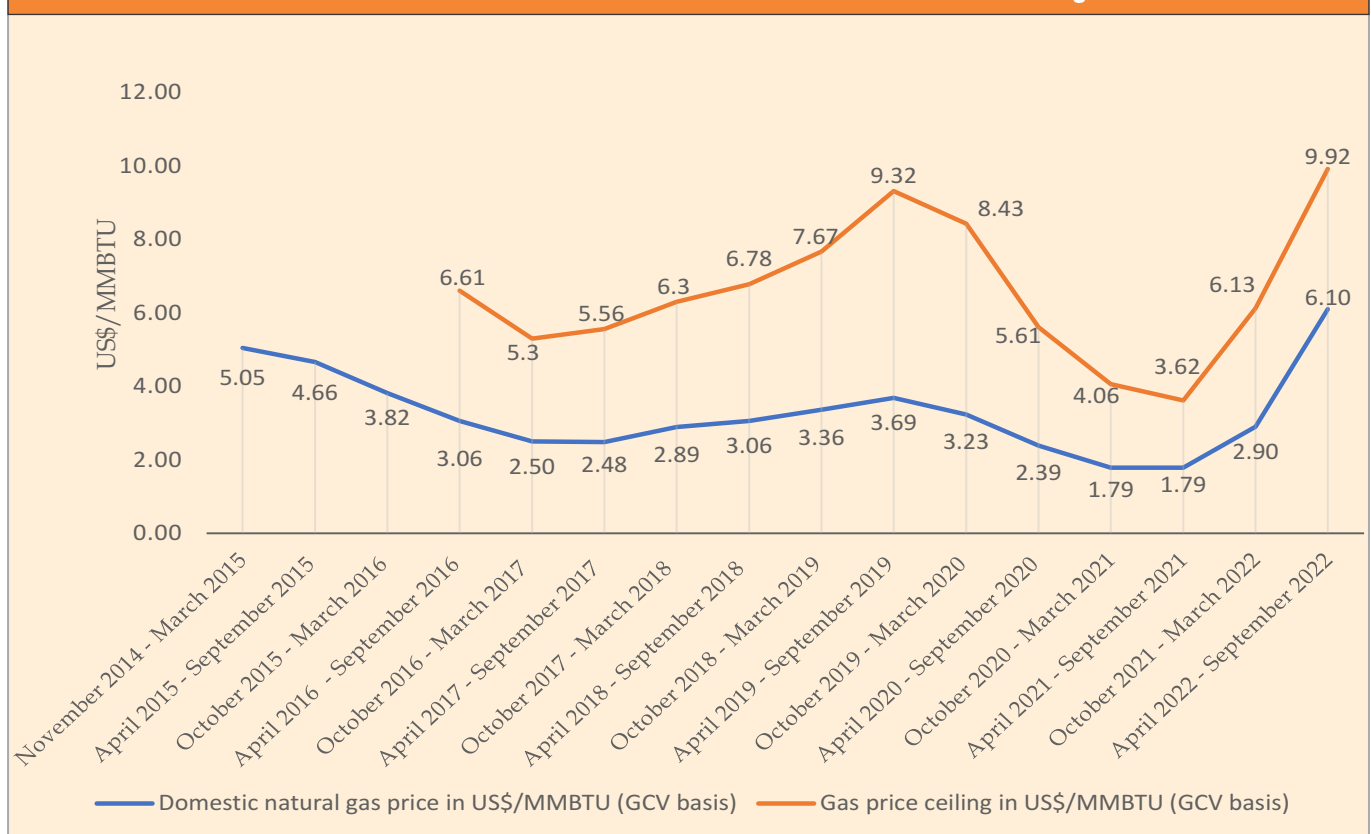
Period	Domestic Natural Gas Price in US\$/MMBTU (GCV basis)*	Gas Price Ceiling in US\$/MMBTU (GCV basis)**
November 2014 - March 2015	5.05	-
April 2015 - September 2015	4.66	-
October 2015 - March 2016	3.82	-
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.50	5.3
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.3
April 2018 - September 2018	3.06	6.78
October 2018 - March 2019	3.36	7.67
April 2019 - September 2019	3.69	9.32
October 2019 - March 2020	3.23	8.43
April 2020 - September 2020	2.39	5.61
October 2020 - March 2021	1.79	4.06
April 2021 - September 2021	1.79	3.62
October 2021 - March 2022	2.90	6.13
April 2022 - September 2022	6.10	9.92

**Note:**

\* As per the "New Domestic Natural Gas Pricing Guidelines, 2014" issued by Ministry of Petroleum & Natural Gas dated October 25, 2014.

\*\* As per the notification issued by Ministry of Petroleum and Natural Gas 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.

**Trend of 'Domestic Natural Gas Price' and 'Gas Price Ceiling'**

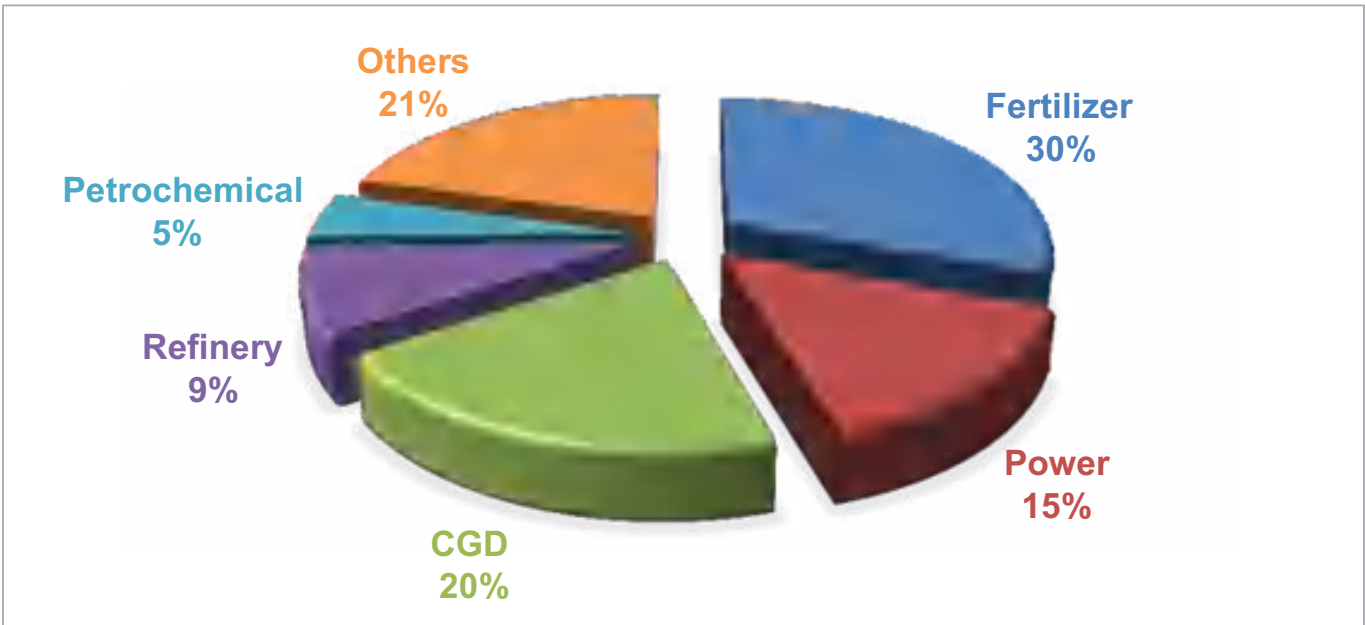


**Table 3.12: Statewise CGD Sale Profile\* (in SCMD ) base period: October 2021-March 2022**

State (s) / Union Territory	CNG	Domestic	Commercial	Industrial	Total
Andhra Pradesh	93139	32332	4826	101668	231965
Andhra Pradesh, Karnataka and Tamil Nadu	717	0	0	3628	4345
Assam	257	34380	21140	312581	368358
Bihar	77093	3103	370	326	80892
Chandigarh, Haryana, Punjab & Himachal Pradesh	114050	9418	3329	7344	134141
Dadra & Nagar Haveli and Daman & Diu	25644	3130	1760	114415	144950
Delhi	4338200	340032	124875	185845	4988951
Goa	6411	533	494	19116	26553
Gujarat	4005115	1248357	207370	8564826	14025668
Gujarat & UT of Dadra & Nagar Haveli and Daman & Diu	18264	206	9	0	18480
Haryana	1408514	61769	29944	717855	2218081
Haryana & Himachal Pradesh	4779	0	0	0	4779
Haryana & Punjab	23493	0	0	0	23493
Himachal Pradesh	972	185	0	0	1157
Jharkhand	20978	1293	0	0	22271
Karnataka	87323	34050	14878	325432	461683
Kerala	64678	2162	1115	14107	82062
Kerala & Puducherry	1938	0	0	0	1938
Madhya Pradesh	217128	45768	5035	134571	402502
Madhya Pradesh & Rajasthan	16084	0	0	0	16084
Maharashtra	3536714	577198	186582	672882	4973376
Maharashtra & Gujarat	28449	1	3	621	29074
Odisha	17472	1770	9	0	19251
Puducherry (UT) & Tamil Nadu	230	0	0	0	230
Punjab	205435	8718	4122	201142	419417
Rajasthan	258612	2242	857	150552	412263
Tamil Nadu	16065	0	0	1688	17753
Telangana	83133	24649	1178	69791	178752
Tripura	86682	47855	7844	20914	163295
Uttar Pradesh	2402863	303890	61763	2189833	4958348
Uttar Pradesh & Uttarakhand	13409	0	0	0	13409
Uttar Pradesh & Madhya Pradesh	9399	0	0	0	9399
Uttarakhand	52990	18686	834	61042	133553
West Bengal	17332	0	0	0	17332
<b>Grand Total</b>	<b>17253563</b>	<b>2801726</b>	<b>678335</b>	<b>13870178</b>	<b>34603802</b>

\*Inputs based on the information submitted by CGD entities - subject to revisions, if any. Categorizations of data under Commercial and Industrial sectors- as per the respective policies of individual CGD entities  
Sales of SCMD (Standard Cubic Meter per day) calculated based on sale for period October 2021 to March 2022

End-use sectoral consumption of NG for FY2021-22 (P)



"P: provisional

Based on information provided by ONGC, OIL, DGH, GAIL, Torrent Power Limited, Shell Energy India Pvt. Ltd., BPCL, RIL and IOCL. Sectoral consumption data for GSPC is prorated."





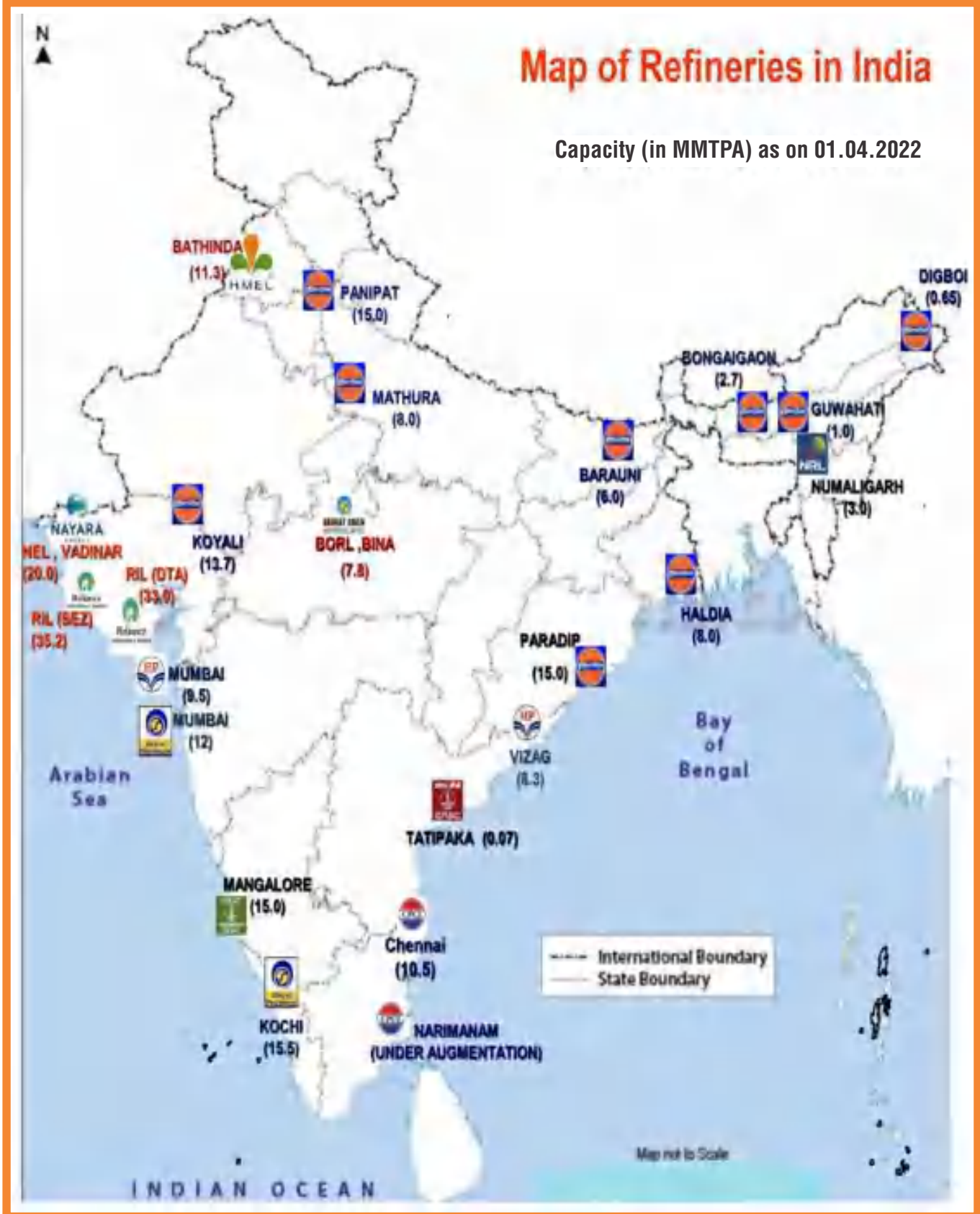
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# Chapter-4

## 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)				
		01.04.2018	01.04.2019	01.04.2020	01.04.2021	01.04.2022 (P)	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
1	Barauni	6.0	6.0	6.0	6.0	6.0	13.8	6.7	6.5	5.5	5.6
2	Koyali	13.7	13.7	13.7	13.7	13.7	9.2	13.5	13.1	11.6	13.5
3	Haldia	7.5	7.5	8.0	8.0	8.0	15.7	8.0	6.5	6.8	7.3
4	Mathura	8.0	8.0	8.0	8.0	8.0	7.7	9.7	8.9	8.9	9.1
5	Panipat	15.0	15.0	15.0	15.0	15.0	5.8	15.3	15.0	13.2	14.8
6	Guwahati	1.0	1.0	1.0	1.0	1.0	0.7	0.9	0.9	0.8	0.7
7	Digboi	0.65	0.65	0.65	0.65	0.65	1.0	0.7	0.7	0.6	0.7
8	Bongaigaon	2.35	2.35	2.35	2.35	2.7	2.4	2.5	2.0	2.5	2.6
9	Paradip	15.0	15.0	15.0	15.0	15.0	12.7	14.6	15.8	12.5	13.2
	<b>IOCL total</b>	<b>69.2</b>	<b>69.2</b>	<b>69.7</b>	<b>69.7</b>	<b>70.1</b>	<b>69.0</b>	<b>71.8</b>	<b>69.4</b>	<b>62.4</b>	<b>67.7</b>
10	Mumbai	7.5	7.5	7.5	7.5	9.5	8.6	8.7	8.1	7.4	5.6
11	Visakh	8.3	8.3	8.3	8.3	8.3	9.6	9.8	9.1	9.1	8.4
12	HMEL-Bathinda	11.3	11.3	11.3	11.3	11.3	8.8	12.5	12.2	10.1	13.0
	<b>HPCL total</b>	<b>27.1</b>	<b>27.1</b>	<b>27.1</b>	<b>27.1</b>	<b>29.1</b>	<b>27.1</b>	<b>30.9</b>	<b>29.4</b>	<b>26.5</b>	<b>27.0</b>
13	Mumbai	12.0	12.0	12.0	12.0	12.0	14.1	14.8	15.0	12.9	14.4
14	Kochi	15.5	15.5	15.5	15.5	15.5	14.1	16.1	16.5	13.3	15.4
15	BORL-Bina	6.0	7.8	7.8	7.8	7.8	6.7	5.7	7.9	6.2	7.4
	<b>BPCL total</b>	<b>33.5</b>	<b>35.3</b>	<b>35.3</b>	<b>35.3</b>	<b>35.3</b>	<b>34.9</b>	<b>36.5</b>	<b>39.4</b>	<b>32.4</b>	<b>37.2</b>
16	Manali	10.5	10.5	10.5	10.5	10.5	10.3	10.3	10.2	8.2	9.0
17	CBR*	1.0	1.0	1.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0
	<b>CPCL total</b>	<b>11.5</b>	<b>11.5</b>	<b>11.5</b>	<b>10.5</b>	<b>10.5</b>	<b>10.8</b>	<b>10.7</b>	<b>10.2</b>	<b>8.2</b>	<b>9.0</b>
18	Numaligarh	3.0	3.0	3.0	3.0	3.0	2.8	2.9	2.4	2.7	2.6
19	Tatipaka	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.09	0.1	0.08
20	MRPL-Mangalore	15.0	15.0	15.0	15.0	15.0	16.1	16.2	14.0	11.5	14.9
	<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>16.2</b>	<b>16.3</b>	<b>14.0</b>	<b>11.6</b>	<b>14.9</b>
21	RIL-Jamnagar (DTA)	33.0	33.0	33.0	33.0	33.0	33.2	31.8	33.0	34.1	34.8
22	RIL-Jamnagar (SEZ)	35.2	35.2	35.2	35.2	35.2	37.3	37.4	35.9	26.8	28.3
23	NEL*-Vadinar	20.0	20.0	20.0	20.0	20.0	20.7	18.9	20.6	17.1	20.2
	<b>All India</b>	<b>247.6</b>	<b>249.4</b>	<b>249.9</b>	<b>248.9</b>	<b>251.2</b>	<b>251.9</b>	<b>257.2</b>	<b>254.4</b>	<b>221.8</b>	<b>241.7</b>

Source: Oil companies; \*Nayara Energy Limited (formerly Essar Oil Limited)

MMTPA: Million Metric Tonne Per Annum, MMT: Million Metric Tonne

\* CBR refinery is under capacity augmentation

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

(Million metric tonne)

Sl. no.	Type of crude	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
1	HS crude	188.4	194.2	192.4	161.4	185.0
2	LS crude	63.6	63.0	62.0	60.3	56.7
	<b>Total crude</b>	<b>251.9</b>	<b>257.2</b>	<b>254.4</b>	<b>221.8</b>	<b>241.7</b>
	Share of HS crude in total crude processing	74.8%	75.5%	75.6%	72.8%	76.6%

Source: Oil companies

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

(Million metric tonne)

Indigenous/ Imported crude	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
Imported crude	219.1	225.5	225.1	193.8	214.7
Indigenous crude	32.8	31.7	29.3	28.0	27.0
<b>Total crude</b>	<b>251.9</b>	<b>257.2</b>	<b>254.4</b>	<b>221.8</b>	<b>241.7</b>
Share of imported crude in total crude processing	87.0%	87.7%	88.5%	87.4%	88.8%

Source: Oil companies

**Table 4.4 : Production of petroleum products**

(Million metric tonne)

Products	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
<b>A) From crude oil/refineries</b>					
<b>Light ends</b>	<b>83.7</b>	<b>85.1</b>	<b>87.4</b>	<b>83.0</b>	<b>89.3</b>
of which: LPG	10.2	10.7	10.9	10.2	10.6
MS	37.8	38.0	38.6	35.8	40.2
Naphtha	18.8	18.4	19.4	18.4	19.0
Others	17.0	18.0	18.5	18.6	19.6
<b>Middle distillates</b>	<b>131.2</b>	<b>136.3</b>	<b>135.5</b>	<b>115.4</b>	<b>125.4</b>
of which: SKO	4.2	4.0	3.2	2.4	1.9
ATF	14.6	15.5	15.2	7.1	10.3
HSD	108.0	110.5	111.1	100.4	107.1
LDO	0.6	0.7	0.6	0.7	0.8
Others	3.7	5.7	5.5	4.8	5.3
<b>Heavy ends</b>	<b>34.8</b>	<b>36.0</b>	<b>35.3</b>	<b>30.9</b>	<b>35.5</b>
of which: Furnace Oil	9.8	9.5	8.9	7.1	8.4
LSHS	0.5	0.4	0.4	0.4	0.5
Lube Oil	1.0	0.9	0.9	1.1	1.2
Bitumen	5.3	5.6	4.9	4.9	4.7
RPC/Petcoke	13.9	13.7	14.6	12.0	14.7
Others	4.3	5.9	5.5	5.5	5.9
<b>Sub total (A)</b>	<b>249.7</b>	<b>257.4</b>	<b>258.2</b>	<b>229.3</b>	<b>250.3</b>
<b>B) From natural gas/fractionators</b>					
<b>Sub total (B)</b>	<b>4.6</b>	<b>4.9</b>	<b>4.8</b>	<b>4.2</b>	<b>4.1</b>
of which: LPG	2.2	2.1	2.0	1.9	1.6
Naphtha	1.2	1.2	1.2	1.0	1.0
SKO	0.05	0.07	0.05	0.03	0.02
ATF	0.01	0.02	0.03	0.02	0.03
HSD	0.01	0.04	0.06	0.06	0.05
Others	1.1	1.5	1.5	1.3	1.3
<b>Total production (A +B)</b>	<b>254.3</b>	<b>262.4</b>	<b>262.9</b>	<b>233.5</b>	<b>254.3</b>

Source: Oil companies

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

(Million metric tonne)

Major products	2017-18		2018-19		2019-20		2020-21		2021-22 (P)	
	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage
HSD	108.1	42.5	110.6	42.1	111.2	42.3	100.4	43.0	107.1	42.1
MS	37.8	14.9	38.0	14.5	38.6	14.7	35.8	15.3	40.2	15.8
Naphtha	20.0	7.9	19.6	7.5	20.6	7.8	19.4	8.3	19.9	7.8
FO	9.8	3.8	9.5	3.6	8.9	3.4	7.1	3.0	8.4	3.3
ATF	14.7	5.8	15.5	5.9	15.2	5.8	7.1	3.0	10.3	4.0
LPG	12.4	4.9	12.8	4.9	12.8	4.9	12.1	5.2	12.2	4.8
SKO	4.3	1.7	4.1	1.5	3.2	1.2	2.4	1.0	1.9	0.8
Bitumen	5.3	2.1	5.6	2.1	4.9	1.9	4.9	2.1	4.7	1.9
LSHS	0.5	0.2	0.4	0.2	0.4	0.2	0.4	0.2	0.5	0.2
Lubes	1.0	0.4	0.9	0.4	0.9	0.4	1.1	0.5	1.2	0.5
LDO	0.6	0.2	0.7	0.3	0.6	0.2	0.7	0.3	0.8	0.3
RPC/Petcoke	13.9	5.5	13.7	5.2	14.6	5.6	12.0	5.2	14.7	5.8
Others#	26.2	10.3	31.0	11.8	31.0	11.8	30.2	12.9	32.1	12.6
<b>Total</b>	<b>254.3</b>	<b>100.0</b>	<b>262.4</b>	<b>100.0</b>	<b>262.9</b>	<b>100.0</b>	<b>233.5</b>	<b>100.0</b>	<b>254.3</b>	<b>100.0</b>

Source: Oil companies

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

**Table 4.6 : Production vis a vis 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	123.3	11.6
2005-06	113.2	124.6	11.4
2006-07	120.7	140.6	19.9
2007-08	128.9	150.4	21.5
2008-09	133.6	157.9	24.3
2009-10	137.8	185.5	47.7
2010-11	141.0	196.2	55.2
2011-12	148.1	204.5	56.3
2012-13	157.1	218.2	61.2
2013-14	158.4	220.7	62.3
2014-15	165.5	221.1	55.6
2015-16	184.7	231.9	47.2
2016-17	194.6	243.5	48.9
2017-18	206.2	254.3	48.1
2018-19	213.2	262.4	49.1
2019-20	214.1	262.9	48.8
2020-21	194.3	233.5	39.2
2021-22 (P)	202.7	254.3	51.6

Note: \$ includes direct imports by private parties\*

\*Fractionators and gas processing plants

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

\$/bbl

Company	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
<b>PSU refineries</b>						
IOCL#	7.77	8.49	5.41	0.08	5.64	11.25
BPCL	5.26	6.85	4.58	2.50	4.06	9.09
HPCL	6.20	7.40	5.01	1.02	3.86	7.19
CPCL	6.05	6.42	3.70	(1.18)	7.14	8.85
MRPL	7.75	7.54	4.06	(0.23)	3.71	8.72
NRL#	28.56	31.92	28.11	24.55	37.23	43.46
BORL	11.80	11.70	9.80	5.60	6.20	11.00
RIL	11.00	11.60	9.20	8.90	*	*
NEL	9.14	8.95	6.97	5.88	*	*
Singapore	5.83	7.23	4.88	3.25	0.53	4.99

(P) - Provisional

#GRM of North-East refineries are including excise duty benefit\* \* Not available"

As per U.S. Energy Information Administration (EIA), Gross Refining Margin is the difference between the revenue from the sale of petroleum products and the cost of the raw materials used to produce the products.

Source : Indian refineries - published results/ information provided by oil companies; Singapore - Reuters



First Refinery at Digboi to Latest coming up at Barmer

**Table 4.8 : Distillate yield of PSU refineries**

(Distillate %)

Company	Refinery	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
IOCL	Barauni	89.0	87.9	86.9	87.1	85.6
	Koyali	82.5	81.0	79.5	72.1	73.2
	Haldia	66.9	69.9	69.0	72.2	72.3
	Mathura	75.4	76.1	75.6	72.3	71.7
	Panipat	84.9	82.8	84.8	80.2	79.5
	Guwahati	82.7	81.0	83.5	82.1	81.9
	Digboi	77.9	75.8	72.5	67.9	72.3
	Bongaigaon	84.3	84.8	80.8	84.8	81.5
	Paradip	79.4	80.8	80.7	79.2	78.7
CPCL	Manali	72.3	75.3	77.6	78.4	77.2
	CBR	79.1	77.3	-	-	-
HPCL	Mumbai	77.4	77.6	77.0	76.2	69.1
	Visakh	74.5	74.5	72.1	74.4	70.5
BPCL	Mumbai	84.3	82.2	84.9	83.7	82.9
	Kochi	83.9	82.5	84.2	83.8	83.5
NRL	Numaligarh	86.7	87.1	83.0	86.4	85.7
MRPL	Mangalore	76.5	76.8	76.7	78.1	78.6
<b>PSU oil cos. average</b>		<b>79.7</b>	<b>79.6</b>	<b>80.0</b>	<b>78.6</b>	<b>78.1</b>

Source : Centre for High Technology

**Table 4.9 : Fuel & Loss**

(Million metric tonne)

Company	Refinery	2017-18			2018-19			2019-20			2020-21			2021-22 (P)		
		Crude T'put + other inputs	Qty	%	Crude T'put + other inputs	Qty	%	Crude T'put + other inputs	Qty	%	Crude T'put + other inputs	Qty	%	Crude T'put + other inputs	Qty	%
IOCL	Barauni	6.0	0.5	9.2	6.9	0.6	9.0	6.7	0.6	8.8	5.7	0.6	9.8	5.7	0.5	9.6
	Koyali	14.5	1.2	8.6	14.2	1.3	9.0	13.9	1.3	9.3	12.4	1.2	10.0	14.2	1.4	9.6
	Haldia	7.8	0.7	8.4	8.1	0.7	8.3	6.6	0.6	9.6	6.9	0.7	10.5	7.5	0.8	10.7
	Mathura	9.8	0.7	7.0	10.2	0.7	6.6	9.5	0.6	6.7	9.4	0.7	7.0	9.7	0.7	6.8
	Panipat	17.3	1.4	8.1	17.3	1.4	7.9	16.7	1.4	8.3	14.9	1.4	9.2	16.7	1.4	8.5
	Guwahati	1.3	0.1	10.2	1.2	0.1	9.5	1.3	0.1	9.7	1.1	0.1	10.6	1.0	0.1	9.7
	Digboi	0.7	0.1	10.3	0.8	0.1	10.0	0.7	0.1	11.0	0.7	0.1	11.7	0.8	0.1	10.6
	Bongaigaon	2.4	0.2	8.7	2.6	0.2	8.2	2.1	0.2	8.5	2.5	0.3	11.1	2.8	0.3	11.9
	Paradip	12.7	1.4	10.9	14.6	1.4	9.8	15.8	1.5	9.6	12.5	1.4	11.0	13.4	1.5	11.0
	<b>IOCL Total</b>	<b>72.6</b>	<b>6.4</b>		<b>75.7</b>	<b>6.4</b>		<b>73.4</b>	<b>6.4</b>		<b>66.1</b>	<b>6.4</b>		<b>71.7</b>	<b>6.8</b>	
HPCL	Mumbai	8.6	0.6	7.2	8.8	0.6	7.0	8.1	0.4	5.1	7.5	0.6	8.0	5.7	0.5	8.2
	Visakh	9.6	0.7	7.1	9.8	0.7	7.3	9.1	0.7	7.5	9.1	0.7	7.9	8.4	0.7	8.1
	HMEL-Bathinda	8.9	0.6	6.2	12.6	0.7	5.8	12.3	0.7	5.7	10.1	0.6	6.0	13.1	0.8	6.1
		<b>HPCL Total</b>	<b>27.2</b>	<b>1.9</b>		<b>31.2</b>	<b>2.1</b>		<b>29.5</b>	<b>1.8</b>		<b>26.7</b>	<b>1.9</b>		<b>27.2</b>	<b>1.9</b>
BPCL	Mumbai	14.3	0.7	4.6	14.8	0.6	4.0	15.1	0.6	4.2	13.1	0.5	4.1	14.5	0.6	4.3
	Kochi	14.5	1.1	7.7	16.4	1.3	7.8	17.2	1.4	8.3	13.9	1.1	8.2	15.9	1.4	8.8
	BORL-Bina	6.7	0.7	9.7	5.7	0.6	10.2	7.9	0.8	9.9	6.2	0.7	11.8	7.4	0.8	10.6
	<b>BPCL Total</b>	<b>35.5</b>	<b>2.4</b>		<b>37.0</b>	<b>2.4</b>		<b>40.2</b>	<b>2.8</b>		<b>33.1</b>	<b>2.4</b>		<b>37.8</b>	<b>2.8</b>	
	<b>Numaligarh</b>	<b>3.1</b>	<b>0.3</b>	<b>10.1</b>	<b>3.2</b>	<b>0.3</b>	<b>9.5</b>	<b>2.7</b>	<b>0.3</b>	<b>10.0</b>	<b>3.0</b>	<b>0.3</b>	<b>9.9</b>	<b>2.9</b>	<b>0.3</b>	<b>9.8</b>
CPCL	Manali	10.4	1.0	9.7	10.3	1.1	10.3	10.3	1.0	10.0	8.5	0.9	10.7	9.4	0.9	9.7
	CBR	0.5	0.0	5.0	0.4	0.02	5.1	0.0	0.0	52.5	0.0	0.0	0.0	0.0	0.0	0.0
		<b>CPCL Total</b>	<b>10.9</b>	<b>1.0</b>		<b>10.8</b>	<b>1.1</b>		<b>10.3</b>	<b>1.0</b>		<b>8.5</b>	<b>0.9</b>		<b>9.4</b>	<b>0.9</b>
ONGC	Tatipaka	0.1	0.004	5.3	0.1	0.003	9.9	0.1	0.007	7.8	0.1	0.0	5.1	0.1	0.003	4.5
	MRPL-Mangalore	16.4	1.7	10.2	16.5	1.7	10.2	14.1	1.5	10.6	11.5	1.4	11.9	15.0	1.6	10.8
		<b>ONGC Total</b>	<b>16.4</b>	<b>1.7</b>		<b>16.6</b>	<b>1.7</b>		<b>14.2</b>	<b>1.5</b>		<b>11.6</b>	<b>1.4</b>		<b>15.0</b>	<b>1.6</b>
RIL	Jamnagar (DTA)	36.4	2.7	7.4	37.0	2.8	7.5	40.1	3.8	9.5	40.7	4.0	9.9	41.1	4.0	9.7
	Jamnagar (SEZ)	47.8	3.7	7.8	48.9	3.6	7.4	52.1	4.6	8.9	45.1	4.4	9.8	50.5	5.0	9.8
NEL*	Vadinar	21.0	1.2	5.7	19.2	1.1	6.0	21.1	1.2	5.7	17.5	1.0	6.0	20.5	1.1	5.5
	<b>Total</b>	<b>271.0</b>	<b>21.3</b>		<b>279.6</b>	<b>21.6</b>		<b>283.5</b>	<b>23.5</b>		<b>252.3</b>	<b>22.8</b>		<b>276.1</b>	<b>24.4</b>	

\*Nayara Energy Limited (formerly Essar Oil Limited) Source: Oil companies

**Table 4.10: Specific energy consumption of PSU Refineries**

(MBTU/Bbl/NRGF)

Company	Refinery	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
IOCL	Barauni	77.7	77.9	75.9	78.1	76.7
	Koyali	72.4	75.3	77.4	82.6	79.5
	Haldia	80.8	76.6	88.3	89.3	88.5
	Mathura	68.3	63.9	65.8	63.1	62.2
	Panipat	63.2	64.1	64.5	68.0	63.9
	Guwahati	108.0	112.3	121.2	123.7	122.6
	Digboi	105.5	101.8	101.7	98.1	99.6
	Bongaigaon	91.7	88.6	96.8	108.5	111.5
	Paradip	72.8	66.8	64.1	69.0	68.3
CPCL	Manali	88.6	83.0	81.5	86.7	82.6
	CBR	123.7	118.1	-	-	-
HPCL	Mumbai	84.4	82.8	84.8	98.2	106.7
	Visakhapatnam	77.3	77.3	84.4	81.2	85.0
BPCL	Mumbai	66.7	64.7	63.0	64.4	64.4
	Kochi	79.2	71.6	68.2	71.7	66.9
NRL	Numaligarh	64.7	65.9	64.8	64.4	63.5
MRPL	Mangalore	76.7	74.2	75.3	81.4	73.5
	<b>PSU average</b>	<b>75.1</b>	<b>72.7</b>	<b>72.8</b>	<b>76.6</b>	<b>74.1</b>

(P): Provisional

MBN values are as per New MBN methodology with normalisation for grid power import and BS-IV/VI production from 2015-16 onwards

Specific Energy Consumption written as SEC or MBN;mbn=MBTU/Bbl/NRGF;MBTU: Net energy & loss in Refinery(Thousand British Thermal Unit);

BbLs: Barrels of crude processed;NRGF:Composite energy factor for the Refinery



**Table 4.11 : Import / export of crude oil and petroleum products**

Import / export	Crude oil & petroleum products	2017-18			2018-19			2019-20			2020-21			2021-22 (P)		
		Quantity Million tonne	Value		Quantity Million tonne	Value		Quantity Million tonne	Value		Quantity Million tonne	Value		Quantity Million tonne	Value	
			US\$ (Billion)	Rs. (Crores)		US\$ (Billion)	Rs. (Crores)		US\$ (Billion)	Rs. (Crores)		US\$ (Billion)	Rs. (Crores)		US\$ (Billion)	Rs. (Crores)
I M P O R T*	<b>Crude oil</b>	<b>220.4</b>	<b>87.8</b>	<b>566450</b>	<b>226.5</b>	<b>111.9</b>	<b>783183</b>	<b>227.0</b>	<b>101.4</b>	<b>717001</b>	<b>196.5</b>	<b>62.2</b>	<b>459779</b>	<b>212.0</b>	<b>120.4</b>	<b>899312</b>
	of which, PSU/JVs	133.0	54.3	350612	142.9	71.9	504524	141.4	64.7	458073	121.8	39.7	292718	134.3	77.0	575418
	Private	87.4	33.5	215839	83.6	40.0	278659	85.5	36.7	258928	74.7	22.6	167060	77.7	43.4	323894
	<b>Products</b>															
	LPG	11.4	5.8	37875	13.2	7.2	49939	14.8	7.1	50347	16.5	7.2	53752	17.1	12.3	91899
	Petrol	0.2	0.1	581	0.7	0.4	3104	2.1	1.4	9610	1.4	0.7	4950	0.7	0.5	3895
	Naphtha	2.2	1.3	8161	2.1	1.4	9665	1.7	0.9	6678	1.2	0.5	3844	1.3	1.0	7137
	Aviation Turbine Fuel	0.3	0.2	1159	0.3	0.2	1392	0.1	0.04	309	0.0	0.0	0.01	0.0	0.0	0.1
	Kerosene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.003	0.002	12	0.0	0.0	1
	Diesel	1.4	0.7	4269	0.6	0.4	2486	2.8	1.6	11619	0.6	0.3	1960	0.1	0.1	425
	Lubes/LOBS	2.5	1.9	12075	2.5	1.9	13349	2.7	1.7	11869	2.7	1.6	12170	3.1	2.7	20166
	Fuel Oil	1.2	0.5	3231	1.4	0.7	4782	4.6	1.6	11791	6.5	1.9	14312	9.0	4.4	32958
	Bitumen	1.0	0.3	1902	0.9	0.3	2149	1.6	0.5	3634	2.1	0.6	4325	2.6	1.1	7850
	Petcoke	12.8	1.7	11100	7.9	1.5	10350	10.7	1.4	9713	8.3	0.9	6410	5.7	1.6	11741
	Others**	2.6	1.2	8020	3.9	2.4	16449	2.7	1.4	10172	4.1	1.0	7695	2.4	1.7	12564
	<b>Total product import</b>	<b>35.5</b>	<b>13.6</b>	<b>88374</b>	<b>33.3</b>	<b>16.3</b>	<b>113665</b>	<b>43.8</b>	<b>17.7</b>	<b>125742</b>	<b>43.2</b>	<b>14.8</b>	<b>109430</b>	<b>42.1</b>	<b>25.2</b>	<b>188636</b>
	of which, PSU/JVs	12.8	6.5	42305	14.6	8.1	56178	20.0	10.2	72699	18.7	8.3	61332	18.1	13.0	97082
	Private	22.7	7.1	46069	18.8	8.3	57487	23.8	7.5	53042	24.6	6.5	48098	24.0	12.3	91555
	<b>Total import (crude oil+product)</b>	<b>255.9</b>	<b>101.4</b>	<b>654824</b>	<b>259.8</b>	<b>128.3</b>	<b>896848</b>	<b>270.7</b>	<b>119.1</b>	<b>842743</b>	<b>239.7</b>	<b>77.0</b>	<b>569208</b>	<b>254.0</b>	<b>145.7</b>	<b>1087948</b>
E X P O R T	<b>Products</b>															
	LPG	0.4	0.2	1501	0.4	0.3	1976	0.5	0.3	1970	0.5	0.2	1797	0.5	0.4	3214
	Petrol	14.0	8.5	54580	12.9	8.6	60419	12.7	7.7	54512	11.6	5.0	36530	13.5	10.9	81649
	Naphtha	9.0	4.5	29075	7.0	4.1	28893	8.9	4.4	31509	6.5	2.5	18643	6.9	5.0	37231
	Aviation Turbine Fuel	7.2	3.9	25348	7.4	4.9	34030	6.9	4.0	28458	3.5	1.3	9377	5.2	3.7	27112
	Kerosene	0.02	0.01	68	0.02	0.01	98	0.2	0.1	560	0.02	0.01	48	0.01	0.01	77
	Diesel	29.7	15.4	99454	27.8	17.6	123519	31.7	17.5	123919	30.6	11.1	81611	32.4	22.1	164741
	LDO	0.02	0.01	37	0.1	0.05	364	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	Lubes/LOBS	0.01	0.02	118	0.01	0.02	106	0.01	0.01	96	0.01	0.01	93	0.01	0.02	114
	Fuel Oil	2.5	0.8	5291	2.2	0.9	6537	1.5	0.5	3811	1.2	0.3	2318	1.7	0.9	6448
	Bitumen	0.1	0.02	119	0.02	0.01	72	0.03	0.01	89	0.01	0.003	23	0.01	0.004	28
	Petcoke / CBFS	0.6	0.1	687	1.1	0.5	3255	0.5	0.2	1096	0.6	0.04	292	0.2	0.1	553
	Others***	3.4	1.4	9110	2.1	1.2	8429	2.9	1.1	7998	2.3	0.9	6436	2.3	1.4	10449
	<b>Total product export</b>	<b>66.8</b>	<b>34.9</b>	<b>225388</b>	<b>61.1</b>	<b>38.2</b>	<b>267697</b>	<b>65.7</b>	<b>35.8</b>	<b>254018</b>	<b>56.8</b>	<b>21.4</b>	<b>157168</b>	<b>62.7</b>	<b>44.4</b>	<b>331615</b>
of which, PSU/JVs	15.0	7.4	48100	13.4	8.1	56415	14.2	7.5	53276	10.6	4.0	29708	14.2	10.2	76589	
Private	51.8	27.5	177288	47.7	30.2	211282	51.5	28.4	200742	46.1	17.4	127460	48.6	34.2	255026	
<b>Net import</b>	<b>189.1</b>	<b>66.5</b>	<b>429436</b>	<b>198.8</b>	<b>90.0</b>	<b>629152</b>	<b>205.1</b>	<b>83.2</b>	<b>588725</b>	<b>182.9</b>	<b>55.6</b>	<b>412041</b>	<b>191.3</b>	<b>101.3</b>	<b>756333</b>	
<b>Net product export</b>	<b>31.4</b>	<b>21.3</b>	<b>137014</b>	<b>27.7</b>	<b>21.9</b>	<b>154031</b>	<b>21.9</b>	<b>18.2</b>	<b>128276</b>	<b>13.5</b>	<b>6.6</b>	<b>47738</b>	<b>20.7</b>	<b>19.2</b>	<b>142979</b>	

Source: Oil companies & DGCIS, (P) : Provisional

Note:

\* Import does not include LNG imports

\*\* Other imports include Paraffin Wax, Petroleum Jelly, Aviation Gas, MTBE, Reformate etc.

\*\*\* Other exports include VGO, Benzene, Hexane, MTO, Sulphur etc.

"Others" in exports include RIL-SEZ exports of "Others" with unspecified heavy ends.

Crude oil imports increased by 4.2% and 7.9% during March 2022 and April-March 2022 respectively as compared to the corresponding period of the previous year.

Imports made due to deficit in production viz. LPG and Lubes/LOBS accounted for 48.1% share of total POL products import during April to March 2022 as compared to 44.3% during April to March 2021.

Imports of naphtha and FO were done for commercial and technical considerations and accounted for 24.5% share of total POL products import during April to March 2022 as compared to 17.7% during April to March 2021.

Increase of 10.5% was recorded in POL products export during April to March 2022 as compared to during April to March 2021 mainly due to increase in petrol, Naphtha, Aviation Turbine Fuel and Diesel

**Table 4.12 : 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	64.45	85.47	75.42	0.58
2018-19	69.89	91.74	80.93	0.63
2019-20	70.88	90.15	78.80	0.65
2020-21	74.20	97.06	86.67	0.70
2021-22	74.51	101.78	86.56	0.66
2022-23 (upto 30.06.2022)	77.25	96.93	82.23	0.59
<b>2022 : Month wise</b>				
January	74.44	100.96	84.30	0.65
February	75.00	101.52	84.97	0.65
March	76.24	100.39	83.93	0.64
April	76.17	98.47	82.29	0.60
May	77.32	96.31	81.81	0.60
June	78.07	96.24	82.56	0.58

**Source:** Reserve Bank of India (RBI)/ Financial Benchmark India Private Limited (FBIL) website.

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





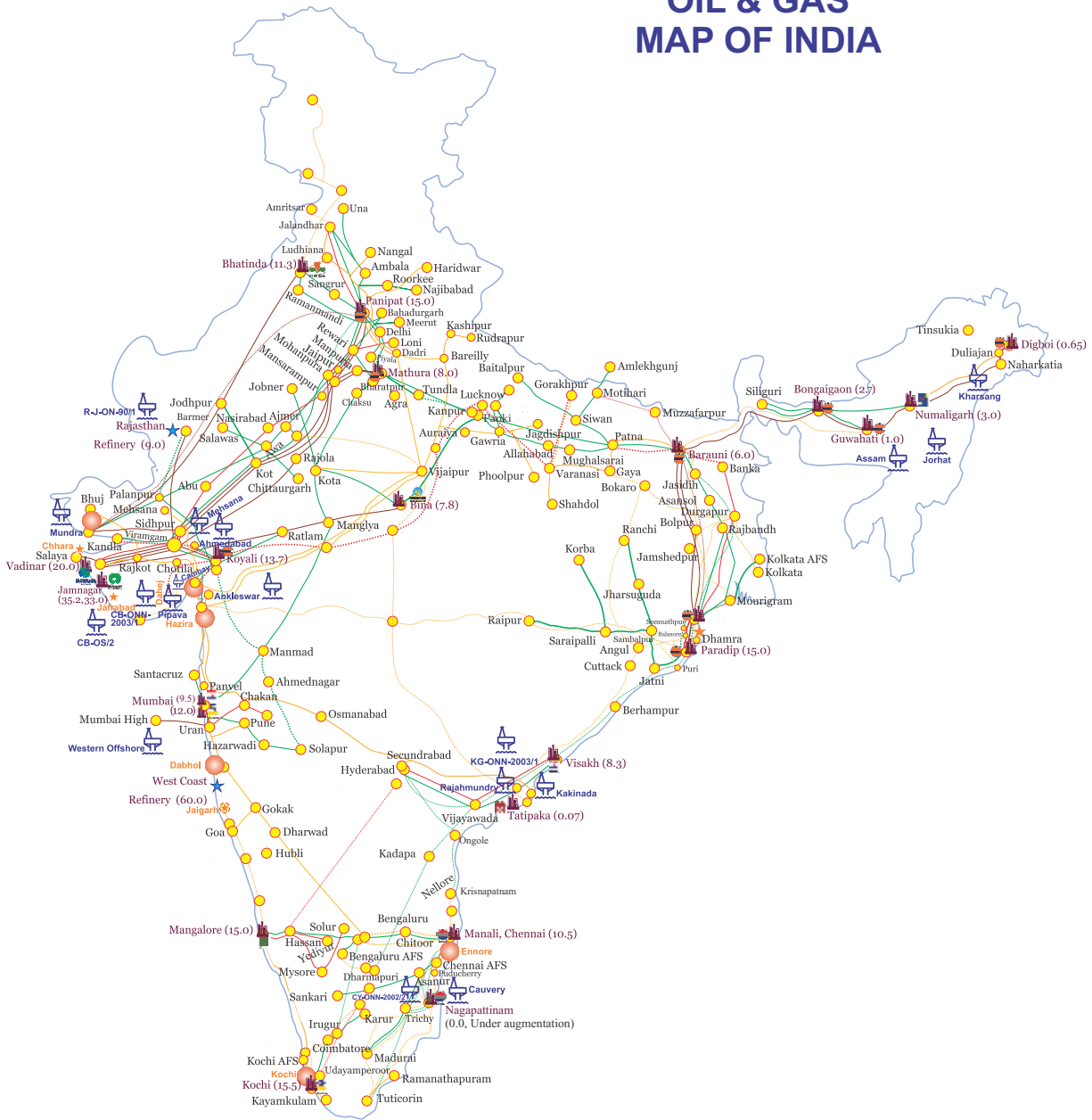
Analysis • Knowledge • Information

# Chapter-5

## Major Pipelines in India

## Map of Pipeline Network in India

### OIL & GAS MAP OF INDIA



#### LEGENDS

**Refineries**

Refineries (Capacity in MMTPA)

**Producing Fields**

Major Producing Fields

**LNG Terminals**

Dabhol, Dahej, Hazira, Kochi, Mundra, Ennore  
 (Upcoming Terminals) Dhamra, Jafraabad, Jaigarh, Chhara

#### LEGENDS

**Pipelines Network**

- Crude Oil Pipeline
- Ongoing Crude Oil Pipeline
- Product Pipeline
- Ongoing Product Pipeline
- LPG Pipeline
- Ongoing LPG Pipeline
- Gas Pipeline
- Ongoing Gas Pipeline

**Table 5.1: Natural Gas Pipelines in the Country (operational) - (as on 31.03.2022)**

S. N.	Network/Region	Entity	Length (Kms)	Authorized capacity/ Declared capacity (mmscmd)	Pipeline size	Pipeline Status	Average flow 2021-22 (mmscmd)	% Capacity utilisation 2021-22
1	Assam Natural Gas Pipeline Network	Assam Gas Company Limited (AGCL)	107	2	800 mm/500 mm/ 400 mm/ 350 mm (30"/20"/16"/14")	Operational	1.35	55.4%
2	Cauvery Basin Network	GAIL	240	4	18"/ 12"/ 8"/ 6"/ 4"/3"/2"	Operational	2.02	46.7%
3	Hazira-Vijaipur-Jagdishpur -GREP (Gas Rehabilitation and Expansion Project)-Dahej-Vijaipur HVJ/VDPL	GAIL	4222	57	42"/36"/30"/18"/16"/ 14"/12"/10"/8"/6"/4"/2"	Operational	72.44	65.1%
4	Dahej-Vijaipur (DVPL)-Vijaipur-Dadri (GREP) Upgradation DVPL 2 & VDPL	GAIL	1280	54	48"/ 16"/12"	Operational		
5	Dahej-Uran-Panvel-Dhabhol	GAIL	815	20	30"/24"/18"/12"/6"/4"	Operational	16.86	84.7%
6	KG Basin Network	GAIL	878	16	18"/16"/14"/12"/ 8"/6"/4"/2"	Operational	3.81	23.8%
7	Gujarat Regional Network	GAIL	609	8	24"/18"/14"/12"/8"/ 6"/5"/2"/1"	Operational	2.12	25.5%
8	Agartala Regional Network	GAIL	55	2	12"/10"/8"	Operational	1.03	51.5%
9	Mumbai Regional Network	GAIL	129	7	26"/20"/18"/12"/4"	Operational	4.46	63.4%
10	Dukli - Maharajganj	GAIL	5	0.3	4"	Operational	0.06	23.1%
11	Chainsa-Jhajjar-Hissar	GAIL	455	35	36"/18"/16"/ 12"/10"/8"/4"	Under Construction	1.37	3.9%
12	Dadri-Bawana-Nangal	GAIL	921	31	36"/30"/18"/10"/8"	Under Construction	6.96	22.5%
13	Kochi-Koottanad-Bangalore-Mangalore	GAIL	1104	16	30"/ 24"/ 18" / 8"/ 4"	Operational	3.87	24.2%
14	Dabhol-Bangalore	GAIL	1414	16	36"/30"/24"/18"/10"/8"	Under Construction / Part Operational	1.72	10.8%
15	Jagdishpur-Haldia-Bokaro Dhamra-Paradip- Barauni-Guwahati	GAIL	3546	23	36"/30"/24"/ 18"/12"/8"/6"/4"	Under Construction / Part Operational	1.62	7.0%
16	Hazira-Ankleshwar (HAPi) <sup>1</sup>	GGL	73	4	18"	Operational	0.96	23.3%
17	Mehsana - Bhatinda <sup>^**</sup>	GIGL	1673	46	36"/24"/18"/12"	Commissioning Under Progress <sup>*</sup>	3.61	7.9%
18	Bhatinda - Gurdaspur <sup>^</sup>	GIGL	305	34	24"/18"/16"/12"/8"/6"	Under Construction	0.03	0.1%
19	Mallavaram - Bhopal - Bhilwara - Vijaipur <sup>5</sup>	GITL	2042	78	42"/36"/30"/24"/18"/12"	Under Construction	1.22	1.6%
20	High Pressure Gujarat Gas Grid	GSPL	2657	31	36"/30"/24"/20"/ 18"/12"/8"/6"/4"	Operational	35.39	82.3%
21	Low Pressure Gujarat Gas Grid	GSPL	58	12	36"/30"/24"/12"	Operational		
22	Dadri-Panipat	IOCL	132	10	30"	Operational (under operation 142 KM)	5.49	58.0%
23	Ennore-Tuticorin	IOCL	1421	85 (installed capacity 13)	30"/24"/18"/ 16"/14"/6"	Under Construction / Part Operational (under operation 165)	2.91	24.0%
24	Dahej-Koyali	IOCL	106	5	16"	Operational	0.05	1.0%
25	Uran-Trombay	ONGC	24	6	20"	Operational	2.71	45.2%
26	Kakinada- Bharuch Natural Gas Pipeline (erstwhile East - West Pipeline)	Pipeline Infrastructure Limited	1480	85	48"/30"/28"/24"/16"	Operational	20.56	24.2%
27	Shahdol-Phulpur	RGPL	304	4	16"	Operational	0.710	20.3%
	<b>Total</b>		<b>26056</b>					

Source: Pipeline entities

**Note:**

1. GGL Pipeline - Pipeline capacity as determined by GGL

2. GSPL/GIGL/GITL pipelines

<sup>^</sup> Please note that gas is flowing through (i) Palanpur-Pali-Barmer pipeline section (341kms) and (ii) Jalandhar- Amritsar pipeline section (101kms) commissioned in Nov' 2018.

<sup>\$</sup> Please note that the gas is flowing through 365 km x 18" pipeline Kunchanapally in Andhra Pradesh to RFCL, Ramagundam in Telanagana State which was commissioned on 14.10.2019

<sup>\*\*</sup> Information for the period Apr to Dec 2021 & Oct to Dec 2021

<sup>\*</sup> Gas in activity of 30" Pipeline of ~546 kms (IP 01, Shiv Talav Pali – IP05, Ajitpura, Hanumangarh), Rajasthan is completed. Gas in activity of 18" pipeline of ~200 kms from IP 05 to Panipat, Haryana is completed. Rajasthan (30" X 25 kms) & Haryana (30" X 66 kms) are mechanically completed, pre-commissioned and ready for Gas-In. Mainline section 30" x 47 kms in Punjab is in final stages of construction

3. Pipeline Infrastructure Limited Pipeline:

A) For the period April 2021 - March 2022 conversion factor of 38263.11 Btu/SCM is used for computing volumes in MMSCMD.

B) Upon the request of shipper, PIL has stopped using/utilizing a dedicated pipeline of 10 km, connected to Lanco. However, the total laid length of PIL pipeline network from Kakinada to Bharuch is 1480 kms

C) The capacity above is as per the authorization letter issued by PNGRB for Kakinada - Bharuch Natural Gas Pipeline (erstwhile East-West Pipeline). Last capacity assessed and submitted to PNGRB is 67 mmscmd.

**Table 5.2 : Existing major crude oil pipelines in India**

Sl. no	Type of Pipeline -Onshore/ Ofshore	Name of the pipeline	Owner	Length (KM)	Capacity (MMT)	Throughput (MMT)	Percentage utilisation during
				01.04.2022	01.04.2022	2021-22 (P)	2021-22 (P)
1.	Onshore	CTF Kalol to CTF Nawagam - New	ONGC	63	3.1	1.1	34.3
2.	Onshore	Nawagam-Koyali (18" New)		80	5.4	3.6	67.3
3.	Onshore	Nawagam-Koyali (14" Old)		78	3.3	0.0	0.0
4.	Onshore	Mehsana-Nawagam trunk line - New		77	2.3	2.1	91.8
5.	Onshore	CTF, Ankleshwar to Koyali pipeline		95	2.2	0.6	29.3
6.	Onshore	CTF, Ankleshwar to CPF, Gandhar		44	0.4	0.0	0.0
7.	Onshore	CPF, Gandhar to Saraswani 'T' point		57	1.8	0.5	29.0
8.	Onshore	Akholjuni- Koyali oil pipe line		66	0.5	0.4	73.4
9.	Onshore	Lakwa-Moran oil line (New)		15	1.5	0.5	33.4
10.	Onshore	Lakwa-Moran oil line (Old)		18	1.5	0.0	0.0
11.	Onshore	Geleki-Jorhat oil line		49	1.5	0.0	0.0
12.	Onshore	Geleki-Jorhat oil line (New)		48	1.5	0.3	18.2
13.	Onshore	Borholla- Jorhat oil line		43	0.6	0.0	0.0
14.	Onshore	Borholla- Jorhat new TPL (New)		43	0.6	0.2	37.3
15.	Onshore	NRM (Narimanam) to CPCL		5	0.7	0.4	48.4
16.	Onshore	KSP-WGGS to TPK Refinery		14	0.1	0.1	74.1
17.	Onshore	GMAA EPT		4	0.1	0.0	33.2
18.	Offshore	Mumbai High - Uran - Trunk (MUT) 30" pipeline		204	15.6	6.4	41.0
19.	Offshore	Heera - Uran - Trunk (HUT) 24" pipeline		81	11.5	4.4	38.0
20.	Offshore	Bombay-Uran Trunk (BUT) 30" pipeline		203	6.4	0.0	0.3
			<b>Sub total ONGC</b>	<b>1283</b>	<b>60.6</b>	<b>20.6</b>	<b>33.9</b>
21.	Onshore	Salaya-Mathura pipeline (SMPL)	IOCL	2646	25.0	25.9	103.6
22.	Onshore	Paradip-Haldia-Barauni pipeline (PHBPL)		1355	15.2	15.6	102.7
23.	Onshore	Mundra-Panipat pipeline		1194	8.4	7.0	83.7
24.	Offshore	Salaya Mathura Pipeline ( Offshore segment)		14	-	0.0	-
25.	Offshore	Paradip Haldia Barauni Pipeline ( Offshore segment)		92	-	0.0	-
			<b>Sub total IOCL</b>	<b>5301</b>	<b>48.6</b>	<b>48.5</b>	<b>99.9</b>
26.	Onshore	Duliajan-Digboi-Bongaigaon-Barauni pipeline	OIL	1193	9.0	6.2	68.8
27.	Onshore	Mangla-Bhogat pipeline	CAIRN	660	8.7	5.9	67.9
28.	Offshore	Bhogat Marine	CAIRN	28	2.0	1.4	70.7
			<b>Sub total CAIRN</b>	<b>688</b>	<b>10.7</b>	<b>7.3</b>	<b>68.4</b>
29.	Onshore	Mundra- Bathinda pipeline	HMPL	1017	11.3	13.1	116.2
30.	Onshore	Vadinar-Bina pipeline	BORL	937	7.8	7.4	95.0
		<b>Total Crude pipelines</b>		<b>10419</b>	<b>147.9</b>	<b>103.1</b>	<b>69.7</b>

Source : Oil companies (P): Provisional



### 5.3 Existing major POL pipelines in India

Sl. no	Type of Pipeline	Name of the pipeline	Owner	Length (KM)	Capacity (MMT)	Throughput (MMT)	Percentage utilisation during	
				01.04.2022	01.04.2022	2021-22 (P)	2021-22 (P)	
<b>Petroleum Products Pipelines</b>								
1.	Onshore	Barauni - Kanpur pipeline	IOCL	1227	3.5	3.1	87.9	
2.	Onshore	Guwahati -Siliguri pipeline		435	1.4	1.8	130.3	
3.	Onshore	Haldia-Barauni pipeline		526	1.3	1.4	114.9	
4.	Onshore	Haldia-Mourigram-Rajbandh pipeline		277	1.4	1.8	130.4	
5.	Onshore	Koyali-Ahmedabad pipeline		79	1.1	0.7	61.9	
6.	Onshore	Koyali-Sanganer pipeline (Incl. JPNPL)		1644	5.0	4.5	90.4	
7.	Onshore	Koyali-Ratlam pipeline		265	2.0	0.7	34.6	
8.	Onshore	Koyali-Dahej pipeline		197	2.6	0.8	31.4	
9.	Onshore	Mathura-Tundla pipeline		56	1.2	0.5	52.7	
10.	Onshore	Mathura-Bharatpur pipeline		21		0.2		
11.	Onshore	Mathura-Delhi pipeline		147	3.7	2.0	54.0	
12.	Onshore	Panipat-Amabala-Jalandhar (Including Kurukshetra-Roorkee-Najibabad branch line)		495	3.5	2.9	82.0	
13.	Onshore	Panipat-Delhi (Including Sonapat-Meerut branch line) pipeline		189	3.0	0.9	31.2	
14.	Onshore	Panipat Bijwasan ATF pipeline		111				
15.	Onshore	Panipat-Bathinda pipeline (1)		219	3.0	1.5	49.2	
16.	Onshore	Panipat-Rewari pipeline		155	2.1	1.5	70.6	
17.	Onshore	Chennai-Trichy-Madurai pipeline		683	2.3	2.5	108.9	
18.	Onshore	Chennai - Meenambakkam ATF pipeline		95	0.2	0.2	84.9	
19.	Onshore	Chennai-Bengaluru pipeline		290	2.5	1.9	76.9	
20.	Onshore	Devangonthi - Devanhalli pipeline		36	0.7	0.4	55.9	
21.	Onshore	Paradip Raipur Ranchi pipeline(PRRPL)		1073	5.0	3.6	72.6	
22.	Onshore	Kolkata ATF pipeline		27	0.2	0.1	48.7	
			<b>Sub total IOCL</b>	<b>8247</b>	<b>45.5</b>	<b>32.8</b>	<b>72.2</b>	
23.	Onshore	Mumbai-Manmad-Bijwasan pipeline (MMBPL)	BPCL	1389	6.0	7.1	117.8	
24.	Onshore	Bina-Kota pipeline (BKPL)		259	4.4	3.8	86.9	
25.	Onshore	Bina Panki Pipeline (3)		355	3.5	0.5	13.4	
26.	Onshore	ATF P/L Mumbai Refinery (MR)-Santacruz		15	1.4	0.3	24.9	
27.	Onshore	ATF P/L Kochi Refinery (KR)-Kochi Airport		34	0.6	0.2	40.5	
28.	Onshore	Kota - Jobner branch pipeline(1)		211	1.7	-	-	
29.	Onshore	Mumbai Refinery- Wadilube Pipeline		12	1.3	0.3	24.5	
30.	Onshore	Cochin-Coimbatore-Karur (CCK) pipeline (2)		293	3.3	3.6	110.4	
				<b>Sub total BPCL</b>	<b>2568</b>	<b>22.2</b>	<b>15.9</b>	<b>71.7</b>
31.	Onshore	Mumbai-Pune-Solapur pipeline			508	4.3	2.8	64.2
32.	Onshore	Vizag-Vijaywada-Secunderabad pipeline		572	7.7	4.7	60.9	

**5.3 Existing major POL pipelines in India... continued**

Sl. no	Type of Pipeline	Name of the pipeline	Owner	Length (KM)	Capacity (MMT)	Throughput (MMT)	Percentage utilisation during
				01.04.2022	01.04.2022	2021-22 (P)	2021-22 (P)
33.	Onshore	Mundra-Delhi pipeline (1)	HPCL	1054	6.9	2.5	36.7
34.	Onshore	Ramanmandi-Bahadurgarh pipeline (2)		243	7.1	6.7	94.5
35.	Onshore	Ramanmandi-Bathinda pipeline		30	2.1	1.1	53.7
36.	Onshore	Awa-Salawas pipeline		93	-	-	-
37.	Onshore	Bahadurgarh-Tikrikalan pipeline		14	-	-	-
38.	Onshore	Rewari- Kanpur Pipeline		443	-	-	-
39.	Onshore	ATF pipeline from Mumbai Refinery to Mumbai Airport		20	0.5	0.2	45.3
40.	Onshore	Black Oil Pipeline (BOPL)		22	1.5	0.5	34.4
41.	Onshore	Lube Oil Pipeline : Trombay to Wadibundar (3)		17	1.0	0.4	38.7
42.	Onshore	Palanpur-Vadodara Pipeline		235	-	-	-
		<b>Sub total HPCL</b>		<b>3250</b>	<b>31.1</b>	<b>19.0</b>	<b>60.9</b>
43.	Onshore	Mangalore-Hassan-Bengaluru (MHB) pipeline (1)	Petronet MHB	363	5.6	2.8	50.7
44.	Onshore	Numaligarh-Siliguri pipeline	OIL	654	1.7	1.5	88.1
		<b>Total Petroleum product pipelines (w/o LPG pipelines )</b>		<b>15082</b>	<b>106.1</b>	<b>72.1</b>	<b>67.9</b>
<b>LPG Pipelines</b>							
45.	Onshore	Panipat-Jalandhar pipeline	IOCL	280	0.7	0.7	96.0
46.	Onshore	Paradip Haldia Durgapur pipeline		873	1.3	1.2	94.9
		<b>Sub total IOCL</b>		<b>1153</b>	<b>2.0</b>	<b>1.9</b>	<b>95.3</b>
47.	Onshore/ offshore	Mumbai-Uran pipeline	BPCL	28	0.8	0.6	77.5
48.	Onshore	Jamnagar-Loni pipeline	GAIL	1414	2.5	2.9	114.8
49.	Onshore	Vizag-Secunderabad pipeline		618	1.3	1.3	99.5
		<b>Sub total GAIL</b>		<b>2032</b>	<b>3.8</b>	<b>4.2</b>	<b>109.5</b>
50.	Onshore	Mangalore-Hassan-Mysore-Bangalore LPG	HPCL	356	1.9	1.2	59.6
51.	Onshore	Uran-Chakan-Shikrapur LPG Pipeline (4)		169	1.0	0.9	91.4
		<b>Sub total HPCL</b>		<b>525</b>	<b>2.9</b>	<b>2.1</b>	<b>70.4</b>
		<b>Total LPG pipelines</b>		<b>3738</b>	<b>9.5</b>	<b>8.8</b>	<b>91.8</b>
		<b>Total POL pipelines</b>		<b>18820</b>	<b>115.7</b>	<b>80.8</b>	<b>69.9</b>

Source: Oil Companies (P): Provisional

**Note:**

**IOCL**

1 PBPL - Installed capacity augmented from 1.5 MMTPA to 3.0 MMTPA in April 2021

**BPCL**

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

(2) Petronet CCK was merged with BPCL w.e.f 1st June 2018

(3) Bina Panki pipeline is commissioned in Oct 2021

**HPCL**

(1) Thruput of Mundra-Delhi pipeline ncludes thruputs of branchlines viz. Awa Salawas Pipeline, Rewari Kanpur pipeline, Palanpur-Vadodara Pipeline and reverse pumping (1.66 MMT) from Bahadurgarh to Rewari.

(2) Thruput of Ramanmandi Bahadurgarh pipeline is including thuput of branchlines viz. Bahadurgarh-Tikrikalan Pipeline & Rewari-Kanpur pipeline.

(3) Lube Oil pipeline and ATF pipeline from Mumbai Refinery to Mazgaon Terminal and Mumbai Airport are speciality product pipelines.

(4) Thruput of UCSPL includes both HPCL & BPCL volumes.

**Petronet MHB**

(1) Petronet MHB JV- ONGC & HPCL 26% each, Petronet- 12%, Public- 36%.



# Chapter-6

## Sales

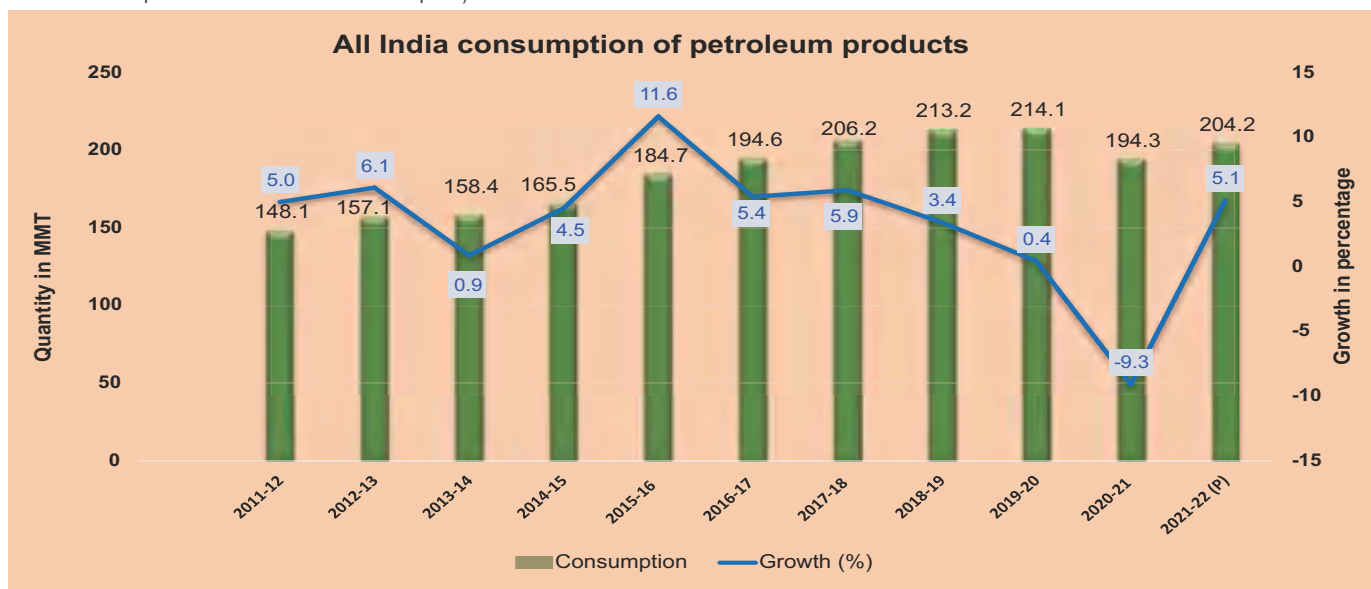
**Table 6.1 : Consumption of petroleum products**

(Million metric tonne)

Products	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
LPG	15.3	15.6	16.3	18.0	19.6	21.6	23.3	24.9	26.3	27.6	28.3
MS	15.0	15.7	17.1	19.1	21.8	23.8	26.2	28.3	30.0	28.0	30.8
Naphtha	11.2	12.3	11.3	11.1	13.3	13.2	12.9	14.1	14.3	14.1	14.3
ATF	5.5	5.3	5.5	5.7	6.3	7.0	7.6	8.3	8.0	3.7	5.0
SKO	8.2	7.5	7.2	7.1	6.8	5.4	3.8	3.5	2.4	1.8	1.5
HSD	64.8	69.1	68.4	69.4	74.6	76.0	81.1	83.5	82.6	72.7	76.7
LDO	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.9	1.0
Lubes	2.6	3.2	3.3	3.3	3.6	3.5	3.9	3.7	3.8	4.1	4.6
FO/LSHS	9.3	7.7	6.2	6.0	6.6	7.2	6.7	6.6	6.3	5.6	6.3
Bitumen	4.6	4.7	5.0	5.1	5.9	5.9	6.1	6.7	6.7	7.5	7.9
Petcoke	6.1	10.1	11.8	14.6	19.3	24.0	25.7	21.3	21.7	15.6	15.8
Others*	4.9	5.5	6.0	5.9	6.4	6.6	8.3	11.7	11.4	12.8	12.1
<b>All India</b>	<b>148.1</b>	<b>157.1</b>	<b>158.4</b>	<b>165.5</b>	<b>184.7</b>	<b>194.6</b>	<b>206.2</b>	<b>213.2</b>	<b>214.1</b>	<b>194.3</b>	<b>204.2</b>
<b>Growth (%)</b>	<b>5.0</b>	<b>6.1</b>	<b>0.9</b>	<b>4.5</b>	<b>11.6</b>	<b>5.4</b>	<b>5.9</b>	<b>3.4</b>	<b>0.4</b>	<b>-9.3</b>	<b>5.1</b>

(P): Provisional

**Note:** \*Others include sulphur, propylene, propane, reformat, butane, MTO (Mineral Turpentine oil) etc

**Source:** Oil Companies, Directorate General of Commercial Intelligence and Statistics (DGCIS) & online SEZ data (included from 2017-18 onwards). (Oil company sales+Private imports+SEZ sales to DTA= Consumption)


The consumption of petroleum products has gone up from 148.1 MMT in 2010-11 to 204.2 MMT in 2021-22. The compounded annual growth rate (CAGR) of total POL consumption in the last decade has been 3.3%. The CAGR of petcoke (9.9%) consumption has been highest among POL products in the last decade followed by LDO (9.415%), MS (7.5%), LPG (6.4%), Lubes (5.7%), Bitumen (5.4%), Naphtha (2.4%) and HSD (1.7%). CAGR of products grouped under "others" category has been 9.407%. Negative CAGR in the last decade was observed in the consumption of ATF (-1%), FO/LSHS (-3.9%) and SKO (-15.7%). Consumption for the FY 21-22 recorded a growth of 5.1% & contraction of -4.6% & -4.2% with a volume of 194.3, 214.1 & 213.2 MMT as compared to FY 2020-21, 2019-20 & 2018-19 respectively.



**Table 6.2 : Consumption growth of petroleum products**

(Growth in percentage)

Products	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (P)	CAGR calculated 2011-12 to 2021-22
LPG	6.8	2.0	4.4	10.5	9.0	10.1	8.0	6.7	5.7	4.7	2.8	6.4
MS	5.6	5.0	8.8	11.4	14.5	8.8	10.1	8.1	6.0	-6.7	10.3	7.5
Naphtha	5.1	9.5	-8.0	-2.0	19.8	-0.2	-2.7	9.6	1.0	-1.2	1.2	2.4
ATF	9.0	-4.8	4.4	4.0	9.4	11.8	9.1	8.7	-3.6	-53.8	35.4	-1.0
SKO	-7.8	-8.8	-4.5	-1.1	-3.7	-20.9	-28.8	-10.0	-30.7	-25.0	-16.9	-15.7
HSD	7.8	6.7	-1.0	1.5	7.5	1.8	6.6	3.0	-1.1	-12.0	5.5	1.7
LDO	-8.9	-4.0	-3.1	-5.4	11.5	10.3	16.7	14.2	5.0	36.2	19.3	9.4
Lubes	8.4	21.4	3.4	0.1	7.9	-2.8	11.9	-5.6	4.5	6.9	11.5	5.7
FO/LSHS	-13.7	-17.7	-18.6	-4.4	11.3	7.8	-6.0	-2.3	-4.0	-11.3	12.0	-3.9
Bitumen	2.2	0.8	7.1	1.3	17.1	0.0	2.5	10.2	0.2	12.0	4.6	5.4
Petcoke	23.2	65.1	16.0	23.8	32.6	24.2	7.1	-16.8	1.7	-28.1	1.1	9.9
Others	7.8	11.9	8.1	-1.4	8.2	3.8	26.5	40.6	-3.1	12.6	-5.4	9.4
<b>All India</b>	<b>5.0</b>	<b>6.1</b>	<b>0.9</b>	<b>4.5</b>	<b>11.6</b>	<b>5.4</b>	<b>5.9</b>	<b>3.4</b>	<b>0.4</b>	<b>-9.3</b>	<b>5.1</b>	<b>3.3</b>

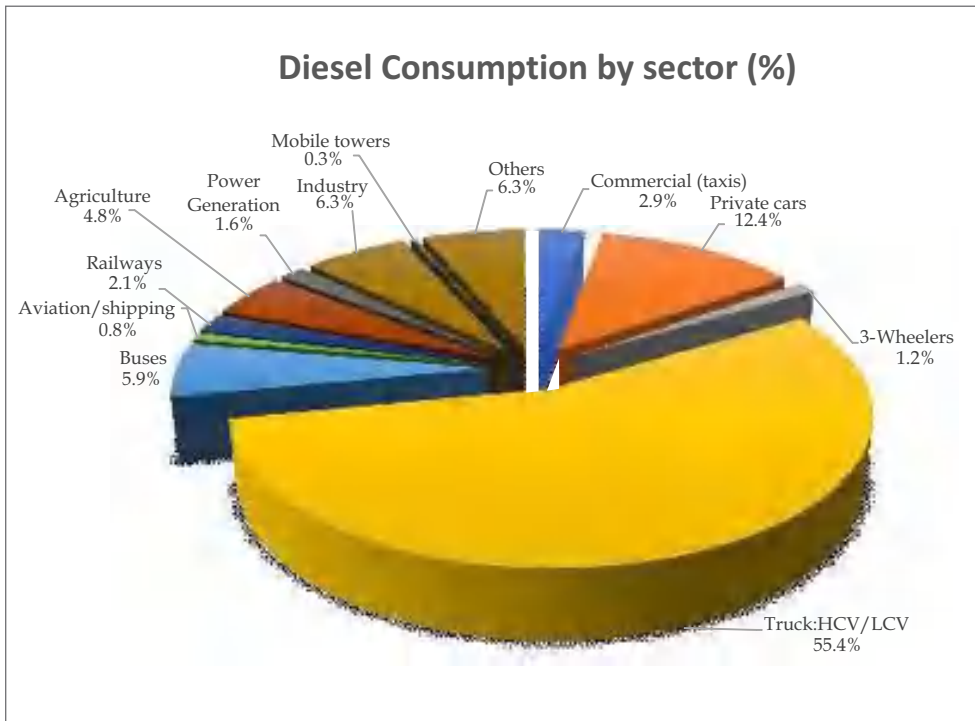
(P): Provisional



## End-use sectoral analysis of POL consumption

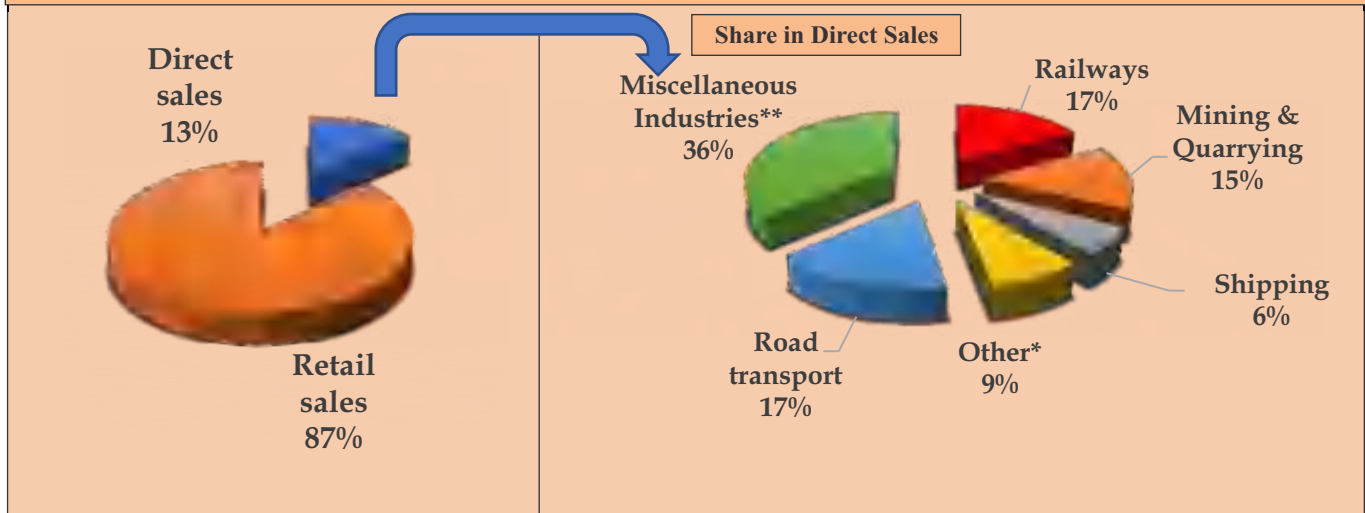
### End-use analysis of HSD sales (Oct 2020- Sep 2021)

Sl. no.	End-use Sectors	% of total sales *
(I)	(II)	(III)
1	Transport, of which	77.80
a	Commercial (taxis)	2.90
b	Private cars	12.40
c	3 - Wheelers	1.20
d	Truck:HCV/LCV	55.40
e	Buses	5.90
2	Aviation/shipping	0.80
3	Railways	2.10
4	Agriculture	4.80
5	Power Generation	1.60
6	Industry	6.30
7	Mobile towers	0.30
8	Others	6.30
<b>Total</b>		<b>100.0</b>



\*Figures include consumption through retail & direct imports  
 End use sector wise break up as per  
 PPAC survey and direct sales as reported by oil companies during October-2020 till September-2021

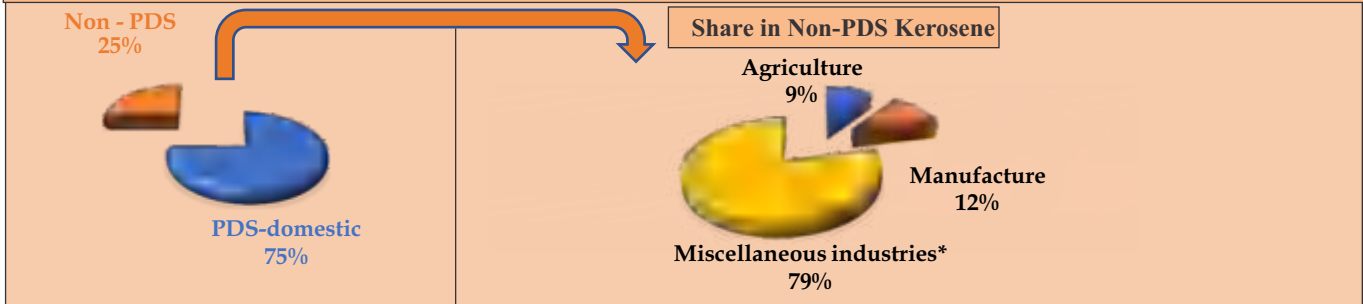
### End-use analysis for HSD consumption in FY2021-22



\*Other: power/agriculture and metallurgy \*\*Miscellaneous: elec./electronics, mechanical, fertilizers, textiles, cement, ceramics, chemical, aluminium & civil etc

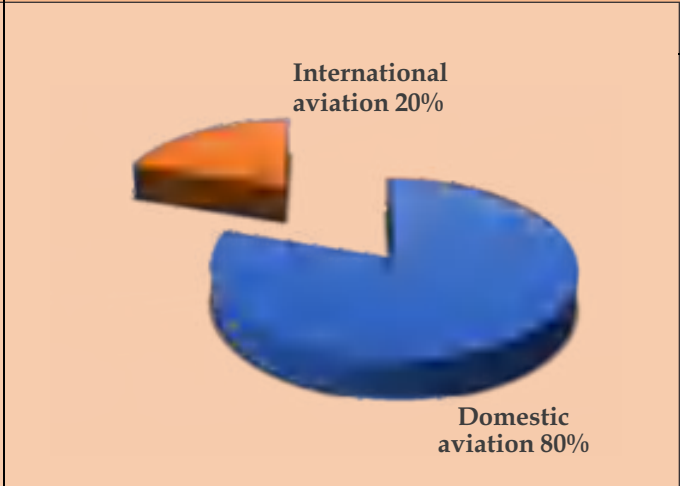
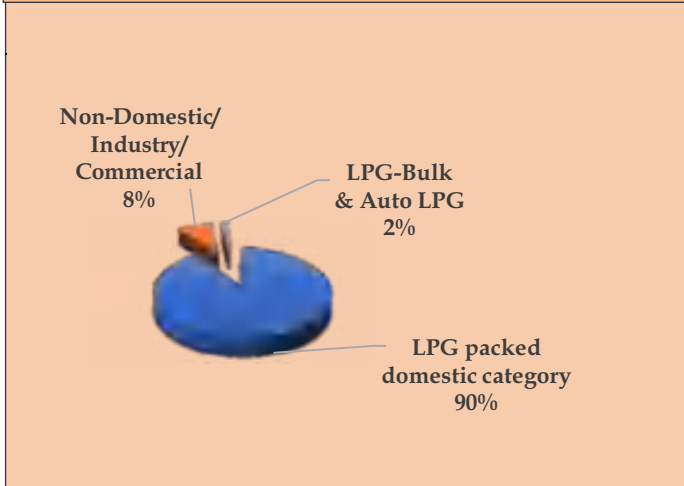
**End-use sectoral analysis of POL consumption for FY2021-22 ...Continued**

**End-use analysis for Kerosene consumption in FY2021-22**



*\*\*Miscellaneous industries include aviation, mining, road transport, shipping, power generation, railways, and resellers*

**End - use analysis for LPG consumption in FY2021-22      End - use analysis for ATF consumption in FY2021-22**





<p><b>End-use analysis for FO &amp; LSHS consumption in FY2021-22</b></p> <p>*Miscellaneous usage includes Civil Engineering, elec/electronics, mechanical etc.</p>	<p><b>End-use analysis for LDO consumption in FY2021-22</b></p> <p>*Other includes ceramic, aluminium, textiles, mining etc</p>
<p><b>End - use analysis for Petcoke consumption in FY2021-22</b></p> <p>*Miscellaneous industries include power, civil, metallurgy, mining &amp; shipping</p>	<p><b>End-use analysis for Naphtha consumption in FY2021-22</b></p>



Retailing Then & Now

**Table 6.3 : State-wise sales of selected petroleum products : April - March 2022 (P)**

(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	52.6	43.6	110.0	91.1	0.1	0.1	171.0	141.6	369.5	305.9
Delhi	771.1	37.5	693.3	33.7	0.1	0.005	597.5	29.0	3404.7	165.5
Haryana	930.8	31.6	1113.7	37.8	0.9	0.0	4450.1	150.9	10545.6	357.7
Himachal Pradesh	194.2	26.3	272.3	36.8	5.4	0.7	776.6	105.0	1923.9	260.2
Jammu and Kashmir	215.8	16.1	316.3	23.6	67.1	5.0	698.5	52.1	1499.7	111.8
Ladakh	8.0	26.9	16.8	56.5	48.0	161.6	67.7	227.9	158.9	534.9
Punjab	1027.1	33.9	1015.8	33.5	0.7	0.02	3113.0	102.6	6578.1	216.8
Rajasthan	1494.1	18.8	1621.5	20.5	1.9	0.02	4452.3	56.2	10241.3	129.2
Uttar Pradesh	3855.4	16.7	3696.1	16.0	2.5	0.0	9496.3	41.1	18788.8	81.4
Uttarakhand	321.8	28.2	338.4	29.7	3.5	0.3	699.6	61.4	1619.0	142.0
<b>SUB TOTAL NORTH</b>	<b>8871.0</b>	<b>20.9</b>	<b>9194.2</b>	<b>21.7</b>	<b>130.3</b>	<b>0.3</b>	<b>24522.5</b>	<b>57.8</b>	<b>55129.3</b>	<b>129.9</b>
Andaman & Nicobar Islands	13.1	32.7	15.7	39.1	0.03	0.1	141.9	354.7	189.8	474.5
Bihar	1625.0	13.2	926.7	7.5	132.2	1.1	2055.1	16.7	5362.5	43.6
Jharkhand	399.3	10.4	574.1	14.9	53.7	1.4	1660.6	43.2	3092.3	80.4
Odisha	638.4	14.0	863.9	18.9	117.0	2.6	2593.5	56.8	6153.6	134.7
West Bengal	1945.1	19.8	1076.9	11.0	539.2	5.5	2962.3	30.2	8666.5	88.3
<b>SUB TOTAL EAST</b>	<b>4620.8</b>	<b>15.1</b>	<b>3457.3</b>	<b>11.3</b>	<b>842.1</b>	<b>2.8</b>	<b>9413.4</b>	<b>30.8</b>	<b>23464.6</b>	<b>76.7</b>
Arunachal Pradesh	25.4	16.5	55.4	36.1	9.7	6.3	192.5	125.5	302.1	197.1
Assam	486.3	13.9	510.0	14.6	92.3	2.6	1122.9	32.0	2922.8	83.4
Manipur	51.9	16.4	67.5	21.3	7.9	2.5	119.4	37.7	254.0	80.2
Meghalaya	27.7	8.4	95.5	29.0	12.5	3.8	331.1	100.7	472.6	143.7
Mizoram	29.6	24.3	26.0	21.4	2.1	1.7	82.7	68.0	146.0	120.1
Nagaland	27.5	12.6	40.9	18.7	6.1	2.8	101.1	46.1	190.7	87.0
Sikkim	18.2	26.8	19.4	28.7	10.2	15.0	73.6	108.7	129.7	191.5
Tripura	57.7	14.2	57.5	14.1	17.5	4.3	94.7	23.3	237.3	58.3
<b>SUB TOTAL NORTH EAST</b>	<b>724.3</b>	<b>14.2</b>	<b>872.3</b>	<b>17.0</b>	<b>158.3</b>	<b>3.1</b>	<b>2118.0</b>	<b>41.4</b>	<b>4655.2</b>	<b>90.9</b>
Chhattisgarh	332.0	11.3	660.9	22.4	34.4	1.2	1656.9	56.2	3597.5	122.0
Dadra & Nagar Haveli and Daman & Diu	29.2	27.1	38.6	35.8	0.00	0.00	175.3	162.6	522.0	484.3
Goa	71.1	45.6	167.0	107.1	0.2	0.1	276.4	177.3	680.1	436.2
Gujarat	1282.0	18.4	2134.0	30.6	44.4	0.6	5780.0	82.8	24219.5	347.0
Madhya Pradesh	1140.2	13.5	1542.7	18.3	91.0	1.1	3375.0	39.9	7533.0	89.1
Maharashtra	3307.0	26.6	3387.6	27.2	14.9	0.1	8322.0	66.9	19018.6	152.8
<b>SUB TOTAL WEST</b>	<b>6161.5</b>	<b>19.8</b>	<b>7930.9</b>	<b>25.5</b>	<b>184.8</b>	<b>0.6</b>	<b>19585.6</b>	<b>63.0</b>	<b>55570.8</b>	<b>178.8</b>
Andhra Pradesh	1325.5	25.1	1419.4	26.9	0.8	0.01	3432.2	65.0	7546.8	143.0
Karnataka	1927.9	28.8	2235.0	33.4	26.3	0.4	6203.6	92.8	12221.9	182.8
Kerala	1111.4	31.3	1495.8	42.1	44.6	1.3	2101.1	59.2	5878.8	165.7
Lakshadweep	0.8	12.3	0.006	0.1	0.5	6.9	16.1	236.3	17.6	258.8
Puducherry	47.8	30.4	128.5	81.7	0.0	0.0	300.2	191.0	530.6	337.5
Tamil Nadu	2375.6	31.1	2758.1	36.1	104.9	1.4	5371.1	70.3	13057.2	170.9
Telangana	1086.9	28.8	1357.4	36.0	0.7	0.0	3555.8	94.3	6858.3	181.8
<b>SUB TOTAL SOUTH</b>	<b>7875.8</b>	<b>29.1</b>	<b>9394.1</b>	<b>34.7</b>	<b>177.8</b>	<b>0.7</b>	<b>20980.1</b>	<b>77.4</b>	<b>46111.2</b>	<b>170.2</b>
<b>All India</b>	<b>28253.4</b>	<b>20.7</b>	<b>30848.9</b>	<b>22.6</b>	<b>1493.4</b>	<b>1.1</b>	<b>76619.6</b>	<b>56.2</b>	<b>184931.1</b>	<b>135.7</b>

\* Total (all product) sales includes other petroleum products such as naphtha, FO, ATF, lubricants, bitumen, etc.

 State wise highest/lowest per capita **Highest** **Lowest**

Source: Oil companies

Note:

1-Per capita sales figures are based on provisional sales figures for the period April 2021 - March 2022

2-Population 2021 projected as per census India \*

3- SKO includes both PDS &amp; non PDS sales

**Table 6.4 : PDS SKO allocation**

(Figures in thousand kilo litres)

State/UT	2017-18		2018-19		2019-20		2020-21		2021-22 (P)	
	Alloc <sup>n</sup>	Sales	Alloc <sup>n</sup>	Sales	Alloc <sup>n</sup>	Sales	Alloc <sup>n</sup>	Sales	Alloc <sup>n</sup>	Sales
Chandigarh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delhi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haryana	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Himachal Pradesh	14.5	14.4	14.5	14.3	11.4	10.8	9.8	6.8	6.9	2.3
Jammu & Kashmir	58.5	57.6	58.5	53.9	45.0	40.9	45.0	36.5	38.3	29.2
Ladakh					3.5	1.0	3.5	3.5	3.5	3.3
Punjab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rajasthan	260.0	110.5	138.0	69.3	40.0	16.2	14.2	0.9	0.0	0.0
Uttar Pradesh	911.2	901.3	887.9	873.5	517.9	449.5	181.7	26.5	0.0	0.0
Uttarakhand	25.3	13.3	25.3	10.0	8.0	0.5	2.2	0.4	0.7	0.0
<b>SUB TOTAL NORTH</b>	<b>1269.5</b>	<b>1097.0</b>	<b>1124.2</b>	<b>1021.0</b>	<b>625.8</b>	<b>518.8</b>	<b>256.4</b>	<b>74.6</b>	<b>49.3</b>	<b>34.9</b>
Andaman & Nicobar Islands	4.1	4.0	4.1	3.8	1.9	1.5	0.0	0.0	0.0	0.0
Bihar	495.4	490.3	332.6	329.6	263.0	243.9	212.7	212.4	170.2	169.8
Jharkhand	186.8	176.3	186.8	150.3	135.2	107.2	90.0	83.2	72.0	68.9
Odisha	248.4	244.3	248.4	247.7	210.6	208.3	194.3	190.3	155.4	150.3
West Bengal	704.0	653.6	704.0	699.3	704.0	692.7	704.0	696.5	704.0	689.7
<b>SUB TOTAL EAST</b>	<b>1638.8</b>	<b>1568.5</b>	<b>1476.0</b>	<b>1430.7</b>	<b>1314.8</b>	<b>1253.5</b>	<b>1201.1</b>	<b>1182.4</b>	<b>1101.6</b>	<b>1078.6</b>
Arunachal Pradesh	7.9	7.7	7.9	7.2	6.4	5.2	4.8	3.7	3.3	2.9
Assam	245.9	245.0	245.9	242.6	181.9	176.9	155.6	153.1	124.5	117.3
Manipur	17.9	18.2	17.9	17.7	13.3	12.7	11.1	11.3	10.0	10.0
Meghalaya	19.4	19.4	19.4	19.3	19.3	18.9	18.9	17.9	17.0	16.0
Mizoram	4.8	4.8	4.8	4.8	3.6	3.6	3.2	3.2	2.9	2.7
Nagaland	12.2	9.5	10.3	9.8	9.3	8.9	8.6	8.4	7.7	7.7
Sikkim	3.5	3.4	3.5	3.4	2.6	2.5	2.3	2.1	2.0	2.0
Tripura	29.4	29.4	29.4	29.3	26.4	26.2	25.2	25.1	22.7	22.5
<b>SUB TOTAL NORTH EAST</b>	<b>340.9</b>	<b>337.4</b>	<b>339.0</b>	<b>334.0</b>	<b>262.7</b>	<b>254.9</b>	<b>229.5</b>	<b>224.8</b>	<b>190.0</b>	<b>181.0</b>
Chhattisgarh	115.1	92.7	115.1	91.5	82.4	69.1	58.3	56.1	46.6	43.9
Dadra & Nagar Haveli and Daman & Diu	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goa	2.3	1.4	2.1	1.4	0.8	0.6	0.4	0.4	0.3	0.3
Gujarat	344.5	338.2	249.7	248.7	138.8	120.8	84.0	83.1	55.8	53.7
Madhya Pradesh	345.0	336.9	336.2	325.9	260.7	238.5	213.4	187.1	160.0	116.8
Maharashtra	384.7	377.8	286.7	241.9	106.5	52.9	46.5	21.6	27.9	15.6
<b>SUB TOTAL WEST</b>	<b>1192.0</b>	<b>1147.2</b>	<b>989.8</b>	<b>909.5</b>	<b>589.3</b>	<b>482.1</b>	<b>402.6</b>	<b>348.2</b>	<b>290.7</b>	<b>230.2</b>
Andhra Pradesh	56.4	26.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Karnataka	156.0	126.5	156.0	112.5	84.3	66.4	42.5	38.7	29.8	17.8
Kerala	58.7	58.7	55.6	55.6	41.7	41.7	37.1	37.1	25.9	25.9
Lakshadweep	0.8	0.8	0.8	0.8	0.8	0.6	0.8	0.9	0.6	0.6
Puducherry	0.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tamil Nadu	204.5	204.9	193.8	193.8	145.3	145.3	129.2	129.2	90.4	90.4
Telengana	103.4	100.8	97.9	94.3	56.6	29.8	16.0	2.9	5.0	0.4
<b>SUB TOTAL SOUTH</b>	<b>580.6</b>	<b>519.0</b>	<b>504.1</b>	<b>456.9</b>	<b>328.7</b>	<b>283.8</b>	<b>225.5</b>	<b>208.8</b>	<b>151.7</b>	<b>135.1</b>
<b>All India</b>	<b>5021.8</b>	<b>4669.2</b>	<b>4433.0</b>	<b>4152.1</b>	<b>3121.3</b>	<b>2793.2</b>	<b>2315.0</b>	<b>2038.8</b>	<b>1783.3</b>	<b>1659.9</b>

 Alloc<sup>n</sup>= Allocation

Source: MoP&amp;NG

Delhi and Chandigarh have been declared kerosene-free from Q3, 2013-14 and Q1, 2016-17 respectively. Punjab and Haryana have been declared kerosene-free from Q1, 2017-18. PDS SKO allocation for Dadra & Nagar Haveli and Daman & Diu PDS SKO allocation has been reduced to "Zero" from Q2, 2017-18. PDS SKO allocation of Puducherry and Andhra Pradesh has been reduced to "Zero" wef 01.09.2017 and 01.10.2017 respectively. PDS SKO allocation for Andaman & Nicobar islands has been reduced to "Zero" effective from 01.09.2019.

On an all India basis, the drop in allocation in the last five years (till 2021-22) has been 64.5% due to voluntary surrender of PDS SKO allocation by some of the states in addition to nil PDS SKO allocation to the above states. The allocation drop has been steepest in the Northern region (96.1%) followed by Western region (75.6%), Northern region (44.3%), Eastern region (32.8%). Allocation in 2021-22 also decreased by 23% as compared with the same period in the year 2020-21.

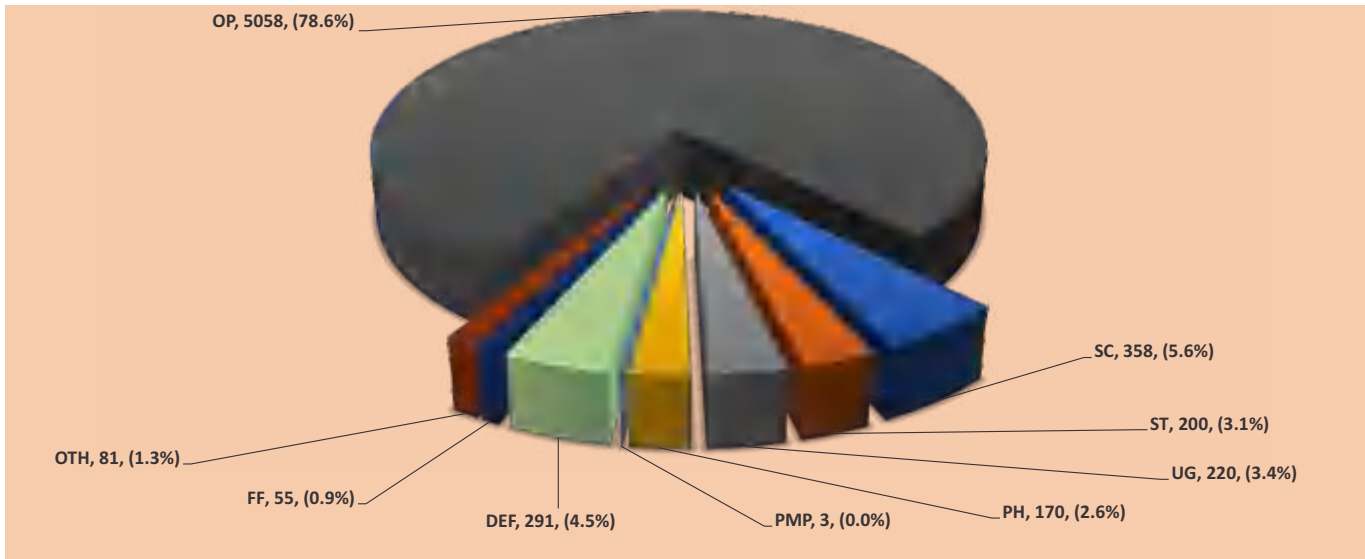
**Table 6.5 : Oil industry retail outlets & SKO / LDO agencies**

State/UT	Number of Retail Outlets (as on)					No of SKO /LDO agencies (as on)				
	1.4.2018	1.4.2019	1.4.2020	1.4.2021	1.4.2022 (P)	1.4.2018	1.4.2019	1.4.2020	1.4.2021	1.4.2022 (P)
Chandigarh	41	42	42	47	47	12	12	12	12	12
Delhi	397	398	398	400	400	116	116	116	111	111
Haryana	2862	2933	3060	3412	3660	141	141	141	139	139
Himachal Pradesh	432	439	494	563	638	26	26	26	26	26
Jammu and Kashmir	500	504	530	552	581	45	45	45	45	45
Ladakh	3	3	3	12	27	2	2	2	2	2
Punjab	3427	3453	3551	3772	3920	237	237	237	237	237
Rajasthan	4476	4661	4967	5615	6028	250	250	250	248	248
Uttar Pradesh	7473	7762	8210	9315	10162	696	695	691	675	674
Uttarakhand	590	601	629	686	763	73	73	73	69	69
<b>SUB TOTAL NORTH</b>	<b>20201</b>	<b>20796</b>	<b>21884</b>	<b>24374</b>	<b>26226</b>	<b>1598</b>	<b>1597</b>	<b>1593</b>	<b>1564</b>	<b>1563</b>
Andaman & Nicobar Islands	14	14	16	16	19	2	2	2	2	2
Bihar	2695	2860	2968	3158	3341	372	371	371	362	362
Jharkhand	1207	1216	1358	1535	1634	87	87	87	87	87
Odisha	1681	1704	1894	2070	2246	177	177	177	176	176
West Bengal	2333	2363	2523	2750	2894	458	458	457	455	455
<b>SUB TOTAL EAST</b>	<b>7930</b>	<b>8157</b>	<b>8759</b>	<b>9529</b>	<b>10134</b>	<b>1096</b>	<b>1095</b>	<b>1094</b>	<b>1082</b>	<b>1082</b>
Arunachal Pradesh	85	94	116	152	178	33	33	33	33	33
Assam	871	897	979	1103	1312	359	359	359	359	359
Manipur	97	104	136	160	178	36	36	36	36	36
Meghalaya	203	208	225	239	270	35	35	35	35	35
Mizoram	41	43	45	55	72	19	19	19	19	19
Nagaland	73	79	94	120	150	19	19	19	19	19
Sikkim	51	51	55	57	63	12	12	12	12	12
Tripura	71	72	79	94	108	40	40	40	40	40
<b>SUB TOTAL NORTH EAST</b>	<b>1492</b>	<b>1548</b>	<b>1729</b>	<b>1980</b>	<b>2331</b>	<b>553</b>	<b>553</b>	<b>553</b>	<b>553</b>	<b>553</b>
Chhattisgarh	1249	1280	1462	1808	1969	108	108	108	108	108
Dadra & Nagar Haveli and Daman & Diu	63	62	61	61	64	7	7	7	7	7
Goa	116	118	118	122	127	22	22	22	22	22
Gujarat	4025	4159	4573	5149	5502	476	473	473	470	470
Madhya Pradesh	3711	3832	4230	4981	5566	284	284	284	284	284
Maharashtra	5970	6148	6457	7048	7667	767	767	766	752	752
<b>SUB TOTAL WEST</b>	<b>15134</b>	<b>15599</b>	<b>16901</b>	<b>19169</b>	<b>20895</b>	<b>1664</b>	<b>1661</b>	<b>1660</b>	<b>1643</b>	<b>1643</b>
Andhra Pradesh	3336	3430	3722	4047	4230	413	394	394	384	384
Karnataka	4215	4385	4813	5500	5929	318	315	315	311	309
Kerala	2100	2140	2238	2396	2559	237	237	237	234	234
Lakshadweep	0	0	0	0	1	0	0	0	0	0
Puducherry	165	165	164	174	179	8	8	8	8	8
Tamil Nadu	5387	5638	5802	6355	6745	466	466	465	458	458
Telangana	2625	2767	3077	3571	3798	183	202	202	202	202
<b>SUB TOTAL SOUTH</b>	<b>17828</b>	<b>18525</b>	<b>19816</b>	<b>22043</b>	<b>23441</b>	<b>1625</b>	<b>1622</b>	<b>1621</b>	<b>1597</b>	<b>1595</b>
<b>All India</b>	<b>62585</b>	<b>64625</b>	<b>69089</b>	<b>77095</b>	<b>83027</b>	<b>6536</b>	<b>6528</b>	<b>6521</b>	<b>6439</b>	<b>6436</b>

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

· On an all India basis the percentage growth in the number of retail outlets from 01.04.2018 to 01.04.2022 has been 32.7%. The region wise growth is highest for the North Eastern region (56.2%), followed by Western region (38.1%), Southern region (31.5%), Northern region (29.8%) and Eastern region (27.8%).

· As many states have become kerosene free in the last five years and due to voluntary surrender of PDS kerosene quota by some others there has been a decline in the number of kerosene dealers in the country.

**Category wise SKO/LDO dealers (Total 6436) [as on 01.04.2022 (P)]**

**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) SKO/LDO dealers are only PSU OMC dealers.

(3) OP: Open Category

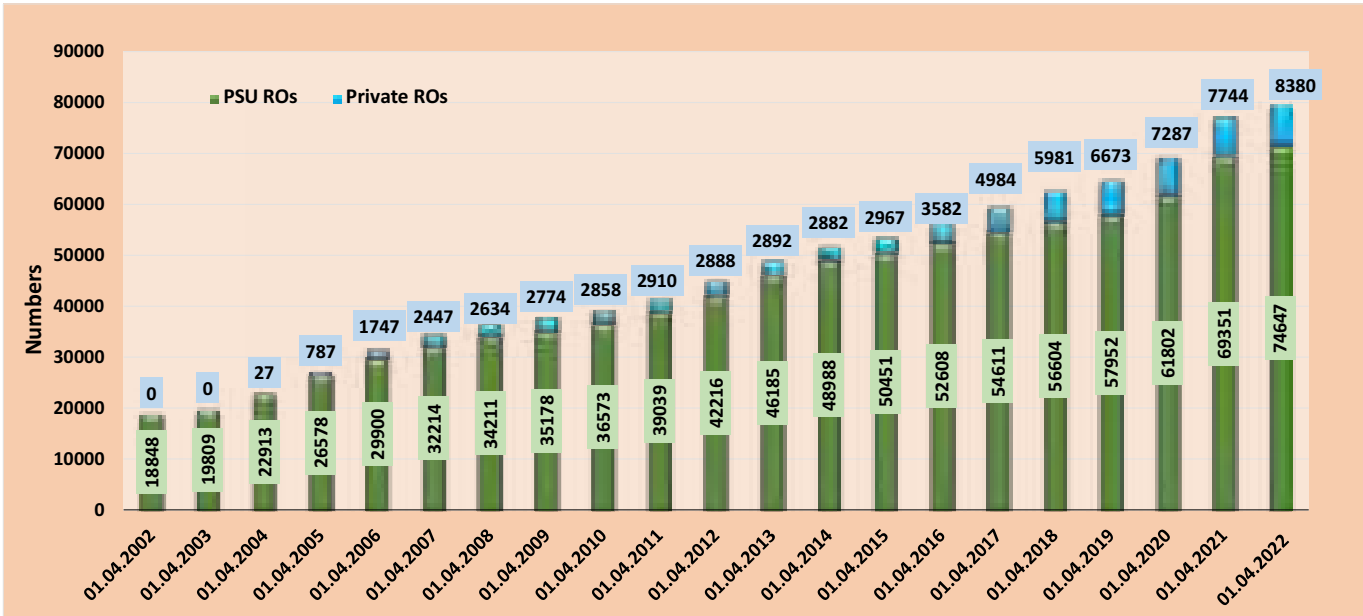
**Table 6.6 : Industry marketing infrastructure [as on 01.04.2022 (P)]**

Particulars	IOCL	BPCL	HPCL	RIL/ RBML/RSIL	NEL	SHELL	Others	Total
POL terminal/depots (Nos.)\$	120	81	81	18	3		6	309
Aviation fuel stations (Nos.)@	126	61	47	30			1	265
Retail Outlets (total) (Nos.)^	34,559	20,063	20,025	1,457	6,568	323	32	83,027
Out of which, Rural ROs (Nos.)	11,026	4,868	4,932	130	2,141	83	3	23,183
SKO/LDO agencies (Nos.)	3,871	927	1,638					6,436
LPG distributors (total) (Nos.) (PSUs only)	12,813	6,213	6,243					25,269
LPG bottling plants (Nos.) (PSUs only)#	92	54	53				3	202
LPG bottling capacity (TMTPA) (PSUs only)*	10,358	4,950	6,062				203	21,573
LPG active domestic consumers (Nos. crore) (PSUs only)	14.2	7.9	8.4					30.5

\$(RIL/RBML/RSIL= 5 terminals and 13 depots, Others=4 MRPL & 2 NRL); @(Others=ShellMRPL-1); ^ (Others=MRPL); # (Others=NRL-1, OIL-1, CPCL-1);\* (Others=NRL-60, OIL-23, CPCL-120); \*RBML-Reliance BP Mobility Limited; RSIL-RBML Solutions India Ltd.

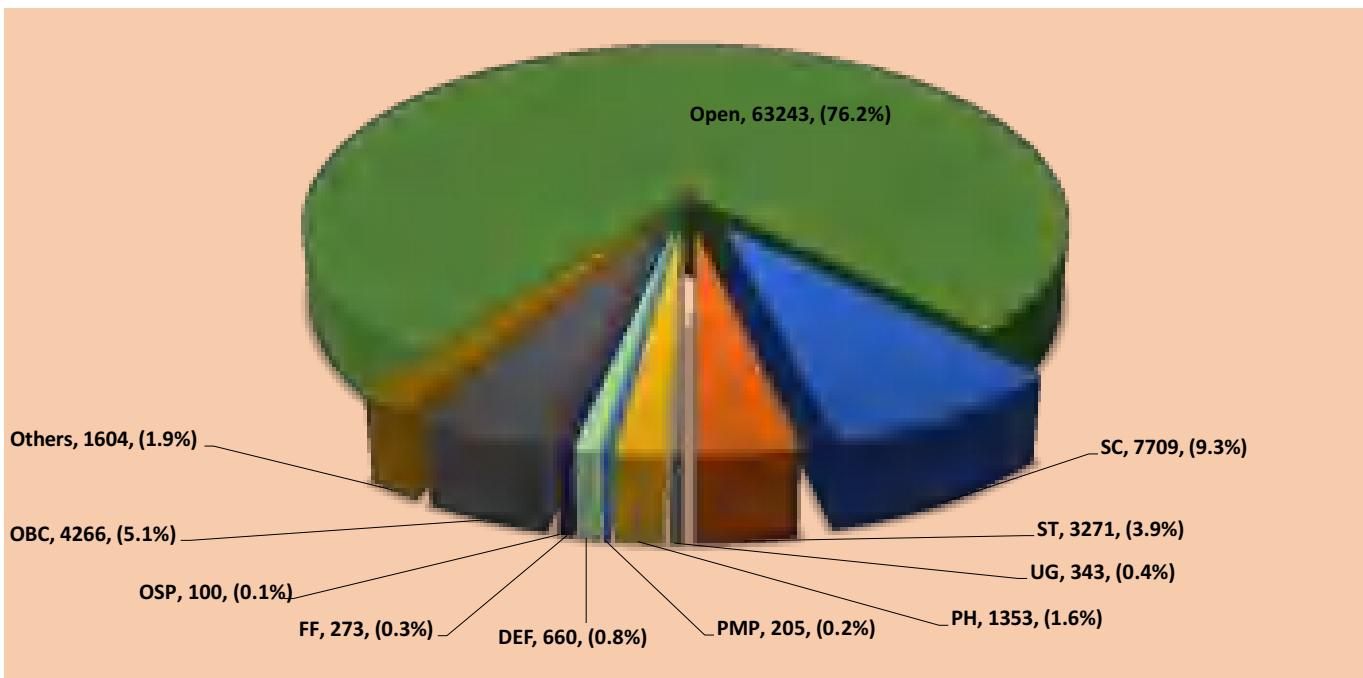
Source: Oil companies

**All India number of retail outlets in PSU and private category**



On 1.04.2022 the number of public sector oil company owned retail outlets was 74647 out of a total of 83027 outlets on all India basis, whereas the number of retail outlets owned by private oil companies was 8380. Participation by private sector in retail outlet business started in FY 2004 with 27 retail outlets. As on 01.04.2022 it accounted for 10.1% of the total market representation.

**Category wise retail outlets (Total 83027) [as on 01.04.2022(P)]**



**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 oil company retail outlets.

**Table 6.7 : Oil industry Alternate fuel infrastructure at retail outlets [as on 01.04.2022 (P)]**

State/UT	CNG_CBG_LNG	EV CHARGING	AUTO LPG	TOTAL
Chandigarh	11	15	5	31
Delhi	248	85	3	336
Haryana	192	176	5	373
Himachal Pradesh	15	29	0	44
Jammu and Kashmir	0	25	3	28
Ladakh	0	0	0	0
Punjab	182	113	15	310
Rajasthan	179	254	32	465
Uttar Pradesh	609	300	36	945
Uttarakhand	23	41	5	69
<b>SUB TOTAL NORTH</b>	<b>1459</b>	<b>1038</b>	<b>104</b>	<b>2601</b>
Andaman & Nicobar Islands	0	2	0	2
Bihar	66	75	0	141
Jharkhand	58	43	1	102
Odisha	45	111	4	160
West Bengal	39	157	46	242
<b>SUB TOTAL EAST</b>	<b>208</b>	<b>388</b>	<b>51</b>	<b>647</b>
Arunachal Pradesh	2	8	0	10
Assam	1	56	0	57
Manipur	0	16	0	16
Meghalaya	0	8	0	8
Mizoram	0	0	0	0
Nagaland	0	6	0	6
Sikkim	0	0	0	0
Tripura	18	15	0	33
<b>SUB TOTAL NORTH EAST</b>	<b>21</b>	<b>109</b>	<b>0</b>	<b>130</b>
Chhattisgarh	4	106	6	116
Dadra & Nagar Haveli and Daman & Diu	5	1	0	6
Goa	15	31	3	49
Gujarat	717	218	30	965
Madhya Pradesh	191	241	28	460
Maharashtra	534	175	83	792
<b>SUB TOTAL WEST</b>	<b>1466</b>	<b>772</b>	<b>150</b>	<b>2388</b>
Andhra Pradesh	122	192	14	328
Karnataka	179	219	146	544
Kerala	87	107	72	266
Lakshadweep	0	1	0	1
Puducherry	0	2	2	4
Tamil Nadu	117	224	108	449
Telangana	112	232	69	413
<b>SUB TOTAL SOUTH</b>	<b>617</b>	<b>977</b>	<b>411</b>	<b>2005</b>
<b>All India</b>	<b>3771</b>	<b>3284</b>	<b>716</b>	<b>7771</b>

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

CNG : Compressed Natural Gas; CBG : Compressed Bio Gas; LNG : Liquefied Natural Gas



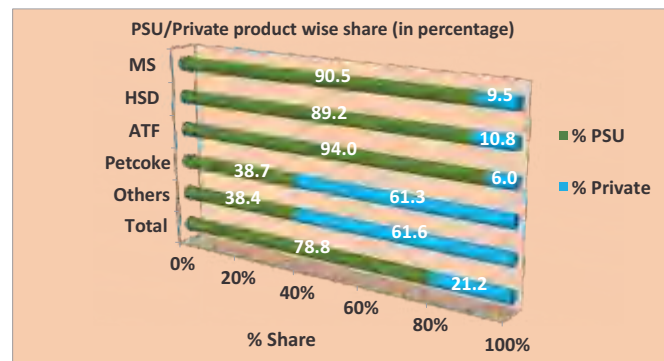
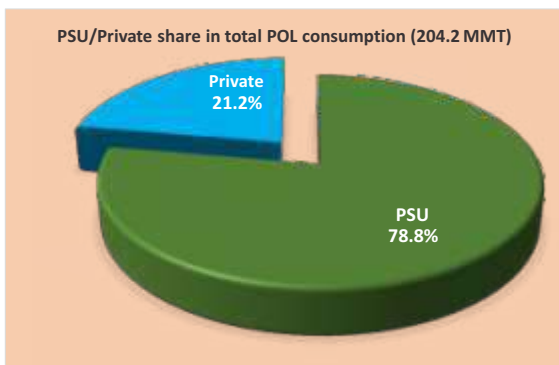
**Table 6.8 : Product wise POL consumption data (PSU and Private)**

(Thousand metric tonne)

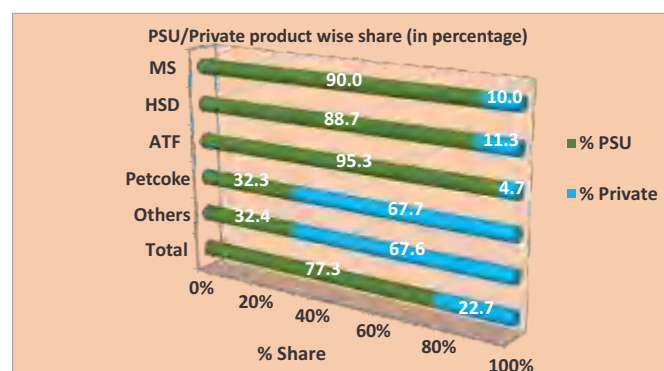
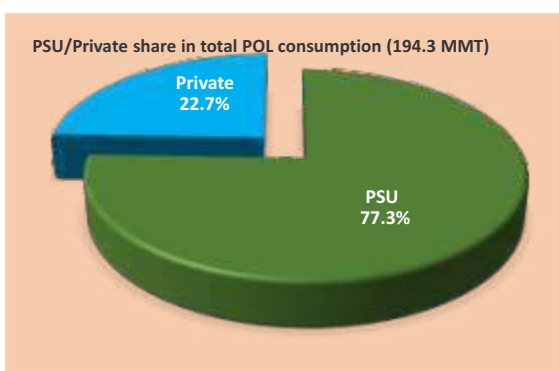
Product	2018-19			2019-20			2020-21			2021-22 (P)		
	PSU/JV	Private	Total	PSU/JV	Private	Total	PSU/JV	Private	Total	PSU/JV	Private	Total
LPG	24591	316	24907	26126	204	26330	27494	64	27558	28253	76	28330
MS	25959	2326	28284	27179	2797	29975	25168	2801	27969	27905	2944	30849
Naphtha	5592	8540	14131	6479	7789	14268	6050	8051	14100	6426	7851	14277
ATF	7685	617	8302	7598	400	7999	3525	172	3698	4707	301	5008
SKO	3459	0	3459	2397	0	2397	1795	3	1798	1493	0	1494
HSD	75775	7753	83528	73825	8777	82602	64504	8208	72713	68410	8277	76687
LDO	577	21	598	602	25	628	713	142	855	765	255	1020
Lubes	1313	2355	3668	1317	2517	3833	1475	2622	4097	1545	3025	4570
FO/LSHS	5596	968	6564	5172	1129	6302	4925	662	5586	5492	763	6255
Bitumen	5683	1024	6708	4995	1725	6720	5356	2168	7524	5093	2781	7874
PetCoke	6771	14574	21346	6500	15208	21708	5034	10571	15605	6101	9671	15772
Others	4444	7277	11721	4626	6739	11365	4149	8643	12791	4643	7455	12099
<b>Total</b>	<b>167445</b>	<b>45771</b>	<b>213216</b>	<b>166815</b>	<b>47312</b>	<b>214127</b>	<b>150189</b>	<b>44107</b>	<b>194295</b>	<b>160834</b>	<b>43399</b>	<b>204233</b>

**Source:** Oil companies, Directorate General of Commercial Intelligence and Statistics (DGCIIS) & SEZ data (included from FY 2017-18 onwards).  
(Oil company sales+Private imports+SEZ sales to DTA=Consumption); PSU/JV : Public Sector Undertaking & Joint Venture; Pvt : Pvt OMC, SEZ & Pvt Imports  
**Note:** Private consumption includes direct imports as well as marketing by private oil companies.

**2021-22 (P)**



**2020-21**

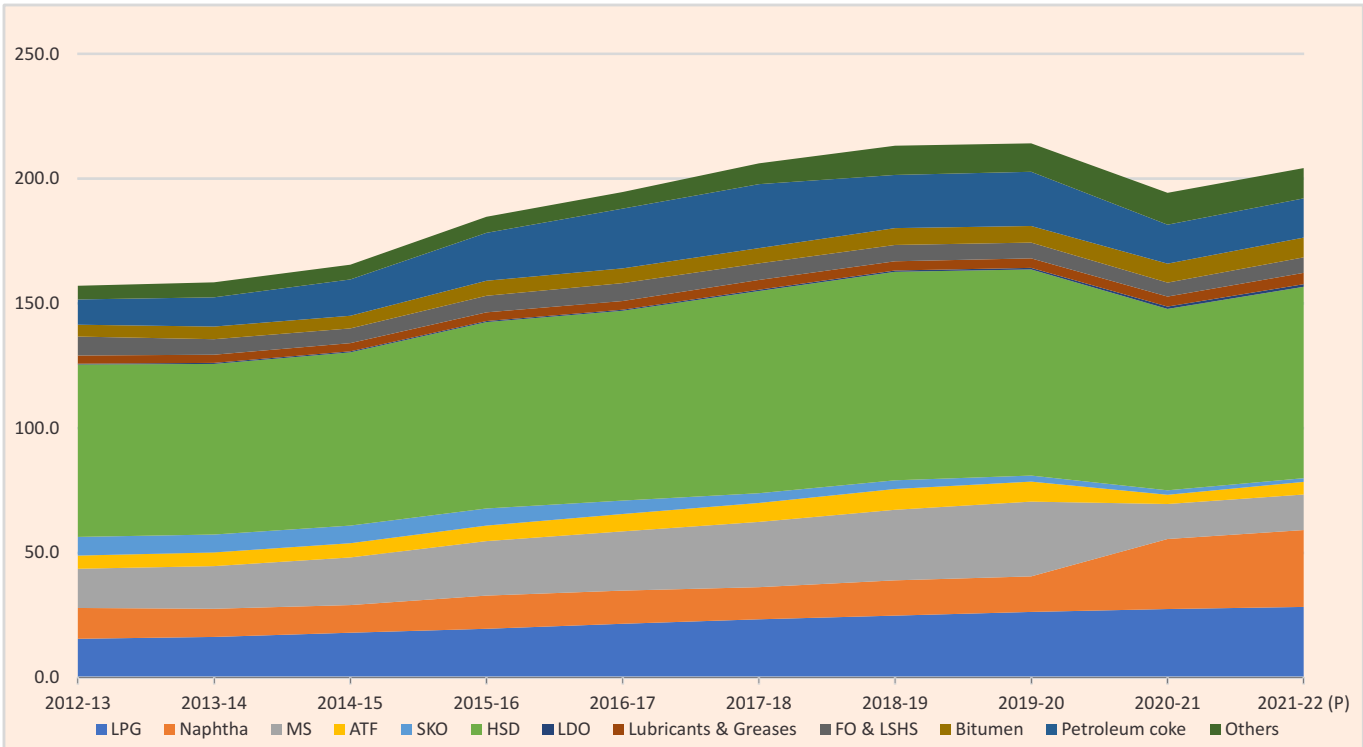


**Note:** In the above bar charts; others include all other products except MS, HSD, ATF & Petcoke.

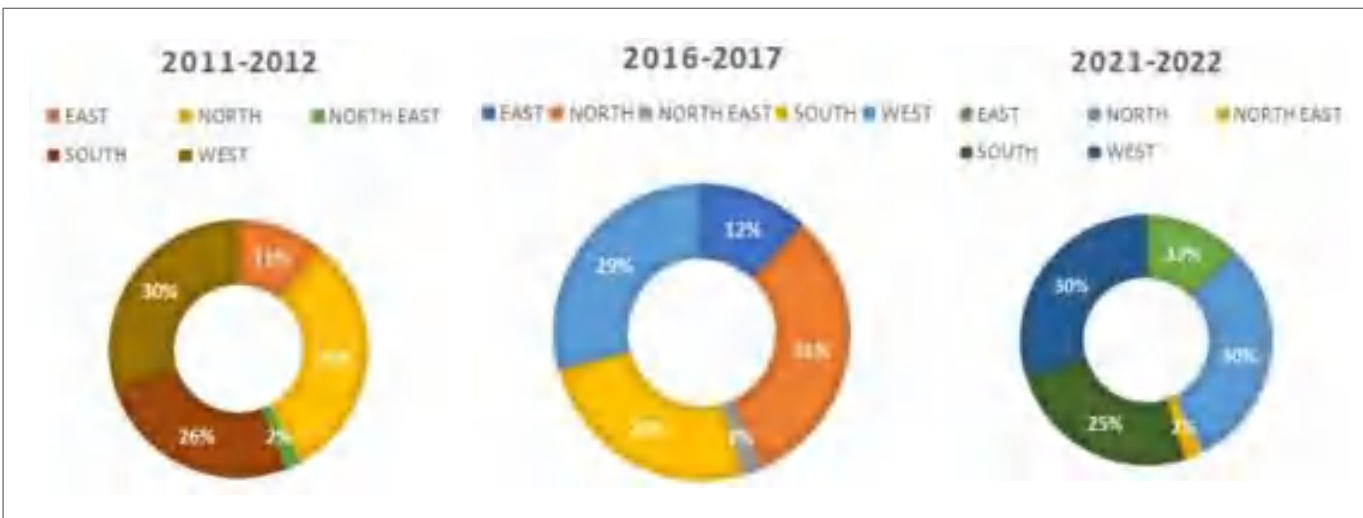
- The share of the public sector in total consumption increased during 2021-22 (P) by 1.5% as compared to the same period last year.
- The share of the public sector during FY2021-22 increased in Petcoke (6.4%) MS (0.5%), HSD (0.5%) as compared to FY 2020-21.
- In the private sector the growth has been observed for ATF (1.3%)
- In respect of all other products (except MS, HSD, ATF & petcoke) including lubes, bitumen, LDO and naphtha, the public sector share has increased by 5.9% during FY2021-22 compared to FY2020-21

### POL consumption by product

Million metric tonnes



### Distribution of total POL domestic sales in India



**Table 6.9 : Ethanol blending programme**

Sl.no.	State	(1st December 2020 to 30th November 2021) Ethanol Supply Year*		(1st December 2021 to 31st May 2022 (P) )	
		Ethanol received by PSU OMCs under EBP program (Quantity Cr. Litres)	Average percentage blending sales (EBP%)**	Ethanol received by PSU OMCs under EBP program (Quantity Cr. Litres)	Average percentage blending sales (EBP%)**
1	Andhra Pradesh	13.57	8.5%	10.18	10.60%
2	Andaman & Nicobar	0.0	0.0%	0.0	0.0%
3	Arunachal Pradesh	0.0	0.0%	0.0	3.52%
4	Assam	0.0	0.0%	2.18	3.90%
5	Bihar	9.90	8.0%	6.68	9.99%
6	Chandigarh	0.0	8.9%	0.0	10.42%
7	Chhattisgarh	7.62	8.4%	4.80	10.01%
8	Dadar & Nagar Haveli and Daman & Diu	0.0	8.9%	0.0	10.54%
9	Delhi	7.02	9.4%	6.16	10.29%
10	Goa	2.12	9.0%	1.36	10.02%
11	Gujarat	18.45	9.5%	11.70	10.39%
12	Haryana	14.48	9.7%	10.48	10.49%
13	Himachal Pradesh	2.75	9.4%	1.44	10.37%
14	Jammu & Kashmir	0.52	7.0%	0.39	9.77%
15	Jharkand	4.17	6.1%	2.95	8.23%
16	Karnataka	24.81	9.0%	16.75	10.66%
17	Lakshadweep	0.0	0.0%	0.0	0.0%
18	Kerala	8.97	4.4%	12.43	10.42%
19	Ladakh	0.0	0.0%	0.0	0.0%
20	Madhya Pradesh	13.78	8.6%	9.93	10.28%
21	Maharashtra	39.53	9.0%	26.58	10.48%
22	Manipur	0.0	0.0%	0.0	3.91%
23	Meghalaya	0.0	0.0%	0.0	5.37%
24	Mizoram	0.0	0.0%	0.0	4.37%
25	Nagaland	0.0	0.0%	0.0	2.09%
26	Odisha	4.43	4.0%	5.92	9.24%
27	Pondicherry	0.0	4.3%	0.0	10.18%
28	Punjab	14.25	9.9%	8.77	10.49%
29	Rajasthan	12.92	6.7%	11.06	10.33%
30	Sikkim	0.0	0.0%	0.0	2.80%
31	Tamil Nadu	23.42	7.7%	20.47	10.14%
32	Telangana	14.24	8.2%	9.79	10.54%
33	Tripura	0.0	0.0%	0.0	4.28%
34	Uttar Pradesh	53.20	9.8%	30.90	10.59%
35	Uttarakhand	2.82	9.3%	1.52	10.13%
36	West Bengal	3.10	2.4%	6.35	7.60%
	Grand Total	296.1	8.10%	218.8	10.02%

\* Ethanol Supply Year : Ethanol supplies take place between 1st December of the present year to 30th November of the following year.

\*\*EBP %age in all the States has been calculated based on the MS sale in the geographical limit of the respective State. In the States/UTs where receipt is zero but EBP %age has been calculated is due to the fact that sale of Ethanol blended MS which comes from nearby supply locations of other States contribute to the EBP %age in this State/UTs.

**Note:** With effect from 01.04.2019, EBP Programme has been extended to whole of India except UTs of Andaman & Nicobar Islands and Lakshadweep.



LPG delivery in Flooded Area



LPG delivery during Pandemic





# Chapter-7

## LPG

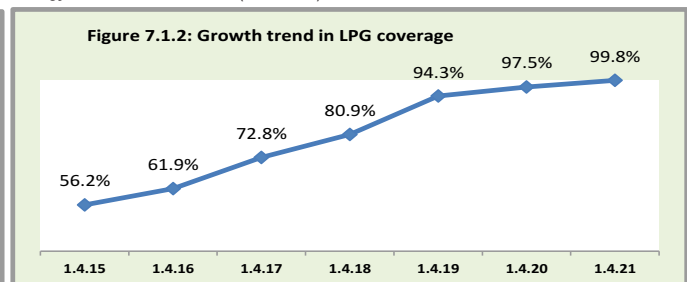
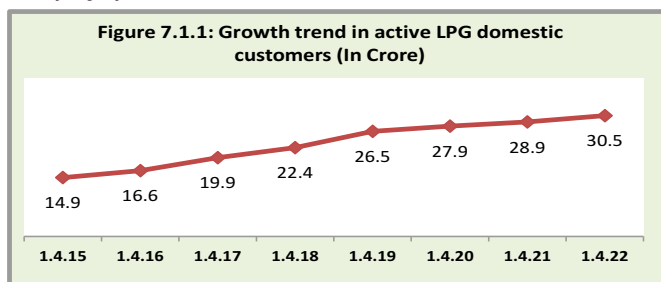
**Table 7.1 : LPG marketing at a glance**

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
(Thousand metric tonne)						
<b>LPG production</b>	<b>11253</b>	<b>12364</b>	<b>12786</b>	<b>12823</b>	<b>12072</b>	<b>12238</b>
<b>LPG consumption</b>	<b>21608</b>	<b>23342</b>	<b>24907</b>	<b>26330</b>	<b>27591</b>	<b>28335</b>
<b>PSU sales</b>	<b>21179</b>	<b>22977</b>	<b>24591</b>	<b>26126</b>	<b>27476</b>	<b>28253</b>
of which:						
Domestic	18871	20352	21728	23076	25117	25502
Non-Domestic	1776	2086	2364	2614	1885	2239
Bulk	364	355	318	263	355	391
Auto LPG	167	184	180	172	118	122
<b>Imports</b>	<b>11097</b>	<b>11379</b>	<b>13235</b>	<b>14809</b>	<b>16527</b>	<b>17207</b>
of which:						
PSU imports	10668	11015	12919	14605	16412	17125
Private imports	429	364	316	204	115	82
<b>Import dependency percentage of LPG*</b>	<b>49%</b>	<b>47%</b>	<b>52%</b>	<b>55%</b>	<b>60%</b>	<b>60%</b>
(Lakh)						
<b>Enrolment (domestic)</b>	<b>331.7</b>	<b>284.7</b>	<b>455.1</b>	<b>161.1</b>	<b>85.8</b>	<b>158.4</b>
<b>As on</b>	<b>1.4.2017</b>	<b>1.4.2018</b>	<b>1.4.2019</b>	<b>1.4.2020</b>	<b>1.4.2021</b>	<b>01.04.2022</b>
<b>LPG active domestic customers</b>	<b>1,988</b>	<b>2,243</b>	<b>2,654</b>	<b>2,787</b>	<b>2,895</b>	<b>3,053</b>
<b>PMUY beneficiaries</b>	<b>200</b>	<b>356</b>	<b>719</b>	<b>802</b>	<b>800</b>	<b>899</b>
<b>Non-domestic customers</b>	<b>25.3</b>	<b>27.9</b>	<b>30.2</b>	<b>32.4</b>	<b>33.9</b>	<b>35.2</b>
(Percent)						
<b>LPG coverage (Estimated)</b>	<b>72.8</b>	<b>80.9</b>	<b>94.3</b>	<b>97.5</b>	<b>99.8</b>	<b>*</b>
(Nos.)						
<b>LPG distributors</b>	<b>18786</b>	<b>20146</b>	<b>23737</b>	<b>24670</b>	<b>25083</b>	<b>25269</b>
of which:						
Shehri Vitrak	7677	7821	7908	7914	7899	7894
Rurban Vitrak	3152	3463	3626	3671	3697	3720
Gramin & Durgam Kshetriya Vitrak	7957	8862	12203	13085	13487	13655
<b>Auto LPG dispensing stations (ALDS)</b>	<b>675</b>	<b>672</b>	<b>661</b>	<b>657</b>	<b>651</b>	<b>601</b>
(Thousand metric tonne per annum)						
<b>Bottling capacity (rated)</b>	<b>16264</b>	<b>17395</b>	<b>18338</b>	<b>20292</b>	<b>21249</b>	<b>21573</b>
(Thousand metric tonne)						
<b>Gross tankage</b>	<b>878</b>	<b>912</b>	<b>929</b>	<b>978</b>	<b>994</b>	<b>1088</b>

Source: Oil companies & Directorate General of Commercial Intelligence and Statistics (DGCIIS); \* PSU OMCs

**Note:**

1. Data in respect of enrolment, customers, distributors, ALDS and rated bottling capacity pertain to PSU OMCs only.
2. Gross tankage includes LPG tankage at LPG bottling plants owned by PSU oil companies, all refineries, fractionators and LPG import terminals.
3. MOPNG vide letter no. P-20019/2/2016-LPG dated 23 June 2016 had issued unified guidelines for selection of LPG distributors. In the said guidelines, LPG distributor categories have been redefined. The historical data on LPG distributors has been rearranged in line with the new classification for comparison.
4. \*The LPG coverage is calculated by PSU OMCs based upon the active LPG domestic connections and the estimated number of households. The number of households has been projected by PSU OMCs based on 2011 census data. Factors like increasing nuclearization of families, migration of individuals/ families due to urbanization and reduction in average size of households etc. impact the growth of number of households. Due to these factors, the estimated no. of households through projection of 2011 census data may slightly differ from the actual no. of households in a State/UT. Further, this methodology does not include PNG (domestic) connections.



**Table 7.2: LPG coverage (estimated) [as on 1.4.2021 (P)]**

(Number in lakhs)				
State/UT	No. of households Census 2011	Estimated households as on 1.4.2021	Active connections as on 1.4.2021	LPG coverage (%)
Chandigarh	2.35	2.76	2.82	102.1%
Delhi	33.41	40.55	50.53	124.6%
Haryana	47.18	56.65	72.11	127.3%
Himachal Pradesh	14.77	16.69	20.53	123.0%
Jammu & Kashmir	19.76	24.46	32.43	132.5%
Ladakh	0.39	0.48	0.84	174.5%
Punjab	54.10	61.68	88.51	143.5%
Rajasthan	125.81	152.83	167.03	109.3%
Uttar Pradesh	329.24	396.30	423.19	106.8%
Uttarakhand	19.97	23.76	27.87	117.3%
<b>Sub Total North</b>	<b>646.98</b>	<b>776.16</b>	<b>885.85</b>	<b>114.1%</b>
Arunachal Pradesh	2.62	3.30	2.84	86.1%
Assam	63.67	74.65	73.69	98.7%
Manipur	5.07	6.02	5.93	98.5%
Meghalaya	5.38	6.90	3.32	48.2%
Mizoram	2.21	2.73	3.21	117.4%
Nagaland	4.00	3.98	2.81	70.6%
Sikkim	1.28	1.45	1.60	110.3%
Tripura	8.43	9.69	7.59	78.4%
<b>Sub Total North East</b>	<b>92.66</b>	<b>108.72</b>	<b>100.99</b>	<b>92.9%</b>
Andaman & Nicobar Islands	0.93	1.00	1.17	116.9%
Bihar	189.41	237.92	186.49	78.4%
Jharkhand	61.82	75.78	57.67	76.1%
Odisha	96.61	110.25	88.87	80.6%
West Bengal	200.67	228.60	228.19	99.8%
<b>Sub Total East</b>	<b>549.44</b>	<b>653.54</b>	<b>562.38</b>	<b>86.1%</b>
Chhattisgarh	56.23	69.04	53.21	77.1%
Dadra & Nagar Haveli and Daman & Diu	1.33	2.07	1.63	78.4%
Goa	3.23	3.49	5.19	148.5%
Gujarat	121.82	145.52	108.95	74.9%
Madhya Pradesh	149.68	180.31	153.73	85.3%
Maharashtra	238.31	276.75	287.57	103.9%
<b>Sub Total West</b>	<b>570.59</b>	<b>677.20</b>	<b>610.27</b>	<b>90.1%</b>
Andhra Pradesh	126.04	140.02	142.89	102.0%
Karnataka	131.80	152.53	167.03	109.5%
Kerala	77.16	80.98	91.00	112.4%
Lakshadweep	0.11	0.11	0.10	88.5%
Puducherry	3.01	3.87	3.81	98.4%
Tamil Nadu	184.93	214.02	216.87	101.3%
Telangana	84.21	93.55	113.64	121.5%
<b>Sub Total South</b>	<b>607.26</b>	<b>685.07</b>	<b>735.34</b>	<b>107.3%</b>
<b>All India</b>	<b>2466.93</b>	<b>2900.68</b>	<b>2894.83</b>	<b>99.8%</b>

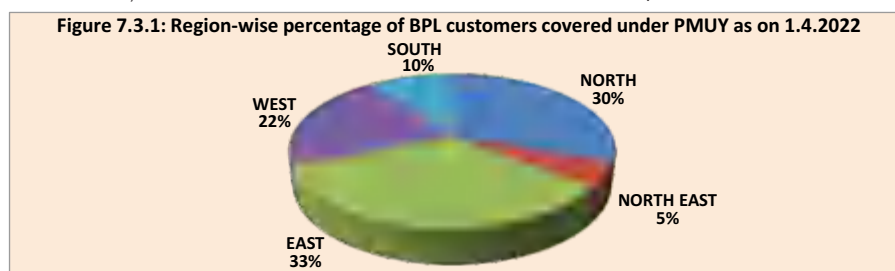
Source: PSU OMCs (IOCL, BPCL and HPCL)



**Table 7.3: Statewise PMUY connections**

(Number in lakhs)	
State/UT	Number of PMUY connections
Chandigarh	0.00092
Delhi	0.99
Haryana	7.39
Himachal Pradesh	1.38
Jammu & Kashmir	12.39
Ladakh	0.11
Punjab	12.36
Rajasthan	66.20
Uttar Pradesh	167.18
Uttarakhand	4.50
<b>Sub Total North</b>	<b>272.51</b>
Arunachal Pradesh	0.48
Assam	39.80
Manipur	1.78
Meghalaya	1.73
Mizoram	0.30
Nagaland	0.77
Sikkim	0.12
Tripura	2.72
<b>Sub Total North East</b>	<b>47.70</b>
Andaman & Nicobar Islands	0.13
Bihar	100.95
Jharkhand	34.75
Odisha	51.88
West Bengal	109.08
<b>Sub Total East</b>	<b>296.80</b>
Chhattisgarh	33.51
Dadra & Nagar Haveli and Daman & Diu	0.15
Goa	0.01
Gujarat	34.38
Madhya Pradesh	79.39
Maharashtra	46.98
Sub Total West	194.42
Andhra Pradesh	4.17
Karnataka	34.66
Kerala	3.00
Lakshadweep	0.0030
Puducherry	0.14
Tamil Nadu	34.50
Telangana	11.11
<b>Sub Total South</b>	<b>87.60</b>
<b>All India</b>	<b>899.03</b>

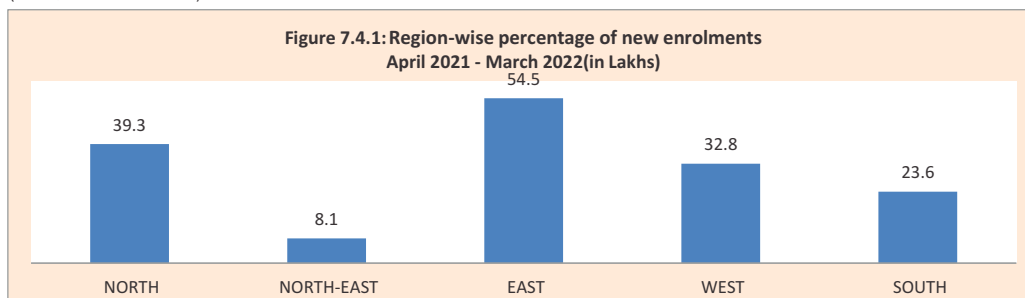
Source: PSU OMCs (IOCL, BPCL and HPCL) "PMUY connections" refer to those households where subscription vouchers have been issued



**Table 7.4 : LPG domestic customers enrolment during 2021-22 (14.2 kg/5 kg) by PSU OMCs**

State/UT	2021-22 (P)		
	14.2 Kg	5 Kg	Total
Chandigarh	0.06	0.0002	0.06
Delhi	1.01	0.0021	1.02
Haryana	2.24	0.0116	2.25
Himachal Pradesh	0.59	0.0018	0.59
Jammu & Kashmir	0.46	0.0050	0.46
Ladakh	0.04	0.0001	0.04
Punjab	1.80	0.0157	1.81
Rajasthan	4.28	0.0220	4.30
Uttar Pradesh	27.44	0.0846	27.52
Uttarakhand	1.25	0.0024	1.26
<b>Sub Total North</b>	<b>39.17</b>	<b>0.15</b>	<b>39.32</b>
Arunachal Pradesh	0.17	0.0003	0.17
Assam	6.45	0.0037	6.45
Manipur	0.40	0.0003	0.40
Meghalaya	0.33	0.0008	0.33
Mizoram	0.11	0.0002	0.11
Nagaland	0.34	0.0002	0.34
Sikkim	0.11	0.0002	0.11
Tripura	0.21	0.0008	0.21
<b>Sub Total North East</b>	<b>8.12</b>	<b>0.01</b>	<b>8.13</b>
Andaman & Nicobar Islands	0.06	0.0000	0.06
Bihar	20.54	0.0393	20.58
Jharkhand	3.26	0.0032	3.26
Odisha	5.94	0.0109	5.95
West Bengal	24.32	0.3138	24.63
<b>Sub Total East</b>	<b>54.12</b>	<b>0.37</b>	<b>54.49</b>
Chhattisgarh	4.41	0.0066	4.41
Dadra & Nagar Haveli and Daman & Diu	0.06	0.0000	0.06
Goa	0.16	0.0001	0.16
Gujarat	7.74	0.0093	7.75
Madhya Pradesh	9.66	0.0450	9.70
Maharashtra	10.68	0.0617	10.74
<b>Sub Total West</b>	<b>32.70</b>	<b>0.12</b>	<b>32.83</b>
Andhra Pradesh	3.27	0.0024	3.28
Karnataka	7.30	0.0303	7.33
Kerala	2.49	0.0055	2.50
Lakshadweep	0.0031	0.0000	0.0031
Puducherry	0.09	0.0002	0.09
Tamil Nadu	6.96	0.0962	7.06
Telangana	3.37	0.0038	3.37
<b>Sub Total South</b>	<b>23.49</b>	<b>0.14</b>	<b>23.62</b>
<b>All India</b>	<b>157.60</b>	<b>0.78</b>	<b>158.39</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)

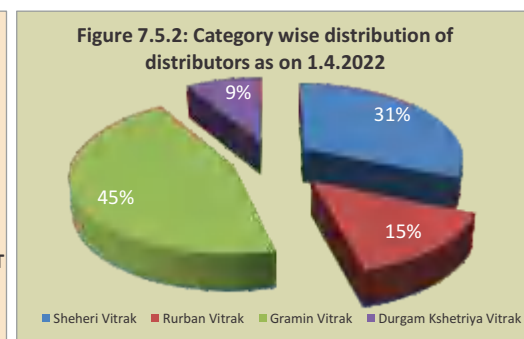
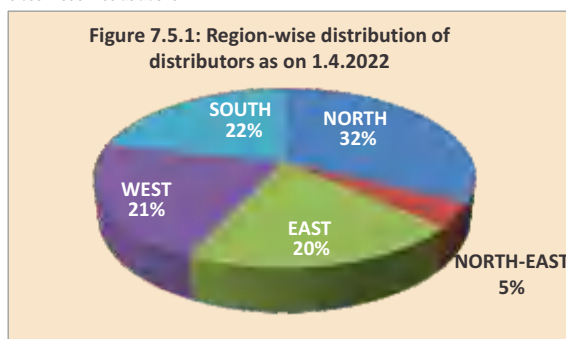


**Table 7.5 : Number of LPG distributors [as on 01.04.2022 (P)] (New Scheme)**

(Nos.)

State/UT	Sheheri Vitrak	Rurban Vitrak	Gramin Vitrak	Durgam Kshetriya Vitrak	Total
Chandigarh	26	0	0	0	26
Delhi	319	0	0	0	319
Haryana	282	101	233	9	625
Himachal Pradesh	69	13	93	32	207
Jammu & Kashmir	126	33	73	35	267
Ladakh	0	13	2	9	24
Punjab	334	256	245	26	861
Rajasthan	436	163	658	130	1387
Uttar Pradesh	1004	705	2238	187	4134
Uttarakhand	114	105	65	31	315
<b>Sub Total North</b>	<b>2710</b>	<b>1389</b>	<b>3607</b>	<b>459</b>	<b>8165</b>
Arunachal Pradesh	6	6	32	41	85
Assam	128	104	308	56	596
Manipur	15	13	36	37	101
Meghalaya	22	9	19	14	64
Mizoram	11	6	26	16	59
Nagaland	15	11	17	40	83
Sikkim	9	1	10	7	27
Tripura	18	9	43	10	80
<b>Sub Total North-East</b>	<b>224</b>	<b>159</b>	<b>491</b>	<b>221</b>	<b>1095</b>
Andaman & Nicobar Islands	0	4	4	1	9
Bihar	239	252	1468	50	2009
Jharkhand	163	51	333	35	582
Odisha	173	101	550	136	960
West Bengal	399	166	935	60	1560
<b>Sub Total East</b>	<b>974</b>	<b>574</b>	<b>3290</b>	<b>282</b>	<b>5120</b>
Chhattisgarh	105	76	164	189	534
Dadra & Nagar Haveli and Daman & Diu	5	1	0	0	6
Goa	44	4	6	1	55
Gujarat	416	119	461	24	1020
Madhya Pradesh	469	212	419	443	1543
Maharashtra	1005	190	833	191	2219
<b>Sub Total West</b>	<b>2044</b>	<b>602</b>	<b>1883</b>	<b>848</b>	<b>5377</b>
Andhra Pradesh	319	244	401	119	1083
Karnataka	534	142	521	73	1270
Kerala	226	135	311	26	698
Lakshadweep	1	0	0	0	1
Puducherry	14	10	3	0	27
Tamil Nadu	568	362	608	104	1642
Telangana	280	103	337	71	791
<b>Sub Total South</b>	<b>1942</b>	<b>996</b>	<b>2181</b>	<b>393</b>	<b>5512</b>
<b>All India</b>	<b>7894</b>	<b>3720</b>	<b>11452</b>	<b>2203</b>	<b>25269</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.





# Chapter-8

## Prices and Taxes

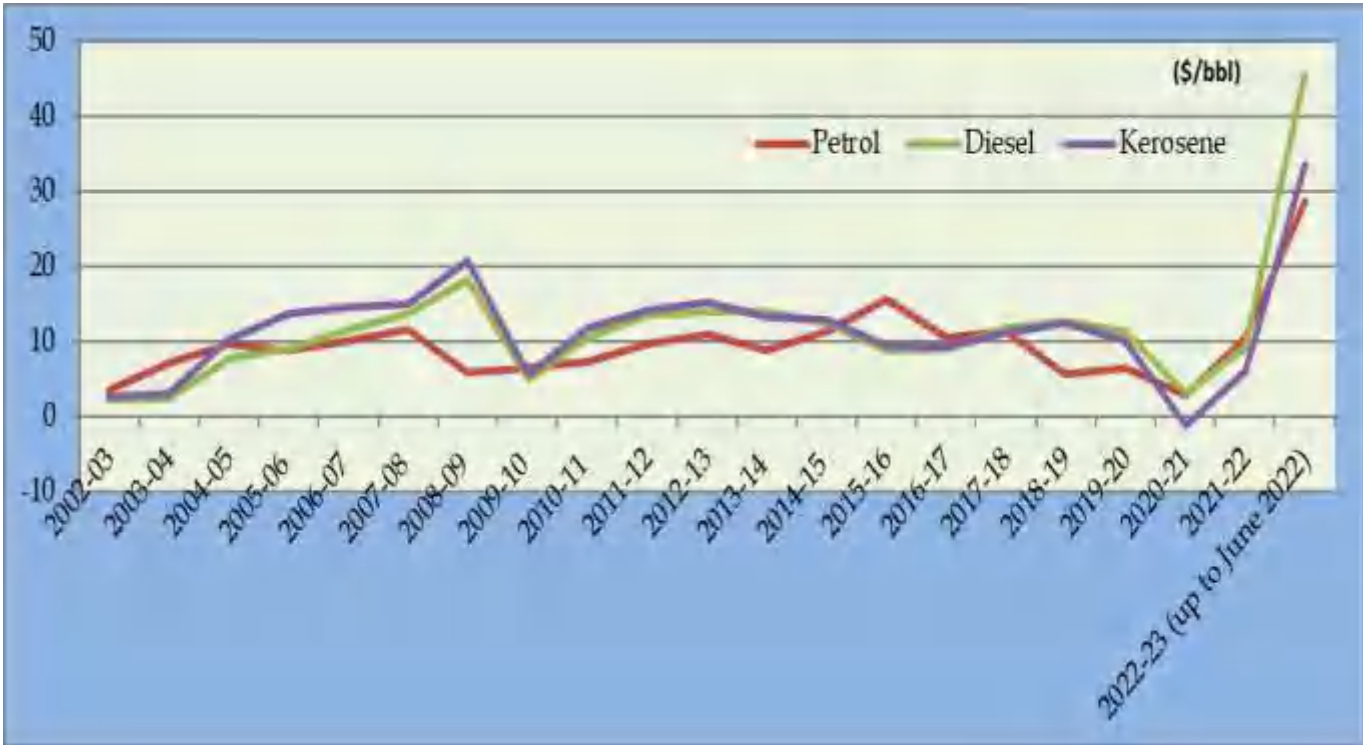
**Table 8.1 : Price of crude oil in the international market**

Year	Indian basket (\$/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	46.17
2016-17	47.56
2017-18	56.43
2018-19	69.88
2019-20	60.47
2020-21	44.82
2021-22	79.18
2022-23 (upto 30.06.2022)	109.61
<b>2022 : Month wise</b>	
January	84.67
February	94.07
March	112.87
April	102.97
May	109.51
June	116.01

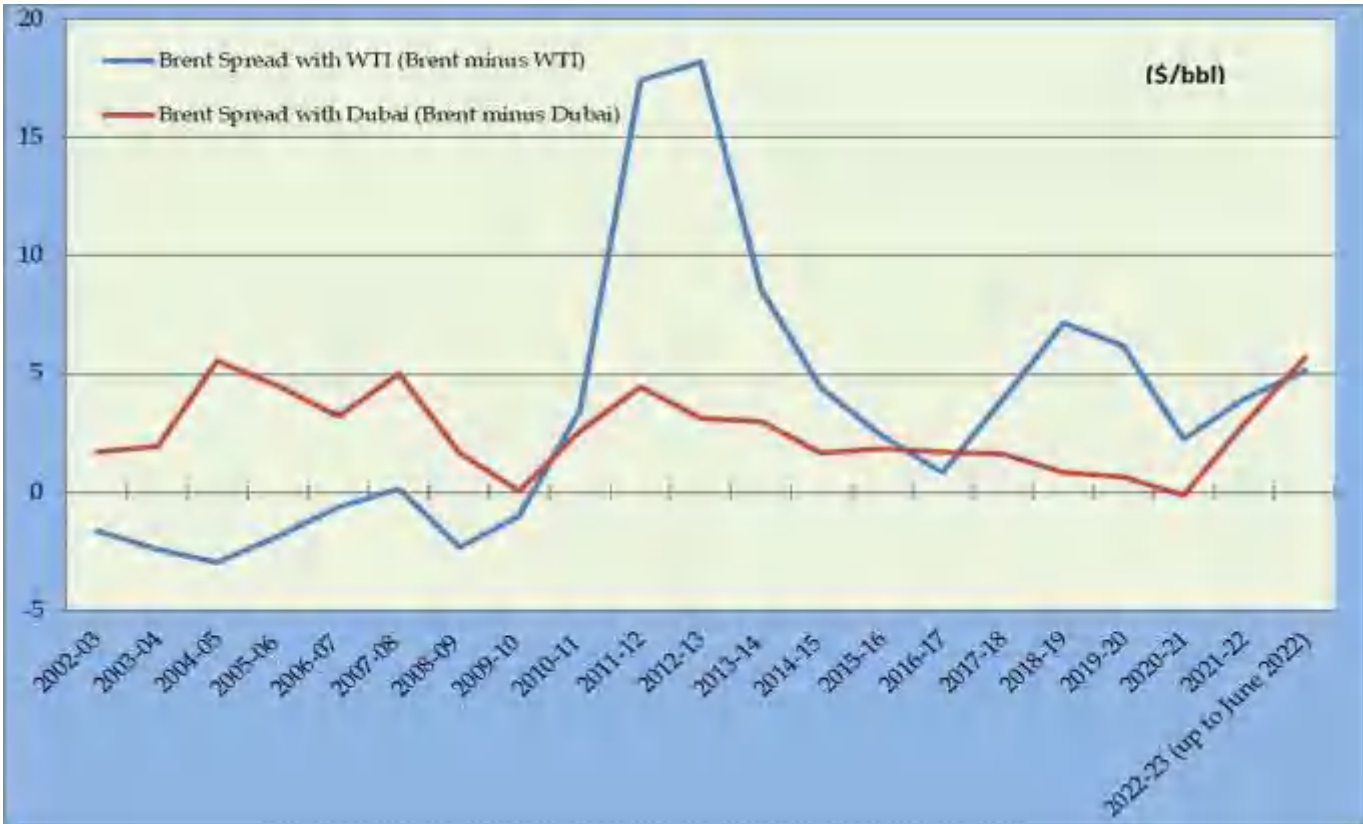
**Notes:**

1. The Indian basket of crude oil for the year 2020-21 & subsequent period is calculated based on a weightage of 75.62% for the price of sour grades of crude oil (average of Oman & Dubai) and 24.38% sweet grade of crude oil (Brent Dated). The percentages of 75.62 and 24.38 was based on the ratio of low sulphur and high sulphur crude oil processed (indigenous and imported) by all the Indian refineries (PSU and Pvt.) during the financial year i.e. 2019-20.

**Trend in spreads of petroleum products vs Indian basket of crude oil**



**Trend in spreads of international benchmark crude oils**



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

Elements	Unit	As on 1.07.2022
Price before taxes and dealers' commission	₹ / litre	90.23
Add : Dealers' commission	₹ / litre	2.68
Add : GST (incl GST on dealers' commission)	₹ / litre	4.65
<b>Retail selling price</b>	<b>₹ / litre</b>	<b>97.56</b>

**Table 8.3 : Price build-up of domestic LPG at Delhi**

Elements	Unit	As on 1.07.2022
Price before taxes and distributors' commission	₹ / 14.2 kg cylinder	890.40
Add : Distributors' commission	₹ / 14.2 kg cylinder	64.84
Add : GST (including GST on distributors' commission)	₹ / 14.2 kg cylinder	47.76
<b>Retail selling price</b>	<b>₹ / 14.2 kg cylinder</b>	<b>1003.00</b>

**Table 8.4 : Price build-up of petrol at Delhi**

Elements	Unit	As on 1.07.2022
Price charged to dealers (excluding excise duty and VAT)	₹ / litre	57.33
Add : Excise duty	₹ / litre	19.90
Add : Dealers' commission (average)	₹ / litre	3.78
Add : VAT (including VAT on dealers' commission)	₹ / litre	15.71
<b>Retail selling price</b>	<b>₹ / litre</b>	<b>96.72</b>

-As per IOCL.

**Table 8.5 : Price build-up of diesel at Delhi**

Elements	Unit	As on 1.07.2022
Price charged to dealers (excluding excise duty and VAT)	₹ / litre	58.14
Add : Excise duty	₹ / litre	15.80
Add : Dealers' commission (average)	₹ / litre	2.57
Add : VAT (including VAT on dealer's commission)	₹ / litre	13.11
<b>Retail selling price</b>	<b>₹ / litre</b>	<b>89.62</b>

-As per IOCL.

**Table 8.6 : Break up of Central excise duty on petrol & diesel (As on 01.07.2022)**

Particulars	₹/litre	
	Petrol	Diesel
Basic duty	1.40	1.80
Additional excise duty (Road & Infrastructure Cess)	5.00	2.00
Special additional excise duty	11.00	8.00
Agriculture Infrastructure and Development Cess	2.50	4.00
<b>Total excise duty</b>	<b>19.90</b>	<b>15.80</b>



**Share of taxes in retail selling price of petroleum products**
**Table 8.7 : Share of taxes in retail selling price of PDS kerosene as on 1.07.2022 at Mumbai**

Particulars	₹/litre	Share in RSP (%)
Price before taxes and dealers' commission	90.23	92.5%
Customs duty	-	
GST (Including GST on dealers' commission)	4.65	
<b>Total taxes</b>	<b>4.65</b>	<b>4.8%</b>
Dealers' commission	2.68	2.7%
<b>Retail selling price</b>	<b>97.56</b>	<b>100.0%</b>

**Table 8.8 : Share of taxes in retail selling price of domestic LPG as on 1.07.2022 at Delhi**

Particulars	₹/14.2 kg cylinder	Share in RSP (%)
Price before taxes and distributors' commission	890.40	88.8%
Customs duty	-	
GST (including GST on distributors' commission)	47.76	
<b>Total taxes</b>	<b>47.76</b>	<b>4.8%</b>
Distributors' commission	64.84	6.5%
<b>Retail selling price</b>	<b>1003.00</b>	<b>100%</b>

**Table 8.9 : Weightage of crude oil, natural gas and petroleum products in Wholesale Price Index (WPI)**

Product	Weight in %
Crude Petroleum	1.95
Natural Gas	0.46
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>10.37</b>

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

**Dealers' / Distributors' commission on petroleum products**
**Table 8.10 : Dealers' commission on petrol & diesel**

(₹/KL)		
Particulars	Petrol	Diesel
As on 1-Apr-04	707.00	425.00
21-Jun-05	778.00	467.00
1-Aug-05	848.00	509.00
1-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
7-Sep-10	1218.00	757.00
1-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
1-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
1-Jun-16	₹ 1750.29/KL + 0.883% of product billable price	₹ 1302.06/KL + 0.286% of product billable price
5-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 + 0.280% of product billable price
1-Apr-17	₹ 2020.38/KL + 0.859% of product billable price	₹ 1502.13/KL + 0.267% of product billable price
1-Jul-17	₹ 2025.97/KL + 0.859% of product billable price	₹ 1506.81/KL + 0.267% of product billable price
1-Aug-17	₹ 2674.74/KL + 0.859% of product billable price	₹ 2031.38/KL + 0.257% of product billable price
19-Feb-19	₹ 2637.80/KL + 0.859% of product billable price	₹ 2000.60/KL + 0.257% of product billable price

**Note:** In addition to above, effective 1st Aug 2017, slab based incentive is also given to eligible dealers through credit notes.

**Table 8.11 : Wholesale dealers' commission on PDS kerosene**

(₹/KL)		
Effective date	With form XV	Other than form XV
As on 01-Apr-04	204.00	161.00
1-Mar-07	243.00	200.00
24-May-08	255.00	212.00
7-Jul-09	263.00	220.00
7-Sep-10	275.00	232.00
28-Dec-12	438.24	377.73
21-Oct-14	536.09	475.58
5-Feb-16	714.18	649.16
28-Oct-16	787.82	723.87
5-Sep-17	1008.83	928.10
4-Oct-18	1016.37	1005.95
22-Feb-19	1341.88	1230.98

**Table 8.12: Distributors' commission on domestic LPG**

Effective date	14.2 KG cyl.	Additional commission for sale at market determined price (₹/14.2 KG cyl.)	(₹/ cylinder)
			5 KG cyl.
As on 01-April-04	16.71	NA	8.60
1-Mar-07	19.05	NA	9.81
4-Jun-08	20.54	NA	10.58
30-Jun-09	21.94	NA	11.30
1-Jul-11	25.83	NA	13.30
7-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
9-Dec-15	45.83	0.26	22.67
1-Jan-16	45.83	0.33	22.67
1-Feb-16	45.83	0.22	22.67
1-Mar-16	45.83	0.13	22.67
1-May-16	45.83	0.15	22.67
1-Jun-16	45.83	0.18	22.67
1-Jul-16	45.83	0.16	22.67
1-Aug-16	45.83	0.09	22.67
1-Sep-16	45.83	0.06	22.67
1-Oct-16	45.83	0.09	22.67
28-Oct-16	47.48	0.09	23.74
1-Nov-16	47.48	0.14	23.74
1-Dec-16	47.48	0.21	23.74
1-Feb-17	47.48	0.30	23.74
1-Mar-17	47.48	0.43	23.74
1-Apr-17	47.48	0.40	23.74
1-May-17	47.48	0.27	23.74
1-Jun-17	47.48	0.15	23.74
1-Jul-17	47.48	0.13	23.74
1-Aug-17	47.48	0.06	23.74
1-Sep-17	47.48	0.16	23.74
30-Sep-17	48.89	0.16	24.20
1-Oct-17	48.89	0.23	24.20
1-Nov-17	48.89	0.36	24.20
1-Jan-18	48.89	0.35	24.20
1-Feb-18	48.89	0.34	24.20

**Table 8.12 : Continued**

(₹/ cylinder)			
Effective date	14.2 KG cyl.	Additional commission for sale at market determined price (₹/14.2 KG cyl.)	5 KG cyl.
1-Mar-18	48.89	0.28	24.20
1-Apr-18	48.89	0.23	24.20
1-Jun-18	48.89	0.29	24.20
1-Jul-18	48.89	0.36	24.20
1-Aug-18	48.89	0.42	24.20
1-Sep-18	48.89	0.46	24.20
1-Oct-18	48.89	0.54	24.20
1-Nov-18	48.89	0.63	24.20
7-Nov-18	50.58	0.63	25.29
1-Dec-18	50.58	0.45	25.29
1-Jan-19	50.58	0.28	25.29
1-Feb-19	50.58	0.24	25.29
1-Mar-19	50.58	0.30	25.29
1-Apr-19	50.58	0.31	25.29
1-Jun-19	50.58	0.35	25.29
1-Jul-19	50.58	0.21	25.29
1-Aug-19	56.20	-	28.10
1-Sep-19	59.02	-	29.51
1-Oct-19	61.84	-	30.92
19-May-22	64.84	-	32.42

Source: MoP&NG circulars & OMCs

**Table 8.13 : Retail selling price of major petroleum products in India & neighbouring countries**

Indian rupees (₹)/ litre/ 14.2 kg cyl.		
Country	Kerosene	Domestic LPG
India (Delhi)	97.56#	1003.00**
Pakistan	88.99	1209.70
Bangladesh	68.70	585.31
Sri Lanka	19.16	1215.98
Nepal (Kathmandu)	103.43	1142.16

# at Mumbai as on 01.07.2022 for PDS Kerosene , \*\*Non subsidised Domestic LPG as on 01.07.2022

Note - Prices for neighboring countries as available on their respective website as on 01.07.2022.

Sources:

Websites: Pakistan- Pakistan State Oil ([www.psopk.com](http://www.psopk.com)) and Oil and Gas Regulatory Authority ([www.ogra.org.pk](http://www.ogra.org.pk)); Bangladesh- Bangladesh Petroleum Corporation ([www.bpc.gov.bd](http://www.bpc.gov.bd)); Nepal- Nepal Oil Corporation ([www.nepaloil.com.np](http://www.nepaloil.com.np)); Sri Lanka- Petrol, Diesel & Kerosene- Ceylon Petroleum Corporation ([www.ceypetco.gov.lk](http://www.ceypetco.gov.lk)); LPG- Litro Gas Lanka ([www.litrogas.com](http://www.litrogas.com)); Exchange rate - [www.oanda.com](http://www.oanda.com)

**Table 8.14 : Retail selling price of petroleum products at State capitals / UTs (as on 01.07.2022)**

State/Union Territory	City	Petrol	Diesel	Domestic LPG (₹/14.2 KG Cylinder)
		(₹/litre)		Non subsidized
Andaman & Nicobar Islands	Port Blair	84.10	79.74	1079.00
Andhra Pradesh	Amaravathi	111.87	99.61	1035.50
Arunachal Pradesh	Itanagar	93.29	82.36	1068.50
Assam	Guwahati	96.01	83.94	1052.00
Bihar	Patna	107.24	94.04	1101.00
Chandigarh	Chandigarh	96.20	84.26	1012.50
Chhattisgarh	Raipur	102.45	95.44	1074.00
Dadra and Nagar Haveli and Daman & Diu	Silvasa	94.43	89.98	1017.50
Delhi	New Delhi	96.72	89.62	1003.00
Goa	Panjim	97.68	90.23	1017.00
Gujarat	Gandhinagar	96.63	92.38	1028.50
Haryana	Ambala	97.48	90.31	1020.50
Himachal Pradesh	Shimla	97.31	83.16	1047.50
Jammu & Kashmir	Srinagar	101.22	86.51	1119.00
Jharkhand	Ranchi	99.84	94.65	1060.50
Karnataka	Bengaluru	101.94	87.89	1005.50
Kerala	Thiruvananthapuram	107.71	96.52	1012.00
Ladakh	Leh	103.61	88.85	1240.00
Madhya Pradesh	Bhopal	108.65	93.90	1008.50
Maharashtra	Mumbai	111.35	97.28	1002.50
Manipur	Imphal	101.24	87.16	1154.50
Meghalaya	Shillong	95.33	83.22	1070.00
Mizoram	Aizwal	95.90	82.28	1155.00
Nagaland	Kohima	99.54	87.61	1022.00
Odisha	Bhubaneswar	103.19	94.76	1029.00
Puducherry	Puducherry	96.16	86.33	1015.00
Punjab	Jullunder	96.18	86.55	1032.50
Rajasthan	Jaipur	108.48	93.72	1006.50
Sikkim	Gangtok	102.50	89.70	1155.50
Tamil Nadu	Chennai	102.63	94.24	1018.50
Telangana	Hyderabad	109.66	97.82	1055.00
Tripura	Agartala	99.49	88.44	1163.50
Uttar Pradesh	Lucknow	96.57	89.76	1040.50
Uttarakhand	Dehradun	95.35	90.34	1022.00
West Bengal	Kolkata	106.03	92.76	1029.00

Source: IOCL **Highest** **Lowest**

**Table 8.15 : Retail selling price of PDS kerosene at major cities (as on 01.07.2022)**

State	City	(₹/litre)
Maharashtra	Mumbai	97.56
Tamil Nadu	Chennai	15.00
West Bengal	Kolkata	101.76

Source: OMCs

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

**Table 8.16 : Customs ,excise duty and GST rates on petroleum products (as on 01.07.2022)**

**Customs duty and Excise duty (Petroleum products on which GST is not levied)**

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 (Road and Infrastructure Cess)	Additional excise duty (Agriculture Infrastructure & Development Cess)
Crude oil	Rs.1/MT + Rs. 50/MT as NCCD	Rs.1/MT	-	Rs.1/MT+ Cess @ 20% +Rs.50/ MT as NCCD	Rs. 23250/MT	-	-
Petrol	2.50%	Rs.1.40/ltr. + Rs.11.00/ ltr SAD + Rs.2.50/ ltr AIDC	Rs.5.00/ltr.	Rs.1.40/ltr	Rs.11.00/ltr	Rs.5.00/ltr.	Rs.2.50/ltr
Petrol (branded)	2.50%	Rs.2.60/ltr. + Rs.11.00/ ltr SAD + Rs.2.50/ ltr AIDC	Rs.5.00/ltr.	Rs.2.60/ltr	Rs.11.00/ltr	Rs.5.00/ltr.	Rs.2.50/ltr
High speed diesel	2.50%	Rs.1.80/ltr. + Rs.8.00/ ltr SAD + Rs.4.00/ ltr AIDC	Rs.2.00/ltr.	Rs.1.80/ltr	Rs.8.00/ltr	Rs.2.00/ltr.	Rs.4.00/ltr
High speed diesel (branded)	2.50%	Rs.4.20/ltr. + Rs.8.00/ ltr SAD + Rs.4.00/ ltr AIDC	Rs.2.00/ltr.	Rs.4.20/Ltr	Rs.8.00/ltr	Rs.2.00/ltr.	Rs.4.00/ltr
Aviation Turbine Fuel (ATF) (note-2)	5.00%	11%	-	11%	-	-	-
Liquefied Natural Gas (LNG)	2.50%	Nil	-	Nil	-	-	-
Natural gas [gaseous state]	5.00%	Nil	-	Nil	-	-	-
Natural gas [compressed]	5.00%	14.00%	-	14.00%	-	-	-

**Customs duty and GST rates (Petroleum products on which GST is levied)**

Particulars	Customs		GST
	Basic Customs Duty	CVD (in lieu of IGST)	
LPG	Domestic (Note-3)	Nil	5.00%
	Non - Domestic	5.00%	18.00%
Kerosene	PDS	5.00%	5.00%
	Non PDS	5.00%	18.00%
Naphtha	Fertilizer	Nil	18.00%
	Non- Fertilizer	1.00%	18.00%
Butane / Propane	Domestic	Nil	5.00%
	Non - Domestic	2.50%	18.00%
Bitumen & Asphalt		5.00%	18.00%
Furnace Oil	Fertilizer	Nil	18.00%
	Non- Fertilizer	2.50%	18.00%
Light Diesel Oil		5.00%	18.00%
Low Sulphur Heavy Stock/ HPS & other Residue	Fertilizer	Nil	18.00%
	Non- Fertilizer	5.00%	18.00%
Lube oil/greases		5.00%	18.00%
Petroleum Coke		10.00%	18.00%
Petroleum Jelly		5.00%	18.00%
Transformer Oil		5.00%	18.00%
Waxes all types		5.00%	18.00%

**Note :**

- In addition to the above , 10% Social Welfare Surcharge is also applicable on the total duties of Customs . However, where CVD is payable in lieu of IGST, social welfare surcharge is not applicable on the amount of CVD.
- In case of ATF, Basic Excise Duty /Additional Customs Duty (CVD) is 2% in place of 11%, for supply to scheduled commuter airlines (SCA) from the regional connectivity scheme (RCS) airports.
- Basic Customs duty is Nil for import of domestic LPG sold to household consumers (including non domestic exempted category) by PSU OMCs. Basic Customs duty rate is 5% for other importers of domestic LPG

**Table 8.17 : Actual rate of sales tax/ VAT/GST and other taxes levied by State/UT Governments on major petroleum products (as on 01.07.2022)**

Sl. no.	State/Union Territory	Petrol	Diesel	PDS kerosene	Domestic LPG
		Sales Tax /VAT		GST	
1	Andaman & Nicobar Islands	1%	1%	5%	5%
2	Andhra Pradesh	31% VAT + Rs.4/litre VAT+Rs.1/litre Road Development Cess and Vat thereon	22.25% VAT + Rs.4/litre VAT+Rs.1/litre Road Development Cess and Vat thereon		
3	Arunachal Pradesh	14.50%	7.00%		
4	Assam	32.66% or Rs.22.63 per litre whichever is higher, Rebate of Rs.5 per Litre & additional Rebate of Rs. 5.3 per litre	23.66% or Rs.17.45 per litre whichever is higher, Rebate of Rs.5 per Litre & additional Rebate of Rs. 5.1 per litre		
5	Bihar	23.58% or Rs 16.65/Litre whichever is higher (30% Surcharge on VAT as irrecoverable tax)	16.37% or Rs 12.33/Litre whichever is higher (30% Surcharge on VAT as irrecoverable tax)		
6	Chandigarh	Rs.10/KL cess +15.24% or Rs.12.42/Litre whichever is higher	Rs.10/KL cess + 6.66% or Rs.5.07/Litre whichever is higher		
7	Chhattisgarh	24% VAT + Rs.2/litre VAT	23% VAT + Rs.1/litre VAT		
8	Dadra & Nagar Haveli and Daman & Diu	12.75% VAT	13.50% VAT		
9	Delhi	19.40% VAT	Rs.250/KL air ambience charges + 16.75% VAT		
10	Goa	20% VAT + 0.5% Green cess	17% VAT + 0.5% Green cess		
11	Gujarat	13.7% VAT+ 4% Cess on Town Rate & VAT	14.9% VAT + 4 % Cess on Town Rate & VAT		
12	Haryana	18.20% or Rs.14.50/litre whichever is higher as VAT+5% additional tax on VAT	16.00% VAT or Rs.11.86/litre whichever is higher as VAT+5% additional tax on VAT		
13	Himachal Pradesh	17.5% or Rs 13.50/Litre- whichever is higher	6% or Rs 4.40/Litre- whichever is higher		
14	Jammu & Kashmir	24% MST+ Rs.2/Litre employment cess, Rebate of Rs.4.50/Litre	16% MST+ Rs.1.00/Litre employment cess, Rebate of Rs.6.50/Litre		
15	Jharkhand	22% on the sale price or Rs. 17.00 per litre, which ever is higher + Cess of Rs 1.00 per Ltr	22% on the sale price or Rs. 12.50 per litre, which ever is higher + Cess of Rs 1.00 per Ltr		
16	Karnataka	25.92% sales tax	14.34% sales tax		
17	Kerala	30.08% sales tax+ Rs.1/litre additional sales tax +1% cess	22.76% sales tax+ Rs.1/litre additional sales tax + 1% cess		
18	Ladakh	15% MST+ Rs.5/Litre employment cess, Reduction of Rs.2.5/Litre	6% MST+ Rs.1/Litre employment cess, Reduction of Rs.0.50/Litre		
19	Lakshadweep	Nil	Nil		
20	Madhya Pradesh	29 % VAT + Rs.2.5/litre VAT+1% Cess	19% VAT+ Rs.1.5/litre VAT+1% Cess		
21	Maharashtra – Mumbai, Thane, Navi Mumbai, Amravati & Aurangabad	26% VAT+ Rs.10.12/Litre additional tax	24% VAT+ Rs.3.00/Litre additional tax		
22	Maharashtra (Rest of State)	25% VAT+ Rs.10.12/Litre additional tax	21% VAT+ Rs.3.00/Litre additional tax		
23	Manipur	25% VAT	13.5% VAT		
24	Meghalaya	13.5% or Rs 11.00/Litre- whichever is higher (Rs.0.10/Litre pollution surcharge)	5% or Rs4.00/Litre- whichever is higher (Rs.0.10/Litre pollution surcharge)		
25	Mizoram	16.36% VAT	5.23% VAT		
26	Nagaland	25% VAT or Rs. 16.04/litre whichever is higher +5% surcharge + Rs.2.00/Litre as road maintenance cess, Rebate Rs. 5.5 per litre	16.50% VAT or Rs. 10.51/litre whichever is higher +5% surcharge + Rs.2.00/Litre as road maintenance cess , Rebate Rs. 5.1 per litre		
27	Odisha	28% VAT	24% VAT		
28	Puducherry	14.55% VAT	8.65% VAT		
29	Punjab	Rs.2050/KL (cess)+ Rs.0.10 per Litre (Urban Transport Fund) + 0.25 per Litre (Special Infrastructure Development Fee)+13.77% VAT plus 10% additional tax or Rs.12.50/Litre whichever is higher	Rs.1050/KL (cess) + Rs.0.10 per Litre (Urban Transport Fund) +0.25 per Litre (Special Infrastructure Development Fee) + 9.92% VAT plus 10% additional tax or Rs.8.24/Litre whichever is higher		
30	Rajasthan	31.04% VAT+Rs 1500/KL road development cess	19.30% VAT+ Rs.1750/KL road development cess		
31	Sikkim	17.30% VAT+ Rs.3000/KL cess	7% VAT + Rs.2500/KL cess		
32	Tamil Nadu	13% + Rs.11.52 per litre	11% + Rs.9.62 per litre		
33	Telangana	35.20% VAT	27% VAT		
34	Tripura	17.50% VAT+ 3% Tripura Road Development Cess	10.00% VAT+ 3% Tripura Road Development Cess		
35	Uttar Pradesh	19.36% or Rs 14.85/Litre whichever is higher	17.08% or Rs 10.41/Litre whichever is higher		
36	Uttarakhand	16.97% or Rs 13.14 Per Ltr whichever is greater	17.15% or Rs Rs 10.41 Per Ltr whichever is greater		
37	West Bengal	25% or Rs.13.12/litre whichever is higher as sales tax+ Rs.1000/KL cess – Rs 1000/KL sales tax rebate (20% Additional tax on VAT as irrecoverable tax)	17% or Rs.7.70/litre whichever is higher as sales tax + Rs 1000/KL cess – Rs 1000/KL sales tax rebate (20% Additional tax on VAT as irrecoverable tax)		

**Note:**

- As per details provided by IOCL/HPCL
- For Petrol & Diesel, VAT/Sales Tax at applicable rates is also levied on Dealer's commission in Arunachal Pradesh, Delhi, Gujarat, Dadra & Nagar Haveli and Daman & Diu, Punjab, Haryana, Madhya Pradesh, Rajasthan, Chandigarh, Puducherry, Andaman & Nikobar, Meghalaya



**Table 8.18 : Contribution of petroleum sector to exchequer**

		(₹/ Crore)				
Particulars		2017-18	2018-19	2019-20	2020-21	2021-22 (P)
<b>1. Contribution to Central exchequer</b>						
<b>A.</b>	<b>Tax/ duties on crude oil &amp; petroleum products</b>					
	Cess on crude oil	14514	17741	14789	10676	19214
	Royalty on crude oil / natural gas	4747	6062	5602	3590	5639
	Customs duty	11171	16035	22927	13514	11423
	NCCD on Crude Oil	968	1180	1130	1016	1121
	Excise duty	229716	214369	223057	372970	363305
	Service tax	1228	340	17	0	0
	IGST	9211	16479	13099	11594	19726
	CGST	4488	7437	6831	6158	10843
	Others	125	204	88	365	338
	<b>Sub total (A)</b>	<b>276168</b>	<b>279847</b>	<b>287540</b>	<b>419884</b>	<b>431609</b>
<b>B.</b>	<b>Dividend to Government/ income tax etc.</b>					
	Corporate/ income tax	33599	38561	23134	21909	29219
	Dividend income to Central Government	14575	15525	12270	10393	22612
	Dividend distribution tax	5981	6415	5462	0	0
	Profit petroleum on exploration of oil/ gas*	5839	7694	5909	2883	8862
	<b>Sub total (B)</b>	<b>59994</b>	<b>68194</b>	<b>46775</b>	<b>35185</b>	<b>60694</b>
	<b>Total contribution to Central exchequer (A+B)</b>	<b>336163</b>	<b>348041</b>	<b>334315</b>	<b>455069</b>	<b>492303</b>
<b>2. Contribution to State exchequer</b>						
<b>C.</b>	<b>Tax/ duties on crude oil &amp; petroleum products</b>					
	Royalty on crude oil / natural gas	9370	13371	11882	7179	13526
	Sales tax/ VAT	185850	201265	200493	202937	256248
	SGST/UTGST	4974	7961	7345	6121	11017
	Octroi/ duties (incl. electricity duty)	1663	685	716	706	827
	tax / others	4745	4114	405	329	354
	<b>Sub total (C)</b>	<b>206601</b>	<b>227396</b>	<b>220841</b>	<b>217271</b>	<b>281972</b>
<b>D.</b>	<b>Dividend to Government/ direct tax etc.</b>					
	Dividend income to State Government	262	195	215	379	151
	<b>Sub total (D)</b>	<b>262</b>	<b>195</b>	<b>215</b>	<b>379</b>	<b>151</b>
	<b>Total contribution to State exchequer (C+D)</b>	<b>206863</b>	<b>227591</b>	<b>221056</b>	<b>217650</b>	<b>282122</b>
<b>Total contribution of petroleum sector to exchequer (1+2)</b>		<b>543026</b>	<b>575632</b>	<b>555370</b>	<b>672719</b>	<b>774425</b>

\* as provided by MOP&NG. (P)- Provisional

Source: Based on data provided by 16 oil & gas companies

Note: Totals may not tally due to round off

**Table 8.19 : State/UT wise collection of sales tax/ VAT by petroleum sector**

(₹/ Crore)						
Sl. no.	State/Union territory	Sales tax/VAT				
		2017-18	2018-19	2019-20	2020-21 (P)	2021-22 (P)
1	Andaman & Nicobar Islands	51	92	94	74	80
2	Andhra Pradesh	9693	10784	10168	11014	14724
3	Arunachal Pradesh	67	49	26	104	136
4	Assam	3108	3879	3641	3747	3901
5	Bihar	5447	6584	6238	5854	6867
6	Chandigarh	54	62	60	60	87
7	Chhattisgarh	3682	3986	3877	4107	5178
8 & 9	Dadra and Nagar Haveli and Daman & Diu	42	2	2	1	2
10	Delhi	3944	4379	3833	2653	3659
11	Goa	657	694	754	682	994
12	Gujarat	15593	16229	15337	15141	20697
13	Haryana	7647	8286	7648	7923	10067
14	Himachal Pradesh	344	364	440	882	1313
15	Jammu & Kashmir	1329	1449	1459	1444	1859
16	Jharkhand	3224	2796	3296	3619	4392
17	Karnataka	13306	14417	15381	15476	18310
18	Kerala	7300	7995	8074	6924	9265
19	Ladakh			14	49	81
20	Lakshadweep	0	0	0	0	0
21	Madhya Pradesh	9380	9485	10720	11908	14157
22	Maharashtra	25256	27191	26791	25430	34002
23	Manipur	162	181	192	265	319
24	Meghalaya	0	0	0	0	0
25	Mizoram	55	88	91	84	120
26	Nagaland	86	97	116	148	180
27	Odisha	6870	5660	5495	6224	7656
28	Puducherry	15	8	5	10	11
29	Punjab	6062	6576	5548	6291	7890
30	Rajasthan	12094	12714	13319	15119	17401
31	Sikkim	110	134	129	111	155
32	Tamil Nadu	15507	18143	18175	17063	20586
33	Telangana	8776	10037	10045	8691	13171
34	Tripura	205	277	384	445	474
35	Uttar Pradesh	17420	19168	20112	21956	26333
36	Uttarakhand	1323	1595	1495	1524	1847
37	West Bengal	7042	7866	7534	7916	10335
	<b>TOTAL</b>	<b>185850</b>	<b>201265</b>	<b>200493</b>	<b>202937</b>	<b>256248</b>

(P)- Provisional

**Source:** Based on data provided by 16 oil & gas companies

**Note:** As the amounts have been rounded off to the nearest crore, hence some amounts are shown as zero.

Totals may not tally due to round off

**Table 8.20 : State/UT wise collection of SGST/UTGST by petroleum sector**

						(₹/ Crore)
Sl. no.	State/Union territory	2017-18	2018-19	2019-20	2020-21 (P)	2021-22 (P)
1	Andaman & Nicobar Islands	1	0	0	0	1
2	Andhra Pradesh	172	257	156	112	204
3	Arunachal Pradesh	1	6	0	0	0
4	Assam	116	559	475	332	414
5	Bihar	91	159	145	122	147
6	Chandigarh	1	1	1	1	1
7	Chhattisgarh	39	18	9	14	26
8 & 9	Dadra and Nagar Haveli and Daman & Diu	10	12	20	20	15
10	Delhi	114	52	51	37	54
11	Goa	5	3	9	11	15
12	Gujarat	1022	2060	1801	1566	3180
13	Haryana	379	659	685	529	1064
14	Himachal Pradesh	15	3	4	6	8
15	Jammu & Kashmir	38	20	17	40	35
16	Jharkhand	57	13	16	12	10
17	Karnataka	329	356	269	260	461
18	Kerala	136	146	171	136	255
19	Ladakh			1	1	1
20	Lakshadweep	0	0	0	0	1
21	Madhya Pradesh	73	87	98	68	117
22	Maharashtra	797	1272	1126	932	1822
23	Manipur	2	1	1	2	2
24	Meghalaya	0	1	0	0	0
25	Mizoram	1	1	1	0	0
26	Nagaland	1	1	1	0	1
27	Odisha	52	93	192	195	421
28	Puducherry	2	1	1	1	1
29	Punjab	157	116	128	43	346
30	Rajasthan	88	205	176	145	196
31	Sikkim	3	2	0	0	0
32	Tamil Nadu	517	642	562	439	640
33	Telangana	88	19	21	22	45
34	Tripura	6	20	17	38	17
35	Uttar Pradesh	362	616	619	603	827
36	Uttarakhand	20	6	7	8	7
37	West Bengal	272	545	553	418	674
<b>Others</b>						
1	Other territory (Offshore areas of India beyond 12 Nautical Miles)	8	11	11	7	9
<b>TOTAL</b>		<b>4974</b>	<b>7961</b>	<b>7345</b>	<b>6121</b>	<b>11017</b>

(P)- Provisional

**Source:** Based on data provided by 16 oil & gas companies

**Note:** As the amounts have been rounded off to the nearest crore, hence some amounts are shown as zero.

Totals may not tally due to round off

Since GST was implemented w.e.f.01.07.2017, data for 2017-18 is for a period of nine months

**Table 8.21: Profit After Tax (PAT) of oil companies**

(₹/ Crore)					
Sl. no.	2017-18	2018-19	2019-20	2020-21	2021-22
<b>PSU upstream/midstream companies</b>					
ONGC	19945	26765	13464	11246	40306
OIL	2668	2590	2584	1742	3887
GAIL	4618	6026	6621	4890	10364
<b>Total</b>	<b>27231</b>	<b>35380</b>	<b>22668</b>	<b>17878</b>	<b>54557</b>
<b>PSU downstream Oil Marketing Companies (OMCs)</b>					
IOCL	21346	16894	1313	21836	24184
BPCL	7919	7132	2683	19042	8789
HPCL	6357	6029	2637	10664	6383
<b>Total</b>	<b>35622</b>	<b>30055</b>	<b>6634</b>	<b>51542</b>	<b>39355</b>
<b>PSU stand alone refineries</b>					
MRPL	2224	332	-2740	-240	2955
CPCL	913	-213	-2078	238	1342
NRL	2044	1968	1381	3036	3562
<b>Total</b>	<b>5181</b>	<b>2087</b>	<b>-3437</b>	<b>3033</b>	<b>7859</b>
<b>PSU consultancy company</b>					
EIL	378	370	430	260	344
<b>Total</b>	<b>378</b>	<b>370</b>	<b>430</b>	<b>260</b>	<b>344</b>
<b>Private sector companies</b>					
RIL	33612	35163	30903	31944	39084
NEL	532	344	2518	467	1030
<b>Total</b>	<b>34144</b>	<b>35507</b>	<b>33421</b>	<b>32411</b>	<b>40114</b>

\* details not provided.

**Source:** Published results/information provided by oil companies.

**Note:** Financials are on standalone basis

**Table 8.22 : Financial details of major oil companies**

2020-21										
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL	RIL
(₹ Crore)										
Sales turnover	510546	300830	269243	67891	8410	56529	50974	41814	18542	278940
Profit Before Interest and Tax (PBIT)	32810	23946	15162	18617	1222	6542	7	1652	4092	43423
Interest	3094	1328	915	2215	499	156	352	375	9	16211
Tax	7880	3576	3583	5156	(1019)	1496	(105)	1039	1047	(4732)
Profit After Tax (PAT)	21836	19042	10664	11246	1742	4890	(240)	238	3036	31944
Net worth	110500	54545	36186	204559	26211	46611	7528	1425	5596	474483
Borrowings (loan fund)	102327	26315	40009	15023	15718	5991	16225	9167	0	221698
<b>Ratios</b>										
PAT as % of turnover (net sales)	4.28%	6.33%	3.96%	16.57%	20.71%	8.65%	-0.47%	0.57%	16.37%	11.45%
Debt (loan fund) to equity ratio	0.93	0.48	1.11	0.07	0.60	0.13	2.16	6.43	0.00	0.47
Earnings Per Share (EPS)	23.78	96.44	70.57	8.94	16.06	10.85	(1.37)	15.95	41.27	49.66

2021-22										
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL	RIL
(₹ Crore)										
Sales turnover	724602	432258	372642	109962	14237	91426	86036	60402	23546	466425
Profit Before Interest and Tax (PBIT)	36562	13774	9176	43400	5770	13765	3916	2244	4852	55909
Interest	4829	1860	973	2360	783	174	1207	412	4	9123
Tax	7549	3125	1821	734	1099	3226	(247)	489	1286	7702
Profit After Tax (PAT)	24184	8789	6383	40306	3887	10364	2955	1342	3562	39084
Net worth	131286	49670	38677	237148	26979	55587	7196	2790	736	471527
Borrowings (loan fund)	110799	24123	43193	6397	11636	6353	21085	9223	1000	194563
<b>Ratios</b>										
PAT as % of turnover (net sales)	3.34%	2.03%	1.71%	36.65%	27.30%	11.34%	3.43%	2.22%	15.13%	8.38%
Debt (loan fund) to equity ratio	0.84	0.49	1.12	0.03	0.43	0.11	2.93	3.31	1.36	0.41
Earnings Per Share (EPS)	26.34	41.31	44.94	32.04	35.85	23.34	16.86	90.15	48.42	59.24



**Table 8.23 : Total subsidy/under-recovery on petroleum products & natural gas**

(₹ Crore)					
Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Petrol	0	0	0	0	0
Diesel	0	0	0	0	0
PDS kerosene	4672	5950	1833	0	0
Domestic LPG	0	0	0	0	0
<b>Total under-recoveries (A)</b>	<b>4672</b>	<b>5950</b>	<b>1833</b>	<b>0</b>	<b>0</b>
Direct Benefit Transfer for LPG (DBTL) subsidy	20880	31447	22635	3559	0
Project Management Expenditure (PME)*	25	92	91	99	242
<b>Total DBTL related subsidies (B)</b>	<b>20905</b>	<b>31539</b>	<b>22726</b>	<b>3658</b>	<b>242</b>
Pradhan Mantri Ujjwala Yojana (PMUY) claims	2496	5636	1403	(34)	**
Project Management Expenditure (PME) & Information Education and Communication (IEC) expenditure under PMUY*	63	34	43	110	0
<b>Total PMUY related subsidy (C)</b>	<b>2559</b>	<b>5670</b>	<b>1446</b>	<b>76</b>	<b>0</b>
<b>Direct Benefit Transfer of Kerosene (DBTK) subsidy (D)</b>	<b>113</b>	<b>98</b>	<b>42</b>	<b>0</b>	<b>0</b>
<b>PMGKY (E)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8162</b>	<b>0</b>
Natural gas subsidy for North East	435	557	574	336	405
<b>Other subsidies (F)</b>	<b>435</b>	<b>557</b>	<b>574</b>	<b>336</b>	<b>405</b>
<b>Total subsidy/ under-recovery on petroleum products &amp; natural gas (A+B+C+D+E+F)</b>	<b>28684</b>	<b>43814</b>	<b>26621</b>	<b>12231</b>	<b>647</b>

(P)- Provisional

\*on payment basis.

**Note:** DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanism for direct transfer of subsidy paid to States/UTs. DBTK subsidy for 2019-20 is till October 2019.

\*\*The figures for 2021-22 does not include advances totaling Rs. 1568 crores under PMUY 2.0 sanctioned to OMCs during Aug 2021 to Nov 2021

**Table 8.24 : Quantity and value of Indian crude oil imports**

Year	Quantity (MMT)	Quantity (Million Bbl)	\$ Million	Rs. Crore	\$/bbl (approx)
2018-19	226.5	1660.2	111,915	7,83,183	67.4
2019-20	227.0	1663.9	101,376	7,17,001	60.9
2020-21	196.5	1440.3	62,248	4,59,779	43.2
2021-22 (P)	212.0	1554.0	1,20,445	8,99,312	77.5

Conversion factor taken 1 MT = 7.33 bbl





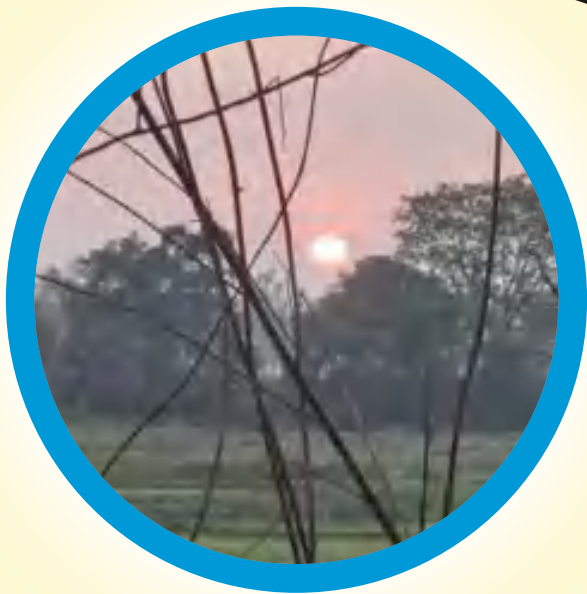
1 DIESEL DIESEL

3 PETROL DIESEL

4 PETROL DIESEL

2 DIESEL DIESEL





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# Chapter-9

## Miscellaneous

**Table 9.1 : Average 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>B.</b>	<b>Natural gas production (average) - India</b>	<b>8000-9480 K cal/SCM</b>
<b>C.</b>	<b>India</b>	<b>M Cals/tonne or K Cal/Kg</b>
	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 \*NGL: Natural gas Liquids

### 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	1.0424	6.74	0.9899
Crude Oil	1	1.1700	7.33	

**Note:** 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
1 MMTPA of LNG	= 3.60 MMSCMD	Molecular weight
1 MT of LNG	= 1314 SCM	Molecular weight
Gross Calorific Value (GCV)	= 10000 Kcal/ SCM	
Net Calorific Value (NCV)	= 90% of GCV	
1 Million BTU (MMBTU)	= 25.2 SCM	@10000
Specific Gravity of Gas	= 0.62	Molecular weight
Density of Gas	= 0.76 Kg/SCM	Molecular weight
Gas required for 1 MW of Power generation	= 4541 SCM per day	Station Heat Rate
Power Generation from 1 MMSCMD Gas	= 220 MWH	Station Heat Rate

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. Now permitted as auto fuel.
Naphtha	Feedstock/fuel for fertiliser units, feedstock for petrochemical sector and fuel for power plants.
MS	Fuel for passenger cars, taxis, 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.
Petroleum coke	Fuel grade petcoke is used as fuel for cement kilns and electric power plants. Calcined petcoke is used in manufacturing aluminium, graphite electrode, steel, titanium dioxide and other carbon consuming industries.
Other products (Benzene, Toluene, MTO, LABFS, CBFS, Paraffin wax etc.)	Feedstock for value added products.

### List of Abbreviations

BBL	Barrel	MMT	Million Metric Tonne
BCM	Billion Cubic Meter	MMTPA	Million Metric Tonne Per Annum
BPCL	Bharat Petroleum Corporation Limited	MoA	Ministry of Agriculture
BPRL	Bharat Petro Resources Limited	MoC&I	Ministry of Commerce & Industry
CBM	Coal Bed Methane	MoF	Ministry of Finance
CBR	Cauvery Basin Refinery	MoP&NG	Ministry of Petroleum & Natural Gas
CGD	City Gas Distribution	MoSPI	Ministry of Statistics and Programme Implementation
CNG	Compressed Natural Gas	MRPL	Mangalore Refinery and Petrochemicals Limited
DBTL	Direct Benefit Transfer for LPG	Mtoe	Million tonnes of oil equivalent,
DGCIS	Directorate General of Commercial Intelligence and Statistics	NELP	New Exploration Licensing Policy
DGH	Directorate General of Hydrocarbons	NGLs	Natural Gas Liquids
DSF	Discovered Small Field	NRL	Numaligarh Refinery Limited
EBP	Ethanol Blending Programme	OALP	Open Acreage Licensing Policy
FBIL	Financial Benchmark India Private Limited	OECD	Organisation for Economic Co-operation and Development
GA	Geographical Areas	OIL	Oil India Limited
GAIL	Gas Authority of India Limited	OMCs	Oil Marketing Companies
GREP	Gas Rehabilitation and Expansion Project	ONGC	Oil and Natural Gas Corporation Limited
GRM	Gross Refining Margins	OPEC	Organization of the Petroleum Exporting Countries
GSPL	Gujarat State Petronet Limited	PDS	Public Distribution System
GST	Goods & Service Tax	PMUY	Pradhan Mantri Ujjwala Yojana
HELP	Hydrocarbon Exploration and Licensing Policy	PNG	Piped Natural Gas
HPCL	Hindustan Petroleum Corporation Limited	POL	Petroleum, Oil and Lubricants
IEA	International Energy Agency	PPAC	Petroleum Planning & Analysis Cell
IOCL	Indian Oil Corporation Limited	PSC	Production Sharing Contracts
KL	Kilo Litre	PSU	Public Sector Undertaking
LNG	Liquefied Natural Gas	R/P ratio	Reserves-to-production ratio
LPG	Liquefied Petroleum Gas	RBI	Reserve Bank of India
MBN	MBTU/Bbl/NRGF	SEZ	Special Economic Zone
MBTU	Thousand British Thermal Unit	TCF	Trillion cubic feet
MMBTU	Metric Million British Thermal Unit	Toe	Tonnes of oil equivalent
MMSCMD	Million Standard Cubic Meter Per Day	WPI	Wholesale Price Index















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