



“ India is moving forward with the vision of 'AatmaNirbhar Bharat.' A Self-reliant India will be a Force Multiplier for the global economy and Energy security is the core of our efforts. ”

- Narendra Modi
Prime Minister of India



INDIAN PETROLEUM & NATURAL GAS STATISTICS 2019-20

Ministry of Petroleum and Natural Gas
Economic & Statistics Division





Ministry of Petroleum and Natural Gas
Government of India

Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi - 110 001
www.petroleum.nic.in



धर्मेन्द्र प्रधान
ଧର୍ମେନ୍ଦ୍ର ପ୍ରଧାନ
Dharmendra Pradhan



मंत्री
पेट्रोलियम एवं प्राकृतिक गैस;
इस्पात मंत्रालय
भारत सरकार, नई दिल्ली

Minister
Petroleum & Natural Gas;
Steel
Government of India
New Delhi



MESSAGE

Oil and Gas Sector is among eight core industries in India and will continue to be a prominent driver of India's economic transformation. Energy justice and climate change are the guiding principles for the India's energy sector. as envisioned by our Hon'ble Prime Minister Shri Narendra Modi.

Several major reforms have been carried out in the hydrocarbon sector for ensuring energy security of the country while pursuing the green path to progress for a balanced energy mix encompassing cleaner fuels and renewable energy with a vision to decarbonise the energy sector. The One nation, One gas grid will offer vast opportunities for integrating different sources of energy in the country. The percentage of gas in the energy mix is slated to grow from 6% to 15% by 2030.

Quality, reliable and accurate oil and gas statistics is imperative for effective data analysis and it permits all stakeholders to make judicious decisions. Data being the new oil is a lifeline for the emerging digital economy. The Indian Petroleum and Natural Gas Statistics is a comprehensive document encapsulating the performance of India's oil and gas sector for year 2019-20 alongside major international scenarios.

I am sure this important publication, which is being widely used by all stakeholders will continue to provide valuable insights into the Indian oil and gas sector.

January 2021
New Delhi

(Dharmendra Pradhan)



Ministry of Petroleum & Natural Gas : 201-A, Shastri Bhawan, New Delhi-110001 Tel. +91-11-23386622 Fax : +91-11-23386118
Ministry of Steel : Room No. 192, 1st Floor, Udyog Bhawan, New Delhi-110011 Tel. : +91-11-23062345, Fax : +91-11-23061395

तरुण कपूर

सचिव

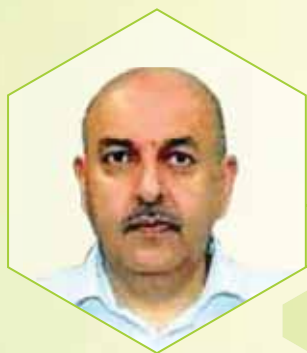
Tarun Kapoor

Secretary



भारत सरकार
पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय
शास्त्री भवन, नई दिल्ली-110001

Government of India
Ministry of Petroleum & Natural Gas
Shastri Bhawan, New Delhi - 110001
Tel.: 011-23383501, 011-23383562
Fax: 011-23070723
E-mail: sec.png@nic.in



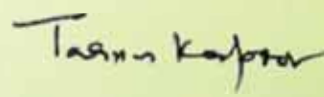
FOREWORD

Statistics is vital for capturing trends, making realistic projections and for making evidence based decisions. The Petroleum and Natural Gas sector is a vital contributor to the energy mix and will continue to be the main pillar, in the future for ensuring energy access and energy sustainability, to the people of this country. The major reforms that have been undertaken in the subsectors viz. Exploration & Production, Refinery, Pipelines, Marketing, CGD, Bio-fuels, Strategic storages etc have catalysed investments in this sector and the impact of these reforms will be seen in the changing dynamics of the Indian energy scenario. With an ambitious vision of setting up of 5000 compressed biogas plants by 2023-24 envisaging an investment of 2 lakh crore rupees, goal of ethanol blending of 20% in petrol by 2030 and 14300 kms of gas pipelines under construction, India aims to be a frontrunner globally to reduce global warming and carbon emissions. The details of the Infrastructure and performance of these subsectors are comprehensively captured in the "Indian Petroleum & Natural Gas (IPNG) Statistics 2019-20", an annual publication of Ministry of Petroleum & Natural Gas.

The 54th edition of the IPNG provides an overall picture of Oil & Gas sector in India. IPNG Statistics is an integrated, relevant, reliable and updated database of petroleum and natural gas sector, covering the entire gamut of hydrocarbon data from hydrocarbon production since inception, details of existing infrastructure (Upstream, Refining, LNG, Pipeline, CGD and Marketing), consumption, manpower and economics.

I compliment the efforts of the officers of Economic & Statistics Division, Ministry of Petroleum & Natural Gas, in bringing out this publication that encapsulates the supply side as well as demand side data of the entire hydrocarbon chain. I am sure that this publication will be a valuable referral document for policy makers, planners, administrators, academicians, people from the industry and researchers, working in the Oil & Gas sector, across the world.

New Delhi
Date : 07/01/2021


(Tarun Kapoor)

उषा सुरेश
वरिष्ठ सलाहकार

Usha Suresh
Senior Adviser



भारत सरकार
पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय
शास्त्री भवन, नई दिल्ली-110001

Government of India
Ministry of Petroleum & Natural Gas
Shastri Bhawan, New Delhi - 110001
Tel.: 011-23383753
E-mail: indrani.k@nic.in



PREFACE

As one of the fastest growing economies in the world the energy needs of India are expected to grow manifold. India is the third largest energy consuming nation and expected to be the bright spot for energy growth with the global demand centers shifting towards Asia.

The current edition of Indian Petroleum & Natural Gas Statistics is 54th in the series and presents comprehensive view of the Oil & Gas Sector in India. The integrated and updated database of this publication provides an objective insight into the developments over the entire gamut of India's hydrocarbon data including exploration, production, refining, transportation and marketing, imports and exports of crude oil & petroleum products, taxes and duties, manpower employed in oil & gas CPSEs, etc. A list of definitions, appendices including conversion factors is also provided.

I would like to thank the concerned Ministries / Departments, oil & gas CPSEs, attached offices of MoPNG for their cooperation and consistent support in furnishing the required information / data for this publication. The international petroleum statistics has been compiled using data from Organization of Petroleum Exporting Countries, International Energy Agency and BP Statistical Review of World energy.

I take this opportunity to put on record the contribution of the team of officers and staff in the Economic & Statistics Division whose collaboration and untiring efforts have been instrumental in bringing out this publication. Shri Gaurav Katiyar, Deputy Director, Ms. Avinash Kumari, Assistant Director, Shri Shyam Lal, Senior Statistical Officer, Shri Shiv Prakash, Jr. Statistical Officer, have played key roles in the collection/compilation/graphical design/analysis/ of this publication amongst all other assignments. Ms. Indrani Kaushal, Economic Adviser played a stellar role in ensuring data consistency, whilst also providing guidance and editorial suggestions, in bringing out this publication. Special thanks also to Ms. Ramya Krishna, Shri Amit Duhan and Shri Ramit Kalia, Technical Officers in the E&S Division who contributed with their insights/valuable suggestions with their expertise and knowledge of energy data management.

Towards further improvement in future editions of this publication, we welcome comments / suggestions to make this publication more useful to all stakeholders and data users in the oil & gas sector.

New Delhi

Usha Suresh
(Usha Suresh)
Senior Adviser

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SCOPE AND COVERAGE OF DATA PUBLISHED

1. Scope: The "Indian Petroleum & Natural Gas Statistics" presents updated comprehensive statistics on various aspects of Indian Petroleum & Natural Gas sector. The data on international developments in respect of the key parameters of Petroleum and Natural Gas sector have also been captured in the publication.
2. Coverage: The Statistics presented in the current publication cover the exploration, production, refining, alternate fuels, marketing activities, etc. of Oil and Gas sector.
3. Source: The primary statistics in respect of petroleum and natural gas industries included in the publication are based on various returns, submitted by the Oil & Gas Central Public Sector Enterprises (CPSEs), Joint Venture companies and Private companies under the Ministry of Petroleum & Natural Gas.

The sources of all the secondary data, including international statistics, incorporated in the publication, have been indicated at the bottom of relevant tables.

4. Limitations: The data in respect of sales/consumption of petroleum products reflect dispatches of various petroleum products from the sales depots of different oil companies to the bulk consumers / retail outlets. The state-wise sales/consumption of such products show dispatches to direct consumers / retail outlets meant for consumption / sales in a particular state.
5. Reference Period: Key statistics for the domestic petroleum and natural gas industries have been presented on calendar (January-December) as well as on financial year (April-March) basis.
6. Natural Gas: The gross production of natural gas reflects gross withdrawals of natural gas from reservoir. On the other hand, the net production of natural gas show gross withdrawal of natural gas from reservoirs less gas used for reinjection into reservoirs for pressuring gas which is flared and / or vented/loss.

The utilization data for natural gas includes gas marketed, gas used for LPG extraction and gas consumed for field operations by the companies engaged in hydrocarbons exploration / production activities.

7. Petroleum Imports: The crude oil and product import figures given in the publication includes crude oil / petroleum products imported by the oil PSUs, private and parallel marketers on behalf of Nepal for processing of crude oil in Indian refineries and arranging supplies of desired products to Nepal. Petroleum products actually brought into the country from processing of Indian and International crudes at foreign refineries for Indian oil companies have also been included under the product import figures.
8. Value of Import/Export: The value data in respect of exports of petroleum included in the publication show F.O.B. value of exports whereas similar value figures for imports reflect C.I.F. value of imports.
9. Revision / Modification / Updation: The statistics provided in this publication for the current year is provisional in view of the time lag involved in receipt of actual figures. In view of this, some information based on provisional data may undergo change as and when the actual data are available.

Necessary revision / updation in the past data has been made in the light of latest available figures. To illustrate:

- (a) Data on international statistics of certain parameters like world crude oil exports taken from different sources viz. OPEC Bulletins and BP Statistical Review may not tally due to difference in coverage and methodology used.
- (b) Given the strategic role accorded to biofuels in the Indian Energy basket in their role in demand substitution for liquid fuels through blending, a new chapter on Bio-fuels has been compiled as a maiden exercise which consists total six tables as:
 - Table XII.1: Ethanol Blended with Petrol
 - Table XII.2: State-wise Ethanol Blended with Petrol (Sales) by CPSEs

- Table XII.3: Quantity of Bio Diesel Blended with Diesel
- Table XII.4: Ethanol received by CPSE OMCs under Ethanol Blending Programme
- Table XII.5: Number of Retail Outlets selling Biofuels blended Petrol/Diesel
- XII.6: State-wise/UT-wise Ethanol received by CPSEs OMCs under Ethanol Blending Table Programme

(c) Additionally above, Following new tables are included:-

- Table II.3: Status of Wells (as on 01.04.2020)
- Table VII.2: India's Oil & Gas Trade and India's overall Trade Balance
- Table VII.8: Product-wise Imports of Oil & Petroleum Products by Public & Private Sector (in Quantity Terms)
- Table VII.9: Product-wise Exports Petroleum Products by Public & Private Sector (in Quantity Terms)
- Table VII.10: Product-wise Imports of Oil & Petroleum Products by Public & Private Sector (in Value Terms)
- Table VII.11: Product-wise Exports Petroleum Products by Public & Private Sector (in Value Terms)
- Table X.2: Operating Expenditure (OPEX)
- Table XI.7: World Output of Petroleum Products (Country-wise)

(d) In Table II.19, Sector-wise Sales/Consumption of Natural Gas; LPG shrinkage is being shifted from Non-Energy purpose to Energy Purpose. Since, LPG shrinkage is a transformation process and LPG produced is further used for energy purposes to meet domestic / household energy requirements. Therefore, it has been shifted from 'non energy purpose' to 'energy purpose'

10. Abbreviations: Details of abbreviations used have been provided in Appendix.

11. Conversion factor: The conversion factors generally used in the Oil & Gas sector are also given in the Appendix.

Errors or Omissions and Commissions, if any, detected may kindly be brought to the notice of the Deputy Director, Economic & Statistics Division, Ministry of Petroleum & Natural Gas at email eands-mopng@gov.in for rectification in the subsequent issue.

CHAPTER-I



Performance of Petroleum & Natural Gas Sector- Some Key Macro-Economic Trends



INTRODUCTION

India is the third largest energy consumer in the world after China and USA. It is also the fastest growing energy consumer, consuming around 806.1 million tonne of oil equivalent (MTOE) in 2019. With a share of 5.8% of the World's primary energy consumption, India's energy requirement is fulfilled primarily by Coal, Crude Oil, Natural Gas and Renewable Energy. Oil and gas sector within the energy mix play a predominant role as over one third of the energy required is met by hydrocarbons. Growing economy and population growth are the main drivers for oil & gas demand, increasing every year.

Amongst commodity imports, share of imports of Oil & Gas sector (Oil ₹ 717001 crore, Petroleum products ₹ 125742 and LNG ₹ 67383 crore) was 27.1% in 2019-20 of the country's overall imports (₹ 3355762 crore). Continued imports of oil and gas to the Indian economy underscore the need for a robust strategy for assuring supply. Recognising the imperative need for increasing production of oil and gas resources, Ministry of P&NG has taken up many initiatives and policy reforms to boost investment in Exploration & Production activities so as to accelerate new hydrocarbon discoveries.

India has a robust refining sector with a refining capacity of 249.87 MMTPA as on 01.04.2020. With increase in the domestic refining capacity, which has overtaken domestic consumption, country became a net exporter of petroleum products. While the domestic consumption has increased from 213.22 MMT in 2018-19 to 214.13 MMT in 2019-20, India is in a position to export surplus products after meeting domestic demand.

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CHAPTER II

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APPENDIX



I.1 Crude Oil and Natural Gas Production:

The crude oil production during the year 2019-20 is at 32.17 Million Metric Tonnes (MMT) as against production of 34.20 MMT in 2018-19, showing a decline of 5.9%. Out of total crude oil & condensate production of 32.17 MMT in 2019-20, 64.1% (20.63 MMT) is from ONGC (nomination), 9.7% (3.11 MMT) from OIL (nomination) and 26.2% (8.44 MMT) from PSC regime.

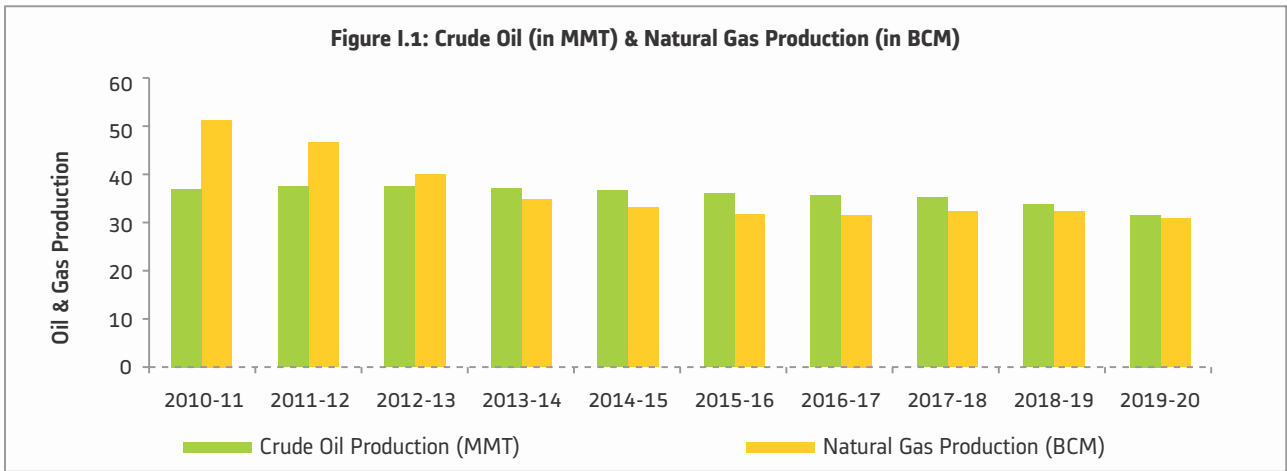
Natural Gas production during the year 2019-20 is at 31.18 Billion Cubic Meters (BCM) which is 5.1% lower than production of 32.87 BCM in 2018-19. Out of total natural gas production of 31.18 BCM in 2019-20, 76.1% (23.75 BCM) is from ONGC (nomination), 8.6% (2.67 BCM) from OIL (nomination) and 15.3% (4.77 BCM) from PSC regime. The reasons for lower domestic oil and gas production are inter-alia including declining production from old and marginal fields, unplanned shutdown and operational losses from few producing wells and less withdrawal of gas by some of the anchor customers.

The trends in the production of crude oil and natural gas for the year 2010-11 to 2019-20 have been depicted below:

Table-I.1: Crude Oil and Natural Gas Production

Year	Crude Oil Production (MMT)	% Growth in Crude Oil Production	Natural Gas Production (BCM)	% Growth in Natural Gas Production
2010-11	37.71	11.94	52.22	9.95
2011-12	38.09	1.00	47.56	-8.93
2012-13	37.86	-0.60	40.68	-14.47
2013-14	37.79	-0.19	35.41	-12.96
2014-15	37.46	-0.87	33.66	-4.94
2015-16	36.94	-1.39	32.25	-4.18
2016-17	36.01	-2.53	31.90	-1.09
2017-18	35.68	-0.90	32.65	2.36
2018-19	34.20	-4.15	32.87	0.69
2019-20	32.17	-5.95	31.18	-5.14
CAGR 2010-11 to 2019-20 (%)	-	-1.8	-	-5.6

P: Provisional



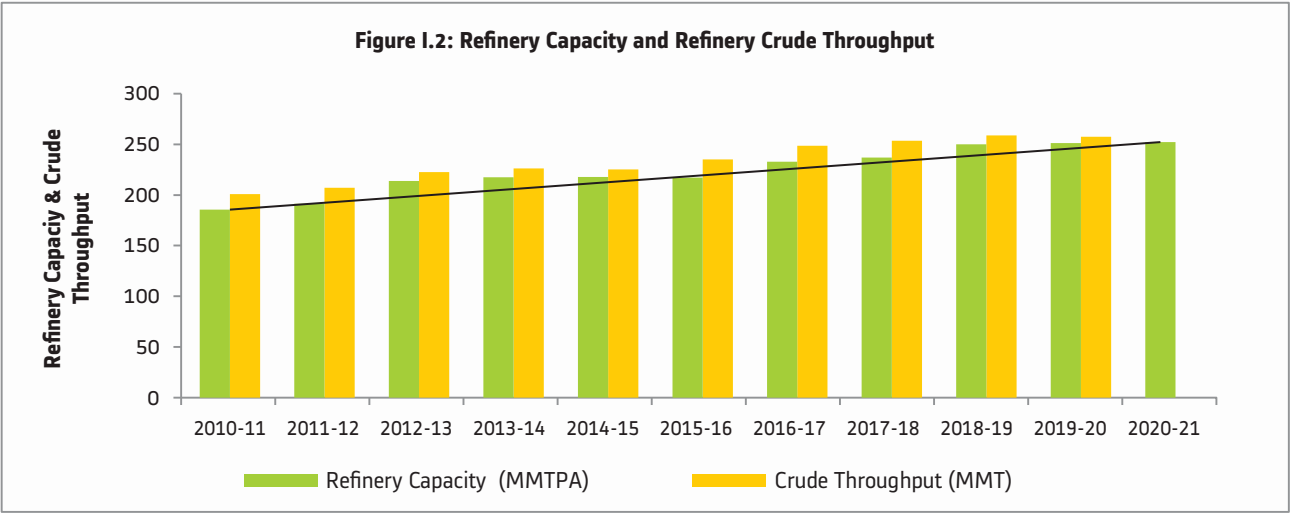
I.2 Refinery Capacity & Refinery Crude Throughput

Indian refinery industry has done well in establishing itself as a major player globally. India, which is fourth largest refiner in the world and second largest refiner in Asia after China, is emerging as a refinery hub with refining capacity exceeding demand. The country's refinery capacity has increased to 249.87 MMTPA as on 01.04.2020. Refinery capacity utilisation is 102.01% for the year 2019-20. Crude Oil Processed for the year 2019-20 is 254.39 MMT as against 257.20 MMT in 2018-19, showing a decrease of about 1.1%. This was mainly due to shutdown undertaken by few refineries. During 2019-20, most of refineries have undertaken/planned shutdowns for implementation of quality upgradation projects in line with the target of introduction of BS VI autofuels all over the country w.e.f. April 1, 2020. The trend in Refinery Capacity and Crude throughput during 2010-11 onwards are depicted in Table I.2 & Figure I.2.

Table I.2: Refinery Capacity & Refinery Crude Throughput (in terms of Crude Oil Processed)

Year	Refinery Capacity @ (MMTPA)	% Growth in Refinery Capacity	Crude Throughput (MMT)	% Growth in Crude Throughput	Refinery Capacity Utilization (%)
2010-11	183.39	4.22	196.99	5.60	107.42
2011-12	187.39	2.18	204.12	3.62	108.93
2012-13	213.07	13.70	219.21	7.39	102.88
2013-14	215.07	0.94	222.50	1.50	103.46
2014-15	215.07	0.00	223.24	0.33	103.80
2015-16	215.07	0.00	232.86	4.31	108.28
2016-17	230.07	6.97	245.36	5.37	106.65
2017-18	233.97	1.70	251.93	2.68	107.68
2018-19	247.57	5.81	257.20	2.09	103.89
2019-20 (P)	249.37	0.73	254.39	-1.10	102.01
2020-21	249.87	0.20	-	-	-
CAGR 2010-11 to 2019-20 (%)	-	3.5	-	2.9	-

P: Provisional @: As on 1st April of initial year.



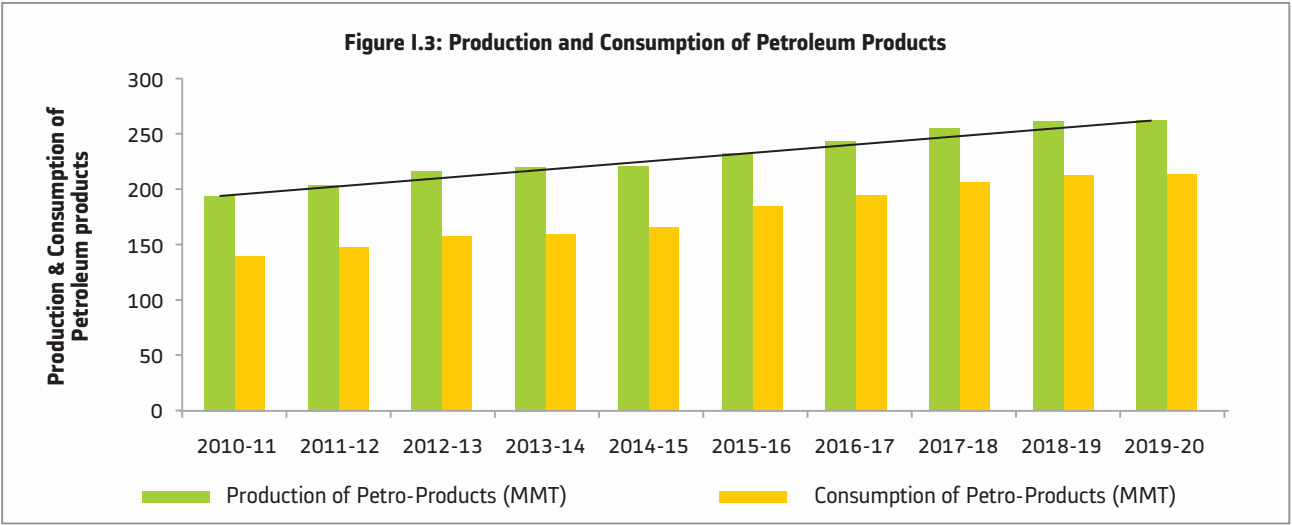
I.3 Production and Consumption of Petroleum Products:

The production of petroleum products is at 262.94 MMT in year 2019-20 as against 262.36 MMT achieved in 2018-19, showing marginally increase of about 0.22%. During the year 2019-20, the consumption of petroleum products in India was 214.13 MMT with a growth of 0.4% as compared to consumption of 213.22 MMT during 2018-19. During 2019-20, Diesel (HSD+LDO) accounted for the highest consumption share (38.9%) followed by Petrol/Motor Spirit (14.0%), LPG (12.3%), Petroleum Coke (10.1%), Naphtha (6.7%), ATF (3.7%), Bitumen (3.1%) Fuel Oil (2.9%), Lubes (1.8%) and Kerosene (1.1%). The trend in production and consumption of petroleum products during 2010-11 onwards are depicted in Table I.3 & Figure I.4.

Table I.3: Production and Consumption of Petroleum Products

Year	Production of Petro-Products (MMT)	% Growth in Production of Petro-Products	Consumption of Petro-Products (MMT)	% Growth in Consumption of Petro-Products
2010-11	194.82	5.53	141.04	2.35
2011-12	203.20	4.30	148.13	5.03
2012-13	217.74	7.15	157.06	6.02
2013-14	220.76	1.39	158.41	0.86
2014-15	221.14	0.17	165.52	4.49
2015-16	231.92	4.88	184.67	11.57
2016-17	243.55	5.01	194.60	5.37
2017-18	254.40	4.46	206.17	5.95
2018-19	262.36	3.13	213.22	3.42
2019-20 (P)	262.94	0.22	214.13	0.43
CAGR 2010-11 to 2019-20 (%)	-	3.4	-	4.7

P: Provisional



I.4 Import & Price of Crude Oil:

Import of crude oil during 2019-20 was 226.95 MMT valued at ₹ 717001 crore as against import of 226.50 MMT valued at ₹ 783183 crore in 2018-19 which marked an increase of 0.2% in quantity terms but 8.4% decrease in value terms as compared to the import of crude oil during 2018-19.

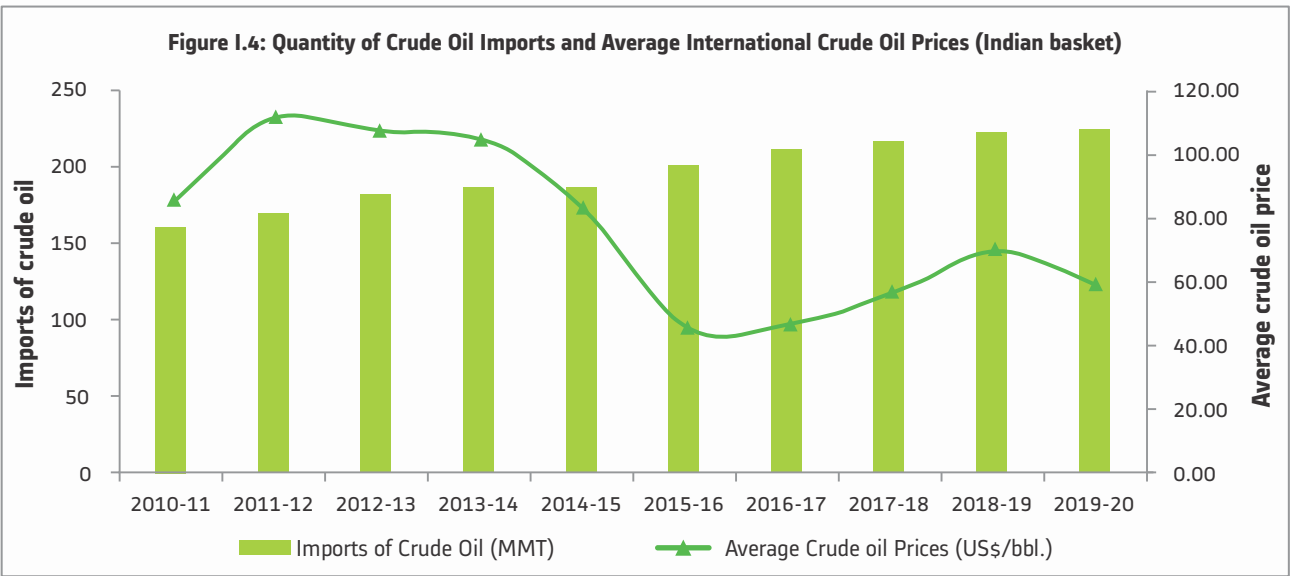
The prices of crude oil have shown a declining trend after July, 2014. As a result, the average price of Indian crude oil basket during 2015-16, 2016-17, 2017-18, 2018-19 and 2019-20 was recorded at \$46.17/bbl, \$47.56/bbl and \$56.43/bbl, \$69.88/bbl & \$60.47/bbl respectively. During 2019-20, the international crude oil price (Indian basket) dipped to 33.36 US \$/bbl in March, 2020. Since the price of crude oil in the international markets are quoted in US Dollars, the Indian ₹-US\$ exchange rate plays a vital role in the Indian context.

The trends in growth of crude oil imports and average crude oil international (Indian Basket) prices during 2010-11 onwards are depicted in table I.4 & Figure I.4 below:

Table I.4: Import of Crude Oil and average Crude Oil Prices

Year	Import of Crude Oil (MMT)	% Growth in Import of Crude Oil	Average Crude oil Prices (US\$/bbl.)	% Growth in Average Crude oil Prices
2010-11	163.60	2.72	85.09	21.97
2011-12	171.73	4.97	111.89	31.50
2012-13	184.80	7.61	107.97	-3.50
2013-14	189.24	2.40	105.52	-2.27
2014-15	189.43	0.10	84.16	-20.25
2015-16	202.85	7.08	46.17	-45.14
2016-17	213.93	5.46	47.56	3.02
2017-18	220.43	3.04	56.43	18.65
2018-19	226.50	2.75	69.88	23.84
2019-20	226.95	0.20	60.47	-13.46
CAGR 2010-11 to 2019-20 (%)	-	3.7	-	-3.7

P: Provisional



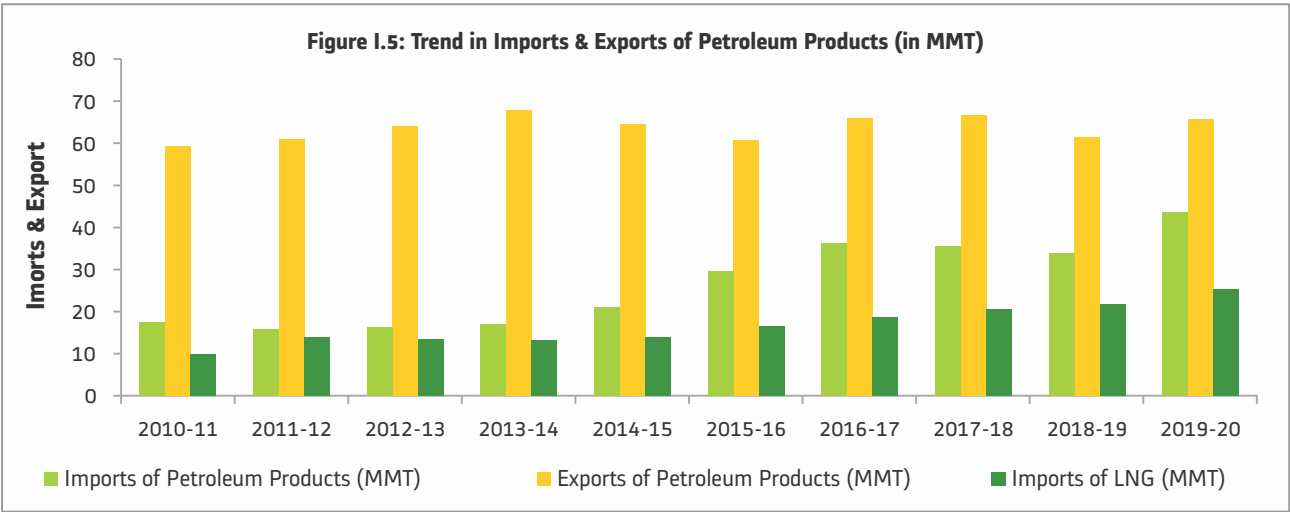
I.5 Imports & Exports of Petroleum Products:

The import of petroleum products having decreased to 43.79 MMT valued at ₹ 125742 crore which shows is 31.3% increase in quantity terms and 10.6% increase in value terms against 33.35 MMT imports of petroleum products valued at ₹ 113665 crore during 2018-19 while exports of petroleum products were 65.69 MMT valued at ₹ 254018 crore during which shows a increase of 7.51% in quantity terms but 5.11% decrease in value terms against the exports of 61.10 MMT valued at ₹ 267697 crore during 2018-19. The trend in imports/exports of petroleum products and LNG are depicted in Table I.5 & Figure I.5.

Table I.5: Imports & Exports if Petroleum Products

Year	Imports of Petroleum Products (MMT)	% Growth in Imports of Petroleum Products	Exports of Petroleum Products (MMT)	% Growth in Export of Petroleum Products	Imports of LNG (MMT)	% Growth in Imports of LNG
2010-11	17.38	18.51	59.08	15.49	9.93	8.56
2011-12	15.85	-8.80	60.84	2.98	13.58	36.77
2012-13	16.35	3.18	63.41	4.23	13.29	-2.13
2013-14	16.70	2.10	67.86	7.03	13.43	1.06
2014-15	21.30	27.57	63.93	-5.79	14.04	4.53
2015-16	29.46	38.28	60.54	-5.31	16.14	14.95
2016-17	36.29	23.19	65.51	8.22	18.75	16.18
2017-18	35.46	-2.28	66.83	2.01	20.71	10.42
2018-19	33.35	-5.96	61.10	-8.58	21.69	4.74
2019-20	43.79	31.30	65.69	7.51	25.57	17.90
CAGR 2010-11 to 2019-20 (%)	-	10.8	-	1.2	-	11.1

P: Provisional



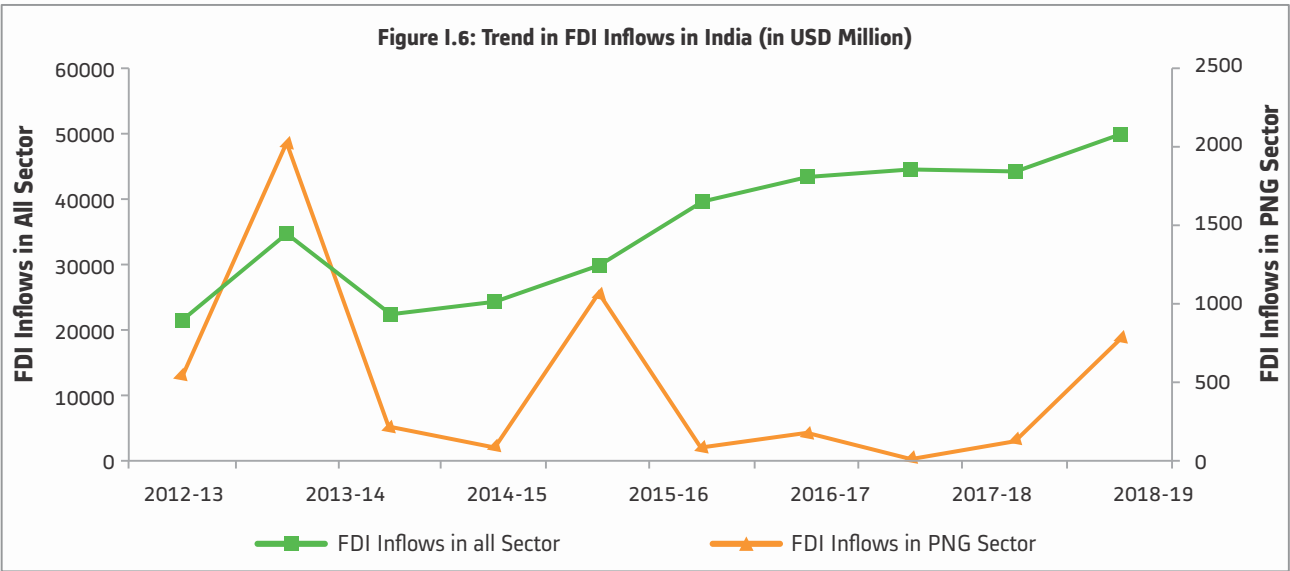
I.6 Foreign Direct Investment Inflows:

The Government of India permits Foreign Direct Investment (FDI) across the hydrocarbon value chain covering the upstream, downstream and midstream sectors. The present FDI policy for petroleum & natural gas sector allows 100% automatic route for exploration and production, refining by the private companies (for public sector companies 49% on automatic route without any disinvestment or dilution of domestic equity in the existing PSUs), marketing of petroleum products, pipelines, storage and LNG regasification infrastructure and all related services, subject to existing sectoral policy and regulatory framework in the oil and gas sector. Exploration and Production of oil and gas are capital intensive and high risk activities requiring use of expensive state-of-the-art technologies and best management practices. Accordingly, the Government is encouraging participation of the private sector, including foreign companies in exploration, production and transportation network for petroleum and natural gas, in order to supplement the domestic investment as well as the efforts of the national oil companies in meeting the rising demand of oil and gas and reducing import dependence. It may be observed that inflow of FDI in petroleum and natural gas has varied considerably over the years that could at least be partly due to the bulkiness of investments in the sector. During the year 2019-20, FDI inflow received was 806 USD Million in the P& NG Sector contributing 1.69% of total FDI inflow (49977 USD million) in the economy. The trend in FDI inflows under Oil & Gas Sector are depicted in Table I.6.

Table I.6: Year wise FDI inflows under Petroleum & Gas Sector

Years	FDI inflows (in US\$ Million)			
	All Sector	% Growth	P&NG Sector	% Growth
2010-11	21383	-17.23	556	109.55
2011-12	35121	64.25	2030	264.82
2012-13	22424	-36.15	215	-89.42
2013-14	24299	8.37	112	-47.75
2014-15	29737	22.38	1079	861.44
2015-16	40001	34.51	103	-90.45
2016-17	43478	8.69	180	75.10
2017-18	44857	3.17	24	-86.60
2018-19	44366	-1.09	138	472.50
2019-20 (P)	49977	12.65	806	482.07
CAGR 2010-11 to 2019-20 (%)	9.9	-	4.2	-

P: Provisional



I.7 Outlay for Ministry of Petroleum & Natural Gas:

Actual expenditure of Internal & Extra Budgetary Resources (IEBR) of oil and gas CPSEs in 2019-20 was ₹ 105603 crore against Budget Estimate (BE) of ₹ 93639 crore. CPSEs have achieved an actual expenditure of ₹ 105603 which is 112.78% of Actual to total BE 2019-20. Budget Estimates (BE) of IEBR of oil and gas CPSEs under Ministry of Petroleum & Natural Gas in 2020-21 is ₹ 98522 crore. The trend in Sector-wise IEBR of under Petroleum & Gas Sector is depicted in Table I.7.

Table I.7: Sector-wise IEBR (in ₹ Crore) under Petroleum & Gas Sector

Sector	2016-17	2017-18	2018-19	2019-20	2020-21
	Actual	Actual	Actual	Actual	BE
Exploration & Production Sector	72383	95455	49613	44769	52019
Refining & Marketing Sector	30524	32794	46990	56668	41654
Petro-Chemicals Sector	1446	3672	3487	3949	4754
Engineering Sector	74	83	219	217	95
Total	104426	132004	100309	105603	98522



I.8: Indian Economy-Selected Indicators

Indicator	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Gross Domestic Product1 :							
(i) At current prices (₹ Crore)	11233522	12467959	13771874	15362386	17098304	18971237	20339849
(ii) At constant prices (₹ Crore)	9801370	10527674	11369493	12298327	13175160	13981426	14565951
2. GVA at Basic Price1 :							
(i) At current prices (₹ Crore)	10363153	11504279	12574499	13935917	15513122	17139962	18343237
(ii) At constant prices (₹ Crore)	9063649	9712133	10491870	11318972	12074413	12803128	13301120
3. Per Capita NNI (Population in Million)1 :							
(i) At current prices (₹)	79118	86647	94797	104659	115293	126521	134226
(ii) At constant prices (₹)	68572	72805	77659	82931	87828	92085	94954
4. Foreign Exchange Reserves :							
(i) Gold (₹ Crore)	129620	119160	133430	128830	139740	159585	230527
(ii) SDR (₹ Crore)	26830	24940	9960	9380	10020	10076	10800
(iii) Foreign Currency Assets (₹ Crore)	1660910	1985460	2219060	2244940	2597570	2665564	3333815
(iv) Reserve Tranch Position (₹ Crore)	11020	8080	16290	15050	13520	20657	27013
5. Foreign Trade :							
(i) Import (₹ Crore)	2715434	2737087	2490306	2577675	3001033	3594675	3355762
(ii) Export(₹ Crore)	1905011	1896445	1716384	1849434	1956515	2307726	2218233
(iii) Balance of Trade (₹ Crore)	-810423	-840641	-773921	-728242	-1044519	-1286948	-1137530
6. Index:							
(i) Agricultural Production Index (2007-08=100)	130.8	125.1	120.8	132.8	139.4	136.9	142.4
(ii) Index of Industrial Production (2011-12=100)	106.7	111.0	114.7	120.0	125.3	130.1	129.0
(iii) Wholesale Price Index (2011-12=100)	112.5	113.9	109.7	111.6	114.9	119.8	121.8
(iv) Consumer Price Index of Industrial Workers (2001=100)	236.0	250.8	265.0	275.9	284.4	299.9	322.5
(v) Consumer Price Index of Agricultural Labourers (1986-87=100)	749.8	799.5	834.9	869.8	888.9	907.3	979.6
(vi) Consumer Price Index of Rural Labourers (1986-87=100)	750.5	802.2	839.4	875.0	895.1	915.1	986.0
7. Energy Generation (Gross) :							
Coal & Lignite (TMT)	565.765	609.179	639.230	657.868	675.400	728.718	729.100
Natural Gas (BCM)	35.407	33.657	32.249	31.897	32.649	32.873	31.184
Crude Oil (MMT)	37.788	37.461	36.942	36.009	35.684	34.203	32.169
Petroleum Products (MMT)	220.756	221.136	231.923	243.551	254.405	262.361	262.944
Electricity Generation (GWh)	1175637	1267129	1335956	1407404	1483232	1584853	1598398

Note: P:Provisional
1.Value for 2016-17 is 2nd Revised Estimates, for 2017-18 1st Revised Estimates and for 2018-19 is Provisional Estimates.
Source: Oil Companies, CEA,Ministry of Power, Ministry of Coal, MoSPI, RBI and Labour Bureau, Govt. of India,



I.9: Trends in Indian Petroleum Industry at a Glance

Item	Unit	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Production								
(i) Crude Oil	MMT	37.79	37.46	36.94	36.01	35.68	34.20	32.17
(ii) Natural Gas	BCM	35.41	33.66	32.25	31.90	32.65	32.87	31.18
(iii) Petroleum Products	MMT	220.76	221.14	231.92	243.55	254.40	262.36	262.94
2. Consumption								
(i) Crude Oil (in terms of refinery crude processed)	MMT	222.50	223.24	232.86	245.36	251.93	257.20	254.39
(ii) Natural Gas (including LNG)	BCM	52.37	51.30	52.52	55.70	59.17	60.80	64.14
(iii) Petroleum Products	MMT	158.41	165.52	184.67	194.60	206.17	213.22	214.13
3. Reserves (Balance Recoverable) as on 31st March								
(i) Crude Oil	MMT	647.34	635.59	621.28	604.10	594.49	618.94	603.36
(ii) Natural Gas	BCM	1199.10	1251.99	1227.50	1289.70	1339.57	1380.64	1371.89
4. Imports & Exports								
(i) Gross Imports :								
(a) Qty : Crude Oil	MMT	189.24	189.43	202.85	213.93	220.43	226.50	226.95
LNG	MMT	13.43	14.04	16.14	18.75	20.71	21.69	25.57
Pol. Products	MMT	16.70	21.30	29.46	36.29	35.46	33.35	43.79
Total (a)	MMT	219.37	224.78	248.45	268.97	276.60	281.54	296.30
(b) Value: Crude Oil	₹ Billion	8649	6874	4166	4702	5665	7832	7170
LNG	₹ Billion	535	584	450	411	521	719	674
Pol. Products	₹ Billion	759	746	654	716	884	1137	1257
Total (b)	₹ Billion	9942	8204	5270	5828	7069	9687	9101
(ii) Exports :								
(a) Qty : Pol. Products	MMT	67.86	63.93	60.54	65.51	66.83	61.10	65.69
(b) Value: Pol. Products	₹ Billion	3683	2886	1768	1949	2254	2677	2540
(iii) Net Imports :								
(a) Qty : Crude Oil	MMT	189.24	189.43	202.85	213.93	220.43	226.50	226.95
LNG	MMT	13.43	14.04	16.14	18.75	20.71	21.69	25.57
Pol. Products	MMT	-51.17	-42.63	-31.08	-29.23	-31.37	-27.75	-21.90
Total (a)	MMT	151.51	160.85	187.91	203.46	209.77	220.44	230.63
(b) Value: Crude Oil	₹ Billion	8649	6874	4166	4702	5665	7832	7170
LNG	₹ Billion	535	584	450	411	521	719	674
Pol. Products	₹ Billion	-2924	-2139	-1114	-1233	-1370	-1540	-1283
Total (b)	₹ Billion	6259	5318	3502	3879	4816	7010	6561
(iv) Unit Value of Crude oil imports(gross)	₹/MT	45703	36288	20536	21977	25697	34578	31592
(v) India's Total Imports	₹ Billion	27154	27371	24903	25777	30010	35947	33558
(vi) India's Total Exports	₹ Billion	19050	18964	17164	18494	19565	23077	22182
(vii) Petroleum Imports as % of India's total Imports	%	36.61	29.97	21.16	22.61	23.56	26.95	27.12
(viii) Petroleum Exports as % of India's total Exports	%	19.33	15.22	10.30	10.54	11.52	11.60	11.45
5. Contribution of Oil Sector to Centre/State Resources								
(i) Royalty from crude oil	₹ Crore	17212	16458	11432	12394	14821	17200	14726
(ii) Royalty from gas	₹ Crore	2127	1942	2481	1876	1737	2410	2566
(iii) Oil Development Cess	₹ Crore	18901	14491	18112	15558	16775	19402	15150
(iv) Excise & Custom duties	₹ Crore	73780	94239	173675	237675	222020	163162	226391
(v) Sales Tax	₹ Crore	129045	137157	142807	166414	185850	201265	200247
(vi) Dividend	₹ Crore	14237	13912	14614	33487	29801	30323	25685
(vii) GST	₹ Crore	-	-	-	-	4974	7961	7345

P: Provisional

Source: Oil & Gas Companies, PPAC, RBI, CBIC and Economic Survey



CHAPTER-II



Exploration & Production- Crude Oil & Natural Gas



CHAPTER HIGHLIGHTS

- With a view to explore oil and gas finds, over 4.91 lakh geological surveys have been conducted in India and 647 wells (of which 81.3% are development wells and 18.7% exploratory wells) with 14.42 lakh metreage area drilled by Oil & Gas Companies during 2019-20.
- Balance recoverable reserves of crude oil as on 01.04.2020 is 603.36 MMT, out of which 272.08 MMT (45.1%) are in offshore. ONGC (nomination) has the largest share of 71.9% in reserves of crude oil with OIL (nomination) and PSC regime contributing 12.4% and 15.8% respectively.
- The crude oil production during the year 2019-20 is at 32.17 Million Metric Tonnes (MMT) as against production of 34.20 MMT in 2018-19, showing a decline of 5.9%.
- Out of total crude oil & condensate production of 32.17 MMT in 2019-20, 64.1% (20.63 MMT) is from ONGC (nomination), 9.7% (3.11 MMT) from OIL (nomination) and 26.2% (8.44 MMT) from PSC regime.
- Maximum production of crude Oil and natural gas occurred in western offshore of ONGC around 45.1% and 56.6% respectively during 2019-20.
- Balance recoverable reserves of natural gas as on 01.04.2020 were 1371.89 BCM, out of which 880.92 BCM (64.2%) are in offshore. PSC regime has the largest share of 49.7% in natural gas reserves followed by with ONGC (nomination) and OIL (nomination) at 40.9% and 9.4% respectively.
- Natural Gas production during the year 2019-20 is at 31.18 Billion Cubic Meters (BCM) which is 5.1% lower than production of 32.87 BCM in 2018-19.
- Out of total natural gas production of 31.18 BCM in 2019-20, 76.1% (23.75 BCM) is from ONGC (nomination), 8.6% (2.67 BCM) from OIL (nomination) and 15.3% (4.77 BCM) from PSC regime.
- Total consumption of natural gas in 2019-20 stands at 64.14 BCM which is 5.5% higher than the consumption during the 2018-19 (60.80 BCM). The Sectorial sale of Gas was 56.44 BCM during 2019-20 which was 4.8% higher than the 2018-19 (53.84 BCM). 64.1 % gas was consumed for energy purpose as fuel and the balance 35.9% is used for non-energy purpose as feedstock for various industries.
- In 2019-20 highest consumption of natural gas was in fertilizer industry at 28.6% followed by power sector 19.5%, City & Local Natural Gas Distribution Network (including Road Transport) at 19.3% and refinery 13.8%.
- Oil and Gas production from assets abroad is 24.64 MMToE during 2019-20 which is 38.9% of domestic oil and gas production (63.35 MMToE).



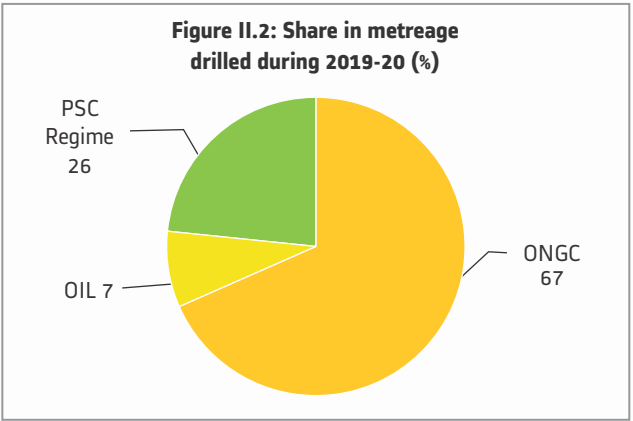
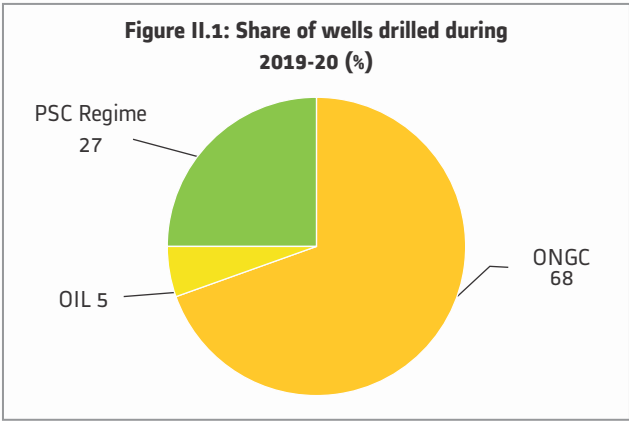
II.1: Area-wise Development of Deep Drilling Rigs, Wells & Metreage Drilled

Year	Onshore			Offshore			Total		
	Rigs	Wells	Metreage	Rigs	Wells	Metreage	Rigs	Wells	Metreage
	(Numbers)		('000')	(Numbers)		('000')	(Numbers)		('000')
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(A) Oil & Natural Gas Corporation Ltd. (Nomination)									
2013-14	73	273	587	39	82	222	112	355	809
2014-15	69	259	495	36	84	215	105	343	710
2015-16	71	271	556	34	54	134	105	325	689
2016-17	69	319	636	36	117	316	105	436	951
2017-18	70	331	659	37	108	283	107	439	942
2018-19	70	356	696	31	116	310	101	472	1006
2019-20 (P)	73	344	737	34	106	249	107	450	987
(B) Oil India Limited (Nomination)									
2013-14	15	34	105	-	-	-	15	34	105
2014-15	17	36	131	-	-	-	17	36	131
2015-16	20	44	143	-	-	-	20	44	143
2016-17	19	56	169	-	-	-	19	56	169
2017-18	19	39	135	-	-	-	19	39	135
2018-19	17	33	112	-	-	-	17	33	112
2019-20 (P)	17	36	118	-	-	-	17	36	118
(C) PSC Regime									
2013-14	34	210	344	20	45	156	54	255	500
2014-15	36	201	370	20	34	109	56	235	478
2015-16	27	110	209	12	27	78	39	137	286
2016-17	23	39	100	9	9	25	32	48	125
2017-18	23	53	120	10	14	31	33	67	152
2018-19	44	151	295	18	33	95	62	184	390
2019-20 (P)	26	131	260	11	30	77	37	161	337
Total (A+B+C)									
2013-14	122	517	1037	59	127	378	181	644	1415
2014-15	122	496	995	56	118	324	178	614	1319
2015-16	118	425	907	46	81	211	164	506	1118
2016-17	111	414	904	45	126	341	156	540	1246
2017-18	112	423	915	47	122	314	159	545	1228
2018-19	131	540	1103	49	149	404	180	689	1507
2019-20 (P)	116	511	1115	45	136	326	161	647	1442

Note: 1. Total may not tally due to rounding off

P: Provisional

Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd & DGH



II.2: Exploratory & Development Drilling by Oil Companies

Year	Exploratory		Development		Total	
	Wells	Metreage	Wells	Metreage	Wells	Metreage
	(Nos.)	('000')	(Nos.)	('000')	(Nos.)	('000')
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(A) Onshore						
2013-14	128	349	389	687	517	1037
2014-15	130	344	366	652	496	995
2015-16	105	320	320	587	425	907
2016-17	102	277	312	628	414	904
2017-18	85	266	338	649	423	915
2018-19	89	229	451	874	540	1103
2019-20 (P)	84	270	427	845	511	1115
(B) Offshore						
2013-14	44	155	83	223	127	378
2014-15	52	158	66	166	118	324
2015-16	40	105	41	106	81	211
2016-17	40	119	86	222	126	341
2017-18	59	149	63	165	122	314
2018-19	35	104	114	300	149	404
2019-20 (P)	37	102	99	224	136	327
Total (A+B)						
2013-14	172	505	472	910	644	1415
2014-15	182	502	432	817	614	1319
2015-16	145	425	361	693	506	1118
2016-17	142	396	398	850	540	1246
2017-18	144	414	401	814	545	1228
2018-19	124	333	565	1174	689	1507
2019-20 (P)	121	373	526	1069	647	1442

Note:

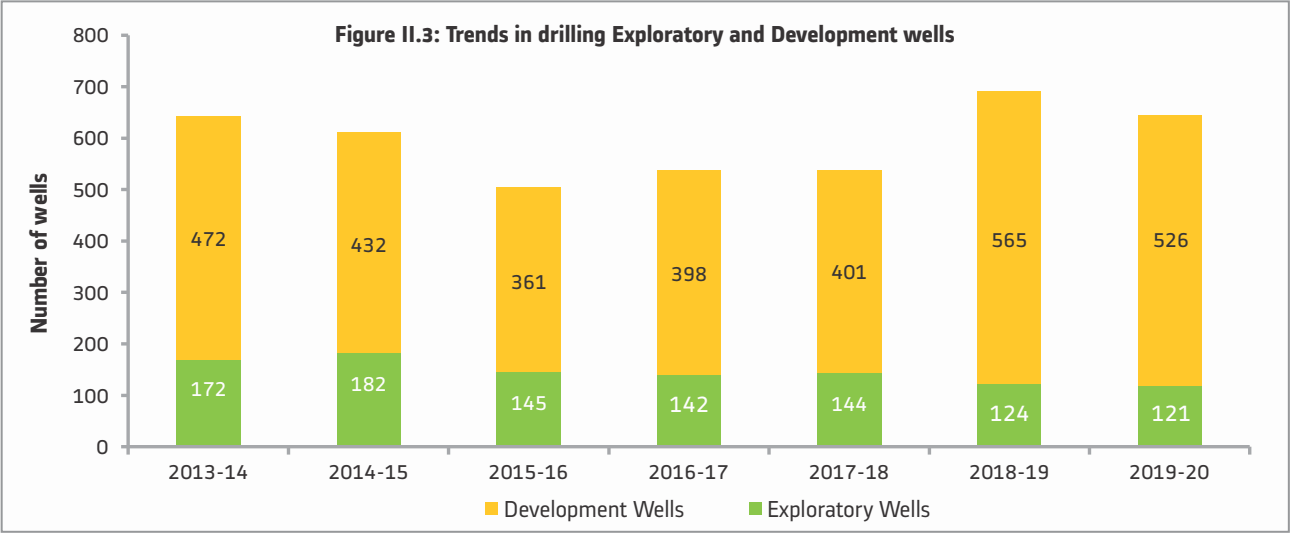
P: Provisional

1. Includes Water Disposal Wells and Non-Associated Gas Wells

2. Total may not tally due to rounding off

3. One well drilled in Pre-NELP Acreage with Metreage of 3.003 TMT from ONGC in 2018-19

Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd & DGH



II.3 Status of Wells (as on 01.04.2020)

Status	Offshore	Gujarat	Rajasthan	Assam & Arunachal Pradesh	Tripura	Andhra Pradesh	Tamilnadu	West Bengal (CBM)	Jharkhand (CBM)	Madhya Pradesh (CBM)	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
ONGC (Nomination)	1259	3207	0	439	0	43	84	0	0	0	5032
Oil (Nomination)	0	0	7	339	0	0	0	0	0	0	346
PSC & CBM Regime	36	132	312	30	0	4	6	0	0	0	520
Total-Flowing Oil Wells	1295	3339	319	808	0	47	90	0	0	0	5898
ONGC (Nomination)	139	80	0	10	83	86	73	0	0	0	471
Oil (Nomination)	0	0	15	83	0	0	0	0	0	0	98
PSC & CBM Regime	10	8	45	6	0	0	0	373	16	290	748
Total - Flowing Gas Wells	149	88	60	99	83	86	73	373	16	290	1317
Total Flowing Wells (a)	1444	3427	379	907	83	133	163	373	16	290	7215
ONGC (Nomination)	226	973	30	302	49	101	110	0	0	0	1791
Oil (Nomination)	0	0	25	385	0	0	0	0	0	0	410
PSC & CBM Regime	18	77	155	36	0	0	8	106	3	18	421
Total Non Flowing (b)	244	1050	210	723	49	101	118	106	3	18	2622
Total flowing + Non flowing well (a+b)	1688	4477	589	1630	132	234	281	479	19	308	9837
ONGC (Nomination)	1712	4052	58	1156	137	452	457	116	0	0	8140
Oil (Nomination)	0	0	22	801	0	10	0	0	0	0	833
PSC & CBM Regime	45	90	289	4	0	0	1	18	0	27	474
Other Flowing & Non flowing (c)	1757	4142	369	1961	137	462	458	134	0	27	9447
ONGC (Nomination)	3336	8312	88	1907	269	682	724	116	0	0	15434
Oil (Nomination)	0	0	69	1608	0	10	0	0	0	0	1687
PSC & CBM Regime	109	307	801	76	0	4	15	497	19	335	2163
Total (a+b+c)	3445	8619	958	3591	269	696	739	613	19	335	19284

Note: Others includes Injector well, abandoned, to be abandoned etc.
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd & DGH



II.4: State-wise Geological Surveys Achievements upto 31.03.2020

(in Numbers)

States	ONGC	OIL	Total Geological Surveys
(1)	(2)	(3)	(4)
Andhra Pradesh	53427	-	53427
A.N. Islands	6860	-	6860
Arunachal Pradesh	3692	9	3701
Assam	48073	7	48080
Bihar (incl. Jharkhand)	4035	-	4035
Gujarat (Gulf Of Cambay)	60625	-	60625
Himachal Pradesh	9948	-	9948
Jammu & Kashmir	31970	-	31970
Kerala-Karnataka (incl. Goa)	4000	-	4000
Madhya Pradesh	117920	-	117920
Chhattisgarh	5920	-	5920
Manipur	2781	1	2782
Meghalaya	1911	1	1912
Mizoram	6194	10	6204
Nagaland	6971	3	6974
Odisha	-	-	0
Rajasthan	46501	-	46501
Sikkim	720	-	720
Tamil Nadu (Incl. Puducherry)	20003	-	20003
Tripura	21263	-	21263
Uttar Pradesh (incl. Uttarakhand)	29797	-	29797
West Bengal	8808	-	8808
Maharashtra	-	-	0
Eastern offshore	-	-	0
Western offshore	-	-	0
Total	491419	31	491450

Source: Oil and Natural Gas Corporation Limited & Oil India Limited



II.5: State-wise Achievements of Geophysical Field Parties in India since inception upto 31.03.2020

Area/ State	ONGC (Nomination)		OIL (Nomination)		PSC + RSC (Including DSF) Regime		Grand Total	
	2D (LKM)	3D (SKM)	2D (LKM)	3D (SKM)	2D (LKM)	3D (SKM)	2D (LKM)	3D (SKM)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)
(A) Onshore								
Andhra Pradesh	39166	10392	0	0	1271	1497	40436	11889
Arunachal Pradesh	0	0	3393	268	52	114	3445	382
Assam ¹	31650	4715	24508	7904	4003	2464	60161	15082
Bihar ²	6566	0	0	0	2423	947	8989	947
Chhattisgarh	202	0	0	0	0	0	202	0
Gujarat	104712	11307	0	0	7449	7289	112162	18595
Himachal Pradesh	3785	0	0	0	810	0	4595	0
Haryana	1038	0	0	0	0	0	1038	0
Jammu & Kashmir	2563	0	0	0	0	0	2563	0
Madhya Pradesh	10021	1189	0	0	2911	310	12932	1500
Maharashtra	0	0	0	0	476	0	476	0
Manipur	0	0	0	0	210	0	210	0
Meghalaya	205	0	0	0	0	0	205	0
Mizoram	35	0	0	0	1526	613	1561	613
Nagaland	602	6	0	0	0	0	602	6
Odisha	313	0	4278	0	470	0	5061	0
Punjab	4078	0	0	0	0	0	4078	0
Rajasthan	20571	1633	11570	729	18714	16986	50855	19349
Tamil Nadu	41031	8269	0	0	1710	2763	42740	11033
Telangana	0	0	0	0	195	0	195	0
Tripura	6327	1175	0	0	1688	71	8015	1245
Uttar Pradesh	26798	0	6223	0	2860	211	35880	211
Uttarakhand	1522	0	0	0	0	0	1522	0
West Bengal	29227	596	0	0	4376	3591	33602	4187
Total(A)	330411	39282	49970	8901	51143	36856	431524	85039
(B) Offshore								
Andaman	0	0	14043	0	0	0	14043	0
Saurashtra	0	0	8767	332	0	0	8767	332
Eastern offshore	117515	8100	0	0	226001	195171	343516	203271
Western offshore	434940	83106	0	0	116631	69040	551571	152145
Total(B)	552454	91206	22810	332	342632	264211	917896	355749
Total	882865	130488	72780	9233	393775	301067	1349420	440787

Note: Total may not tally due to round off. LKM: Line Kilometre SKM: Square Kilometre

1. Excludes 387.81 LKM in Pre-NELP acreage (Assam) in ONGC's 2D LKM.
2. Geophysical fields of Pvt./JVs in State of Bihar include Jharkhand
3. Figures not strictly comparable with earlier issues of publication prior to 2015-16 due to change in nomenclature, rationalisation and classification of reporting.

Source: Oil & Natural Gas Corporation Ltd.,Oil India Ltd. and DGH



II.6: Basin-wise / State-wise Achievements of Drilling since inception upto 31.03.2020

Basin	State / Region	Wells	Metreage
		Numbers	('000')
(1)	(2)	(3)	(4)
(A) Onshore		16472	34872
Cambay	Gujarat	8724	15040
Kutch	Gujarat	5	3662
Rajasthan	Rajasthan	1359	2414
Vindhyan	Rajasthan	5	14
	Madhya Pradesh	2	5
Total WRBC		10095	17484
Upper Assam	Nagaland	37	131
	Assam	4376	11679
Mahanadi	Meghalaya	3	6
	Odisha	4	11
Fold Belt	Mizoram under ERBC	6	21
	Arunachal Pradesh	59	195
Assam-Arakan	Tripura	292	843
Total ERBC		4777	12886
Foot hills & Ganga Valley	West Bengal	64	182
Ganga Valley	Bihar	9	37
	West Bengal	3	9
Satpura-South Rewa-Damodar	Madhya Pradesh	2	6
Total CRBC		78	233
Himalayan Foot-hills,	Himachal Pradesh	16	60
	Punjab	4	16
Ganga Valley &	Uttar Pradesh	10	35
	Madhya Pradesh	20	58
Vindhyan/Gondwana/Ganga	Jammu & Kashmir	4	12
Total NRBC		54	181
Krishna-Godavari	Andhra Pradesh	705	2124
Pranhita-Godavari	Andhra Pradesh	1	3
Cauvery	Tamil Nadu	762	1960
Total SRBC		1468	4087
(B) Offshore		4090	10743
East Coast(SW+DW)	East Coast including KG, Cauvery	682	2227
West Coast(SW+DW)	West Coast including drilling in	3391	8450
	Orissa, Andaman & Saurashtra	17	66
Total (A+B)		20562	45615

Note: All figures are provisional

WRBC: Western Region Basin Coast, CRBC: Central Region Basin Coast, SRBC: Southern Region Basin Coast, NRBC: Northern Region Basin Coast, ERBC: Eastern Region Basin Coast

Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.7 State-wise/Basin -wise Oil Fields in India (as on 31.03.2020)

(in Numbers)

Company / State	Basin	Oil Fields	Gas Fields	Oil and Gas Fields	Total Fields
(1)	(2)	(3)	(4)	(5)	(6)
A. Oil & Natural Gas Corporation Ltd. (Nomination)					
Gujarat	Cambay	45	4	33	82
Assam	Upper Assam	22	1	10	33
Assam	A&AA	1	4	-	5
Rajasthan	Jodhpur	-	6	-	6
Andhra Pradesh	K.G. Basin	10	41	7	58
Tamil Nadu	Cauvery	8	9	12	29
Tripura	AAFB	-	9	-	9
Nagaland	A&AA	1	-	1	2
Madhya Pradesh	Vindhyan Basin	-	1	-	1
Total Onshore		87	75	63	225
East Coast	Cauvery Offshore	-	1	-	1
East Coast	KG Offshore(Shallow)	2	7	4	13
East Coast	KG Offshore(Deep)	1	4	2	7
West Coast	Cambay	2	-	-	2
West Coast	Mumbai Offshore	30	19	38	87
West Coast	Kutch	-	2	1	3
Total Offshore		35	33	45	113
Total (A)		122	108	108	338
B. Oil India Ltd. (Nomination)					
Assam	Upper Assam	0	0	14	14
Arunachal Pradesh	Upper Assam	0	0	1	1
Rajasthan	Jaisalmer	0	0	3	3
Bikaner Nagur		0	0	1	1
Total (B)		0	0	19	19
C. PSC Regime					
Andhra Pradesh	Krishna Godavari	1	0	0	1
Arunachal Pradesh	Assam-Arakan	1	0	0	1
Assam	Assam-Arakan	1	1	0	2
Tripura	Assam-Arakan	0	2	0	2
Gujarat	Cambay	39	7	1	47
Madhya Pradesh*	Sohagpur	0	2	0	2
Jharkhand*	Jharia	0	1	0	1
Jharkhand*	Bokaro	0	1	0	1
Rajasthan	Rajasthan	20	2	0	22
Tamil Nadu	Cauvery	2	1	0	3
West Bengal*	Ranigunj	0	2	0	2
Total Onshore+CBM		64	19	1	84
East Coast	Cauvery	1	1	0	2
East Coast	Krishna Godavari	1	6	1	8
West Coast	Mumbai	0	2	0	2
West Coast	Cambay	1	2	2	5
Total Offshore		3	11	3	17
Total (C)		67	30	4	101
Grand Total (A+B+C)		189	138	131	458

A&AA : Assam & Assam Arakan.

*: CBM Fields

AAFB: Assam Arakan Fold Belt

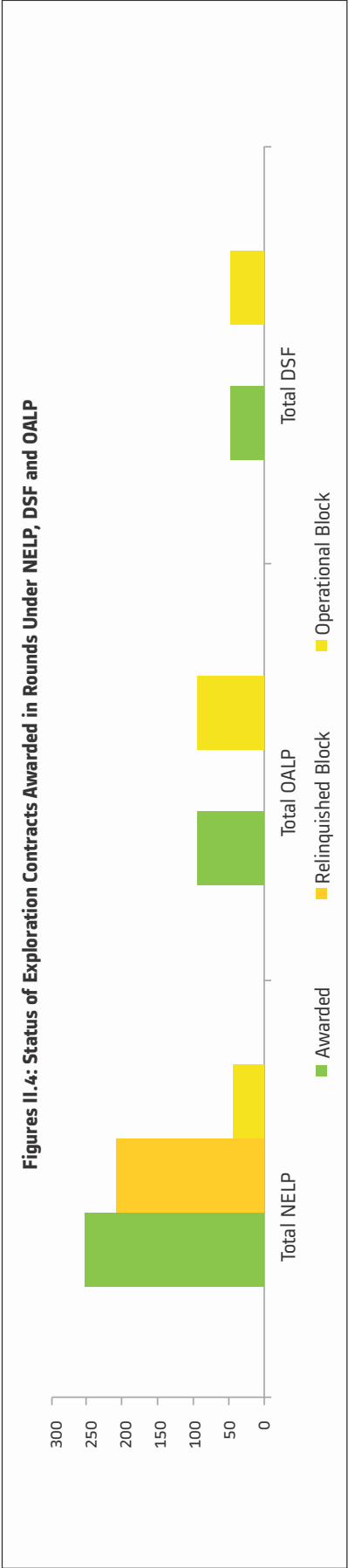
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.8: Exploration Contracts Awarded in Rounds Under NELP, DSF and OALP

Round	Offered Block/ Contract Area	RSC/PSC Signed for Blocks				Relinquished Block				Operational Block				Area Awarded (Sq. Km)
		Ultra Deep/ Deep Water	Shallow Water	Onland	Total	Ultra Deep/ Deep Water	Shallow Water	Onland	Total	Ultra Deep/ Deep Water	Shallow Water	Onland	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
NELP-I	48	7	16	1	24	5	15	1	21	2	1	0	3	231527
NELP-II	25	8	8	7	23	8	8	6	22	0	0	1	1	267883
NELP-III	27	9	6	8	23	9	5	5	19	0	1	3	4	204588
NELP-IV	24	10	0	10	20	10	0	7	17	0	0	3	3	192810
NELP-V	20	6	2	12	20	6	1	9	16	0	1	3	4	115180
NELP-VI	55	21	6	25	52	21	4	19	44	0	2	6	8	306369
NELP-VII	57	11	7	23	41	11	4	17	32	0	3	6	9	112950
NELP-VIII	70	8	11	13	32	8	9	11	28	0	2	2	4	52573
NELP-IX	34	1	3	15	19	1	2	8	11	0	1	7	8	26417
Total NELP	360	81	59	114	254	79	48	83	210	2	11	31	44	1510298
OALP-I	55	1	8	46	55	0	0	0	0	1	8	46	55	59283
OALP-II	14	1	5	8	14	0	0	0	0	1	5	8	14	29233
OALP-III	23	1	3	14	18	0	0	0	0	1	3	14	18	29765
OALP-IV	7	0	0	7	7	0	0	0	0	0	0	7	7	18510
Total OALP	99	3	16	75	94	0	0	0	0	3	16	75	94	136791
DSF-I	46	0	7	23	30	0	0	0	0	0	7	23	30	777
DSF-II	25	0	14	9	23	0	0	0	0	0	14	9	23	3000
Total DSF	71	0	21	32	53	0	0	0	0	0	21	32	53	3776

Source: DGH



II.9: State-wise/Area-wise Balance Recoverable Reserves of Crude Oil

State/Region	2014	2015	2016	2017	2018	2019	2020 (P)	% of Total (2020)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. State-wise Reserves of Crude Oil (MMT)								
Andhra Pradesh	10.73	10.94	10.90	8.15	7.94	8.05	7.85	1.30
Arunachal Pradesh	2.95	1.64	1.73	1.52	1.74	2.67	3.12	0.52
Assam	169.25	165.91	160.78	159.95	160.34	158.62	155.45	25.76
Gujarat	118.09	119.41	121.16	118.61	118.20	119.63	118.60	19.66
Nagaland	2.38	2.38	2.38	2.38	2.38	2.38	2.38	0.39
Rajasthan	44.99	37.32	31.72	24.55	17.99	40.71	34.78	5.76
Tamil Nadu	8.43	8.47	8.99	9.00	9.16	9.21	9.03	1.50
Tripura	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.01
Eastern Offshore	34.75	34.19	36.39	40.67	40.42	42.34	42.05	6.97
Western Offshore	255.70	255.27	247.13	239.20	236.25	235.27	230.04	38.13
Total Reserves of Crude Oil	647.34	635.59	621.28	604.10	594.49	618.94	603.36	100.00
2. Entity-wise Reserves of Crude Oil (MMT)								
Onshore	356.89	346.13	337.75	324.23	317.82	341.33	331.28	54.91
of which								0.00
ONGC-Nomination	212.08	212.40	209.78	208.98	206.36	207.98	206.03	34.15
OIL-Nomination	86.04	83.23	80.74	78.71	78.59	76.05	74.57	12.36
Pvt/JVs-PSC Regime	58.77	50.50	47.22	36.54	32.87	57.31	50.68	8.40
Offshore	290.45	289.46	283.53	279.86	276.67	277.60	272.08	45.09
of which								0.00
ONGC-Nomination	239.83	241.56	234.85	228.30	225.08	223.52	227.58	37.72
Pvt/JVs-PSC Regime	50.62	47.90	48.68	51.56	51.59	54.08	44.50	7.38
Total Reserves of Crude Oil	647.34	635.59	621.28	604.10	594.49	618.94	603.36	100.00
of which								
ONGC-Nomination	451.91	453.96	444.63	437.28	431.44	431.50	433.61	71.87
OIL-Nomination	86.04	83.23	80.74	78.71	78.59	76.05	74.57	12.36
Pvt/JVs-PSC Regime	109.39	98.40	95.90	88.11	84.46	111.39	95.18	15.78

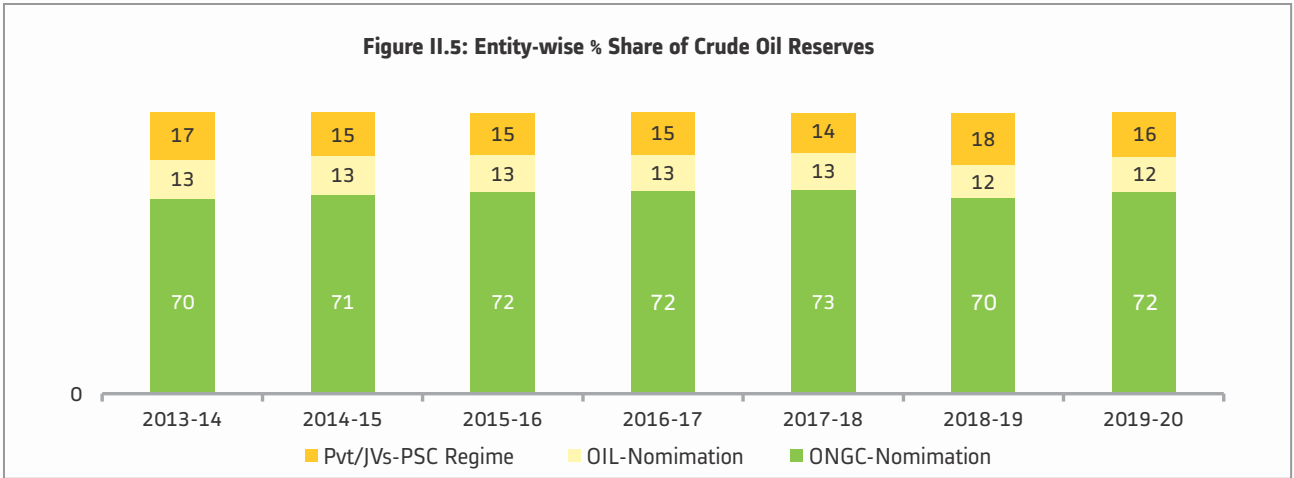
Notes: 1. Proved and indicated Balance Recoverable Reserves as on 1st April.

P: Provisional

2. Western offshore includes Gujarat offshore

3. Total may not tally due to rounding off

Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.10: Production of Crude Oil & Condensate (Calendar Year-wise)

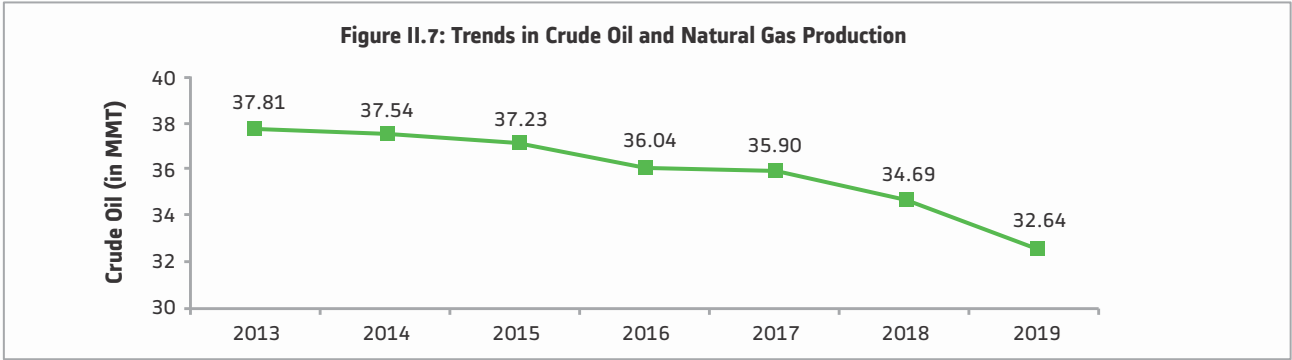
State/Region	2013	2014	2015	2016	2017	2018	2019 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. State-wise Crude Oil Production (TMT)							
Andhra Pradesh	301	258	295	273	322	299	252
Arunachal Pradesh	116	84	57	58	52	43	52
Assam	4869	4492	4239	4153	4341	4353	4113
Gujarat	5230	4751	4444	4590	4597	4622	4675
Rajasthan	8549	9059	8674	8288	7876	7832	7024
Tamil Nadu	225	237	255	269	341	375	415
Offshore	18519	18662	19271	18412	18369	17163	16111
Total	37810	37541	37235	36042	35898	34687	32641
of which							
Crude Oil Production	35795	35887	35751	34592	34302	32969	30958
Condensate Production	2015	1654	1485	1450	1596	1718	1683
2. Entity-wise Crude Oil Production (TMT)							
Onshore	19291	18879	17964	17630	17529	17524	16531
of which							
ONGC-Nomination	6860	6243	5804	5913	6016	6053	6064
OIL-Nomination	3644	3359	3284	3206	3376	3344	3131
Pvt/JVs-PSC Regime	8788	9277	8876	8512	8137	8127	7336
Offshore	18519	18662	19271	18412	18369	17163	16111
of which							
ONGC-Nomination	15639	16009	16615	16199	16422	15256	14457
Pvt/JVs-PSC Regime	2880	2653	2656	2212	1947	1907	1653
Total Crude Oil Production*	37810	37540	37235	36042	35898	34687	32641
of which							
ONGC-Nomination	22498	22252	22420	22112	22438	21309	20521
OIL-Nomination	3644	3359	3284	3206	3376	3344	3131
Pvt/JVs-PSC Regime	11668	11930	11531	10724	10084	10035	8989

Note: Total may not tally due to rounding off

P: Provisional

*:Included Condensate

Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.11: Production of Crude Oil and Condensate (Financial Year-wise)

State/Region	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% variation in 2019-20 over 2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. State-wise Crude Oil Production (TMT)*								
Andhra Pradesh	297	254	295	276	322	296	243	-18.0
Arunachal Pradesh	111	76	57	55	50	43	56	30.2
Assam	4710	4466	4185	4203	4345	4309	4093	-5.0
Gujarat	5061	4653	4459	4605	4591	4626	4707	1.8
Rajasthan	9180	8848	8602	8165	7887	7667	6653	-13.2
Tamil Nadu	226	240	255	284	345	395	415	5.0
Offshore	18203	18924	19089	18421	18145	16868	16003	-5.1
Total	37788	37461	36942	36009	35684	34203	32169	-5.9
of which								
Crude Oil Production	35865	35891	35500	34501	34045	32474	30523	-6.0
Condensate Production	1923	1570	1442	1508	1639	1729	1646	-4.8
2. Entity-wise Crude Oil Production (TMT)*								
Onshore	19585	18537	17853	17588	17540	17336	16166	-6.7
of which								
ONGC-Nomination	6705	6069	5817	5934	6010	6074	6090	0.3
OIL-Nomination	3466	3412	3226	3258	3376	3293	3107	-5.7
Pvt/JVs-PSC Regime	9414	9056	8810	8396	8154	7969	6969	-12.5
Offshore	18203	18924	19089	18421	18145	16868	16003	-5.1
of which								
ONGC-Nomination	15541	16195	16543	16284	16240	14969	14537	-2.9
Pvt/JVs-PSC Regime	2663	2729	2546	2137	1905	1899	1466	-22.8
Total Crude Oil Production*	37788	37461	36942	36009	35684	34203	32169	-5.9
of which								
ONGC-Nomination	22246	22264	22360	22218	22249	21042	20627	-2.0
OIL-Nomination	3466	3412	3226	3258	3376	3293	3107	-5.7
Pvt/JVs-PSC Regime	12076	11785	11356	10532	10059	9868	8436	-14.5

Note: Total may not tally due to rounding off

P: Provisional

*:Included Condensate

Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH

Figure II.7: State wise % share of Crude Oil Production during 2019-20

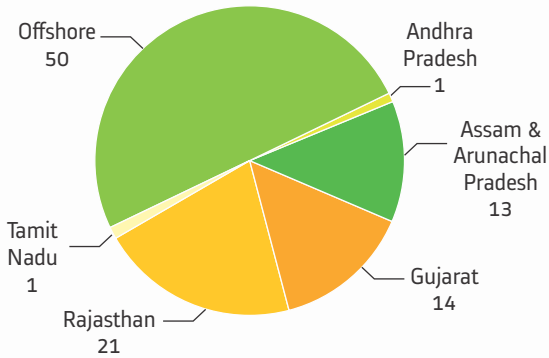
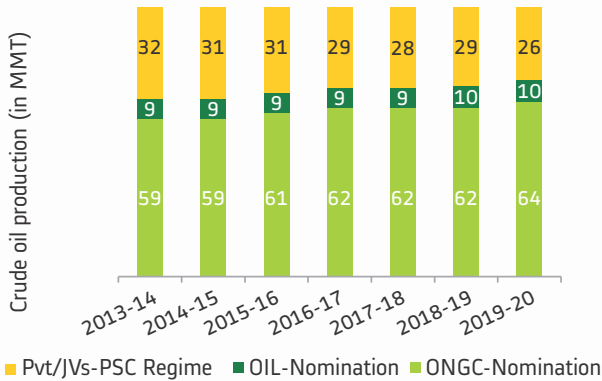


Figure II.8: Entity-wise % Share of Crude Oil Production

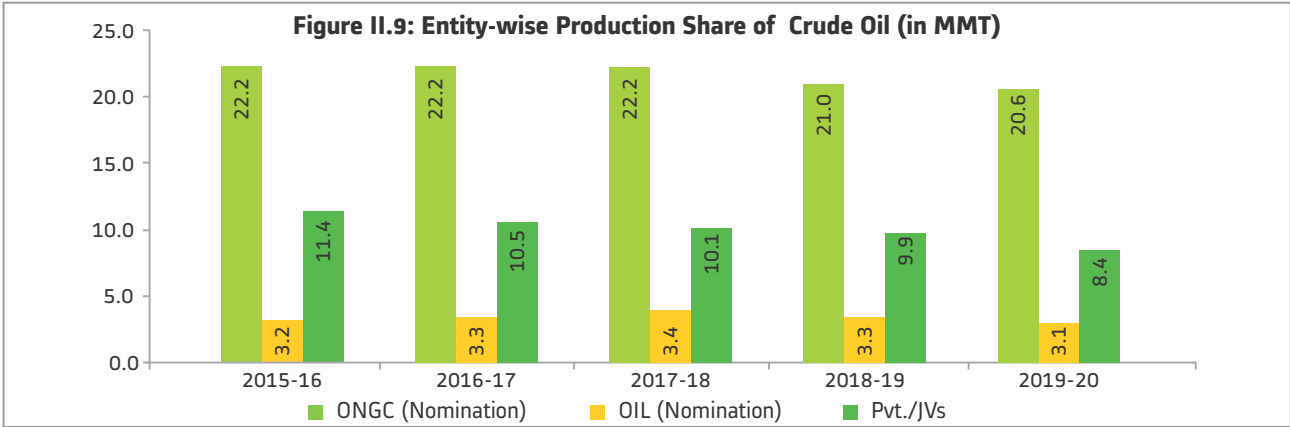


II.12: Basin-wise Production of Crude Oil

(Figures in TMT)

Basin	State	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% Share of Total 2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crude Oil Production by Oil and Natural Gas Corporation							
Western Offshore *	Maharashtra	16516	16268	16231	14950	14517	45.1
Krishna Godavari Offshore (Eastern offshore)	Andhra Pradesh	27	16	8	18	19	0.1
Western Onland	Gujarat	4309	4468	4452	4492	4574	14.2
Assam & Assam Arakan	Assam	965	953	975	993	987	3.1
Krishna Godavari	Andhra Pradesh	295	276	322	285	202	0.6
Cauvery	Tamilnadu	248	238	262	303	328	1.0
ONGC-Nomination		22360	22218	22249	21042	20627	64.1
ONGC-NELP/JVs Share		3568	3316	3186	3189	2726	8.5
Total ONGC's Crude Oil Production		25927	25534	25435	24231	23353	72.6
Crude Oil Production by Oil India Ltd.							
Assam-Arakan	Assam	3220	3250	3367	3282	3075	9.6
Assam-Arakan	Arunachal Pradesh	6	8	7	9	23	0.1
Rajasthan	Rajasthan	0	0	2	3	8	0.0
OIL-Nomination		3226	3258	3376	3293	3107	9.7
OIL-JVs Share		21	19	17	14	26	0.1
Total OIL's Crude Oil Production		3247	3277	3393	3307	3133	9.7
Crude Oil Production in PSC Regime							
Krishna Godavari Offshore (Eastern offshore)	Andhra Pradesh	1231	960	815	634	537	1.7
Cauvery Offshore (Eastern offshore)	Tamilnadu	2	2	4	2	1	0.0
Cambay (Offshore)	Gujarat Offshore	411	382	399	736	591	1.8
Mumbai Offshore (Western Offshore)	Western Offshore	903	793	687	527	338	1.1
KG Onshore	Andhra Pradesh	0	0	0	11	41	0.1
Assam-Arakan	Arunachal Pradesh	52	48	43	34	32	0.1
	Assam	0	0	3	34	30	0.1
Cambay	Gujarat	150	137	139	133	133	0.4
Rajasthan	Rajasthan	8602	8165	7885	7664	6645	20.7
Cauvery	Tamilnadu	7	46	83	92	87	0.3
Pvt./JVs-Crude Oil Production in PSC Regime		11356	10532	10059	9868	8436	26.2
Total Crude Oil Production		36942	36009	35684	34203	32169	100.0

Note: Total may not tally due to rounding off
* Condensate receipt at Uran & Hazira included in Western Offshore Basin of Maharashtra
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.13: State-wise/Area-wise Balance Recoverable Reserves of Natural Gas

Area/State	2014	2015	2016	2017	2018	2019	2020 (P)	% of Total (2019)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. State-wise Reserves of Natural Gas (BCM)								
Andhra Pradesh	42.32	41.79	42.03	48.31	59.89	63.57	63.85	4.65
Arunachal Pradesh	0.81	0.79	0.95	0.72	1.26	1.64	2.72	0.20
Assam	140.04	149.38	153.76	158.57	161.65	170.71	166.60	12.14
Gujarat	65.07	63.79	63.06	62.28	58.23	59.44	57.13	4.16
Jharkhand (CBM)	28.91	29.01	28.23	8.11	8.11	8.10	8.41	0.61
Madhya Pradesh (CBM)	32.13	32.13	32.12	32.11	31.91	31.55	31.21	2.27
Nagaland	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.01
Rajasthan	13.97	36.93	35.66	34.86	54.85	63.03	61.80	4.51
Tamil Nadu	36.74	35.36	31.68	31.98	39.11	38.00	37.09	2.70
Tripura	30.27	30.74	28.28	36.10	35.20	23.24	29.45	2.15
West Bengal (CBM)	39.55	39.33	66.24	66.45	65.92	32.91	32.61	2.38
Eastern Offshore	449.47	467.65	451.46	507.76	510.83	565.15	556.33	40.55
Western Offshore	319.72	325.01	293.96	302.35	312.52	323.19	324.60	23.66
Total Reserves of Natural Gas	1199.10	1251.99	1227.50	1289.70	1339.57	1380.64	1371.89	100.00
2. Entity-wise Reserves of Natural Gas (BCM)								
Onshore	429.90	459.33	482.09	479.59	516.22	492.30	490.97	35.79
of which								
ONGC-Nomination	205.71	201.75	190.86	195.42	212.19	212.28	211.17	43.01
OIL-Nomination	109.18	114.52	119.46	123.65	124.99	127.06	129.18	26.31
Pvt/JVs-PSC Regime	115.01	143.06	171.77	160.52	179.04	152.95	150.62	30.68
Offshore	769.20	792.66	745.41	810.10	823.35	888.34	880.92	64.21
of which								
ONGC-Nomination	330.23	338.93	327.28	338.12	348.22	348.25	349.45	39.67
Pvt/JVs-PSC Regime	438.97	453.73	418.13	471.98	475.13	540.09	531.47	60.33
Total Reserves of Natural Gas	1199.10	1251.99	1227.50	1289.70	1339.57	1380.64	1371.89	100.00
of which								
ONGC-Nomination	535.94	540.68	518.14	533.54	560.41	560.53	560.62	40.86
OIL-Nomination	109.18	114.52	119.46	123.65	124.99	127.06	129.18	9.42
Pvt/JVs-PSC Regime	553.98	596.79	589.91	632.50	654.18	693.05	682.09	49.72

Notes: 1. Proved and indicated Balance Recoverable Reserves as on 1st April.

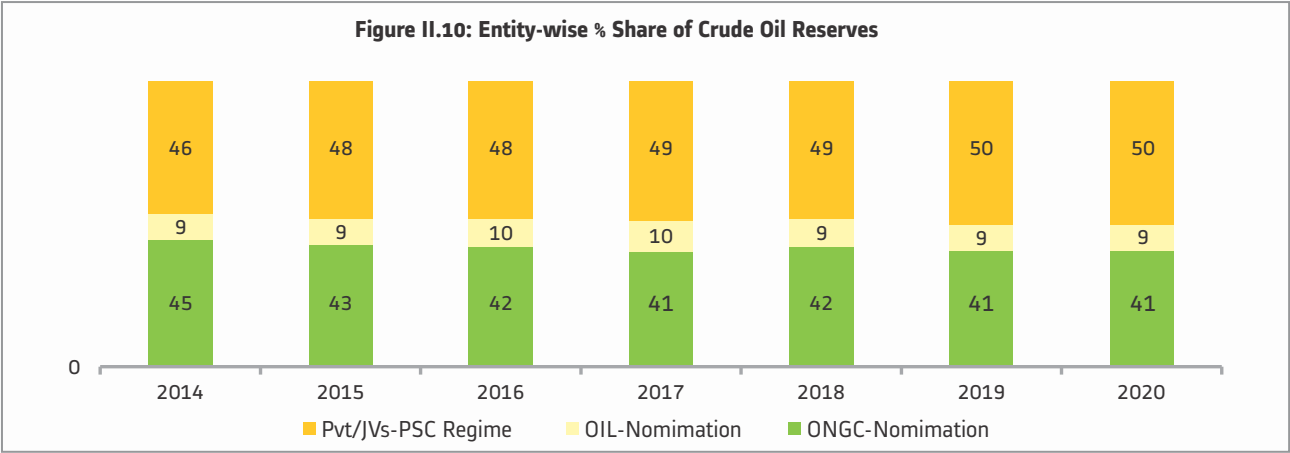
P: Provisional

2. Western offshore includes Gujarat offshore

3. Total may not tally due to rounding off

4. Total gas reserves includes CBM reserves.

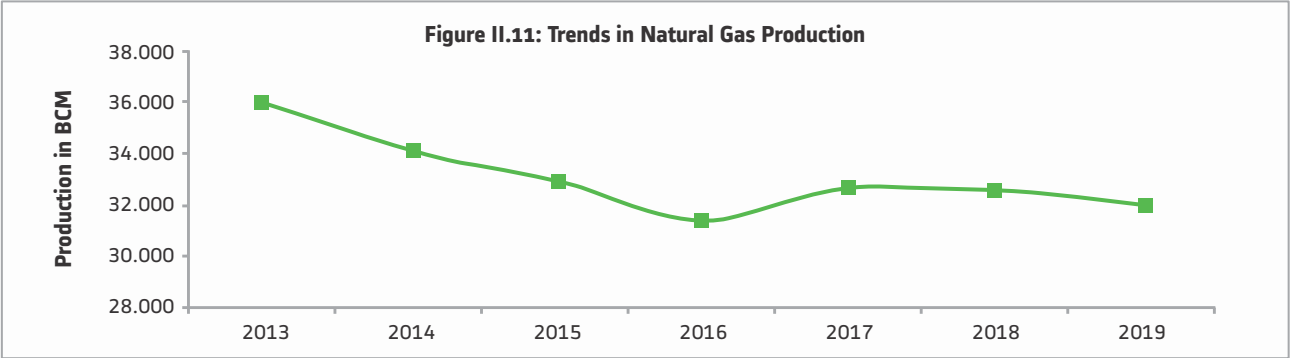
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.14: Production of Natural Gas (Calendar Year-wise)

State/Region	2013	2014	2015	2016	2017	2018	2019 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. State-wise Natural Gas Production (MMSCM)							
Andhra Pradesh	1190	673	593	811	921	1090	950
Arunachal Pradesh	42	34	31	27	28	31	37
Assam	2896	2934	2966	3113	3219	3263	3239
Gujarat	1745	1538	1481	1529	1669	1424	1356
Jharkhand (CBM)	3	3	2	3	4	3	5
Madhya Pradesh (CBM)	5	4	1	5	126	345	344
Rajasthan	879	1128	1329	1313	1373	1472	1721
Tamil Nadu	1283	1255	1046	962	1163	1213	1121
Tripura	716	1113	1293	1402	1455	1507	1584
West Bengal (CBM)	137	203	354	516	554	380	312
Offshore	27101	25222	23862	21757	22186	21883	21373
Total Natural Gas Production	35997	34106	32957	31437	32699	32612	32043
2. Entity-wise Natural Gas Production (MMSCM)							
Onshore	8896	8885	9095	9681	10512	10729	10670
of which							
ONGC-Nomination	5282	4942	4732	5039	5616	5635	5372
OIL-Nomination	2650	2682	2784	2929	2922	2745	2708
Pvt/JVs-PSC & CBM Regime	964	1262	1579	1712	1974	2348	2590
Offshore	27101	25222	23862	21757	22186	21883	21373
of which							
ONGC-Nomination	18019	17466	16966	16286	17702	18559	18805
Pvt/JVs-PSC & CBM Regime	9082	7756	6896	5471	4484	3324	2568
Total Natural Gas Production	35997	34106	32957	31437	32699	32612	32043
of which							
ONGC-Nomination	23301	22408	21698	21325	23319	24195	24177
OIL-Nomination	2650	2682	2784	2929	2922	2745	2708
Pvt/JVs-PSC & CBM Regime	10046	9018	8475	7183	6458	5672	5158

Note: Total may not tally due to rounding off CBM: Coal Bed Methane P: Provisional ^: less than 0.5
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.15: Production of Natural Gas (Financial Year-wise)

State/Region	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% variation in 2019-20 over 2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. State-wise Natural Gas Production (MMSCM)								
Andhra Pradesh	1171	541	619	868	959	1081	912	-15.6
Arunachal Pradesh	41	34	30	28	30	28	46	63.9
Assam	2868	2958	3025	3128	3219	3289	3141	-4.5
Gujarat	1657	1527	1490	1580	1607	1402	1342	-4.3
Jharkhand (CBM)	3	2	2	3	4	4	5	29.9
Madhya Pradesh (CBM)	6	2	1	6	200	357	345	-3.3
Rajasthan	982	1178	1338	1277	1442	1483	1883	26.9
Tamil Nadu	1304	1192	1011	983	1207	1208	1097	-9.2
Tripura	822	1140	1332	1430	1440	1554	1473	-5.2
West Bengal (CBM)	156	224	389	555	531	350	306	-12.7
Offshore	26395	24861	23012	22038	22011	22117	20635	-6.7
Total Natural Gas Production	35407	33657	32249	31897	32649	32873	31184	-5.1
2. Entity-wise Natural Gas Production (MMSCM)								
Onshore	9012	8797	9237	9858	10639	10756	10549	-1.9
of which								
ONGC-Nomination	5316	4752	4770	5205	5638	5633	5170	-8.2
OIL-Nomination	2626	2722	2838	2937	2881	2722	2668	-2.0
Pvt/JVs-PSC & CBM Regime	1069	1323	1629	1717	2119	2401	2710	12.9
Offshore	26395	24861	23012	22038	22011	22117	20635	-6.7
of which								
ONGC-Nomination	17968	17272	16406	16883	17791	19042	18576	-2.4
Pvt/JVs-PSC & CBM Regime	8428	7589	6605	5155	4219	3075	2059	-33.0
Total Natural Gas Production	35407	33657	32249	31897	32649	32873	31184	-5.1
of which								
ONGC-Nomination	23284	22023	21177	22088	23429	24675	23746	-3.8
OIL-Nomination	2626	2722	2838	2937	2881	2722	2668	-2.0
Pvt/JVs-PSC & CBM Regime	9497	8912	8235	6872	6338	5477	4770	-12.9

Note: Total may not tally due to rounding off
P: Provisional
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH

CBM: Coal Bed Methane

Figure II.12: State wise % share of Natural Gas Production during 2019-20

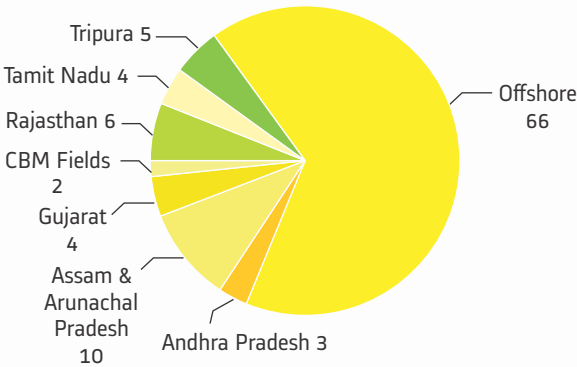
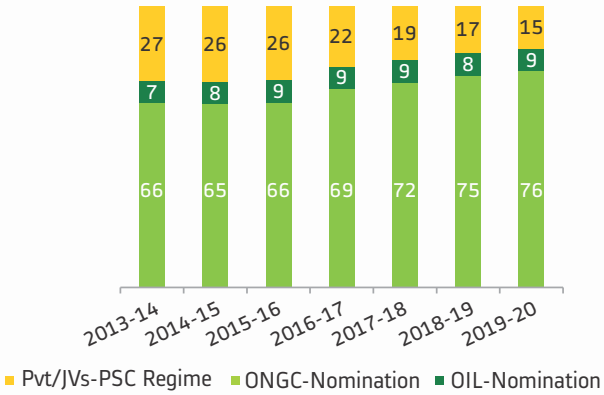


Figure II.13: Entity-wise Natural Gas Production Share (%)



II.16: Basin-wise Production of Natural Gas

(Figures in MMSCM)

Basin	State	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% Share of Total 2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Natural Gas Production by Oil and Natural Gas Corporation							
Western Offshore	Maharashtra	16194	16413	17243	18005	17645	56.6
Krishna Godavari Offshore (Eastern offshore)	Andhra Pradesh	212	470	548	1037	931	3.0
Western Onland	Gujarat	1399	1490	1532	1332	1274	4.1
Frontier	Rajasthan	5	5	6	4	0	0.0
Assam & Assam Arakan	Assam	405	435	508	483	460	1.5
	Tripura	1332	1430	1440	1554	1473	4.7
Krishna Godavari	Andhra Pradesh	619	868	959	1077	897	2.9
Cauvery	Tamilnadu	1010	977	1194	1182	1066	3.4
ONGC-Nomination		21177	22088	23429	24675	23746	76.1
ONGC-NELP/JVs Share		1353	1182	1180	1136	1150	3.7
Total ONGC's Crude Oil Production		22530	23270	24610	25810	24896	79.8
Natural Gas Production by Oil India Ltd.							
Assam-Arakan	Assam	2620	2693	2659	2482	2379	7.6
Assam-Arakan	Arunachal Pradesh	11	12	12	12	38	0.1
Rajasthan	Rajasthan	206	232	211	228	251	0.8
OIL-Nomination		2838	2937	2881	2722	2668	8.6
OIL-JVs Share		0	0	23	143	133	0.4
Total OIL's Crude Oil Production		2838	2937	2905	2865	2801	9.0
Natural Gas Production in PSC Regime							
Krishna Godavari Offshore (Eastern offshore)	Andhra Pradesh	4334	3183	2245	1338	849	2.7
Cauvery Offshore (Eastern offshore)	Tamilnadu	22	18	24	84	43	0.1
Cambay (Offshore)	Gujarat Offshore	68	81	98	122	129	0.4
Mumbai Offshore (Western Offshore)	Maharashtra	2181	1874	1853	1531	1039	3.3
KG Onshore	Andhra Pradesh				5	15	0.0
Assam-Arakan	Arunachal Pradesh	18	16	18	16	7	0.0
	Assam			53	324	302	1.0
Cambay	Gujarat	91	90	75	70	69	0.2
Rajasthan	Rajasthan	1127	1041	1225	1251	1632	5.2
Cauvery	Tamilnadu	1	6	14	25	31	0.1
Ranigunj South (CBM)	West Bengal	153	170	203	153	139	0.4
Ranigunj East (CBM)	West Bengal	236	385	328	198	167	0.5
Jharia (CBM)	Jharkhand	2	3	4	4	5	0.0
Sohagpur East / West (CBM)	Madhya Pradesh	1	6	200	357	345	1.1
Pvt/JVs-PSC & CBM Regime		8235	6872	6338	5477	4770	15.3
Total Natural Gas Production		32249	31897	32649	32873	31184	100.0

Note: Total may not tally due to rounding off CBM: Coal Bed Methane P:Provisional
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.17: State-wise Gross & Net Production of Natural Gas in India

(Figures in MMSCM)

State / Utilisation	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andhra Pradesh							
Gross Production	1171.3	540.6	619.4	867.8	959.2	1081.3	912.3
Flare	3.6	21.8	50.8	34.3	16.0	36.9	38.5
Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Availability/Net Production	1167.7	518.8	568.5	833.5	943.1	1044.4	873.8
Internal Use/Consumption	30.6	15.6	19.8	31.5	31.9	25.5	24.0
Sales	1137.1	503.1	548.8	802.1	911.2	1018.9	849.8
Arunachal Pradesh							
Gross Production	41.4	33.5	29.6	27.5	29.5	27.8	45.6
Flare	22.9	14.1	13.1	12.3	14.3	14.6	33.2
Losses	10.1	10.9	8.5	7.4	7.3	5.1	1.4
Net Availability/Net Production	8.5	8.6	8.0	7.9	7.9	8.1	10.9
Internal Use/Consumption	8.5	8.6	8.0	7.9	7.9	8.1	10.9
Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Assam							
Gross Production	2868.0	2958.2	3024.8	3127.9	3219.0	3289.1	3141.2
Flare	172.6	180.4	171.7	192.1	185.8	192.5	196.6
Losses	2.7	3.9	3.6	2.2	5.1	11.5	13.3
Net Availability/Net Production	2692.8	2774.0	2849.4	2933.6	3028.2	3085.1	2931.3
Internal Use/Consumption	564.8	581.7	569.3	584.3	617.6	585.7	569.6
Sales	2128.0	2192.3	2280.1	2349.3	2410.6	2499.3	2361.7
Gujarat							
Gross Production	1656.9	1526.8	1490.1	1580.3	1606.7	1402.2	1342.3
Flare	72.4	121.9	86.6	62.9	50.8	53.5	55.5
Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Availability/Net Production	1584.6	1405.0	1403.5	1517.4	1555.9	1348.7	1286.8
Internal Use/Consumption	475.6	428.6	459.1	470.3	422.6	383.0	419.9
Sales	1109.0	976.3	944.4	1047.1	1133.3	965.7	867.0
Rajasthan							
Gross Production	982.2	1177.8	1338.0	1277.3	1441.9	1483.2	1882.5
Flare	38.4	38.7	59.6	43.9	37.0	53.0	90.6
Losses	23.9	59.4	88.4	43.2	66.7	52.3	19.6
Net Availability/Net Production	919.9	1079.7	1190.1	1190.2	1338.3	1377.9	1772.4
Internal Use/Consumption	445.7	508.7	533.4	568.9	595.2	597.5	624.3
Sales	474.2	571.1	656.6	621.3	743.1	780.5	1148.0
Tamil Nadu							
Gross Production	1304.0	1191.6	1010.9	983.2	1207.2	1207.9	1096.7
Flare	5.7	17.0	21.7	17.8	21.3	40.5	45.7
Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Availability/Net Production	1298.3	1174.5	989.2	965.4	1185.9	1167.4	1051.0
Internal Use/Consumption	1.4	1.4	1.1	4.5	7.1	6.6	5.3
Sales	1296.9	1173.2	988.1	960.9	1178.8	1160.8	1045.7
Tripura							
Gross Production	822.2	1140.0	1332.0	1429.9	1440.4	1554.3	1472.8
Flare	6.5	0.2	0.5	0.2	0.3	0.3	0.3
Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Availability/Net Production	815.8	1139.9	1331.5	1429.7	1440.1	1554.0	1472.5
Internal Use/Consumption	2.4	2.4	2.4	2.5	2.9	2.9	2.8
Sales	813.3	1137.5	1329.1	1427.2	1437.2	1551.1	1469.6

Contd...

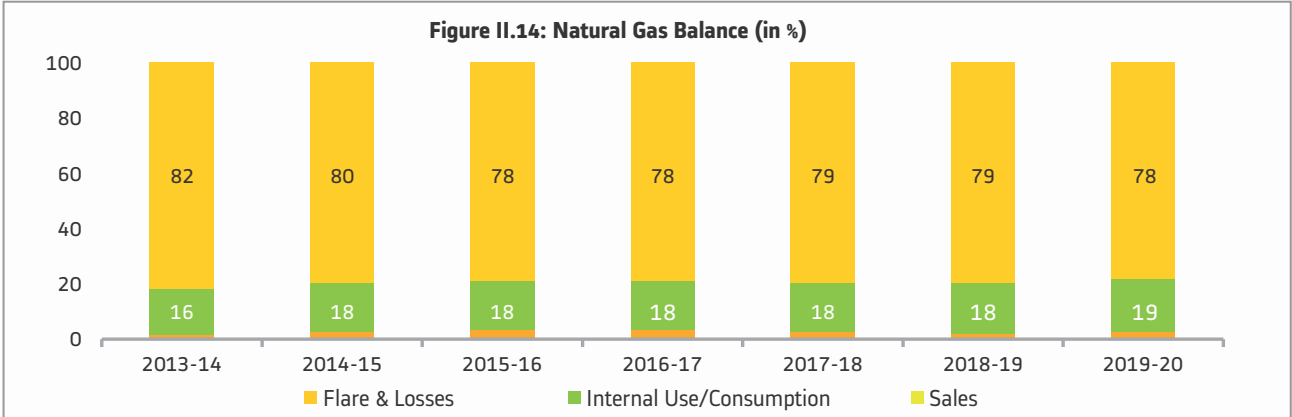


II.17: State-wise Gross & Net Production of Natural Gas in India (Contd...)

(Figures in MMSCM)

State / Utilisation	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Jharkhand (CBM)							
Gross Production	3.4	2.5	2.0	3.1	4.0	3.6	4.6
Flare	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Availability/Net Production	3.4	2.5	2.0	3.1	4.0	3.6	4.6
Internal Use/Consumption	0.0	0.0	0.2	0.5	0.5	0.6	0.7
Sales	3.4	2.5	1.9	2.6	3.5	3.0	3.9
Madhya Pradesh (CBM)							
Gross Production	5.7	2.1	1.4	6.4	199.8	356.7	344.9
Flare	4.1	1.3	0.3	0.9	0.8	0.7	0.7
Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Availability/Net Production	1.6	0.8	1.1	5.5	198.9	356.0	344.2
Internal Use/Consumption	1.6	0.8	1.1	4.7	14.8	22.8	25.0
Sales	0.0	0.0	0.0	0.9	184.1	333.2	319.2
West Bengal (CBM)							
Gross Production	156.5	223.7	389.4	555.1	531.1	350.2	305.9
Flare	15.5	20.3	128.9	240.7	173.0	35.7	15.7
Losses	0.0	0.0	0.0	0.0	0.0	7.6	13.1
Net Availability/Net Production	140.9	203.4	260.5	314.4	358.1	306.9	277.1
Internal Use/Consumption	21.4	33.7	41.5	50.4	62.1	56.6	50.1
Sales	119.5	169.6	219.0	264.0	296.0	250.3	227.0
B. Offshore							
Gross Production	26395.2	24860.6	23011.7	22038.2	22010.6	22117.1	20635.4
Flare	427.5	451.3	474.3	371.1	324.5	299.0	383.5
Losses	30.2	27.1	16.6	19.0	15.2	16.3	20.0
Net Availability/Net Production	25937.5	24382.1	22520.8	21648.2	21670.9	21801.8	20231.8
Internal Use/Consumption	4034.8	4327.4	4192.3	4131.6	4045.4	4325.9	4318.9
Sales	21902.6	20054.8	18328.5	17516.5	17625.6	17475.9	15912.9
Total Balance of Natural Gas							
Gross Production	35406.9	33657.4	32249.2	31896.7	32649.3	32873.4	31184.2
Flare	769.2	867.0	1007.5	976.0	823.8	726.5	860.5
Losses	66.9	101.2	117.2	71.7	94.3	93.0	67.4
Net Availability/Net Production	34570.8	32689.2	31124.6	30848.9	31731.2	32053.9	30256.4
Internal Use/Consumption	5586.8	5908.9	5828.0	5857.1	5807.8	6015.2	6051.5
Sales	28983.9	26780.3	25296.6	24991.9	25923.4	26038.8	24204.9
% Flared to GP	2.2	2.6	3.1	3.1	2.5	2.2	2.8

Note: CBM:Coal Bed Methane P: Production
1. Total may not tally due to rounding off.
2. Net availability denotes natural gas available for consumption which is derived by deducting gas flared/losses from gross production.
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



II.18: Sector-wise Sales/Consumption of Natural Gas

(Figures in MMSCM)

Sector	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% Share of Total 2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) Energy Purpose								
Power	11284	10720	10889	11616	12028	12005	11029	19.5
Industrial & Manufacturing	261	533	545	794	999	1086	701	1.2
City or Local Natural Gas Distribution Network incl. Road Transport	5904	5416	5464	7350	8585	9206	10883	19.3
Tea Plantation	196	180	187	183	189	192	200	0.4
Internal Consumption for Pipeline System	372	351	410	471	496	541	525	0.9
Refinery	3968	4575	5077	5374	6533	7047	7786	13.8
LPG Shrinkage	982	1005	754	759	798	874	858	1.5
Miscellaneous	7479	5941	4112	3746	3226	3393	4209	7.5
Total (a)	30446	28721	27437	30294	32855	34343	36191	64.1
(b) Non-Energy Purpose								
Fertilizer Industry	15869	15190	16135	15429	14676	14987	16115	28.6
Petrochemical	2405	2890	3733	4170	4024	3386	3569	6.3
Sponge Iron	274	154	544	885	1278	1124	567	1.0
Total (b)	18548	18234	20412	20484	19978	19497	20251	35.9
Total Sectoral Sales (a+b)	48994	46955	47850	50778	52832	53840	56442	100.0
Total Consumption **	52375	51300	52517	55697	59170	60798	64143	-
Total Consumption in MMSCMD	143.49	140.55	143.49	152.59	162.11	166.57	175.26	-

Note: **: Availability Basis (Net Production+LNG Imports) P: Provisional

1. Re-classification among the sectors of consumption of natural gas under energy and non-energy sectors, has been done depending on usage. Sectors where natural gas is being used as feedstock are classified as consumption of gas under non-energy purpose whereas those sectors where natural gas is being used as fuel are classified as consumption of gas under energy purpose .

3. As per IRES, LPG shrinkage is a transformation process and LPG produced is further used for energy purposes to meet domestic / household energy requirements. Therefore, it has been shifted from 'non energy flow' to 'energy flow'.

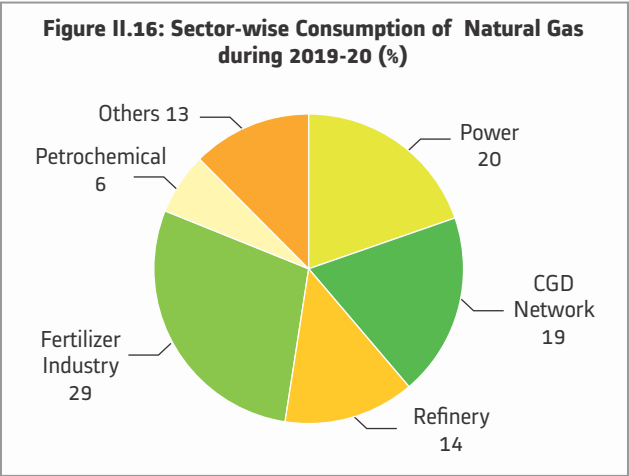
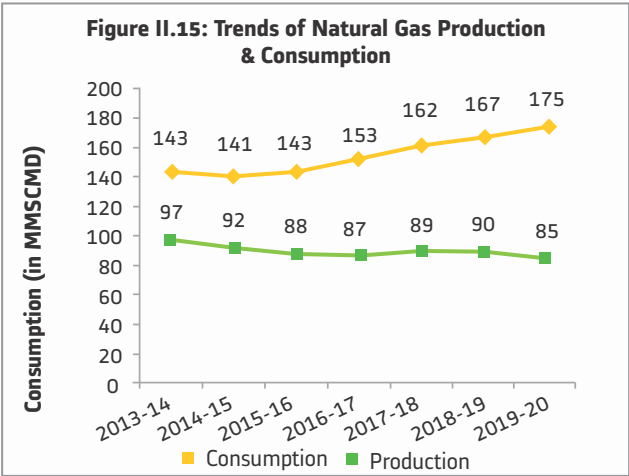
4. Sector-wise Sales/consumption of natural gas includes RLNG.

5. Total may not tally due to rounding off.

6. The reasons for the variation between the consolidated availability and the consumption can be attributed to stock changes, conversion factor (volume/energy) and the provisional data reported by the companies.

Source: PPAC

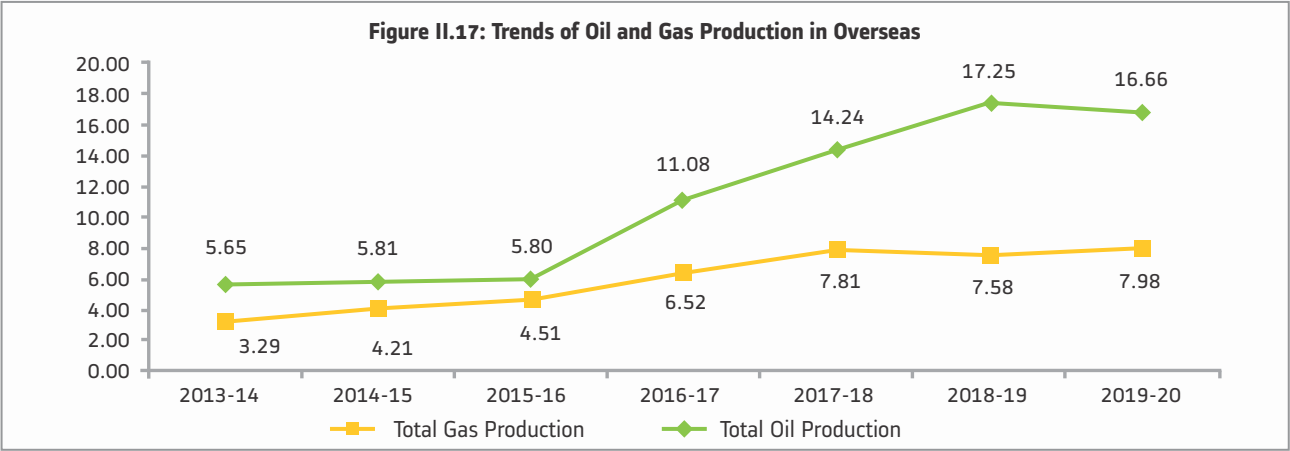
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II.19: Domestic and Overseas Production of Oil & Gas

Entity/Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Domestic Production of Oil & Gas							
1. Domestic Production of Crude Oil & Condensate (MMT)							
ONGC (Nomination)	22.25	22.26	22.36	22.22	22.25	21.04	20.63
OIL (Nomination)	3.47	3.41	3.23	3.26	3.38	3.29	3.11
PSC Regime	12.08	11.79	11.36	10.53	10.06	9.87	8.44
Total Production of Oil & Condensate	37.79	37.46	36.94	36.01	35.68	34.20	32.17
2. Domestic Production of Natural Gas (BCM)							
ONGC (Nomination)	23.28	22.02	21.18	22.09	23.43	24.67	23.75
OIL (Nomination)	2.63	2.72	2.84	2.94	2.88	2.72	2.67
PSC Regime	9.50	8.91	8.23	6.87	6.34	5.48	4.77
Total Production of Gas	35.41	33.66	32.25	31.90	32.65	32.87	31.18
Total Domestic O & OEG Production (MMTOE)	73.20	71.12	69.19	67.91	68.33	67.08	63.35
Overseas Production of Oil & Gas							
3. Overseas Production of Crude Oil & Condensate (MMT)							
1. ONGC Videsh Ltd. (OVL)	5.49	5.53	5.51	8.43	9.35	10.10	9.76
2. Bharat PetroResources Ltd. (BPRL)	-	-	-	0.79	1.53	2.15	2.07
3. Indian Oil Corporation Ltd. (IOCL)	0.05	0.08	0.09	0.88	1.66	3.24	3.21
4. GAIL (India) Ltd. (GAIL)	0.08	0.09	0.09	0.05	0.06	0.06	0.04
5. OIL (Oil India Ltd.)	0.04	0.11	0.10	0.91	1.63	1.69	1.58
6. HPCL-PPCL (Prize Petroleum Co. Ltd.)	-	0.00	0.01	0.01	0.01	0.01	0.00
Total-Oil Production	5.65	5.81	5.80	11.08	14.24	17.25	16.66
4. Overseas Production of Natural Gas (BCM)							
1. ONGC Videsh Ltd. (OVL)	2.87	3.34	3.41	4.37	4.81	4.74	5.23
2. Bharat PetroResources Ltd. (BPRL)	-	-	-	0.35	0.65	0.68	0.60
3. Indian Oil Corporation Ltd. (IOCL)	0.28	0.47	0.55	0.94	1.15	1.05	0.95
4. GAIL (India) Ltd. (GAIL)	0.13	0.37	0.48	0.45	0.44	0.37	0.55
5. OIL (Oil India Ltd.)	0.00	0.00	0.01	0.35	0.71	0.70	0.62
6. HPCL-PPCL (Prize Petroleum Co. Ltd.)	-	0.02	0.06	0.05	0.05	0.05	0.03
Total Gas Production	3.29	4.21	4.51	6.52	7.81	7.58	7.98
Total Overseas Oil & OEG Production (in MMTOE)	8.94	10.01	10.31	17.59	22.05	24.83	24.64
Overseas production as (%) percentage of domestic production	12.22	14.08	14.90	25.91	32.27	37.02	38.89

Note: Total may not tally due to rounding off
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH



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CHAPTER-III



Refining, Transportation & Marketing Infrastructure



CHAPTER HIGHLIGHTS

- Petroleum Refining Capacity in India has increased to 249.87 MMTPA as on 31.03.2020 from 249.37 MMTPA as on 31.03.2019. Capacity of IOCL Haldia refinery has increased from 7.5 MMTPA to 8.0 MMTPA. Share of Public, JV and Private sector refineries stood at 57.1%, 7.6% and 35.3% respectively in refinery capacity as on 31.03.2020.
- As on 31.03.2020, Indian Oil Corporation Limited (IOCL) with 9 refineries contributed the largest share of all refineries at 27.9% (69.70 MMTPA) of total refining capacity considering all refineries.
- Crude oil processed has decreased by 1.1% to reaching 254.37 MMT in year 2019-20 over 2018-19 (257.21 MMT). In 2019-20, Production of Petroleum Products is 262.94 MMT with the growth of 0.2% vis-à-vis 2018-19 (262.36 MMT).
- Total length of Crude Oil pipelines is 10419 KMs as on 31.03.2020.
- Total length of Natural Gas pipeline 17389 KMs as on 31.03.2020.
- Product Pipeline registering a growth of 4.7% has reached to 14729 KMs as on 31.03.2020 against 14063 KMs as on 31.03.2019.
- Total PDS SKO Kerosene allocated to States is at 3121328 KL in 2019-20 against which quantity uplifted was 2793217 KL (89.5%). Also, maximum SKO (around 16.6%) was allocated to Uttar Pradesh at 517888 KL.
- LPG active domestic consumers of CPSE OMCs have increased by 5% to 27.87 crore as on 31.03.2020 as compared to 31.03.2019 (26.54 crore).
- As on 31.03.2020, there are 69093 Retail Outlets (ROs) in India registering a 6.9% increase in 2019-20 as compared to 2018-19.
- With strong emphasis on clean energy, Compressed Natural Gas (CNG) Sale has increased by 5.6% from 3076 TMT in 2018-19 to 3247 TMT in 2019-20.
- To meet the increasing demand of CNG, number of CNG stations has shown a sharp increase of over 27.6% from 1730 on 31.03.2019 to 2208 as on 31.03.2020.
- To meet the increased gas demand in the country, different entities are importing Liquefied Natural Gas (LNG) from global gas markets. The import of LNG is being carried out at existing six LNG terminals which have regasification capacity of about 36.69 MMTPA as on 31.03.2020.



III.1: Petroleum Refining Capacity in India

(Figures in MMTPA)

Sl. No.	Refinery Location & Year of Commissioning	Capacity as on 1 st April						
		2014	2015	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	Public Sector	120.07	120.07	135.07	138.97	142.07	142.07	142.57
	Indian Oil Corporation Ltd.	54.20	54.20	69.20	69.20	69.20	69.20	69.70
1	IOCL, Digboi, Assam - 1901	0.65	0.65	0.65	0.65	0.65	0.65	0.65
2	IOCL, Guwahati, Assam - 1962	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3	IOCL, Barauni, Bihar - 1964	6.00	6.00	6.00	6.00	6.00	6.00	6.00
4	IOCL, Koyali, Gujarat - 1965	13.70	13.70	13.70	13.70	13.70	13.70	13.70
5	IOCL, Haldia, West Bengal - 1975	7.50	7.50	7.50	7.50	7.50	7.50	8.00
6	Mathura, Uttar Pradesh - 1982	8.00	8.00	8.00	8.00	8.00	8.00	8.00
7	IOCL, Panipat, Haryana - 1998	15.00	15.00	15.00	15.00	15.00	15.00	15.00
8	IOCL, Bongaigaon, Assam - 1974	2.35	2.35	2.35	2.35	2.35	2.35	2.35
9	IOCL, Paradip, Odisha-2016	-	-	15.00	15.00	15.00	15.00	15.00
	Bharat Petroleum Corporation Ltd.	21.50	21.50	21.50	24.40	27.50	27.50	27.50
10	BPCL, Mumbai, Maharashtra - 1955	12.00	12.00	12.00	12.00	12.00	12.00	12.00
11	BPCL, Kochi, Kerala - 1963	9.50	9.50	9.50	12.40	15.50	15.50	15.50
	Hindustan Petroleum Corporation Ltd.	14.80	14.80	14.80	15.80	15.80	15.80	15.80
12	HPCL, Mumbai, Maharashtra - 1954	6.50	6.50	6.50	7.50	7.50	7.50	7.50
13	HPCL, Visakh, Andhra Pradesh - 1957	8.30	8.30	8.30	8.30	8.30	8.30	8.30
	Chennai Petroleum Corporation Ltd.	11.50	11.50	11.50	11.50	11.50	11.50	11.50
14	CPCL, Manali, Tamil Nadu - 1965	10.50	10.50	10.50	10.50	10.50	10.50	10.50
15	CPCL, Narimanam, Tamil Nadu - 1993	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Numaligarh Refinery Ltd. (NRL)	3.00	3.00	3.00	3.00	3.00	3.00	3.00
16	NRL, Numaligarh, Assam-1999	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Oil & Natural Gas Corporation Ltd.	0.07	0.07	0.07	0.07	0.07	0.07	0.07
17	ONGC, Tatipaka, Andhra Pradesh - 2001	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Mangalore Refinery & Petrochemical Ltd.	15.00	15.00	15.00	15.00	15.00	15.00	15.00
18	MRPL, Mangalore, Karnataka- 1996	15.00	15.00	15.00	15.00	15.00	15.00	15.00
B	Private Sector	80.00	80.00	80.00	80.00	88.20	88.20	88.20
	Reliance Industries Ltd. (RIL)	60.00	60.00	60.00	60.00	68.20	68.20	68.20
19	RIL, Jamnagar, Gujarat - 1999	33.00	33.00	33.00	33.00	33.00	33.00	33.00
20	RIL, Jamnagar (SEZ), Gujarat - 2008	27.00	27.00	27.00	27.00	35.20	35.20	35.20
	Nyara Energy Ltd.	20.00	20.00	20.00	20.00	20.00	20.00	20.00
21	NEL, Vadinar, Gujarat - 2006	20.00	20.00	20.00	20.00	20.00	20.00	20.00
C	Joint Venture (JV)	15.00	15.00	15.00	15.00	17.30	19.10	19.10
	Bharat Oman Refinery Ltd.	6.00	6.00	6.00	6.00	6.00	7.80	7.80
22	BORL, Bina, Madhya Pradesh - 2011	6.00	6.00	6.00	6.00	6.00	7.80	7.80
	HPCL Mittal Energy Ltd. (H MEL)	9.00	9.00	9.00	9.00	11.30	11.30	11.30
23	H MEL, Bhatinda, Punjab - 2012	9.00	9.00	9.00	9.00	11.30	11.30	11.30
	Total Refinery Capacity	215.07	215.07	230.07	233.97	247.57	249.37	249.87

Source: Oil Companies

Figure III.1: Trends in Refining Capacity in India

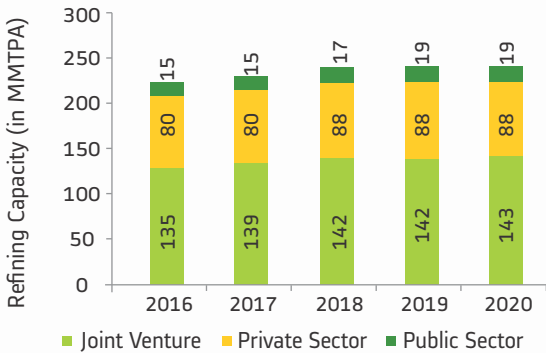
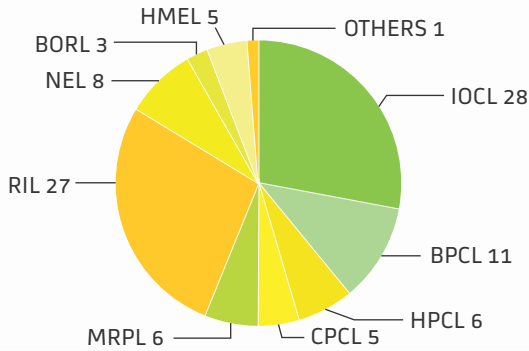


Figure III.2: Distribution of Petroleum refining capacity in India (%)



III.2: Refinery Crude Oil Processed and Production of Petroleum Products

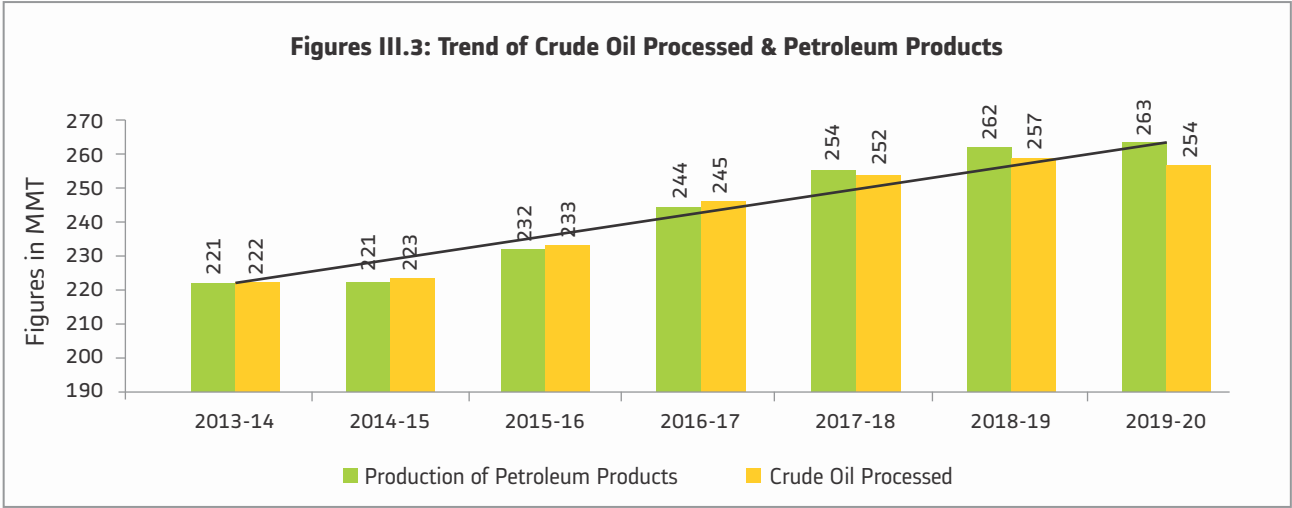
(Figures in TMT)

Year	Crude Oil Processed				Production of Petroleum Products					
	Refinery			Total	Refinery				Fraction-ators	Grand Total
	CPSEs	Pvt.	JVs		CPSEs	Pvt.	JVs	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(Calendar Years)										
2013	119749	88097	14472	222318	114144	85588	16878	216610	4396	221006
2014	120944	88436	13442	222822	114401	89977	12580	216958	4101	221059
2015	123342	87096	16659	227097	116397	89908	15832	222137	3936	226073
2016	137891	91428	16894	246212	129740	93973	15743	239457	4183	243640
2017	142686	91622	15126	249435	134884	96921	14074	245879	4539	250418
2018	150312	88675	17665	256652	142944	97819	16535	257298	4860	262158
2019	145731	89090	20088	254909	137801	99826	18665	256292	4845	261137
(Financial Years)										
2013-14	119547	88229	14721	222497	112738	90101	13617	216456	4300	220756
2014-15	121183	88533	13526	223242	114462	89997	12682	217141	3994	221136
2015-16	127087	88662	17116	232865	120227	91734	15945	227907	4016	231923
2016-17	137388	91093	16882	245362	129244	94285	15728	239256	4294	243551
2017-18	145234	91163	15538	251935	137835	97498	14464	249797	4608	254405
2018-19	150976	88041	18189	257205	143247	97273	16910	257430	4931	262361
2019-20 (P)	144716	89515	20155	254386	137206	102155	18820	258181	4763	262944

Note: Total may not tally due to rounding off

P: Provisional

Source: Oil Companies



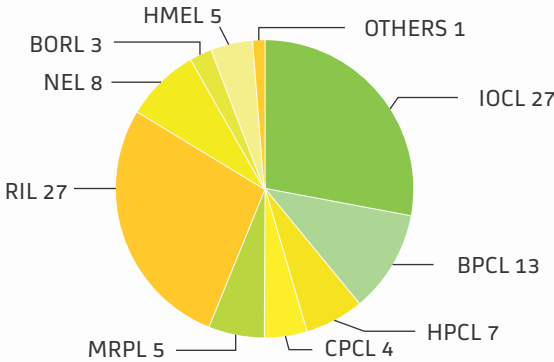
III.3: Refinery-wise Crude Oil Processed

(Figures in TMT)

Refinery	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% variation in 2019-20 over 2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) CPSEs Refineries	119547	121183	127087	137388	145234	150976	144716	-4.1
IOCL, Guwahati	1019	1006	904	864	1024	863	892	3.4
IOCL, Barauni	6478	5944	6545	6526	5819	6661	6516	-2.2
IOCL, Koyali	12960	13285	13820	13994	13811	13505	13075	-3.2
IOCL, Haldia	7952	7650	7776	7689	7655	7965	6463	-18.9
IOCL, Mathura	6641	8515	8860	9230	9240	9737	8948	-8.1
IOCL, Digboi	651	591	562	533	666	676	664	-1.7
IOCL, Panipat	15098	14191	15282	15638	15654	15281	15038	-1.6
IOCL, Bongaigaon	2328	2403	2442	2486	2402	2513	2045	-18.6
IOCL, Paradip	-	-	1817	8230	12730	14616	15778	7.9
Total IOCL	53126	53586	58007	65191	69001	71816	69419	-3.3
BPCL, Mumbai	12684	12821	13371	13541	14054	14773	15017	1.7
BPCL, Kochi	10285	10356	10712	11820	14095	16051	16515	2.9
Total BPCL	22969	23177	24083	25362	28149	30823	31532	2.3
HPCL, Mumbai	7785	7408	8013	8510	8641	8671	8065	-7.0
HPCL, Vishakhapatnam	7776	8770	9220	9335	9635	9773	9115	-6.7
Total HPCL	15561	16179	17234	17846	18276	18444	17180	-6.9
CPCL(MRL), Manali	10065	10251	9100	9725	10289	10271	10161	-1.1
CPCL(MRL), Narimanam	559	531	544	531	500	423	0	-100.0
Total CPCL	10624	10782	9644	10256	10789	10695	10161	-5.0
NRL, Numaligarh	2613	2777	2520	2683	2809	2900	2383	-17.8
MRPL, Mangalore	14589	14632	15532	15965	16130	16231	13953	-14.0
ONGC, Tatipaka	65	51	67	86	80	66	87	31.4
(b) JVs Refineries	14721	13526	17116	16882	15538	18189	20155	10.8
BORL, Bina	5450	6209	6402	6360	6708	5716	7913	38.4
HMEL, Bathinda	9271	7318	10713	10521	8830	12473	12242	-1.8
(c) Pvt Refineries	88229	88533	88662	91093	91163	88041	89515	1.7
RIL, Jamnagar	30307	30867	32428	32823	33153	31752	33019	4.0
RIL, SEZ-Jamnagar	37720	37174	37133	37351	37317	37393	35876	-4.1
Total RIL	68027	68042	69561	70174	70470	69145	68895	-0.4
NEL, Vadinar	20202	20491	19101	20919	20693	18896	20620	9.1
Total Crude Oil Processed	222497	223242	232865	245362	251935	257205	254386	-1.1

Note: 1. Total may not tally due to rounding off
2. CPCL CBR refinery is under shutdown due to limitation in meeting required Product specifications with the existing configuration.
Source: Oil Companies

Figure III.4: Company-wise Crude Oil Processed during 2019-20 (%)



III.4: Refinery-wise Production of Petroleum Products

(Figures in TMT)

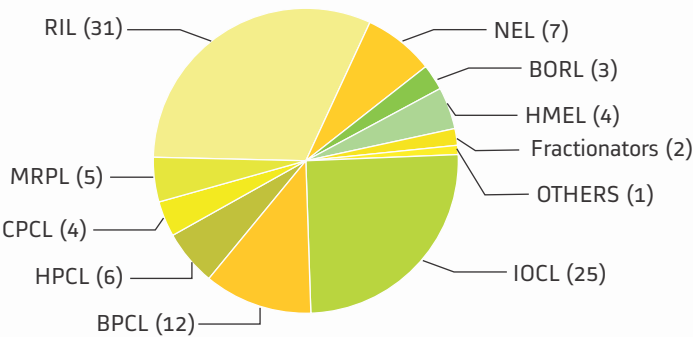
Refinery	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% variation in 2019-20 over 2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) CPSEs Refineries	112738	114462	120227	129244	137835	143247	137206	-4.2
IOCL, Guwahati	1078	1067	1103	1121	1142	1030	1151	11.7
IOCL, Barauni	5948	5412	6079	5881	5507	6276	6073	-3.2
IOCL, Koyali	12300	12492	13246	13106	13271	12908	12592	-2.4
IOCL, Haldia	7233	7008	7133	6982	7167	7450	5925	-20.5
IOCL, Mathura	6370	8243	8640	8916	9151	9560	8793	-8.0
IOCL, Digboi	650	591	541	542	665	676	665	-1.5
IOCL, Panipat	14795	14110	15501	15833	15889	15777	15366	-2.6
IOCL, Bongaigoan	2121	2186	2253	2273	2241	2337	1863	-20.3
IOCL, Paradip1	-	-	1107	6920	11447	13230	14240	7.6
Total IOCL	50494	51110	55602	61573	66480	69244	66668	-3.7
BPCL, Mumbai	12365	12346	12802	13013	13638	14193	14514	2.3
BPCL, Kochi	9674	9803	10164	11194	13307	15149	15726	3.8
Total BPCL	22039	22149	22965	24206	26945	29342	30240	3.1
HPCL, Mumbai	7213	7030	7468	7952	8126	8202	7645	-6.8
HPCL, Vishakhapatnam	7246	8241	8558	8653	8901	9095	8292	-8.8
Total HPCL	14459	15271	16026	16605	17027	17297	15937	-7.9
CPCL(MRL), Manali	9169	9421	8330	8963	9331	9254	9329	0.8
CPCL(MRL), Narimanam	558	539	550	532	502	425	1	-99.8
Total CPCL	9728	9959	8881	9496	9833	9679	9330	-3.6
NRL, Numaligarh	2557	2754	2521	2653	2823	2882	2300	-20.2
MRPL, Mangalore	13397	13169	14166	14629	14650	14741	12651	-14.2
ONGC, Tatipaka	64	50	66	82	75	63	80	27.6
(b) JVs Refineries	13617	12682	15945	15728	14464	16910	18820	11.3
BORL, Bina	4994	5782	5916	5767	6094	5113	7219	41.2
HMEL, Bathinda	8623	6900	10029	9961	8370	11797	11601	-1.7
(c) Pvt Refineries	90101	89997	91734	94285	97498	97273	102155	5.0
RIL, Jamnagar	30815	30864	32331	32927	33561	33334	35061	5.2
RIL, SEZ-Jamnagar	39799	39329	41089	41261	44178	45761	47313	3.4
Total RIL	70613	70192	73419	74188	77739	79095	82374	4.1
NEL, Vadinar	19487	19804	18315	20096	19758	18178	19780	8.8
(d) Fractionators	4300	3994	4016	4294	4608	4931	4763	-3.4
Grand Total	220756	221136	231923	243551	254405	262361	262944	0.2

Note: Total may not tally due to rounding off

P: Provisional

Source: Oil Companies

Figure III.5: Company-wise Production of Petroleum Products during 2019-20 (%)



III.5: Refinery-wise and Product-wise Production of Petroleum Products during 2019-20 (P)

(Figures in TMT)

Refinery/Plant	LPG	Motor Spirit	Naphtha	ATF	SKO	Diesel (HSD+LDO)	Furnace Oil	Bitumen	Lube Oil	Petroleum Coke	Others	Total Production	Fuel & Losses	Crude Processed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
IOC, Guwahati	42	264	15	62	50	659	0	0	0	58	1	1151	124	892
IOC, Barauni	392	1129	528	0	478	3295	1	13	0	173	63	6073	595	6516
IOC, Koyali	441	2099	665	470	381	6323	823	430	0	637	323	12592	1287	13075
IOC, Haldia	241	687	481	438	539	2226	680	477	81	20	55	5925	634	6463
IOC, Mathura	463	1451	355	870	142	3416	857	943	0	0	295	8793	632	8948
IOC, Digboi	15	115	-1	0	0	372	84	0	0	42	38	665	82	664
IOC, Panipat	757	1692	1605	1308	346	7414	226	369	0	896	753	15366	1385	15038
IOCL, Bongaioan	52	254	91	19	40	1267	24	0	0	114	2	1863	179	2045
IOCL, Paradip, Odisha	1165	3134	136	655	169	6541	0	0	0	1244	1195	14240	1511	15778
BPCL, Mumbai	461	2739	859	762	26	7443	1091	491	269	0	373	14514	628	15017
BPCL, Kochi	1068	2907	995	758	120	8095	104	270	0	921	488	15726	1417	16515
HPCL, Mumbai	399	1376	477	445	106	2901	652	579	478	0	233	7645	576	8065
HPCL, Vishakhapatnam	384	1263	747	115	158	3837	1051	599	0	0	137	8292	680	9115
CPCL, Manali	360	1084	815	1016	122	4464	184	461	104	414	305	9329	1036	10161
CPCL, CBR	1	0	0	0	0	0	0	0	0	0	0	1	1	0
NRL, Numaligarh	43	468	-8	18	40	1611	0	0	0	81	47	2300	164	2383
MRPL, Mangalore	811	1186	1234	1232	47	5645	548	158	0	755	1034	12651	1490	13953
ONGC, Tatipaka	0	0	30	0	3	21	0	0	0	0	26	80	7	87
BORL, Bina	257	1277	14	835	210	4109	0	0	0	375	141	7219	784	7913
HMEL, Bathinda	881	2007	102	235	124	5626	0	352	0	878	1396	11601	699	12242
RIL, Jamnagar	601	2104	6589	2776	0	8792	964	0	0	2876	10359	35061	3793	33019
RIL, SEZ-Jamnagar	1060	7750	3017	2110	0	17473	837	0	0	3701	11365	47313	4595	35876
NEL, Vadinar	972	3630	761	1088	-10	10253	47	101	0	2342	596	19780	1211	20620
Total Refinery	10867	38616	19506	15212	3091	111783	8173	5244	932	15528	29229	258181	23510	254386
Fractionators	1957	0	1173	26	50	59	0	0	0	0	1498	4763	0	0
Grand Total	12823	38616	20679	15238	3141	111841	8173	5244	932	15528	30728	262944	23510	254386

Note: 1. Total may not tally due to rounding off.
2. Others include Propylene, Solvents (Hexane, Benzene, Toluene, Xylene and Specialty solvents), Reformate, MTO, Carbon Black Feed Stock, Sulphur etc.
3. CPCL, CBR refinery is under shutdown.
Source: Oil Companies

P: Provisional



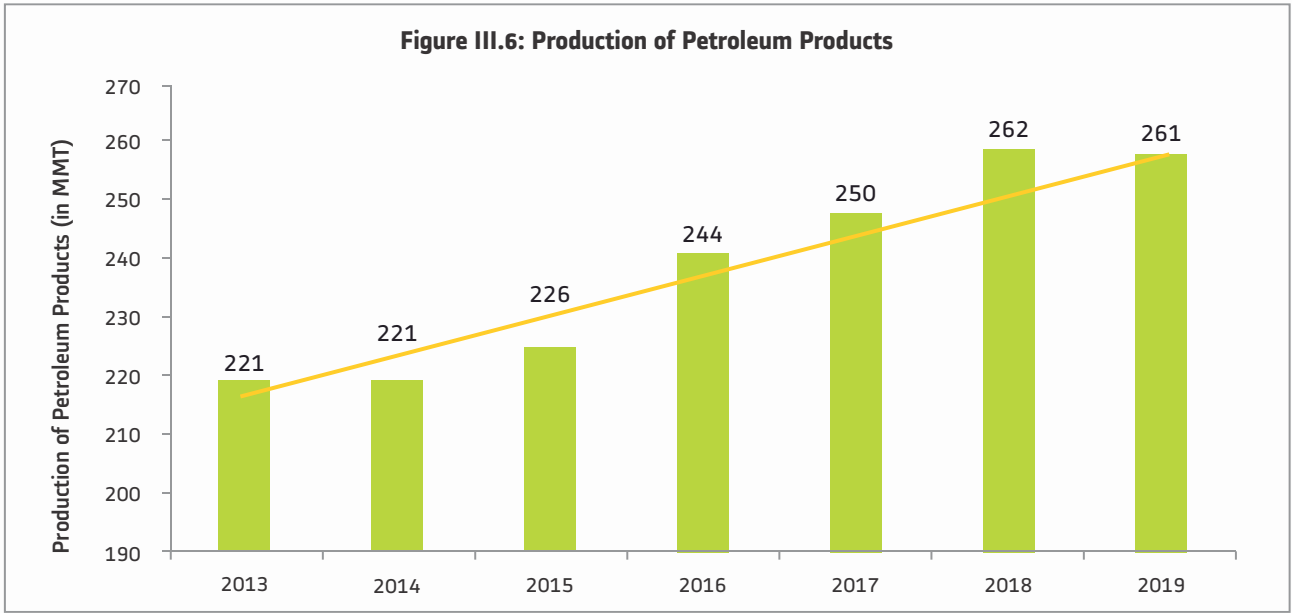
III.6: Production of Petroleum Products (Calendar Year-wise)

(Figures in TMT)

Products	Year							% variation in 2019 over 2018
	2013	2014	2015	2016	2017	2018	2019(P)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
LPG	9853	9953	10301	11285	12094	12751	12768	0.1
Motor Spirit	30263	31800	34056	36421	37567	28422	38604	35.8
Naphtha	18779	17821	17300	19699	20064	20081	19693	-1.9
ATF	11208	10926	11084	13929	14211	15506	15457	-0.3
Kerosene	7461	7604	7433	6547	4635	4180	3265	-21.9
HSD	93022	94693	96391	102718	105975	110272	110832	0.5
LDO	427	351	410	527	592	711	669	-5.9
Total Fuel Oils	13787	12307	10278	10275	9439	9566	8997	-5.9
of which							0	
a) Furnace Oil	13156	11745	9855	10025	9172	8971	8538	-4.8
b) LSHS/HHS/RFO	631	562	423	250	267	595	459	-22.7
Lube Oils	915	878	1073	1060	994	1008	919	-8.8
Bitumen	4876	4756	4769	5394	5076	5735	5461	-4.8
Petroleum Coke	11892	10060	9800	13952	14483	14998	14860	-0.9
Paraffin Wax	52	54	57	81	101	92	94	1.5
Others	18470	19855	23123	21751	25188	38838	29518	-24.0
Total Production of Petroleum Products	221006	221059	226074	243640	250418	262158	261137	-0.4
of which								
Refineries	216610	216958	222137	239457	245879	257298	256292	-0.4
Fractionators	4396	4101	3937	4183	4539	4860	4845	-0.3

Note: 1.Total may not tally due to rounding off.
2. Others include Propylene, Solvents (Hexane, Benzene, Toluene, Xylene and Specialty solvents), Reformate, MTO, Carbon Black Feed Stock, Sulphur etc.
Source: Oil Companies

P: Provisional



III.7: Production of Petroleum Products (Financial Year-wise)

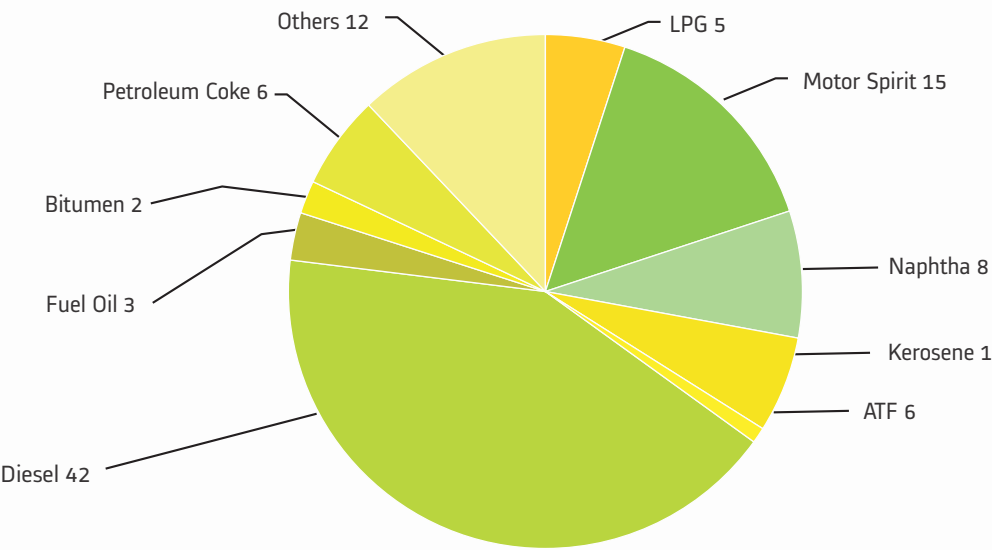
(Figures in TMT)

Products	Year							% variation in 2019-20 over 2018-19
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
LPG	10030	9840	10568	11326	12380	12786	12823	0.3
Motor Spirit	30275	32325	35321	36593	37784	38039	38616	1.5
Naphtha	18505	17391	17861	19946	20006	19786	20679	4.5
ATF	11220	11103	11789	13831	14594	15479	15238	-1.6
Kerosene	7418	7559	7503	6041	4408	4072	3141	-22.8
HSD	93759	94428	98588	102484	107904	110535	111198	0.6
LDO	423	358	429	629	562	702	643	-8.3
Total Fuel Oils	13405	11919	9727	9962	9486	10032	8610	-14.2
of which								
a) Furnace Oil	12920	11248	9468	9694	9019	9598	8173	-14.8
b) LSHS/HHS/RFO	485	671	259	268	468	434	437	0.5
Lube Oils	941	946	1037	1029	1036	949	932	-1.8
Bitumen	4785	4632	5157	5185	5277	5803	5244	-9.6
Petroleum Coke	12068	12448	13322	13936	14754	14676	15528	5.8
Paraffin Wax	55	51	65	85	104	90	96	6.6
Others	17871	18137	20557	22504	26111	29413	30195	2.7
Total Production of Petroleum Products	220756	221136	231923	243551	254405	262361	262944	0.2
of which								
Refineries	216456	217141	227907	239256	249797	257430	258181	0.3
Fractionators	4300	3994	4016	4294	4608	4931	4763	-3.4

Note: 1.Total may not tally due to rounding off.
2. Others include Propylene, Solvents (Hexane, Benzene, Toluene, Xylene and Specialty solvents), Reformate, MTO, Carbon Black Feed Stock, Sulphur etc.
Source: Oil Companies

P: Provisional

Figure III.7: Distribution of Petroleum Products Produced during 2019-20 (%)



III.8: Gross Refining Margins (GRM) of Oil Refineries

(Figures in \$/bbl)

Refinery	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PSUs Refineries							
IOCL, Guwahati**	6.38	8.68	15.88	22.14	21.88	16.35	14.22
IOCL, Barauni	6.68	-1.20	2.93	6.52	6.60	3.86	-1.24
IOCL, Koyali	4.52	4.79	6.80	7.55	9.44	4.87	1.90
IOCL, Haldia	2.84	-1.51	3.96	6.80	6.86	5.36	-2.44
IOCL, Mathura	2.10	-2.19	3.30	7.01	7.09	4.65	-1.03
IOCL, Digboi**	15.41	13.73	16.17	24.49	24.86	22.74	17.52
IOCL, Panipat	3.62	-1.97	4.15	7.95	7.74	4.66	-0.25
IOCL, Bongaigaon**	6.71	-0.26	11.09	20.15	20.62	16.94	10.49
IOCL, Paradip	-	-	-0.65	4.22	7.02	4.46	-1.80
Total IOCL	4.24	0.27	5.06	7.77	8.49	5.41	0.08
BPCL, Mumbai	3.95	3.97	6.37	5.36	7.26	4.92	2.88
BPCL, Kochi	4.80	3.17	6.87	5.16	6.44	4.27	2.17
Total BPCL	4.33	3.62	6.59	5.26	6.85	4.58	2.51
HPCL, Mumbai	5.38	4.88	8.09	6.95	8.35	5.79	3.63
HPCL, Vishakhapatnam	1.50	1.12	5.46	5.51	6.55	4.31	-1.30
Total HPCL	3.43	2.84	6.68	6.20	7.40	5.01	1.02
CPCL	4.08	1.97	5.27	6.05	6.42	3.70	-1.18
NRL, Numaligarh**	12.09	16.67	23.68	28.56	31.92	28.11	24.33
MRPL, Mangalore	2.67	-0.64	5.20	7.75	7.54	4.06	-0.23
Private Refineries							
RIL	8.10	8.60	10.80	11.00	11.60	9.20	8.9
NEL, Vadinar	7.98	8.37	10.81	9.14	8.95	6.97	5.88
Joint Venture Refineries							
BORL, Bina	7.70	6.10	11.70	11.80	11.70	9.80	5.60
HMEL, Bhatinda	*	*	11.65	13.09	12.07	9.42	*

*: Not available

P:Provisional

** : GRM of North Eastern refineries are including excise duty benefit.

Source: Centre for High Technology



III.9: Specific energy consumption (MBN number) of Oil Refineries

Refinery	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PSUs Refineries							
IOCL, Guwahati	58.6	109.4	121.9	113.8	108.0	112.3	121.2
IOCL, Barauni	60.5	84.4	81.0	80.7	77.7	77.9	75.9
IOCL, Koyali	59.4	76.1	75.8	75.2	72.4	75.3	77.4
IOCL, Haldia	52.7	79.0	79.8	83.0	80.8	76.6	88.3
IOCL, Mathura	60.5	78.2	73.4	72.2	68.3	63.9	65.8
IOCL, Digboi	61.5	94.0	112.4	114.3	105.5	101.8	101.7
IOCL, Panipat	49.9	71.7	70.1	64.9	63.2	64.1	64.5
IOCL, Bongaigaon	72.9	98.7	91.3	90.2	91.7	88.6	96.8
IOCL, Paradip	-	-	-	117.8	72.8	66.8	64.1
Total IOCL	56.4	78.2	76.6	81.8	72.6	71.0	71.8
BPCL, Mumbai	66.6	77.3	74.7	70.6	66.7	64.7	63.0
BPCL, Kochi	77.4	78.5	77.6	85.8	79.2	71.6	68.2
Total BPCL	71.1	77.8	75.9	77.1	73.2	68.8	66.1
HPCL, Mumbai	75.4	94.6	89.3	85.7	84.4	82.8	84.8
HPCL, Vishakhapatnam	83.6	83.5	80.7	78.1	77.3	77.3	84.4
Total HPCL	79.0	88.9	84.8	81.9	80.8	80.0	84.6
CPCL(MRL), Manali	64.0	92.9	95.8	92.5	88.6	83.0	81.5
CPCL(MRL), Narimanam	123.2	118.6	113.1	117.8	123.7	118.1	-
Total CPCL	65.3	93.6	96.4	93.2	89.4	83.7	81.5
NRL, Numaligarh	53.5	71.4	71.1	72.3	64.7	65.9	64.8
MRPL, Mangalore	60.9	86.3	80.3	79.6	77.1	74.2	75.3
Private Refineries							
RIL, Jamnagar	56.5	51.6	52.6	51.3	50.0	49.0	50.4
RIL, SEZ-Jamnagar	51.4	49.0	49.3	49.0	48.6	48.2	49.1
Total RIL	53.5	50.2	50.8	50.0	49.2	48.6	49.7
NEL, Vadinar	59.4	63.8	62.7	58.6	58.9	61.1	59.7
Joint Venture Refineries							
BORL, Bina	-	86.2	84.2	68.4	66.9	69.2	64.8
HMEL, Bathinda	67.1	66.0	62.0	62.5	61.1	59.2	59.9
Grand Total	58.6	66.3	65.5	65.9	63.3	62.6	63.0

Note: New MBN from 2014-15 onwards

P: Provisional

Source: Centre for High Technology



III.10: Distillate yield of PSU Refineries

(Distillate %)

Refinery	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IOCL, Guwahati	83.06	81.09	80.81	83.50	82.70	81.00	83.50
IOCL, Barauni	87.93	87.30	88.69	85.30	89.00	87.90	86.90
IOCL, Koyali	78.40	80.15	83.10	81.00	82.50	81.00	79.50
IOCL, Haldia	68.50	69.05	69.57	66.70	66.90	69.90	69.00
IOCL, Mathura	68.89	71.92	74.70	73.60	75.40	76.10	75.60
IOCL, Digboi	73.51	74.82	69.69	75.30	77.90	75.80	72.50
IOCL, Panipat	81.97	82.45	83.80	84.10	84.90	82.80	84.80
IOCL, Bongaigaon	85.90	83.98	84.46	83.80	84.30	84.80	80.80
IOCL, Paradip	-	-	-	75.30	79.40	80.80	80.70
Total IOCL	78.30	78.78	80.60	78.81	80.36	80.36	80.20
BPCL, Mumbai	81.00	81.76	84.29	86.15	84.30	82.20	84.90
BPCL, Kochi	81.90	84.67	85.70	85.17	83.90	82.50	84.20
Total BPCL	81.40	83.06	84.92	85.69	84.10	82.36	84.50
HPCL, Mumbai	72.60	75.90	76.00	77.60	77.40	77.60	77.00
HPCL, Vishakhapatnam	75.70	78.76	75.70	74.00	74.50	74.50	72.10
Total HPCL	74.30	77.40	75.80	75.70	75.90	76.00	74.40
CPCL(MRL), Manali	72.10	71.50	71.36	71.60	72.30	75.30	77.60
CPCL(MRL), Narimanam	85.10	71.59	79.27	78.20	79.10	77.30	-
Total CPCL	72.83	71.50	71.77	71.92	72.62	75.38	77.60
NRL, Numaligarh	92.20	90.69	89.90	90.52	86.68	87.10	83.00
MRPL, Mangalore	74.60	72.31	76.90	77.30	76.50	76.80	76.70
Grand Total (PSUs)	77.70	78.30	79.90	79.30	79.70	79.70	80.00

Source: Centre for High Technology

III.11: LNG Terminals Operational as on 31.03.2020

Terminal	Promoters	Capacity (MMTPA)	Capacity Utilization (%)			
			2016-17	2017-18	2018-19	2019-20 (P)
Dahej (Gujarat)	Petronet LNG Ltd. (PLL)	15	105.31	105.30	106.50	102.08
Kochi (Kerala)		5	5.46	12.20	9.30	16.59
Hazira (Gujarat)	Hazira LNG Pvt. Ltd. (HLPL)	5	69.63	58.90	79.90	94.59
Dabhol (Maharashtra)	Ratnagiri Gas and Power Pvt. Ltd. (RGPP- JV of GAIL & NTPC)	1.69*	57.07	64.90	72.10	97.40
Ennore (Tamilnadu)	IndianOil LNG Pvt. Ltd. (IOLPL)	5	-	-	-	9.00
Mundra (Gujarat)**	GSPC LNG Limited (GLL)	5	-	-	-	29.63

*:To increase to 5 MMTPA with breakwater

P:Provisional

Note: **Mundra LNG terminal was commissioned in February 2020. The capacity utilization indicated above is for the period from 11-Feb. 2020 to 31-Mar.2020 only

Source: Oil & Gas Companies



III.12: Existing Major Crude Oil Pipelines in India

Type of Pipeline/Owner/ Name of Pipeline	Capacity (MMTPA)*		Length (KMs)		Throughout (MMT)		Capacity Utilisation (%)
	2019	2020	2019	2020	2018-19	2019-20(P)	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Onshore							
IOCL	48.60	48.60	5195	5195	51.33	47.43	97.59
Salaya Mathura Pipeline	25.00	25.00	2646	2646	26.36	25.49	101.97
Mundra Panipat Pipeline	8.40	8.40	1194	1194	7.80	6.83	81.26
Paradip Haldia Barauni Pipeline	15.20	15.20	1355	1355	17.17	15.11	99.43
ONGC	27.10	27.10	795	795	9.70	10.10	37.28
CTF Kalol to CTF Nawagam - New	3.14	3.14	63	63	0.99	1.17	37.10
Nawagam-Koyali (18" New)	5.40	5.40	80	80	2.90	3.58	66.25
Nawagam-Koyali (14" Old)	3.30	3.30	78	78	0.56	0.00	0.00
Mehsana-Nawagam trunk line - New	2.27	2.27	77	77	2.02	2.06	91.04
CTF, Ankleshwar to Koyali pipeline	2.20	2.20	95	95	0.91	0.86	39.28
CTF, Ankleshwar to CPF, Gandhar	0.39	0.39	44	44	0.00	0.00	0.00
CPF, Gandhar to Saraswani 'T' point	1.81	1.81	57	57	0.76	0.73	40.64
Akholjuni- Koyali oil pipe line	0.48	0.48	66	66	0.18	0.20	42.18
Lakwa-Moran oil line (New)	1.50	1.50	15	15	0.35	0.29	19.16
Lakwa-Moran oil line (Old)	1.50	1.50	18	18	0.02	0.00	0.00
Geleki-Jorhat oil line (old)	1.50	1.50	49	49	0.33	0.11	7.04
Geleki-Jorhat oil line (new)	1.50	1.50	48	48	0.06	0.39	25.71
Borholla- Jorhat (old)	0.60	0.60	43	43	0.15	0.00	0.00
Borholla- Jorhat (New)	0.60	0.60	43	43	0.05	0.23	37.55
NRM (Narimanam) to CPCL	0.74	0.74	5	5	0.39	0.41	55.78
KSP-WGGS to TPK Refinery	0.08	0.08	14	14	0.00	0.05	55.40
GMAA EPT	0.09	0.09	4	4	0.02	0.03	38.45
OIL:Duliajan-Digboi-Barauni- Bongaigaon Pipeline	8.95	8.95	1193	1193	6.56	5.73	64.05
HMEL:Mundra - Bhatinda Pipeline	11.25	11.25	1017	1017	12.43	12.24	108.84
BORL: Vadinar - Bina Pipeline	6.00	6.00	937	937	5.76	7.87	131.18
Cairn	10.71	10.71	688	688	9.51	8.25	77.02
Mangala- Bhogat Pipeline	8.71	8.71	660	660	7.65	6.67	76.59
Bhogat- Marine	2.00	2.00	28	28	1.86	1.58	78.90
Total Onshore Crude Pipeline	112.61	112.61	9825	9825	95.29	95.53	84.83
Offshore							
ONGC	45.13	45.13	488	488	11.77	11.54	25.56
Mumbai High - Uran Trunk Pipeline	15.63	15.63	204	204	8.82	8.53	54.59
Heera-Uran Trunk Pipeline	11.50	11.50	81	81	2.89	2.97	25.79
Bombay-Uran Trunk 30" Pipeline	18.00	18.00	203	203	0.06	0.04	0.21
IOCL	-	-	106	106	-	-	-
Salaya Mathura Pipeline	-	-	14	14	-	-	-
Paradip Haldia Barauni Pipeline	-	-	92	92	-	-	-
Total Offshore Crude Pipeline	45.13	45.13	594	594	11.77	11.54	25.56
Total Crude pipeline	157.74	157.74	10419	10419	107.06	107.03	67.87

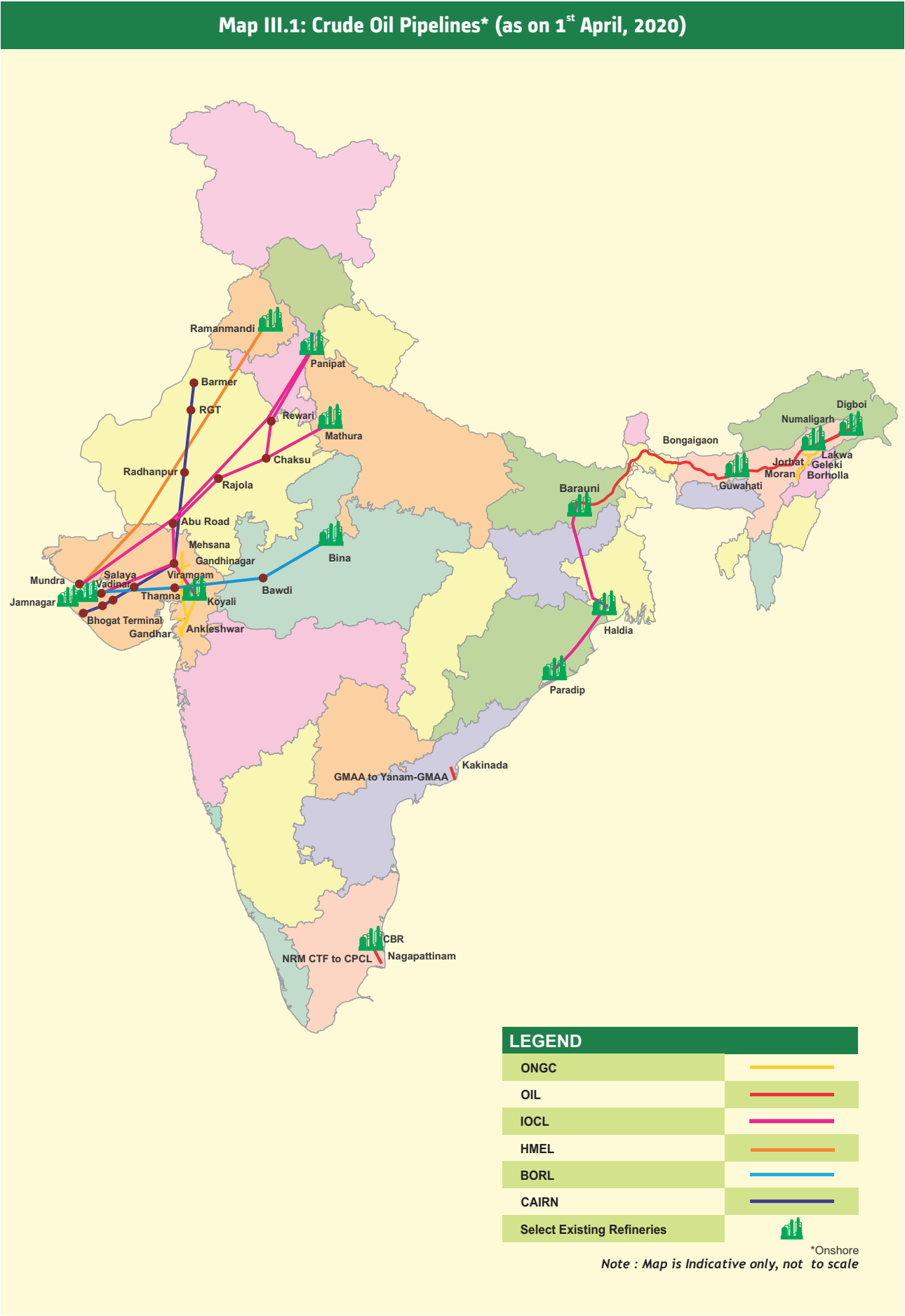
Note:

*: as on 31st March

P:Provisional

Source: Oil Companies





III.13: Existing Major Gas Pipelines in India

Type of Pipeline/Owner/ Name of Pipeline	Capacity (MMSCMD)*		Length (KMs)		Throughput (MMSCMD)		Utilisation (%)
	2019-20	2020-21	2019-20	2020-21	2018-19	2019-20(P)	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Onshore							
GAIL#	194.24	203.53	12221	12426	107.44	108.37	55.79
HVJ-GREP-DVPL	53.00	53.00	4902	4902	66.93	69.03	48.3
DVPL-GREP Upgradation (DVPL-II & VDPL)	54.00	54.00	1326	1326			
Chhainsa-Jhajjar-Hissar P/L	5.00	5.00	304	304			
Dadri Bawana Nangal	31.00	31.00	868	868			
Dahej-Panvel-Dhabol	19.90	19.90	930	930	14.04	16.23	81.53
Kochi-Koottanad-Bangalore- Mangalore (Phase-1)	6.00	6.00	48	48	1.71	3.02	50.33
Dhabol Bangalore	16.00	16.00	1110	1130	1.25	0.92	5.72
Gujarat	9.00	18.33	636	636	4.09	2.40	26.67
Rajasthan Regional (Jaisalmer)	2.35	2.35	153	153	1.13		0.00
Cauvery Basin	8.66	8.66	276	276	3.37	2.72	31.40
K G Basin	16.00	16.00	892	892	5.18	4.56	28.51
Assam (Lakwa)	-	-	-	-	0.32	-	-
Tripura (Agartala)	2.30	2.26	60	60	1.29	1.00	43.48
Mumbai Regional	7.03	7.03	131	131	8.13	4.89	69.47
JHBDPL (Ph-1)	-	-	585	770	0.00	0.01	-
Dedicated Pipelines & Others	-	-	-	-	-	3.61	-
IOCL	21.69	21.69	161	162	5.29	6.74	31.07
Dadri Panipat R LNG Pipeline	9.50	9.50	140	140	5.17	5.30	55.79
Ennore-Thiruvallur-Bengaluru- Puducherry-Nagapattinam- Madurai- Tuticorn R LNG Pipeline	12.19	12.19	21	22	0.12	1.44	11.81
GSPL- Network	43.00	43.00	2692	2696	34.57	37.78	87.9
DNPL: Duliajan to Numaligarh	1.20	1.20	192	192	0.73	0.77	64.0
AGCL: Duliajan to Numaligarh [§]	2.10	2.10	105	105	1.05	1.05	50.0
RIL	70.50	70.50	1784	1784	20.17	19.68	27.9
East-West Pipeline	67.00	67.00	1480	1480	19.44	18.78	28.0
Shahdol-Phulpur Pipeline	3.50	3.50	304	304	0.73	0.90	25.7
Total Onshore Gas Pipeline	332.73	342.02	17155	17365	169.25	174.39	52.4
Offshore							
ONGC	6.00	6.00	24	24	3.79	2.92	48.7
20" Uran Trombay Gas Line	6.00	6.00	24	24	3.79	2.92	48.7
Total Gas Pipeline	338.73	348.02	17179	17389	173.04	177.31	52.3

Note: \$: Excluded 514 KM CGD pipeline of AGCL.

*: as on 31st March

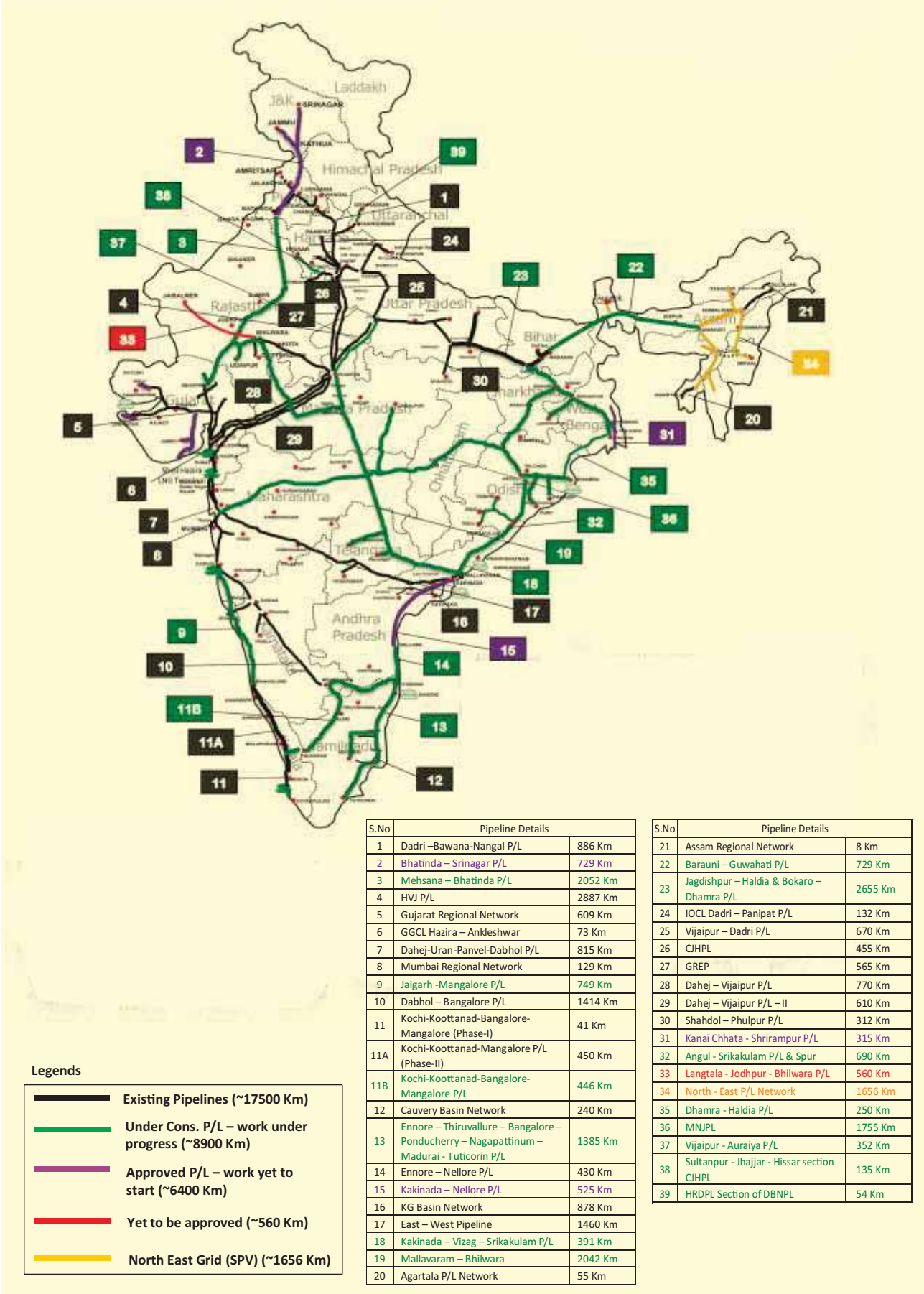
P:Provisional

#: Capacity/throughput of Chhainsa-Jhajjar-Hissar Pipeline and Dadri Bawana Nangal Pipeline are not included in total capacity/throughput, as these are extension of DVPL-II/VDPL.

Source: Oil Companies



Map-III.2: National Gas Grid (as on December, 2020)



III.14: Existing Major LPG & Petroleum Products Pipelines in India

Type of Pipeline/Owner/ Name of Pipeline	Capacity (MMTPA)*		Length (KM)*		Throughput (MMT)		Capacity Utilisation (%)
	2019	2020	2019	2020	2018-19	2019-20(P)	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GAIL	3.83	3.83	2032	2032	3.97	3.91	102.06
Jamnagar-Loni LPG Pipeline	2.50	2.50	1414	1414	2.85	2.71	108.21
Vizag-Secunderabad LPG Pipeline	1.33	1.33	618	618	1.12	1.20	90.52
IOCL	45.69	45.82	8769.0	9206.0	37.20	37.92	82.98
Panipat Jalandhar LPG Pipeline	0.70	0.70	280	280	0.62	0.60	85.57
Paradip Haldia Durgapur LPG Pipeline ¹	1.15	1.27	673	679	0.48	0.99	85.60
Koyali Ahmedabad Pipeline	1.10	1.10	79	79	0.17	0.44	39.55
Koyali Sanganer Pipeline	4.60	4.86	1644	1644	4.41	4.71	102.37
Koyali Ratlam Pipeline	2.00	2.00	265	265	1.49	1.50	74.90
Koyali Dahej Pipeline	2.60	2.60	197	197	1.06	0.72	27.77
Barauni Kanpur Pipeline	3.50	3.50	857	1227	2.77	2.67	76.17
Haldia Mourigram Rajbandh Pipeline	1.35	1.35	277	277	2.05	2.12	156.89
Haldia Barauni Pipeline	1.25	1.25	526	526	1.67	1.66	132.72
Guwahati Siliguri Pipeline	1.40	1.40	435	435	1.82	1.74	124.07
Panipat Bhatinda Pipeline	1.50	1.50	219	219	1.49	1.47	98.00
Panipat Rewari Pipeline	2.10	2.10	155	155	1.58	1.40	66.62
Panipat Ambala Jalandhar Pipeline	3.50	3.50	434	495	3.17	3.40	97.23
Panipat Delhi Pipeline	3.00	3.00	189	189	1.31	1.26	42.10
Panipat Bijwasan ATF Pipeline			111	111			
Mathura Delhi Pipeline	3.70	3.70	147	147	2.98	2.71	73.14
Mathura Tundla Pipeline	1.20	1.20	56	56	0.42	0.40	45.17
Mathura Bharatpur Pipeline			21	21	0.11	0.15	
Chennai Trichy Madurai Pipeline	2.30	2.30	683	683	2.96	2.94	128.00
Chennai Bangalore Pipeline	2.45	2.45	290	290	1.85	2.13	86.78
Chennai Meenambakkam ATF Pipeline	0.18	0.18	95	95	0.28	0.32	178.89
Digboi Tinsukia Pipeline	0.33	0.00	0	0	0.11	0.00	0.00
Devangonhi Devanhalli Pipeline	0.66	0.66	36	36	0.50	0.61	91.82
Paradip Raipur Ranchi Pipeline	5.00	5.00	1073	1073	3.84	3.82	76.42
Kolkata ATF Pipeline	0.12	0.20	27	27	0.06	0.19	158.97
BPCL	17.80	17.80	2241	2241	15.34	16.99	95.46
Uran LPG Pipeline	0.80	0.80	28	28	0.36	0.36	45.48
Mumbai-Manmad-Bijwasan pipeline	6.00	6.00	1389	1389	7.56	6.88	114.72
Bina-Kota pipeline (BKPL)	4.40	4.40	259	259	3.05	4.21	95.70
ATF P/L Mumbai Refinery (MR)-Santacruz	1.40	1.40	15	15	0.91	0.74	52.78
ATF P/L Kochi Refinery (KR)-Kochi Airport	0.60	0.60	34	34	0.53	0.53	88.22
Kota - Jobner branch pipeline ²	-	-	211	211	-	-	-
Mumbai Refinery- Wadilube Pipeline	1.30	1.30	12	12	0.15	0.27	20.48
Cochin-Coimbatore-Karur (CCK) pipeline	3.30	3.30	293	293	2.79	4.00	121.20

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III.14: Existing Major LPG & Petroleum Products Pipelines in India

Type of Pipeline/Owner/ Name of Pipeline	Capacity (MMTPA)*		Length (KM)*		Throughput (MMT)		Capacity Utilisation (%)
	2019	2020	2019	2020	2018-19	2019-20(P)	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HPCL	40.24	55.82	3735	4139	35.15	33.81	84.02
Mangalor-Hassan-Mysore-Solur LPG Pipeline	1.94	1.94	356	356	0.96	0.98	50.73
Uran-Chakan-Shikrapur LPG Pipeline	-	1.00	-	169	-	0.11	-
Mumbai - Pune - Solapur Pipeline	4.30	4.30	508	508	4.27	4.12	95.80
Visakh - Vijaywada - Secunderabad Pipeline	5.38	7.70	572	572	5.92	5.63	104.61
Mundra - Delhi Pipeline	5.00	6.90	1054	1054	7.00	6.73	134.69
Ramanmandi - Bahadurgarh Pipeline	4.71	7.11	243	243	6.13	5.75	122.10
Ramanmandi - Bhatinda Pipeline	2.10	2.10	30	30	1.01	1.08	51.34
Awa - Salawas Pipeline	2.34	2.34	93	93	0.74	0.60	25.82
Bahadurgarh - Tikrikalan Pipeline	0.75	0.75	14	14	0.43	0.39	51.47
Rewari - Kanpur Pipeline	7.98	7.98	443	443	3.92	3.81	47.70
Mumbai Refinery to Mumbai Airport Line	1.10	1.10	20	20	0.48	0.43	38.74
Mumbai Refinery to Vashi terminal Line	1.50	1.50	21.5	21.5	0.44	0.63	41.90
Mumbai Refinery to Mazagaon terminal Line	1.00	1.00	17	17	0.49	0.50	49.77
Palanpur-Vadodara Pipeline	-	4.50	-	235	-	0.13	-
Mangalore Hassan Bengaluru Pipeline	2.14	5.60	364	364	3.36	2.93	136.68
OIL: Numaligarh - Siliguri Pipeline	1.72	1.72	654	654	1.78	1.34	77.59
Total Products Pipeline	109.29	124.99	17432	18273	93.43	93.97	85.98
of which LPG Line	8.42	9.54	3369	3544	6.40	6.95	82.55
Others Product Pipelines	100.86	115.45	14063	14729	87.04	87.01	86.27

Note: 1. Capacity of Paradip Haldia Durgapur Pipeline is 1.270 MMTPA, Kolkata ATF is 0.2 MMTPA & Koyali Sanganer Pipeline is 5.0 MMTPA. Pro-rated capacity provided based on date of commissioning.

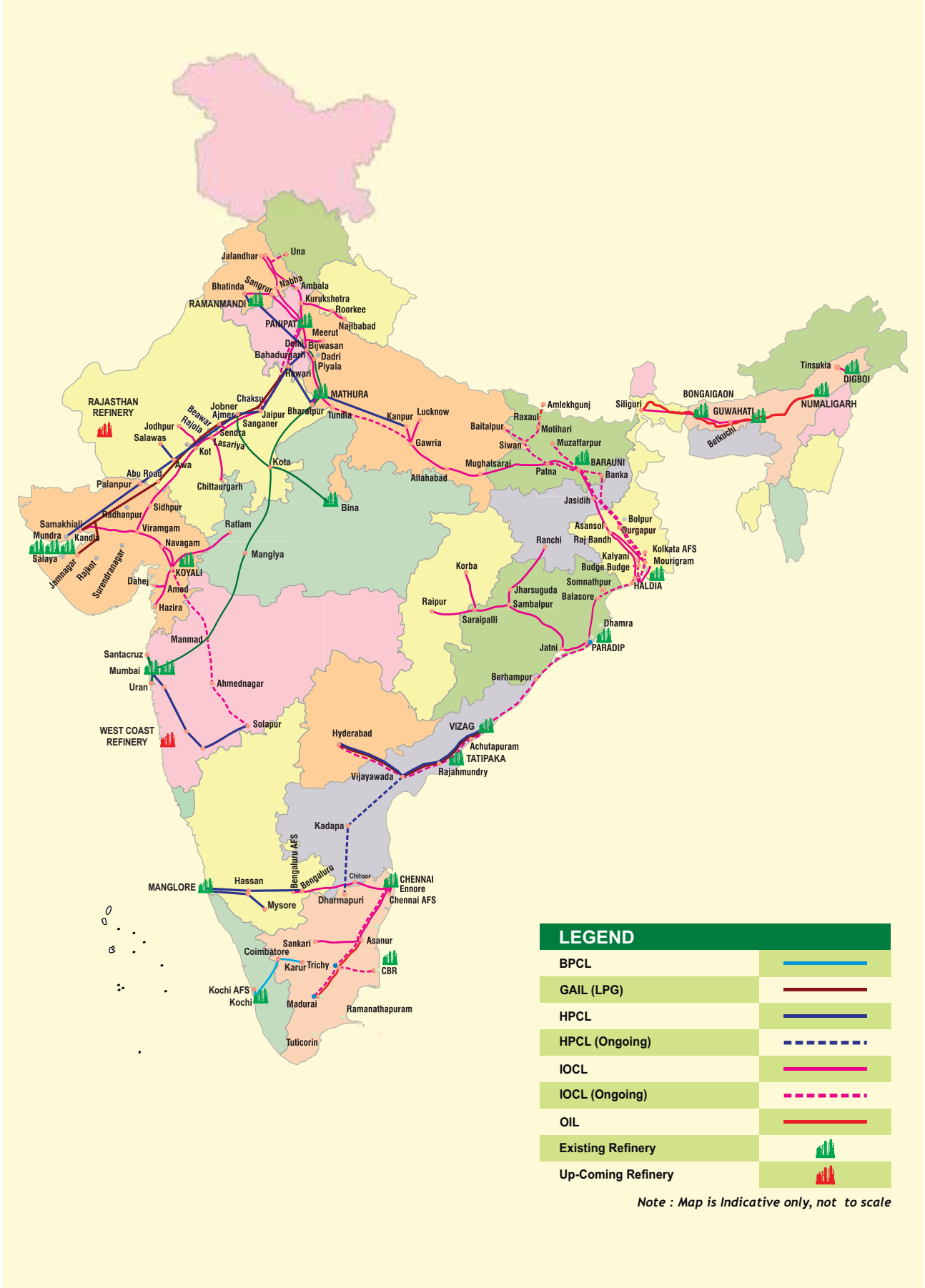
2.Kota-Jobner Pipeline is a branch pipeline of Mumbai Manmad Bijwasan pipeline with annual capacity of 1.7 MMTPA.Throughput of this pipeline is included in MMBPL & BKPL pipelines.

Source: Oil Companies

P:Provisional



Map-III.3: Refineries & Petroleum Products Pipelines (as on 1st April, 2020)



CHAPTER I

CHAPTER II

CHAPTER III

CHAPTER IV

CHAPTER V

CHAPTER VI

CHAPTER VII

CHAPTER VIII

CHAPTER IX

CHAPTER X

CHAPTER XI

CHAPTER XII

APPENDIX



III.15: Tonnage of Indian Tankers Fleet (as on 31st March)

	2014	2015	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Coastal Trade (Oil Tankers)							
1. Product Carriers							
No. of tankers	14	14	14	15	16	16	17
DWT ('000' tonnes)	44	44	44	46	47	46	48
2. Crude Oil Carriers							
No. of tankers	2	3	4	4	4	4	5
DWT ('000' tonnes)	41	358	403	403	403	403	477
3. Offshore Supply Vessels							
No. of tankers	108	102	106	106	101	101	101
DWT ('000' tonnes)	115	110	114	119	114	117	121
4. Specialized vessels for offshore							
No. of tankers	38	36	36	36	37	37	38
DWT ('000' tonnes)	50	49	49	49	49	49	48
Total (1+2+3+4)							
No. of tankers	162	155	160	161	158	158	161
DWT ('000' tonnes)	250	560	609	617	613	615	694
B. Overseas Trade (Oil Tankers)							
5. Ore Oil Bulk Carriers							
No. of tankers	1	1	1	1	1	1	1
DWT ('000' tonnes)	46	46	46	46	46	46	46
6. Crude Oil Carriers							
No. of tankers	64	60	63	65	71	69	70
DWT ('000' tonnes)	5786	5608	5858	6231	7246	7005	7052
7. Product Carriers							
No. of tankers	47	47	50	53	56	63	66
DWT ('000' tonnes)	3273	3313	3440	3555	3660	3939	3974
8. LPG Carriers							
No. of tankers	9	8	11	14	19	19	17
DWT ('000' tonnes)	273	223	303	451	696	808	736
Total Overseas (5+6+7+8)							
No. of tankers	121	116	125	133	147	152	154
DWT ('000' tonnes)	9377	9190	9646	10283	11648	11798	11808
Total Oil Tankers (A+B)							
No. of tankers	283	271	285	294	305	310	315
DWT ('000' tonnes)	9627	9750	10256	10899	12260	12413	12502

Note: Total may not tally due to rounding off

DWT: Dead Weight Tonnage.

Source: Directorate General of Shipping, Mumbai.



III.16: Indian Tonnage (as on 31.03.2020)

(Figures in Tonnes)

Sl. No.	Owner of the ship	Gross Registered Tonnage	Dead Weight Tonnage
A. Coastal Trade			
Tankers (Product Carriers)			
1	Associated Maritime Pvt.Ltd.	1090	2052
2	Atlantic Shipping Pvt. Ltd.	2814	3617
3	Bharat Chemical	1299	1500
4	Blue Ocean Sea Transport Ltd.	396	596
5	Castle Ships Pvt.Ltd.	1332	2127
6	Coast Line Services (India)Pvt. Ltd.	493	872
7	Jaisu Shipping (P) Ltd.	1873	2808
8	K. Raghupathi Rao (Raghu)	65	0
9	M.Gangadhar Rao	36	0
10	Marine Blue Shipping Pvt. Ltd.	708	0
11	Pratibha Shipping Co.Ltd.	30565	28610
12	Shiny Shipping & Logistics Pvt. Ltd.	2153	2734
13	Vamsee Shipping Carrier Pvt.Ltd.	1651	1059
14	Akruthi Sudhakar	1119	2072
	Total	45594	48047
Tankers (Crude Oil Carriers)			
1	Jadwet Trading Company	40	0
2	Seven Islands Shipping Ltd.	29083	44970
3	The Shipping Corpn.of India Ltd.	190359	357757
4	Sanmar Shipping Ltd	43357	73980
	Total	262839	476707
Specialized Vessels for Offshore Services			
1	Dolphin Offshore Shipping Ltd.	405	436
2	Hind Offshore Pvt. Ltd.	969	0
3	Jaisu Shipping Co. (P) Ltd.	99	99
4	K. Desai & Company	181	0
5	National Institute of Oceanography, Goa	709	297
6	National Institute of Ocean Technology	4862	0
7	Oil & Natural Gas Corporation	45281	26469
8	Raj Shipping Agencies Ltd.	715	915
9	Reliance Industries Ltd.	2421	3104
10	Sadhav Shipping Ltd.	70	5
11	Safe & Sure Marine Services Pvt. Ltd.	490	826
12	Sea Rides Ship Management	1011	1142
13	Sealion Sparkle Maritime Services Ltd.	136	14
14	South East Asia Marine Engg & Const. Ltd.	11211	6135
15	Sunrise Marine Services.	392	469
16	The Council of Scientific & Industrial Research	2661	800
17	The Dept. of Ocean Development	4582	1605
18	The Dir. Gen. of Light House & Lightship	5823	3083
19	The Geological Survey of India	2942	2005
20	Ministry of Earth Science	993	326
	Total	85953	47730

Contd...



III.16: Indian Tonnage (as on 31.03.2020) (Contd..)

(Figures in Tonnes)

Sl. No.	Owner of the ship	Gross Registered Tonnage	Dead Weight Tonnage
Offshore Supply Vessels			
1	Administration of U.T. of Lakshadweep	10721	960
2	Albatross Shipping Agencies	2893	3798
3	ARC Maritime Pvt. Ltd.	1591	1921
4	Asian Marine Supplier	104	0
5	Atlas Offshore Services Pvt. Ltd.	297	1018
6	Bhambhani Shipping Ltd.	867	1060
7	Chandra Ship Management Pvt. Ltd.	285	0
8	Coastal Marine Const. & Engg. Ltd.	1291	0
9	Damodar Marine Services Pvt. Ltd.	487	737
10	Daniel Engineering Works & Ship Repairs	850	1000
11	Delta Maritime & Industrial Skill Training Institute Pvt. Ltd.	921	1025
12	Diplomat Marine	1221	1149
13	Dolphin Offshore Shipping Ltd.	1371	763
14	First Oil & Gas Services Pvt. Ltd.	2568	2105
15	Fugro Survey (India) Pvt. Ltd.	494	509
16	GAL Offshore Shipping	640	0
17	Glory Ship Management Pvt. Ltd.	495	0
18	GOL Offshore Ltd.	8242	11306
19	Greatship (India) Ltd.	4983	2416
20	Hal Offshore Ltd.	1085	832
21	Hede Ferrominas(P) Ltd.	1332	1686
22	Hind Offshore Pvt. Ltd.	4430	5442
23	ITT Lines Pvt. Ltd.	1042	1207
24	Jayesh Shipping P. Ltd.	69	0
25	K. G. Offshore Services Pvt. Ltd.	417	0
26	KEI-RSOS Maritime Ltd.	2779	2914
27	Lewek Alter Shipping Pvt. Ltd.	3601	0
28	Mathew Meenathethil George	322	500
29	Mr. Nikhil Kumar Dhali	189	0
30	Mrs. Ishrat Johan W/o. Mr. Riaz Khan	140	15
31	Mustan Tahderbhai Khanbhai	1310	1817
32	Netincon Logistics Pvt. Ltd.	2419	0
33	Ocean Sparkle Ltd.	9255	7142
34	Oil & Natural Gas Corporation Ltd.	10880	13068
35	PFS Shipping (India)Ltd.	0	0
36	Prince Marine Transport Services	3634	1173
37	Priyablue Shipping Pvt Ltd.	6216	7200
38	Raj Shipping Agencies Ltd.	6498	8021
39	Sambhulingam Marine Services	317	0
40	Samson Maritime Ltd.	5375	5945
41	Samudrika Logistics Pvt. Ltd.	275	290
42	Sun Marine	1310	1758
43	Synergy Offshore Services	189	125
44	TAG Offshore Ltd.	9217	7605
45	TAG Sea Logistics Ltd.	3939	4952
46	Tarun Shipping & Industries Ltd.	1978	2172
47	The Shipping Corpn. Of India Ltd.	7841	6917
48	Transtar Marine & Offshore Services	1078	0
49	Tulshyan Shipping & Offshore Services Pvt. Ltd.	2095	2374
50	Tirupati vessel pvt Ltd	5944	6384
51	Creative maritime Services LLP	1592	1624
Total		137089	120930

Contd...



III.16: Indian Tonnage (as on 31.03.2020) (Cont'd)

(Figures in Tonnes)

Sl. No.	Owner of the ship	Gross Registered Tonnage	Dead Weight Tonnage
B. Overseas Trade			
Ore Oil Bulk Carriers			
1	The Shipping Corpn.of India Ltd.	28029	45792
	Total	28029	45792
Oil Tankers (Crude Carriers)			
1	Chambal Fertilizers & Chemicals	112124	201913
2	Essar Shipping Ports & LogisticsLtd.	149274	281396
3	Great Eastern Shipping Co. Ltd.	708498	1287328
4	Mercator Lines Ltd.	136977	234833
5	Pratibha Shipping Co.Ltd.	205806	364629
6	Seven Islands Shipping Ltd.	475797	849377
7	The Shipping Corpn.of India Ltd.	1559731	2829424
8	Varun Shipping Co.Ltd.	114263	213678
9	Arya Tankers Pvt. Ltd.	28414	44998
10	Arya Voyagers Pvt. Ltd.	22181	35024
11	Zen Shipping & Ports India Pvt. Ltd.	5998	10280
12	Arya Ship Charters Pvt. Ltd.	132854	245254
13	Gu Crude Carriers Pvt. Ltd.	79751	152923
14	LMCS Maritime Pvt. Ltd.	157690	301418
	Total	3889358	7052475
Oil Tankers (Product Carriers)			
1	Arya Tankers Pvt. Ltd.	22848	35437
2	ASM Shipping	18101	30990
3	Castle Ships Pvt.Ltd.	90316	144619
4	Doehle Danautic (I) Pvt. Ltd.	28226	45999
5	Great Eastern Shipping Co. Ltd.	535167	952506
6	Indian Ocean Shipping Pvt. Ltd.	50306	78425
7	Intergrity Ships Pvt. Ltd.	10499	18394
8	M.P.Recycling Co. Pvt. Ltd.	20378	29990
9	Mercator Lines	325980	565416
10	Pratibha Shipping Ltd.	45172	76881
11	Sanmar Shipping Ltd.	197228	334513
12	SCI Forbes Ltd.	34500	52489
13	Seven Islands Shipping Ltd.	198352	323578
14	TAG Offshore Ltd.	22650	19939
15	The Shipping Corpn. Of India Ltd.	641797	1088824
16	Zen Shipping & Ports India Pvt. Ltd.	8253	14003
17	Arya Nautica Pvt Ltd	21142	31069
18	M/s. Shapoorji Pallonji Forbes Shipping Ltd.	12105	20938
19	M/s. Hindage Oilfield Services Ltd.	61764	109610
	Total	2344784	3973620
LPG Carriers			
1	BW Global United LPG India Pvt. Ltd.	93662	109290
2	Global United Shipping India Pvt. Ltd.	65860	78713
3	Mercator Ltd.	0	0
4	The Great Eastern Shipping Co. Ltd.	189673	224113
5	The Shipping Corpn.of India Ltd.	46506	53503
6	Varun Gas Logistics Pvt. Ltd.	47156	54826
7	Varun Resources Ltd.	23878	27200
8	Varun Shipping Co.Ltd.	155605	187978
	Total	622340	735623

Source: Directorate General of Shipping, Mumbai.

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III.17: Share of Traffic of Petroleum Products in the Total Traffic Handled at Major Ports

(in Million Tonnes)

Name of the port	Year	Total Traffic	POL Traffic	POL as %age of total traffic at the port
(1)	(2)	(3)	(4)	(5)
Kolkata/Haldia	2017-18	57.89	8.92	15.41
	2018-19	63.71	9.51	14.93
	2019-20	63.98	10.32	16.13
Mumbai	2017-18	62.83	37.68	59.97
	2018-19	60.59	37.30	61.56
	2019-20	60.70	38.12	62.80
Chennai	2017-18	51.88	13.50	26.03
	2018-19	53.01	13.30	25.09
	2019-20	46.76	13.42	28.70
Cochin	2017-18	29.14	19.57	67.16
	2018-19	32.02	21.91	68.43
	2019-20	34.04	23.24	68.27
Deendayal (Kandla)	2017-18	110.10	62.20	56.49
	2018-19	115.40	59.31	51.40
	2019-20	122.50	63.11	51.52
Visakhapatnam	2017-18	63.54	16.05	25.26
	2018-19	65.30	16.32	24.99
	2019-20	72.72	18.92	26.02
Mormugao	2017-18	26.90	0.63	2.34
	2018-19	17.68	0.60	3.39
	2019-20	16.02	0.66	4.12
J.N.P.T.	2017-18	66.00	4.64	7.03
	2018-19	70.71	4.79	6.77
	2019-20	68.45	3.87	5.65
Paradip	2017-18	102.01	33.78	33.11
	2018-19	109.28	38.12	34.88
	2019-20	112.69	37.33	33.13
Tuticorin (V.O. Chidambaranar)	2017-18	36.58	0.64	1.75
	2018-19	34.34	0.59	1.72
	2019-20	36.07	0.53	1.47
New Mangalore	2017-18	42.06	24.72	58.77
	2018-19	42.51	25.85	60.81
	2019-20	39.14	22.61	57.77
Kamarajar (Ennore)	2017-18	30.45	4.34	14.25
	2018-19	34.50	4.74	13.74
	2019-20	31.75	5.07	15.97
Grand Total	2017-18	679.37	226.66	33.36
	2018-19	699.05	232.34	33.24
	2019-20	704.82	237.20	33.65

Source : Ministry of Shipping.



III.18: Movement of POL Traffic on Railways

Year	Tonnes Originating (TMT)	Earnings (₹ crore)	Average Lead (Kms)	Earnings (Paise/Tonnes/Kms)	Average Freight (₹/Tonne)
(1)	(2)	3)	(4)	(5)	(6)
2013-14	41159	5343.95	723	179.69	1298.37
2014-15	41095	5515.66	662	202.62	1342.17
2015-16	43238	5926.97	678	202.11	1370.78
2016-17	42422	5686.28	672	199.39	1340.41
2017-18	43110	5693.84	642	205.60	1320.77
2018-19	43490	5773.17	642	206.63	1327.47
2019-20	45110	6084.43	652	207.04	1348.80

Source : Ministry of Railways

P: Provisional

III.19: Rail Freight Rates in respect of Petroleum Products

Effective Dates	Distance in Kilometres							(in ₹/Tonne)
	100	300	500	800	1000	1500	2000	2500
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
01.04.2013	211.8	514.0	813.6	1267.0	1563.2	2367.6	2896.6	3289.4
10.10.2013	215.4	522.6	827.2	1288.0	1589.0	2346.0	2944.0	3344.2
25.06.2014	257.8	556.4	880.8	1371.4	1692.2	2497.8	3134.4	3560.6
01.04.2015	255.2	550.8	871.9	1357.7	1675.3	2472.8	3103.0	3524.9
01.04.2016	255.2	550.8	871.9	1357.7	1675.3	2472.8	3103.0	3524.9
01.04.2017	204.2	550.8	871.9	1357.7	1675.3	2472.8	3103.0	3524.9
01.04.2018	204.2	550.8	871.9	1357.7	1675.3	2472.8	3103.0	3524.9
01.04.2019	204.2	550.8	871.9	1357.7	1675.3	2472.8	3103.0	3524.9
01.04.2020	204.2	550.8	871.9	1357.7	1675.3	2472.8	3103.0	3524.9

Note: Rail freight per tonne is only the base freight i.e. exclusive of other charges like @ 15% Busy Season charges @ 5% Development charge, GST etc. for Petroleum products for Trainload.

Source : Ministry of Railways

III.20: Marketing Infrastructure of PNG Industry in India

(in Number)

	Period	Unit	IOCL	HPCL	BPCL	RIL	NEL	SHELL	Others	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Retail Outlets	31.03.2019	Nos.	27702	15440	14805	1400	5128	145	7	64627
		%	42.86	23.89	22.91	2.17	7.93	0.22	0.01	100
	31.03.2020	Nos.	29085	16476	16234	1400	5702	189	7	69093
		%	42.10	23.85	23.50	2.03	8.25	0.27	0.01	100
LPG Active Domestic Consumers	31.03.2019	Nos.	1240	732	681	-	-	-	-	2654
		%	46.72	27.60	25.68	-	-	-	-	100
	31.03.2020	Nos. Lakhs	1311	767	709	-	-	-	-	2787
		%	47.05	27.52	25.43	-	-	-	-	100
LPG Distributors	31.03.2019	Nos.	11964	5866	5907	-	-	-	-	23737
		%	50.40	24.71	24.89	-	-	-	-	100
	31.03.2020	Nos.	12450	6110	6110	-	-	-	-	24670
		%	50.47	24.77	24.77	-	-	-	-	100
SKO/LDO Dealerships	31.03.2019	Nos.	3889	1638	1001	-	-	-	-	6528
		%	59.57	25.09	15.33	-	-	-	-	100
	31.03.2020	Nos.	3882	1638	1001	-	-	-	-	6521
		%	59.53	25.12	15.35	-	-	-	-	100
POL Terminal/ Depots ¹	31.03.2019	Nos.	125	82	78	18	-	2	6	311
		%	40.19	26.37	25.08	5.79	-	0.64	1.93	100
	31.03.2020	Nos.	118	84	78	18	-	2	6	306
		%	38.56	27.45	25.49	5.88	-	0.65	1.96	100
Aviation Fueling Station ²	31.03.2019	Nos.	116	43	57	31	-	-	1	248
		%	46.77	17.34	22.98	12.50	-	0.00	0.40	100
	31.03.2020	Nos.	119	44	61	31	-	-	1	256
		%	46.48	17.19	23.83	12.11	-	0.00	0.39	100
LPG Bottling Plants ³	31.03.2019	Nos.	91	49	51	12	-	-	3	206
		%	44.17	23.79	24.76	5.83	-	0.00	1.46	100
	31.03.2020	Nos.	94	50	51	14	-	-	3	212
		%	44.34	23.58	24.06	6.60	-	0.00	1.42	100
Capacity of LPG Bottling Plants ⁴	31.03.2019	MMTPA	9.70	5.10	4.18	0.11	-	-	0.24	19.33
		%	50.19	26.39	21.64	0.56	-	0.00	1.22	100
	31.03.2020	MMTPA	10.06	5.58	4.56	0.12	-	-	0.24	20.56
		%	48.94	27.15	22.18	0.58	-	0.00	1.14	100

Note: 1. Others of POL terminal/depot includes 6 (MRPL 4 & NRL 2)
2. Others of AFS includes 1 from MRPL.
3. Others of LPG bottling plants includes 3 (CPCL 1, NRL 1 & OIL 1)
4. Others of LPG bottling plants capacities includes 0.235 MMTPA (CPCL 0.15 MMT, NRL 0.06 MMT & OIL 0.025 MMT)
Source: Oil Companies



III.21: State-wise and Company-wise Retail Outlets

(in Number)

State / UT	As on 31.03.2020						Total as on 31.03.2019
	IOCL	HPCL	BPCL	Total CPSEs	Total Private ²	Total Outlets	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Chandigarh	21	11	10	42	0	42	42
Delhi	189	98	107	394	4	398	398
Haryana	1557	785	473	2815	246	3061	2932
Himachal Pradesh	254	135	91	480	14	494	439
Jammu & Kashmir	239	140	154	533	0	533	509
Punjab	1770	919	650	3339	212	3551	3452
Rajasthan	1907	1159	965	4031	936	4967	4661
Uttar Pradesh	3984	1792	1679	7455	755	8210	7763
Uttarakhand	275	187	133	595	34	629	602
Sub Total North	10196	5226	4262	19684	2201	21885	20798
Arunachal Pradesh	69	5	26	100	16	116	94
Assam	580	125	186	891	89	980	895
Manipur	97	5	30	132	4	136	104
Meghalaya	125	37	51	213	12	225	209
Mizoram	34	3	7	44	1	45	43
Nagaland	60	5	17	82	12	94	79
Sikkim	22	8	24	54	1	55	51
Tripura	68	2	7	77	2	79	72
Sub Total North-East	1055	190	348	1593	137	1730	1547
Andaman & Nicobar	16	0	0	16	0	16	14
Bihar	1599	561	715	2875	93	2968	2859
Jharkhand	569	318	386	1273	85	1358	1215
Odisha	862	373	514	1749	145	1894	1707
West Bengal	1242	521	663	2426	97	2523	2363
Sub Total East	4288	1773	2278	8339	420	8759	8158
Chhattisgarh	589	466	365	1420	42	1462	1278
Dadra & Nagar Haveli	11	10	4	25	5	30	31
Daman & Diu	11	10	7	28	3	31	31
Goa	31	37	50	118	0	118	118
Gujarat	1434	923	979	3336	1239	4575	4159
Madhya Pradesh	1614	1020	1148	3782	448	4230	3832
Maharashtra	2080	1785	1925	5790	668	6458	6159
Sub Total West	5770	4251	4478	14499	2405	16904	15608
Andhra Pradesh	1365	1103	839	3307	412	3719	3430
Karnataka ¹	2040	1058	1216	4321	490	4811	4386
Kerala	938	644	516	2098	140	2238	2140
Lakshadweep	0	0	0	0	0	0	0
Puducherry	80	40	34	154	10	164	165
Tamil Nadu	2239	1313	1491	5043	761	5804	5627
Telangana	1114	878	772	2764	315	3079	2768
Sub Total South	7776	5036	4868	17687	2128	19815	18516
All India	29085	16476	16234	61802	7291	69093	64627

Note:1. In Karnataka, 7 Outlets are of MRPL in CPSEs.

2. Includes Pvt. Retail Outlets (RIL-1400; NEL-5702 & SHELL-189)

Source: Oil Companies

III.22: State-wise and Company -wise Active LPG Domestic Consumers

(in Number)

State / UT	As on 31.03.2020				Total as on 31.03.2019
	IOCL	HPCL	BPCL	Total	
(1)	(2)	(3)	(4)	(5)	(6)
Chandigarh	188951	55672	33942	278565	274506
Delhi	2990888	755052	1209708	4955648	4942352
Haryana	2994948	1643969	2262382	6901299	6614281
Himachal Pradesh	1498128	269062	199721	1966911	1726749
Jammu & Kashmir	776232	2025616	425156	3227004	2983661
Punjab	4560278	1847425	2141811	8549514	8307357
Rajasthan	6860061	4808387	4582924	16251372	15446522
Uttar Pradesh	21286797	8179821	10912923	40379541	37597958
Uttarakhand	1834230	266465	549825	2650520	2521811
Sub Total North	42990513	19851469	22318392	85160374	80415197
Arunachal Pradesh	259730	0	5993	265723	247144
Assam	5552626	508156	1053545	7114327	6380250
Manipur	544349	0	6041	550390	503977
Meghalaya	300618	1659	16469	318746	298297
Mizoram	300109	0	0	300109	283205
Nagaland	252109	799	11626	264534	246597
Sikkim	144446	666	1058	146170	136529
Tripura	738083	0	0	738083	698279
Sub Total North East	8092070	511280	1094732	9698082	8794278
Andaman & Nicobar Islands	111914	0	0	111914	95216
Bihar	8563136	4914342	4109407	17586885	16405554
Jharkhand	3181796	1485059	948552	5615407	5172328
Odisha	3365779	3039796	2182688	8588263	7977388
West Bengal	12697783	4926414	4434318	22058515	20939075
Sub Total East	27920408	14365611	11674965	53960984	50589561
Chhattisgarh	2710520	1631919	861881	5204320	4787168
Dadra & Nagar Haveli	0	92154	0	92154	87563
Daman & Diu	0	42289	24744	67033	61147
Goa	13437	326321	161958	501716	481802
Gujarat	5230114	2500025	2804374	10534513	10059531
Madhya Pradesh	7181992	4146700	3634678	14963370	14114369
Maharashtra	4320464	11814433	11493854	27628751	26928428
Sub Total West	19456527	20553841	18981489	58991857	56520008
Andhra Pradesh	4796237	6449118	2452784	13698139	13400938
Karnataka	6814028	5382690	3820205	16016923	15412792
Kerala	4463327	1749567	2581731	8794625	8608602
Lakshadweep	8267	0	0	8267	7691
Puducherry	146821	135099	88083	370003	369483
Tamil Nadu	12020808	3792752	5300995	21114555	20691449
Telangana	4417555	3914895	2563477	10895927	10555226
Sub Total South	32667043	21424121	16807275	70898439	69046181
All India	131126561	76706322	70876853	278709736	265365225

Source: Central Public Sector Enterprises/PPAC



III.23: State-wise and Company -wise LPG Distributors

(in Number)

State / UT	As on 31.03.2020				Total as on 31.03.2019
	IOCL	HPCL	BPCL	Total	
(1)	(2)	(3)	(4)	(5)	(6)
Chandigarh	18	5	4	27	27
Delhi	195	48	79	322	323
Haryana	293	138	190	621	614
Himachal Pradesh	145	33	25	203	196
Jammu & Kashmir	140	109	38	287	282
Punjab	471	173	212	856	851
Rajasthan	649	378	345	1372	1333
Uttar Pradesh	2204	868	1038	4110	4052
Uttarakhand	216	36	61	313	306
Sub Total North	4331	1788	1992	8111	7984
Arunachal Pradesh	79	0	4	83	83
Assam	414	53	92	559	522
Manipur	95	0	4	99	99
Meghalaya	50	4	8	62	62
Mizoram	59	0	0	59	58
Nagaland	68	5	8	81	78
Sikkim	19	3	2	24	22
Tripura	74	0	0	74	73
Sub Total North East	858	65	118	1041	997
Andaman & Nicobar Islands	9	0	0	9	9
Bihar	993	475	470	1938	1799
Jharkhand	294	136	106	536	491
Odisha	422	292	224	938	912
West Bengal	800	339	306	1445	1273
Sub Total East	2518	1242	1106	4866	4484
Chhattisgarh	266	157	111	534	523
Dadra & Nagar Haveli	0	3	0	3	3
Daman & Diu	0	2	1	3	3
Goa	5	32	18	55	54
Gujarat	520	221	227	968	901
Madhya Pradesh	775	375	357	1507	1450
Maharashtra	580	811	793	2184	2134
Sub Total West	2146	1601	1507	5254	5068
Andhra Pradesh	439	366	252	1057	1015
Karnataka	560	363	315	1238	1171
Kerala	339	145	191	675	659
Lakshadweep	1	0	0	1	1
Puducherry	12	8	7	27	27
Tamil Nadu	898	303	422	1623	1567
Telangana	348	229	200	777	764
Sub Total South	2597	1414	1387	5398	5204
Grand Total	12450	6110	6110	24670	23737

Source: Central Public Sector Enterprises & PPAC



III.24: State-wise and Company-wise SKO/LDO Dealerships

(in Number)

State / UT	As on 31.03.2020				Total as on 31.03.2019
	IOCL	HPCL	BPCL	Total	
(1)	(2)	(3)	(4)	(5)	(6)
Chandigarh	7	3	2	12	12
Delhi	78	23	15	116	116
Haryana	78	41	22	141	141
Himachal Pradesh	18	3	5	26	26
Jammu & Kashmir	35	8	4	47	47
Punjab	131	71	35	237	237
Rajasthan	114	103	33	250	250
Uttar Pradesh	403	138	150	691	695
Uttarakhand	46	12	15	73	73
Sub Total North	910	402	281	1593	1597
Arunachal Pradesh	33	0	0	33	33
Assam	359	0	0	359	359
Manipur	36	0	0	36	36
Meghalaya	35	0	0	35	35
Mizoram	19	0	0	19	19
Nagaland	19	0	0	19	19
Sikkim	10	0	2	12	12
Tripura	40	0	0	40	40
Sub Total North-East	551	0	2	553	553
Andaman & Nicobar	2	0	0	2	2
Bihar	283	37	51	371	371
Jharkhand	57	13	17	87	87
Odisha	105	47	25	177	177
West Bengal	313	89	55	457	458
Sub Total East	760	186	148	1094	1095
Chhattisgarh	61	39	8	108	108
Dadra & Nagar Haveli	1	0	1	2	2
Daman & Diu	3	0	2	5	5
Goa	8	7	7	22	22
Gujarat	269	127	77	473	473
Madhya Pradesh	163	63	58	284	284
Maharashtra	300	260	206	766	767
Sub Total West	805	496	359	1660	1661
Andhra Pradesh	171	176	47	394	394
Karnataka	171	94	50	315	315
Kerala	135	72	30	237	237
Lakshadweep	0	0	0	0	0
Puducherry	3	5	0	8	8
Tamil Nadu	267	139	59	465	466
Telangana	109	68	25	202	202
Sub Total South	856	554	211	1621	1622
Grand Total	3882	1638	1001	6521	6528

Source: Central Public Sector Enterprises



III.25: State-wise PDS SKO Kerosene allocated and Quantity Uplifted

(Figures in KL)

State	2018-19		2019-20	
	Allocation	Sales	Allocation	Sales
(1)	(2)	(3)	(4)	(5)
Chandigarh*	0	0	0	0
Delhi*	0	0	0	0
Haryana*	0	0	0	0
Himachal Pradesh	14496	14301	11436	10791
Jammu and Kashmir	58476	53923	44988	38417
Ladakh	-	-	3528	3428
Punjab*	0	0	0	0
Rajasthan	137992	69288	40000	16204
Uttar Pradesh	887856	873517	517888	449490
Uttarakhand	25344	10011	7992	498
Sub Total North	1124164	1021040	625832	518827
Arunachal Pradesh	7920	7158	6444	5239
Assam	245856	242578	181920	176867
Manipur	17904	17680	13260	12656
Meghalaya	19440	19272	19260	18936
Mizoram	4800	4800	3612	3600
Nagaland	10272	9792	9300	8928
Sikkim	3456	3432	2556	2535
Tripura	29376	29300	26352	26166
Sub Total North-East	339024	334012	262704	254926
Andaman & Nicobar Islands	4128	3786	1944	1458
Bihar	332592	329588	263028	243927
Jharkhand	186768	150272	135216	107170
Odisha	248448	247739	210568	208283
West Bengal	704016	699313	704016	692683
Sub Total East	1475952	1430698	1314772	1253521
Chhattisgarh	115056	91542	82404	69140
Dadra & Nagar Haveli and Daman & Diu	0	0	0	0
Daman and Diu*	0	0	0	0
Goa	2112	1416	816	648
Gujarat	249718	248657	138832	120837
Madhya Pradesh	336192	325926	260736	238544
Maharashtra	286680	241914	106528	52938
Sub Total West	989758	909455	589316	482106
Andhra Pradesh*	0	0	0	0
Karnataka	156000	112452	84324	66395
Kerala	55632	55620	41700	41700
Lakshadweep	768	768	768	624
Puducherry*	0	0	0	0
Tamil Nadu	193776	193775	145320	145319
Telangana	97920	94297	56592	29800
Sub Total South	504096	456912	328704	283837
Total	4432994	4152117	3121328	2793217

Note: 1. Zero represent PDS kerosene free State/UTs.

2. Formation of UT of Ladakh & UT of Jammu and Kashmir w.e.f 31.10.2019. J&K was allocated 14520 KL PDS kerosene in Q1, 2019-20 (in line with Q1, 2018-19 allocation) out of which 3528 KL was allocated for Ladakh region for entire FY 2019-20. As requested by MoPNG, PDS kerosene allocation and upliftment for the UT of J&K and UT of Ladakh are shown separately in above table from April onwards. Accordingly, total allocation of 14520 KL (Q1, 2019-20) has been bifurcated as 3528 KL for UT of Ladakh and remaining 10992 KL for UT of J&K.

Source: Distribution Section, MoPNG



III.26: State-wise PMUY connections issued

(in Number)

State / UT	2016-17	2017-18	2018-19	2019-20	Under PMUY as on 01.04.2020
(1)	(2)	(3)	(4)	(5)	(6)
Chandigarh	0	0	88	0	88
Delhi	516	161	73120	3058	76855
Haryana	278751	78361	323344	50472	730928
Himachal Pradesh	1601	28140	83177	23048	135966
Jammu & Kashmir	265787	107133	680098	189062	1242080
Punjab	245008	137343	826611	15256	1224218
Rajasthan	1722694	902940	3069891	673000	6368525
Uttar Pradesh	5531159	954957	6476981	1793397	14756494
Uttarakhand	113866	23574	215481	51645	404566
Sub Total North	8159382	2232609	11748791	2798938	24939720
Arunachal Pradesh	0	6362	32953	5384	44699
Assam	2	1128137	1707801	648961	3484901
Manipur	25	32592	97760	26221	156598
Meghalaya	0	36844	103467	10433	150744
Mizoram	0	902	24879	2337	28118
Nagaland	0	9225	40177	5738	55140
Sikkim	0	687	7111	954	8752
Tripura	0	46379	192014	33495	271888
Sub Total North East	27	1261128	2206162	733523	4200840
Andaman & Nicobar Islands	1189	522	6178	4547	12436
Bihar	2476953	2436197	2981636	643107	8537893
Jharkhand	536912	666631	1701032	356981	3261556
Odisha	1011955	1288380	1925954	514096	4740385
West Bengal	2520479	2536306	3005534	794376	8856695
Sub Total East	6547488	6928036	9620334	2313107	25408965
Chhattisgarh	1105441	846679	740584	296736	2989440
Dadra & Nagar Haveli	3211	8226	2671	639	14747
Daman & Diu	73	130	219	5	427
Goa	954	30	88	10	1082
Gujarat	752354	516660	1252052	379993	2901059
Madhya Pradesh	2239821	1075351	3130613	708815	7154600
Maharashtra	858808	1018570	2186426	364878	4428682
Sub Total West	4960662	3465646	7312653	1751076	17490037
Andhra Pradesh	63428	16616	262554	49262	391860
Karnataka	15840	893174	1913808	323478	3146300
Kerala	11241	27152	171530	46379	256302
Lakshadweep	0	134	156	0	290
Puducherry	760	1861	10753	203	13577
Tamil Nadu	272749	745302	2123792	100374	3242217
Telangana	41	0	923800	148480	1072321
Sub Total South	364059	1684239	5406393	668176	8122867
All India	20031618	15571658	36294333	8264820	80162429

Source: Central Public Sector Enterprises & PPAC



III.27: State-wise Number of POL Terminal/Depots (as on 1st April)

State / UT	2019	2020
(1)	(2)	(3)
Chandigarh	1	1
Delhi	4	4
Haryana	9	9
Himachal Pradesh	4	2
Jammu & Kashmir	7	7
Punjab	11	12
Rajasthan	14	14
Uttar Pradesh	32	32
Uttarakhand	7	7
Sub Total North	89	88
Arunachal Pradesh	1	1
Assam	7	7
Manipur	1	1
Meghalaya	0	0
Mizoram	1	1
Nagaland	1	1
Sikkim	2	2
Tripura	1	1
Sub Total North-East	14	14
Andaman & Nicobar	1	1
Bihar	9	9
Jharkhand	8	7
Odisha	10	10
West Bengal	19	18
Sub Total East	47	45
Chhattisgarh	5	3
Dadra & Nagar Haveli	0	0
Daman & Diu	2	2
Goa	3	3
Gujarat	17	18
Madhya Pradesh	17	17
Maharashtra	33	33
Sub Total West	77	76
Andhra Pradesh	23	22
Karnataka	22	22
Kerala	9	9
Lakshadweep	0	0
Puducherry	0	0
Tamil Nadu	22	22
Telangana	8	8
Sub Total South	84	83
All India	311	306

Note: Includes (IOCL 118, HPCL 84, BPCL 78, RIL 17, NEL 2, MRPL4 and NRL 2) for 2020.
Source: Oil Companies

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III.28: State-wise Number of Aviation Fueling Station (as on 1st April)

State / UT	2019	2020
(1)	(2)	(3)
Chandigarh	1	1
Delhi	8	8
Haryana	2	2
Himachal Pradesh	3	3
Jammu & Kashmir	9	9
Punjab	11	12
Rajasthan	13	13
Uttar Pradesh	17	17
Uttarakhand	2	3
Sub Total North	66	68
Arunachal Pradesh	3	4
Assam	12	12
Manipur	2	2
Meghalaya	2	2
Mizoram	1	1
Nagaland	2	2
Sikkim	1	1
Tripura	2	2
Sub Total North-East	25	26
Andaman & Nicobar	2	2
Bihar	6	6
Jharkhand	4	5
Odisha	8	9
West Bengal	11	11
Sub Total East	31	33
Chhattisgarh	6	6
Dadra & Nagar Haveli	0	0
Daman & Diu	2	2
Goa	4	4
Gujarat	18	18
Madhya Pradesh	9	8
Maharashtra	20	21
Sub Total West	59	59
Andhra Pradesh	12	12
Karnataka	15	16
Kerala	13	13
Lakshadweep	0	1
Puducherry	1	1
Tamil Nadu	20	21
Telangana	6	6
Sub Total South	67	70
All India	248	256

Note: Includes (IOCL 119, HPCL 44, BPCL 61, RIL 31 & MRPL 1) for 2020.
Source: Oil Companies



III.29: State-wise Number of LPG Bottling Plants (as on 1st April)

State / UT	2019	2020
(1)	(2)	(3)
Chandigarh	0	0
Delhi	2	2
Haryana	6	6
Himachal Pradesh	2	2
Jammu & Kashmir	4	4
Punjab	6	7
Rajasthan	12	13
Uttar Pradesh	25	25
Uttarakhand	3	3
Sub Total North	60	62
Arunachal Pradesh	1	1
Assam	8	8
Manipur	1	1
Meghalaya	0	0
Mizoram	1	1
Nagaland	1	1
Sikkim	1	1
Tripura	1	1
Sub Total North-East	14	14
Andaman & Nicobar	1	1
Bihar	6	8
Jharkhand	4	4
Odisha	4	4
West Bengal	10	10
Sub Total East	25	27
Chhattisgarh	3	3
Dadra & Nagar Haveli	0	0
Daman & Diu	0	0
Goa	2	2
Gujarat	17	17
Madhya Pradesh	10	10
Maharashtra	24	25
Sub Total West	56	57
Andhra Pradesh	9	9
Karnataka	11	11
Kerala	7	7
Lakshadweep	0	0
Puducherry	1	1
Tamil Nadu	18	19
Telangana	5	5
Sub Total South	51	52
All India	206	212

Note: Includes (IOCL 94, HPCL 50, BPCL 51, RIL 14, OIL 1, NRL 1 & CPCL 1) for 2020.
Source: Oil Companies

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III.30: State-wise Capacity of LPG Bottling Plants (as on 1st April)

State / UT	2019	2020
(1)	(2)	(3)
Chandigarh	0	0
Delhi	0.42	0.42
Haryana	0.84	0.84
Himachal Pradesh	0.09	0.09
Jammu & Kashmir	0.155	0.155
Punjab	0.72	0.84
Rajasthan	0.991	1
Uttar Pradesh	2.562	2.64
Uttarakhand	0.18	0.18
Sub Total North	5.958	6.165
Arunachal Pradesh	0.011	0.011
Assam	0.648	0.648
Manipur	0.03	0.03
Meghalaya	0	0
Mizoram	0	0
Nagaland	0.011	0.011
Sikkim	0.011	0.011
Tripura	0.021	0.021
Sub Total North-East	0.732	0.732
Andaman & Nicobar	0.011	0.011
Bihar	0.87	1.11
Jharkhand	0.31	0.31
Odisha	0.36	0.42
West Bengal	1.21	1.27
Sub Total East	2.761	3.121
Chhattisgarh	0.21	0.27
Dadra & Nagar Haveli	0	0
Daman & Diu	0	0
Goa	0.09	0.09
Gujarat	1.04	1.16
Madhya Pradesh	0.816	0.88
Maharashtra	2.271	2.39
Sub Total West	4.427	4.79
Andhra Pradesh	0.9	1.02
Karnataka	1.51	1.51
Kerala	0.69	0.69
Lakshadweep	0	0
Puducherry	0.045	0.045
Tamil Nadu	1.642	1.822
Telangana	0.66	0.66
Sub Total South	5.447	5.747
All India	19.325	20.555

Note: Includes (IOCL 10.06 MMT, HPCL 5.58 MMT, BPCL 4.56 MMT, RIL 0.12 MMT, OIL 0.025 MMT, NRL 0.06 MMT & CPCL 0.15 MMT) for 2020.

Source: Oil Companies



III.31: CNG activities in India

State/UT(s)	Company Name	No. of Companies		No. of CNG Stations	CNG Sales (TMT)					
		(3)	(4)		2015-16	2016-17	2017-18	2018-19	2019-20 (P)	
(1)	(2)		(4)		(5)	(6)	(7)	(8)	(9)	
Andhra Pradesh*	Bhaayanagar Gas Limited, Godavari Gas Private Limited, Megha Engineering & Infrastructure Limited	3	66		27.45	28.53	31.65	30.94	20.89	
Assam	Assam Gas Company Limited	1	1		-	-	-	-	0.02	
Bihar	GAIL (India) Limited	1	8		-	-	-	-	2.02	
Chandigarh, Haryana, Punjab & Himachal Pradesh	Indian Oil-Adani Gas Pvt. Ltd.	1	11		-	0.00	5.19	14.65	21.05	
Dadra & Nagar Haveli**	Gujarat Gas Limited	1	6		-	-	-	-	2.80	
Daman and Diu	Indian Oil-Adani Gas Pvt. Ltd.	1	4		-	-	0.92	1.70	2.20	
Delhi NCT***	Indraprastha Gas Ltd.	1	419		738.30	803.84	1016.14	1143.96	1032.84	
Goa	Goa Natural Gas Private Limited	1	2		-	-	-	-	0.03	
Gujarat **	Adani Gas Limited, GAIL Gas Limited, Haryana City Gas Distribution Limited, HPOIL Gas Private Limited, Indian Oil-Adani Gas Private Limited, Hindustan Petroleum Corporation Limited, Charotar Gas Sahakari Mandali Limited, Gujarat Gas Limited, Hindustan Petroleum Corporation Limited, IRM Energy Private Limited, Sabarmati Gas Ltd.	7	636		503.05	546.31	612.01	662.41	744.70	
Gujarat & UT of Daman and Diu	IRM Energy Private Limited	1	5		-	-	-	-	0.07	
Haryana	Adani Gas Limited, GAIL Gas Limited, Haryana City Gas Distribution Limited, HPOIL Gas Private Limited, Indian Oil-Adani Gas Private Limited, Indraprastha Gas Limited, Hindustan Petroleum Corporation Limited, Haryana City Gas (KCE) Private Limited	8	104		74.59	109.00	144.32	178.61	196.67	
Jharkhand	GAIL (India) Limited	3	23		-	0.01	0.03	0.27	1.44	
Karnataka	GAIL Gas Limited, Indian Oil-Adani Gas Private Limited, Megha Engineering & Infrastructure Ltd.	1	8		-	-	0.00	1.39	5.82	
Kerala	Indian Oil-Adani Gas Pvt. Ltd.				-	-	-	-	-	
Madhya Pradesh	Think Gas Bhopal Private Limited, Aavantika Gas Limited, GAIL Gas Limited, Indian Oil Corporation Limited, Naveriya Gas Private Limited	5	62		19.19	21.59	24.77	30.64	34.13	
Maharashtra	Gujarat Gas Limited, HPOIL Gas Private Limited, Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Mahesh Gas Limited, Unison Enviro Private Limited	6	370		565.01	592.59	630.17	701.81	738.19	
Maharashtra & Gujarat	Maharashtra Natural Gas Limited	1	5		-	-	-	-	-	
Odisha	GAIL (India) Ltd.	1	19		-	-	0.06	1.14	3.28	
Punjab	Gujarat State Petronet Limited, IRM Energy Private Limited, Think Gas Ludhiana Private Limited, Torrent Gas Private Limited, Bharat Gas Resources Limited	5	33		-	-	-	1.27	6.54	
Rajasthan	Rajasthan State Gas Limited, Torrent Gas Private Limited, Dholpur CGD Private Limited, Adani Gas Limited	4	16		3.68	4.27	4.87	7.40	9.49	
Telangana*	Bhaayanagar Gas Limited, Torrent Gas Private Limited	2	66		-	-	-	-	13.01	
Tripura	Tripura Natural Gas Company Limited	1	14		11.19	12.30	13.29	14.65	16.26	
Uttar Pradesh	Adani Gas Limited, Central UP Gas Limited, GAIL (India) Limited, GAIL Gas Limited, Green Gas Limited, Indian Oil-Adani Gas Private Limited, Indraprastha Gas Limited, Sanwariya Gas, Torrent Gas Private Limited, Bagpat Green Energy Pvt. Ltd.	10	306		211.61	245.42	152.80	282.26	392.04	
Uttar Pradesh & Madhya Pradesh	Adani Gas Limited	1	1		-	-	-	-	0.001	
Uttarakhand	Indian Oil-Adani Gas Private Limited, Haridwar Natural Gas Private Ltd	2	5		-	-	-	0.12	1.06	
West Bengal	Great Eastern Energy Corporation Ltd., Indian Oil-Adani Gas Private Ltd	2	10		1.36	1.64	2.02	2.50	2.42	
Total			2208		2155.43	2365.50	2638.23	3075.73	3247.31	

Note:

1. Some entities are operating in more than one State. Hence, their number is taken once only.
2. From the FY 2019-20 entries for * Andhra Pradesh & Telangana are reported separately. Prior to this AP & Telangana were taken together. ** Dadra & Nagar Haveli are reported separately from Gujarat State. *** Delhi contains information for Delhi NCT only. Remaining entries of the NCR GAs are added into respective State.
3. Total may not tally due to rounding off.
- Source: Petroleum Planning & Analysis Cell.



III.32: PNG Status (as on 31.03.2020)

(Figures in Numbers)

State	GA/Cities Covered						CGD Company/Companies	Domestic connections	Commercial connections	Industrial connections
(1)	(2)	(3)	(4)	(5)	(6)					
Andhra Pradesh						Bhagyanagar Gas Limited, Godavari Gas Private Limited Megha Engineering & Infrastructure Limited	Kakinada, Vijayawada, East Godavari District (excluding area already authorized), West Godavari District, Krishna District (excluding area already authorized)	75832	193	14
Assam						Assam Gas Company Limited	Upper Assam (covering Tinsukia, Dibrugarh, Sivasagar, Jorhat & Golaghat)	35038	1142	404
Bihar						GAIL (India) Limited	Patna District	943	7	0
Chandigarh, Haryana, Punjab & Himachal Pradesh						Indian Oil-Adani Gas Private Limited	Chandigarh (UT) and Panchkula (part), SAS Nagar (part) & Solan (part) Districts	18646	17	2
Dadra & Nagar Haveli						Gujarat Gas Limited	UT of Dadra & Nagar Haveli	4227	34	29
Daman and Diu						Indian Oil-Adani Gas Private Limited	UT of Daman	2068	24	15
Delhi						Indraprastha Gas Limited	NCT of Delhi	913139	2277	1297
Goa						Goa Natural Gas Private Limited	North Goa District	3857	0	1
Gujarat						Adani Gas Limited, Vadodara Gas Limited, Charotar Gas Sahakari Mandali Limited, Gujarat Gas Limited, Hindustan Petroleum Corporation Limited, IRM Energy Private Limited, Sabarmati Gas Limited	Ahmadabad City and Daskroi Area, Porbandar District, Vadodara, Anand area including Kanjari & Vadtal Villages (in Kheda District), Bhavnagar, Jamnagar, Kutch West, Amreli District, Dahaj Vagra Taluka, Dahod District, Anand District (excluding areas already authorized), Panchmahal District, Surat, Bharuch, Ankleshwar, Nadiad, Navsari (part) District, Rajkot, Surendranagar (part) District, Hazira, Valsad (part), District, Narmada (Rajpipla) District, Gandhinagar (excluding areas already authorized), Ahmadabad (excluding areas already authorized), Ahmadabad CNG Stations, Banaskantha District, Patan District, Gandhinagar, Mehsana, Sabarkantha, Kheda Districts (Except areas already authorized), Morbi District (except area already authorized) & Mahisagar District GA, Surendranagar District (Except areas already authorized), Barwala & Ranpur Talukas, Navsari District (Except areas already authorized), Surat District (Except areas already authorized), Tapi District (Except areas already authorized) & the Dangs District, Junagadh District	2142059	20022	5129
Gujarat & UT of Daman & Diu						IRM Energy Private Limited	Diu & Gir Somnath Districts	0	0	0
Haryana						Adani Gas Limited, GAIL Gas Limited, Haryana City Gas Distribution Limited, HPOIL Gas Private Limited, Indian Oil-Adani Gas Private Limited, Indraprastha Gas Limited, Hindustan Petroleum Corporation Limited, Indraprastha Gas Limited, Haryana City Gas (KCE) Private Limited	Nuh & Palwal Districts, Faridabad, Sonapat (part) District, Gurugram, Ambala and Kurukshetra Districts, Panipat District, Rewari District, Karnal District, Bhiwani, Charkhi Dadri & Mahendragarh Districts, Sonapat (Except areas already authorised) & Jind Districts, Kaithal District, Jhajjar District	131464	326	640
Jharkhand						GAIL (India) Limited	Ranchi District, East Singhbhum District	834	0	0
Karnataka						GAIL Gas Limited, Indian Oil-Adani Gas Private Limited, Megha Engineering & Infrastructure Limited	Bengaluru Rural and Urban Districts, Dharwad District, Tumkur District, Belgaum District	28830	220	126
Kerala						Indian Oil-Adani Gas Private Limited	Ernakulum District	5465	7	5
Madhya Pradesh						Think Gas Bhopal Private Limited, Aavantika Gas Limited, GAIL Gas Limited, Indian Oil Corporation Limited, Navariya Gas Private Limited	Bhopal & Raigarh Districts GA, Indore (including Ujjain City) (part) District, Gwalior (part) District, Dewas (part) District, Vijaypur CNG Station, Dhar District	85763	154	236
Maharashtra						Gujarat Gas Limited, HPOIL Gas Private Limited, Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Mahesh Gas Limited, Unison Enviro Private Limited	Palghar District and Thane Rural, Kolhapur District, Raigarh District (excluding areas already authorized), Mumbai & Greater Mumbai, Thane Urban and adjoining municipalities, Pune City including Pimpri-Chinchwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon, Pune District (excluding areas already authorized), Ratnagiri District, Sindhudurg District	1756668.9	4319	314
Maharashtra & Gujarat						Maharashtra Natural Gas Limited	Valsad (Except the area already authorized), Dhule and Nashik Districts	0	0	0
Odisha						GAIL (India) Limited, GAIL Gas Limited	Khordha District, Cuttack District, Sundargarh & Jharsuguda Districts, Ganjam, Nayagarh & Puri Districts	540	0	0



III.32: PNG Status (as on 31.03.2020)

(Figures in Numbers)

State		GA/Cities Covered			CGD Company/Companies		Domestic connections	Commercial connections	Industrial connections
(1)	(2)	(3)	(4)	(5)	(6)				
Punjab			Gujarat State Petronet Limited, IRM Energy Private Limited, Think Gas Ludhiana Private Limited, Torrent Gas Private Limited, Bharat Gas Resources Limited		Amritsar District, Fatehgarh Sahib District, Ludhiana District (Except area already authorized), Barnala & Moga Districts, Jalandhar District (Except areas already authorized), Kapurthala & SBS Nagar Districts, SAS Nagar District (Except areas already authorized), Patiala & Sangrur Districts, Rupnagar District, Bhatinda District		2788	22	21
Rajasthan			Rajasthan State Gas Limited, Torrent Gas Private Limited, Dholpur CGD Private Limited, Adani Gas Limited		Kota (part) District, Neemrana & Kukas CNG stations, Kota (except area already authorized), Baran & Chittotgarh (Only Rawatbhata Taluka) Districts, Jalore and Sirohi District, Dholpur District, Chittorgarh (Other than Rawatbhata Taluka) & Udaipur Districts		10076	16	16
Telangana			Bhagyanagar Gas Limited, Torrent Gas Private Limited		Hyderabad, Medak, Siddipet & Sangareddy Districts		69073	14	32
Tripura			Tripura Natural Gas Company Limited		Agartala, West Tripura (Except areas already authorized) District, Gomati District		44761	430	51
Uttar Pradesh			Adani Gas Limited, Central UP Gas Limited, GAIL (India) Limited, GAIL Gas Limited, Green Gas Limited, Indian Oil-Adani Gas Private Limited, Indraprastha Gas Limited, Sanwariya Gas, Torrent Gas Private Limited, Bagpat Green Energy Pvt. Ltd.		Khurja, Jhansi (part) District, Bareilly (part) District, Kanpur (part) District, Varanasi District, Meerut (part) District, Firozabad (Taj Trapezium Zone), Agra, Lucknow, Bulandshahr (part) District, Allahabad (part) District, Meerut District (Except areas already authorized), Muzaaffarnagar & Shamli Districts, Gautam Budh Nagar, Ghaziabad, Mathura (part) District, Moradabad (part) District, Auraiya, Kanpur Dehat & Etawah Districts, Gorakhpur, Sant Kabir Nagar & Kushinagar Districts, Moradabad (Except areas already authorized) District, Bagpat District, Gonda and Barabanki Districts, Allahabad District (Except areas already authorized), Bhadohi & Kaushambi Districts, Kanpur (Except area already authorized) District, Fatehpur and Hamirpur Districts		716367	1369	1900
Uttar Pradesh & Madhya Pradesh			Adani Gas Limited		Jhansi (Except area already authorized) District, Bhind, Jalaun, Lalitpur and Datia Districts		0	0	0
Uttarakhand			Indian Oil-Adani Gas Private Limited, Haridwar Natural Gas Private Limited		Udhampur Singh Nagar District, Haridwar District		12387	24	24
West Bengal			Great Eastern Energy Corporation Limited, IndianOil-Adani Gas Private Limited,		CNG stations at Asansol, Raniganj, Kultora, Durgapur, Burdwan District		0	0	0
Total							6060826	30617	10256

Source: Petroleum Planning & Analysis Cell.



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CHAPTER-IV



Prices



CHAPTER HIGHLIGHTS

- Wholesale Price Index (WPI) inflation for all commodities stood at 1.7% in 2019-20 as compared to 4.3% in 2018-19. The WPI growth in Crude Petroleum, Natural Gas and Petroleum Products stood at (-) 12.7%, 6.6% and (-) 4.6% respectively with respect to growth of the respective commodities as 29.7%, 18.6% and 17.3% in 2018-19.
- Out of all Petroleum Products, the Inflation was observed for Kerosene (13.4%) and Lube oil (5.5%) in 2019-20 vis-a-vis 2018-19. Deflation was observed for other Petroleum Products namely LPG (8.2%), Petrol (3.1%), Naphtha (11.1%), Aviation Turbine Fuel (5.4%), High Speed Diesel Oil (3.5%), Furnace Oil (14.5%), Bitumen (3.2%) and Petroleum Coke (14.1%) in 2019-20 vis-a-vis 2018-19.
- Domestic price of Natural Gas got reduced by around 26% from 3.23 (USD/ MMBTU) as on 1st Oct, 2019 to 2.39 (USD/ MMBTU) as on 1st April, 2020.
- International crude oil price (Indian basket) dipped by 13.5% from 69.88 US \$/bbl during 2018-19 to 60.47 US \$/bbl during 2019-20. Among major Petroleum products, the highest reduction (23.7%) in International FOB price is observed for Furnace Oil and the least reduction (11.4%) is observed for Petrol comparing 2019-20 vis-à-vis 2018-19.
- Share of petroleum sector in total subsidies has marginally increased from 14.6% [₹ 38569 crore (RE)] in 2019-20 to 15.6% [₹ 40915 crore (BE)] in 2020-21.
- Subsidy & under recovery of CPSEs on PDS SKO decreased by 69.2% from ₹ 6067 crore in 2018-19 to ₹ 1869 crore in 2019-20. However, the Subsidy & under recovery of CPSEs on Domestic LPG decreased by 35.2% from ₹ 37062 crore in 2018-19 to ₹ 24019 crore in 2019-20.
- As on 1st April, 2020, Retail Selling Prices of Liquefied Petroleum Gas (₹/14.2 Kg Cylinder) for metropolitan cities of India namely Delhi, Kolkata, Mumbai and Chennai are ₹ 744, ₹ 774.5, ₹ 714 and ₹ 761.5 respectively. Further, the subsidised price under PMUY for the respective cities are ₹ 560.57, ₹ 563.93, ₹ 558.2 and ₹ 548.6 against the subsidised price of ₹ 581.57, ₹ 584.93, ₹ 579.21 and ₹ 569.5 under Non-PMUY.



IV.1: Wholesale Price Indices of Selected Petroleum Products (Base Year 2011-12=100)

Items	Weight(%)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All commodities	100.00	112.5	113.9	109.7	111.6	114.9	119.8	121.8
Crude Petroleum & Natural Gas	2.41	119.0	103.5	76.6	73.1	73.0	92.4	85.3
Crude Petroleum	1.95	117.1	95.2	60.9	63.8	65.0	84.3	73.6
Natural Gas	0.46	126.8	138.5	142.6	112.3	106.4	126.2	134.5
Total Petroleum Products (Mineral Oils)	7.95	121.6	108.7	73.9	73.3	82.5	96.7	92.3
LPG	0.64	118.6	103.5	76.7	72.0	82.2	92.1	84.5
Petrol	1.60	124.6	108.6	75.7	72.4	80.3	88.4	85.6
Naphtha	0.87	119.4	103.0	66.9	66.5	74.5	92.6	82.3
Kerosene	0.19	109.3	103.5	88.4	94.3	117.8	152.4	172.8
Aviation Turbine Fuel	0.32	119.7	105.1	69.5	69.3	78.7	102.8	97.2
High Speed Diesel Oil	3.10	126.3	114.8	73.4	74.4	84.4	97.1	93.7
Furnace Oil	0.67	111.5	93.6	54.3	58.1	68.8	94.7	81.0
Lube Oil	0.29	114.2	118.8	120.8	116.8	114.0	124.8	131.7
Bitumen	0.23	112.1	106.1	77.1	68.0	71.3	85.6	82.8
Petroleum Coke	0.05	92.8	94.3	78.3	93.0	117.2	149.7	128.6

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

IV.2: Consumer and Producer Prices of Natural Gas

Effective Date	Consumer Prices		Producer Prices			Calorific Value (K. Cal / SCM)	Domestic Price of Natural Gas	Gas Price Ceiling
	Off-shore (Landfall point) and On-shore	For North-East States	ONGC	ONGC (North-East States)	OIL (North-East States)			
	(in ₹/'000' cubic metre)						(USD/ MMBTU)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
01.04.2014	10168	6101	10168	10168	10168	10000	-	-
01.11.2014	12292	7375	12292	12292	12292	10000	-	-
01.04.2015	11548	6929	11548	11548	11548	10000	4.66	-
01.10.2015	10038	6023	10038	10038	10038	10000	3.82	-
01.04.2016	8138	4883	8138	8138	8138	10000	3.06	6.61
01.10.2016	6621	3973	6621	6621	6621	10000	2.50	5.3
01.04.2017	6483	3890	6483	6483	6483	10000	2.48	5.56
01.10.2017	7390	4434	7390	7390	7390	10000	2.89	6.3
01.04.2018	7895	4737	7895	7895	7895	10000	3.06	6.78
01.10.2018	9629	5789	9629	9629	9629	10000	3.36	7.67
01.04.2019	10174	6093	10174	10174	10174	10000	3.69	9.32
01.10.2019	9143	5491	9143	9143	9143	10000	3.23	8.43
01.04.2020	7052	4219	7052	7052	7052	10000	2.39	5.61

Notes:

- GOI has issued the New Domestic Gas Pricing Guidelines on 25.10.2014. In line with these guidelines, PPAC declared the price of natural gas half yearly.
- Producer Price as well as Consumer price of natural gas produced by the NOCs including ONGC is fixed by the MoPNG, Government of India from time to time. Till 31.10.2014, different gas prices were applicable for APM (Administrative Price Mechanism) and non-APM customers. MoPNG has notified "New Domestic Natural Gas Pricing Guidelines, 2014" on 25 Oct'14. These guidelines are effective from 01 Nov'14.
- The above guidelines shall not be applicable to:
 - The Gas to be produced from Discoveries in Deepwater, Ultra Deepwater, and High Pressure-High Temperature areas, in terms of MoPNG letter dated 21.03.16 (Marketing including pricing freedom).
 - CBM gas, in terms of Government Notification dt. 11.04.17.

Source: ONGC, OIL and PPAC



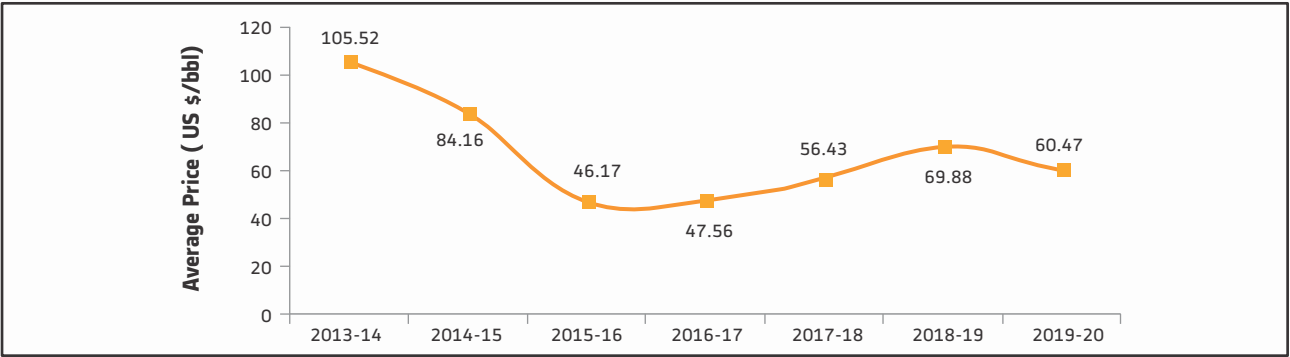
IV.3: Month-wise & Year-wise Average International Crude Oil Prices (Indian Basket)

(in US\$/bbl.)

Year/Month	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	% Growth in 2019-20 over 2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
April	101.57	105.56	59.07	39.88	52.49	69.22	71.00	2.57
May	101.10	106.85	63.82	45.01	50.57	75.25	70.01	-6.96
June	101.11	109.05	61.75	46.96	46.56	73.83	62.37	-15.51
July	104.86	106.30	56.30	43.52	47.86	73.47	63.63	-13.40
August	108.45	101.89	47.33	44.38	50.63	72.53	59.35	-18.18
September	109.47	96.96	46.10	44.48	54.52	77.88	61.72	-20.75
October	107.37	86.83	46.68	49.25	56.06	80.08	59.70	-25.45
November	106.55	77.58	42.50	44.46	61.32	65.40	62.53	-4.38
December	108.72	61.21	35.68	52.74	62.29	57.77	65.50	13.38
January	105.29	46.59	28.08	54.08	67.06	59.27	64.31	8.51
February	106.19	56.43	30.53	54.86	63.54	64.53	54.63	-15.35
March	105.30	55.18	36.42	51.47	63.80	66.74	33.36	-50.02
Year Average	105.52	84.16	46.17	47.56	56.43	69.88	60.47	-13.46
Ratio	69.9:30.1	72.04:27.96	72.28:27.72	71.03:28.97	72.38:27.62	74.77:25.23	75.50:24.50	-

Note: The composition of Indian Basket of Crude represents Average of Oman & Dubai for sour grades and Brent (Dated) for sweet grade in the ratio of crude processed during previous financial year, e.g. ratio of crude processed as indicated in the table above.
Source: IOCL & PPAC

Figure IV.1: Year-wise Average International Crude Oil Prices (Indian Basket)



IV.4: International FOB Prices of Crude Oil & Major Petroleum Products

Period	Crude Oil (Indian Basket) (\$/BBL)	Petrol (\$/BBL)	Diesel (\$/BBL)	Kerosene (\$/BBL)	FO (\$/MT)	Naphtha (\$/MT)	LPG (\$/MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2013-14	105.52	114.31	119.41	118.80	595.79	881.30	881.25
2014-15	84.16	95.45	96.64	96.98	471.99	717.44	681.42
2015-16	46.17	61.72	55.02	55.71	235.13	420.14	394.08
2016-17	47.56	58.10	56.59	56.81	258.92	415.17	393.17
2017-18	56.43	67.83	68.19	67.65	327.50	494.73	485.92
2018-19	69.88	75.58	82.51	82.24	420.93	573.72	526.00
2019-20	60.47	66.94	71.78	70.56	321.19	471.08	453.75

Notes: FOB: Freight on Board

- The composition of Indian Basket of Crude represents Average of Oman & Dubai for sour grades and Brent (Dated) for sweet grade in the ratio of 74.77:25.23 for 2018-19; 72.38:28.97 for 2017-18; 71.03:28.97 for 2016-17; 72.28 : 27.72 for 2015-16; 72.04:27.96 for 2014-15; 69.9:30.1 for 2013-14 and 68.2:31.8 for 2012-13.
- Price of kerosene ,Diesel, Naphtha & FO is for Arab Gulf Market. LPG Price is Monthly Saudi Aramco CP based on 60:40 butane/propane ratio.
- From 01.04.2017, the Diesel price is for 0.005% Sulphur, From 02.01.2013 the Diesel price in Arab Gulf Market is for 0.05% Sulphur, and for earlier years the price is for 0.5% Sulphur. Price of Petrol is 92 RON unleaded for Singapore market.
- FOB prices does not include Trade premium/discounts.

Source: IOCL & PPAC



IV.5: Weighted Average Crude Oil Prices

(in ₹/MT)

Year		Basic Price	Royalty	OID Cess	Sales Tax/ VAT/CST
(1)	(2)	(3)	(4)	(5)	(6)
2013-14	Offshore crude	49911	4235	4500	1654
	Onshore crude	45600	7037	4500	2128
	Offshore and Onshore crude	48504	5149	4500	1809
2014-15	Offshore crude	40129	3392	4500	1294
	Onshore crude	37089	5685	4500	1727
	Offshore and Onshore crude	39215	4081	4500	1425
2015-16	Offshore crude	24453	2066	4450	781
	Onshore crude	22149	3307	4404	1055
	Offshore and Onshore crude	23799	2418	4437	859
2016-17	Offshore crude	26078	2157	4105	820
	Onshore crude	23831	3578	3778	1113
	Offshore and Onshore crude	25433	2565	4011	904
2017-18	Offshore crude	28378	2395	4541	931
	Onshore crude	26648	4027	4227	1237
	Offshore and Onshore crude	27866	2878	4448	1022
2018-19	Offshore crude	36494	3232	6074	1253
	Onshore crude	34579	5555	5755	1707
	Offshore and Onshore crude	35886	3968	6973	1397
2019-20	Offshore crude	31604	2819	5254	1077
	Onshore crude	30488	4781	5157	1570
	Offshore and Onshore crude	31237	3464	5222	1239

Notes:

- 1. Basic Price is all inclusive gross (pre-discount) price and linked to international crude price, though ONGC net price realization has been lower due to sharing of under-recoveries of OMCs by extending discount, as per the directives of MoPNG.
- 2. Basic Price up to 2017-18 is inclusive of VAT/CST.
- 3. VAT/CST and Royalty are worked out based on Gross (Pre-discount) Price. However, the above levies are actually paid on post- discount price.
- 4. From the Second Quarter of 2015-16 onwards, no subsidy discount has been extended by ONGC to refineries /OMCs.
- 5. Royalty and OID Cess are production levies and are part of cost.
- 6. NCCD @ ₹ 50/MT is also paid on crude oil & Education Cess @ 3% on OID Cess and NCCD were paid till 2014-15.
- 7. OID Cess in ₹/MT is worked out considering specific rate of ₹ 4,500/MT from 17.03.12 till Feb'16 and "20% ad-valorem" w.e.f. 01.03.2016

Source: ONGC

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APPENDIX



IV.6: Rates of Dealers' Commission for MS, HSD and LPG in India

(in US\$/bbl.)

Effective	MS	HSD	Effective	LPG (Packed Domestic)		
				14.2 kg	5kg	Additional commission for sale at market determined price
				(₹/Cylinder)		(₹/14.2 KG cyl.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01.08.2015	₹1749.86/KL + 0.883% of Product Billable Price	₹1301.70/KL + 0.286% of Product Billable Price	9.12.2015	45.83	22.67	0.26
16.11.2015	₹1750.08/KL + 0.883% of Product Billable Price	₹1301.88/KL + 0.286% of Product Billable Price	01.01.2016	45.83	22.67	0.33
			01.02.2016	45.83	22.67	0.22
			01.03.2016	45.83	22.67	0.13
			01.05.2016	45.83	22.67	0.15
01.06.2016	₹1750.29/KL + 0.883% of Product Billable Price	₹1302.06/KL + 0.286% of Product Billable Price	01.06.2016	45.83	22.67	0.18
			01.07.2016	45.83	22.67	0.16
			01.08.2016	45.83	22.67	0.09
			01.09.2016	45.83	22.67	0.06
			01.10.2016	45.83	22.67	0.09
05.10.2016	₹1868.14/KL + 0.875% of Product Billable Price	₹1389.35/KL + 0.28% of Product Billable Price	28.10.2016	47.48	23.74	0.09
			01.11.2016	47.48	23.74	0.14
16.11.2016	₹2006.33/KL + 0.875% of Product Billable Price	₹1491.72/KL + 0.28% of Product Billable Price	01.12.2016	47.48	23.74	0.21
			01.02.2017	47.48	23.74	0.30
			01.03.2017	47.48	23.74	0.43
01.04.2017	₹2020.38/KL + 0.859% of Product Billable Price	₹1502.13/KL + 0.267% of Product Billable Price	01.04.2017	47.48	23.74	0.40
			01.05.2017	47.48	23.74	0.27
			01.06.2017	47.48	23.74	0.15
01.07.2017	₹2025.97/KL + 0.859% of Product Billable Price	₹1506.81/KL + 0.267% of Product Billable Price	01.07.2017	47.48	23.74	0.13
01.04.2018	₹2674.74/KL + 0.859% of Product Billable Price	₹2031.38/KL + 0.257% of Product Billable Price	01.08.2017	47.48	23.74	0.06
			01.09.2017	47.48	23.74	0.16
			30.09.2017	48.89	24.20	0.16
			01.10.2017	48.89	24.20	0.23
			01.11.2017	48.89	24.20	0.36
			01.01.2018	48.89	24.20	0.35
			01.02.2018	48.89	24.20	0.34
			01.03.2018	48.89	24.20	0.28
			01.04.2018	48.89	24.20	0.23
01.04.2019	₹2637.80/KL + 0.859% of Product Billable Price	₹2000.60/KL + 0.257% of Product Billable Price	01.04.2019	50.58	25.29	0.31
01.04.2020	₹2637.80/KL + 0.859% of Product Billable Price	₹2000.60/KL + 0.257% of Product Billable Price	01.04.2020	61.84	30.92	-

Note:- In addition to above, for petrol and diesel, slab based incentive is also given to eligible dealers through credit notes, Average slab based incentive for the month of April 2020 is ₹335.37/KL for both petrol and diesel.

Source: PPAC



(Figures in ₹ crore)

Sources: Expenditure Budget 2020-21

B.E.: Budget Estimate

R.E.: Revised Estimate

IV.8: Subsidy Provided by the Government & Oil Companies on PDS SKO & Domestic LPG

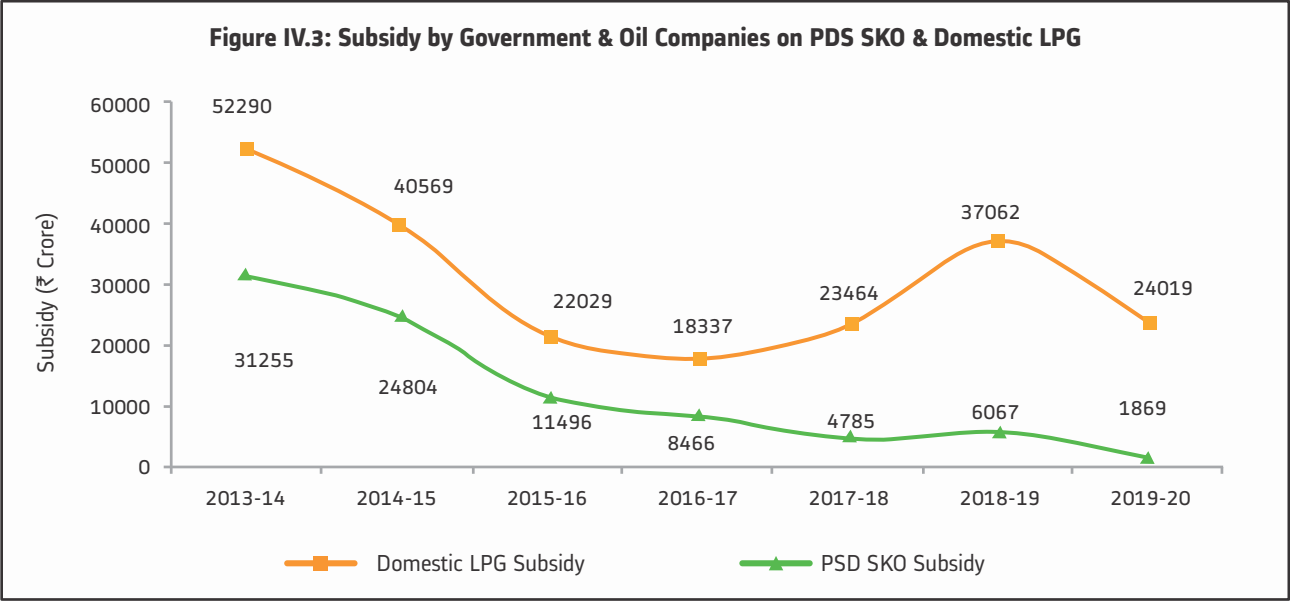
(in ₹ crore)

Years	PDS SKO				Domestic LPG					Total (Subsidy and Under Recoveries)
	Fiscal Subsidy ¹	DBTK Subsidy ²	Under Recoveries to Oil Company	Total	Fiscal Subsidy	DBTL Subsidy ³	PMUY Subsidy ⁴	Under Recoveries to Oil Company	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2013-14	681	0	30574	31255	1920	3912	0	46458	52290	83545
2014-15	5	0	24799	24804	18	3971	0	36580	40569	65373
2015-16	0	0	11496	11496	0	22011	0	18	22029	33526
2016-17	860	11	7595	8466	2433	12905	2999	0	18337	26803
2017-18	0	113	4672	4785	0	20905	2559	0	23464	28249
2018-19	0	117	5950	6067	0	31539	5523	0	37062	43129
2019-20 (P)	0	36	1833	1869	0	22726	1293	0	24019	25887

Notes:-

- 1: Fiscal Subsidy includes subsidy under 'PDS Kerosene and Domestic LPG Subsidy Scheme, 2002' and 'Freight Subsidy (For Far-Flung Areas) Scheme, 2002' on payment basis.
- 2: DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanism for direct transfer of subsidy paid to States/UTs. Further, DBTK claim for 2018-19 includes amount of Rs. 37.72 crores held back from the claim for November 2018 to March 2019 due to non- receipt of Quarterly Utilisation Certificate (QUC) from the State Government. DBTK claims for 2019-20 is till July 2019.
- 3: DBTL subsidy includes one time incentive/project management expenditure.
- 4: PMUY subsidy includes project management expenditure & information, education and communication expenditure.

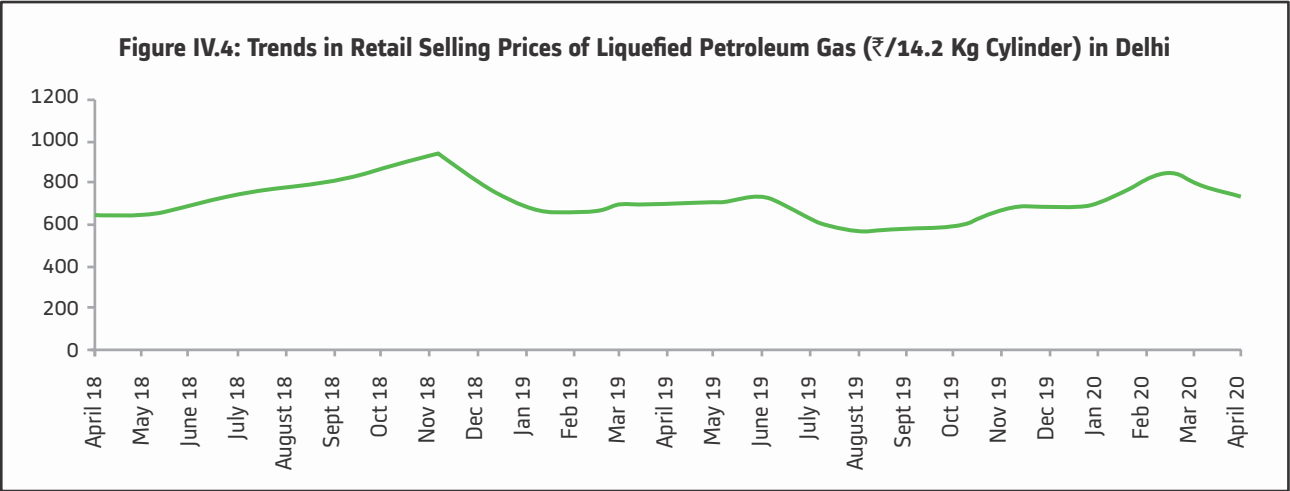
Source: PPAC



IV.9: Price Build-up and Retail Selling Prices of Liquefied Petroleum Gas in Metropolitan Cities in India

Elements/State	Delhi	Kolkata	Mumbai	Chennai
(1)	(2)	(3)	(4)	(5)
Trends in Retail Selling Prices of Liquefied Petroleum Gas (₹/14.2 Kg Cylinder)				
01.04.2014	414.00	416.00	451.50	401.00
01.04.2015	417.82	419.82	458.07	405.32
01.04.2016	419.13	421.13	455.99	406.63
01.04.2017	440.90	442.90	476.50	428.40
01.04.2018	491.35	494.33	489.04	479.44
01.04.2019	706.50	732.50	678.50	722.00
01.04.2020	744.00	774.50	714.50	761.50
Price Build-up of Retail Selling Prices of Liquefied Petroleum Gas (₹/14.2 Kg Cylinder) as on 01.04.2020				
Market Determined Price (as per PAHAL Scheme)	646.73	675.78	618.64	663.40
Add : GST (including GST on Distributor Commission)	35.43	36.88	34.02	36.26
Add : Distributor Commission	61.84	61.84	61.84	61.84
Retail Selling Price	744.00	774.50	714.50	761.50
Retail Selling Price (Rounded)	744.00	774.50	714.50	761.50
"Less: Cash Compensation to Consumer under DBTL - PMUY"	183.43	210.57	156.29	212.95
"Less: Cash Compensation to Consumer under DBTL - Non PMUY"	162.43	189.57	135.29	191.95
Effective Cost to Consumer after Subsidy - PMUY	560.57	563.93	558.21	548.55
Effective Cost to Consumer after Subsidy - Non PMUY	581.57	584.93	579.21	569.55

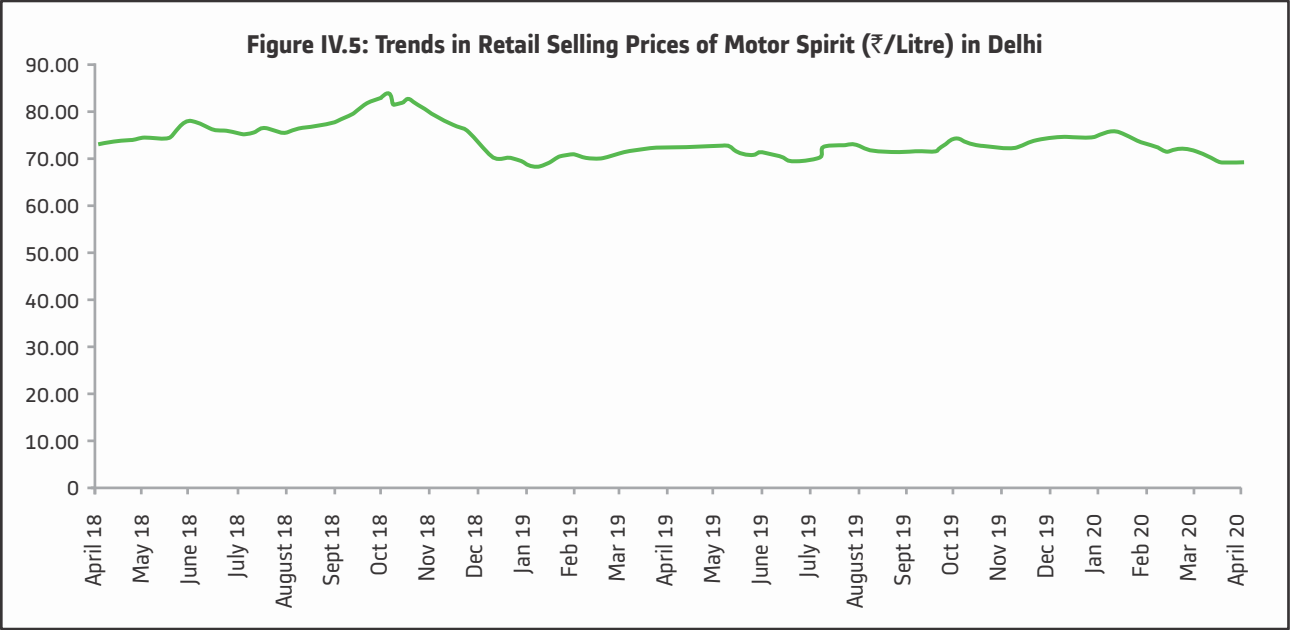
Source: IOCL



IV.10: Price Build-up and Retail Selling Prices of Motor Spirit in Metropolitan Cities in India

Elements/State	Delhi	Kolkata	Mumbai	Chennai
(1)	(2)	(3)	(4)	(5)
Trends in Retail Selling Prices of Motor Spirit (₹/Litre)				
01.04.2014	72.26	80.89	80.13	75.49
01.04.2015	60.49	68.04	67.67	63.26
01.04.2016	59.68	65.79	63.76	59.13
01.04.2017	66.29	72.66	68.97	69.28
01.04.2018	73.73	81.59	76.44	76.48
01.04.2019	72.86	78.43	74.88	75.62
01.04.2020	69.59	73.30	76.31	72.28
Price Build-up of Retail Selling Prices of Motor Spirit (₹/Litre) as on 01.04.2020				
Base Price	27.96	31.27	28.01	28.01
Freight etc	0.32	0.68	0.20	0.20
Price Charged to Dealers (excluding Excise Duty and VAT)	28.28	31.95	28.21	28.21
Add : Excise Duty	22.98	22.98	22.98	22.98
Add : Dealer Commission (Average)	3.54	3.57	3.60	3.57
Add : VAT (including VAT on Dealer Commission)	14.79	14.80	21.52	17.52
Retail Selling Price (₹/Litre)	69.59	73.30	76.31	72.28

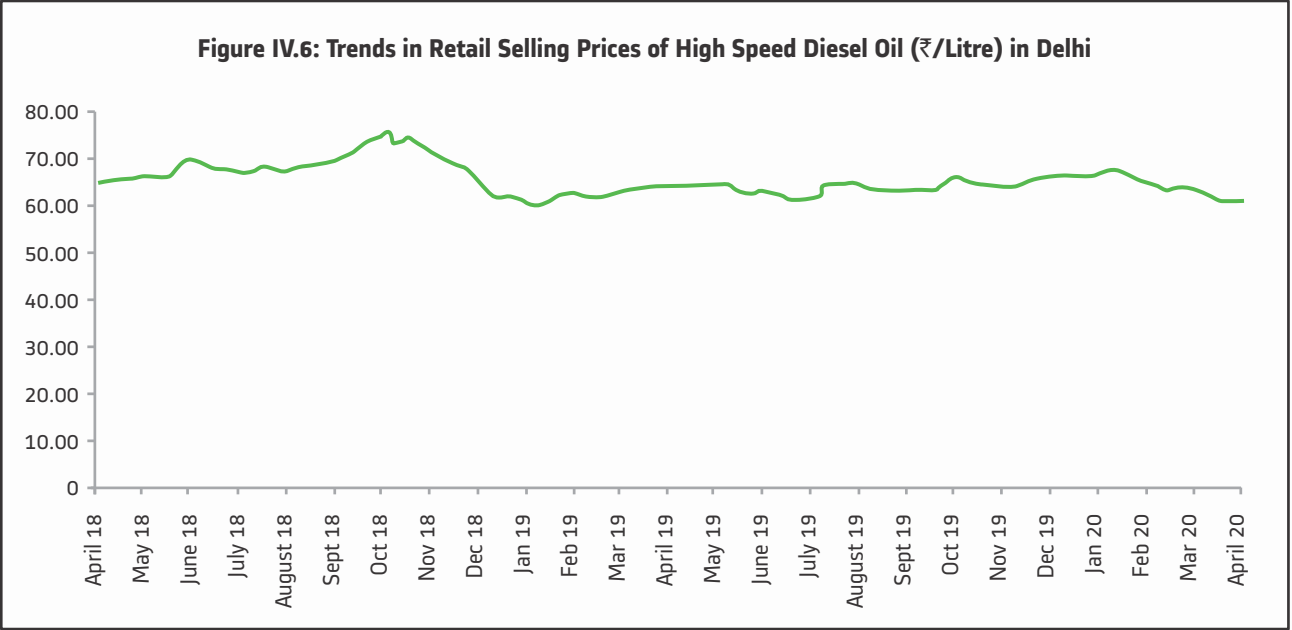
Source: IOCL



IV.11: Price Build-up and Retail Selling Prices of High Speed Diesel Oil in Metropolitan Cities in India

Elements/State	Delhi	Kolkata	Mumbai	Chennai
(1)	(2)	(3)	(4)	(5)
Trends in Retail Selling Prices of High Speed Diesel Oil (₹/Litre)				
01.04.2014	55.49	63.86	60.11	59.18
01.04.2015	49.71	57.02	54.28	52.91
01.04.2016	48.33	55.06	50.75	49.09
01.04.2017	55.61	61.27	57.86	58.82
01.04.2018	64.58	68.77	67.27	68.12
01.04.2019	66.09	69.17	67.83	69.78
01.04.2020	62.29	65.62	66.21	65.71
Price Build-up of Retail Selling Prices of High Speed Diesel Oil (₹/Litre) as on 01.04.2020				
Base Price	31.49	33.79	31.52	31.51
Freight etc	0.29	0.67	0.16	0.16
Price Charged to Dealers (excluding Excise Duty and VAT)	31.78	34.46	31.68	31.67
Add : Excise Duty	18.83	18.83	18.83	18.83
Add : Dealer Commission (Average)	2.49	2.50	2.50	2.50
Add : VAT (including VAT on Dealer Commission)	9.19	9.83	13.20	12.71
Retail Selling Price (₹/Litre)	62.29	65.62	66.21	65.71

Source: IOCL



IV.12: Price Build-up and Retail Selling Prices of Superior Kerosene Oil in Metropolitan Cities in India

Elements/State	Delhi	Kolkata	Mumbai	Chennai
(1)	(2)	(3)	(4)	(5)
Trends in Retail Selling Prices of Superior Kerosene Oil (₹/Litre)				
01.04.2014	14.96	15.25	15.25	13.70
01.04.2015	14.96	16.08	15.24	13.69
01.04.2016	14.96	16.00	15.42	13.70
01.04.2017	-	20.19	19.03	13.60
01.04.2018	-	26.30	23.96	13.60
01.04.2019	-	32.79	30.87	13.60
01.04.2020	-	27.85	25.72	13.60
Price Build-up of Retail Selling Prices of Superior Kerosene Oil (₹/Litre) as on 01.04.2020				
Ex-Storage Price	Kerosene free state	21,902.00	21,902.00	21,902.00
Siding Charge		19.37	-	-
Ass. Value		21,921.37	21,902.00	21,902.00
Other State Levies		-	-	(9,631.00)
Sub Total		21,921.37	21,902.00	12,271.00
GST %		5.00	5.00	5.00
Sales/GST Tax Amount		1,096.07	1,095.10	613.55
Sub Total		23,017.44	22,997.10	12,884.55
Ex-Mi/ Depot Price/KL-Oil Co.		23,017.44	22,997.10	12,884.55
Ex-Mi/ Depot Price/KL-St. Govt.		23,017.44	22,997.10	12,884.55
Wholesales Margin		1,341.88	1,341.88	170.00
Transport Charges		816.60	398.55	119.17
Toll		-	70.00	-
Handling Charges		269.21	99.00	-
Rounding Up		-	8.81	-
Vat On Wholesale Margin		121.38	95.91	8.50
Wholesales Price/KL		25,566.51	25,011.25	13,182.22
Retailer Margin		1,048.30	675.00	360.00
Handling Charges		736.98	-	-
Retailer Transportation		386.60	-	40.00
VAT On Retailer Margin		108.59	33.75	18.00
Retail Selling Price/KL		27,846.98	25,720.00	13,600.22
Retail Selling Price (₹/Litre)		27.85	25.72	13.60

Note : (a) Selling price for Superior Kerosene Oil is for Public Distribution System (PDS)

(b) Delhi is declared as Kerosene free city, hence no PDS SKO rate declared.

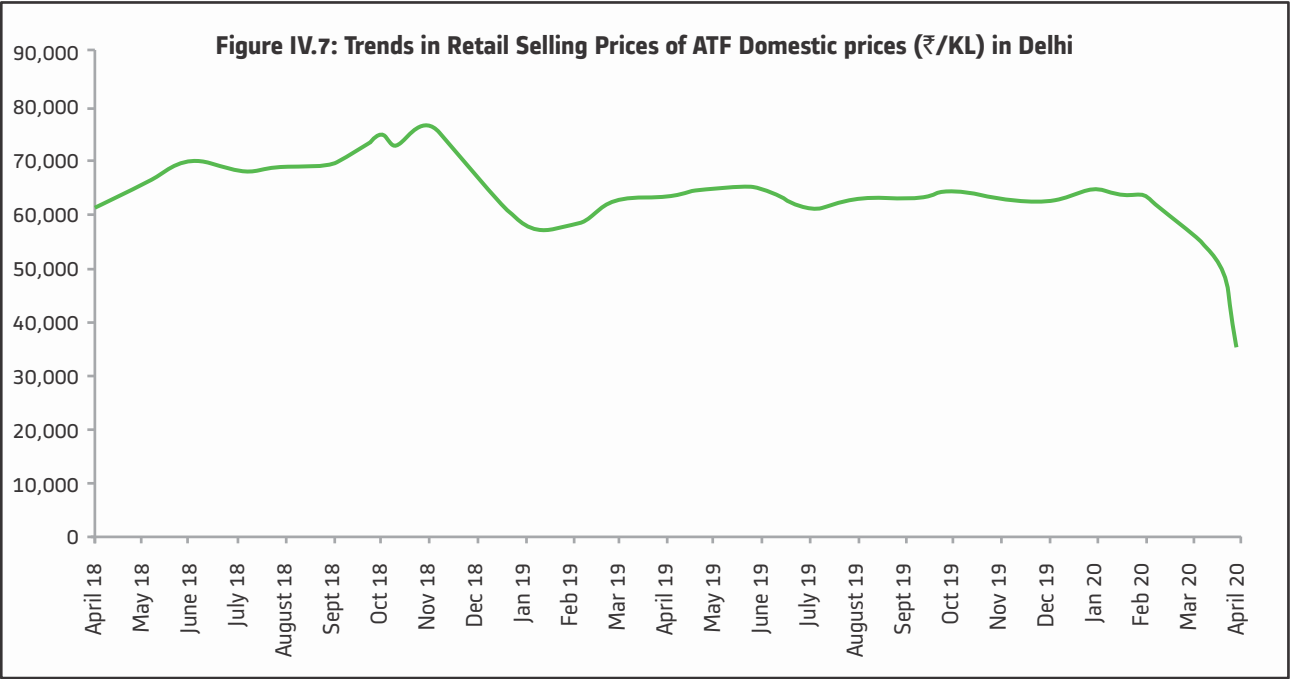
Source: IOCL



IV.13: Price Build-up and Retail Selling Prices of ATF Domestic prices in Metropolitan Cities in India

Elements/State	Delhi	Kolkata	Mumbai	Chennai
(1)	(2)	(3)	(4)	(5)
Trends in Retail Selling Prices of ATF Domestic prices (₹/KL)				
01.04.2014	71800.21	82139.53	74105.16	78375.96
01.04.2015	49337.68	58613.90	50712.93	54473.15
01.04.2016	42157.01	47094.08	41768.99	44821.08
01.04.2017	51481.85	56267.50	50895.90	54323.54
01.04.2018	61449.97	65985.36	61024.61	64615.19
01.04.2019	63472.22	69242.21	63447.54	64713.18
01.04.2020	35490.12	40902.59	35068.56	36923.17
Price Build-up of Retail Selling Prices of ATF Domestic prices (₹/KL)as on 01.04.2020				
Base Price	21890.00	22420.00	21520.00	22120.00
Freight etc	3688.47	5579.35	3754.64	3666.13
Excise Duty and Cess	2813.63	3242.73	2780.21	2836.47
State Taxes & Levies	7098.02	9660.52	7013.71	8300.55
Retail Selling Price (₹/KL)	35490.12	40902.59	35068.56	36923.16

Source: IOCL



CHAPTER-V



Consumption



CHAPTER HIGHLIGHTS

- Total consumption of petroleum products in the country during FY 2019-20 was 214.13 million metric tonnes (MMT) marking a growth of 0.4% over the consumption of 213.22 MMT during 2018-19. The Growth was observed in LPG (5.7%), Petrol (6.0%), Naphtha (1.0%), LDO (5.0%), LSHS (5.5%), Lubes (4.5%), Bitumen (0.2%) and Petroleum Coke (1.7%) in 2019-20 vis-a-vis 2018-19. The negative growth in consumption was observed for Kerosene (30.7%), Aviation Turbine Fuel (3.6%), HSD (1.1%), Furnace Oil (4.6%), Fuel Oil (4.0%) and Waxes (2.8%) in 2019-20 vis-a-vis 2018-19.
- During FY 2019-20, Diesel (HSD+LDO) accounted for the highest consumption share (38.9%) followed by Petrol/Motor Spirit (14.0%), LPG (12.3%), Petroleum Coke (10.1%), Naphtha (6.7%), ATF (3.7%), Bitumen (3.1%), Fuel Oil (2.9%), Lubes (1.8%) and Kerosene (1.1%).
- The share of Public and Private sector consumption in FY 2019-20 stood at 77.4% and 22.6% respectively.
- Highest consumption of LPG in FY 2019-20 was in Domestic Distribution sector (87.6%), Naphtha in Petrochemical sector (76.2%), Kerosene mainly in Domestic PDS (90.7%) and Petrol in Resellers/Retail sector (99.6%) and HSD in Resellers/Retail sector (85.6%).
- Highest market share in FY 2019-20 was captured by IOCL (38.3%) followed by BPCL (19.5%) and HPCL (17.5%). Market share of private companies collectively stood at 22.6%.



V.1: Product-wise Consumption of Petroleum Products (Calendar Year-wise)

(Figures in TMT)

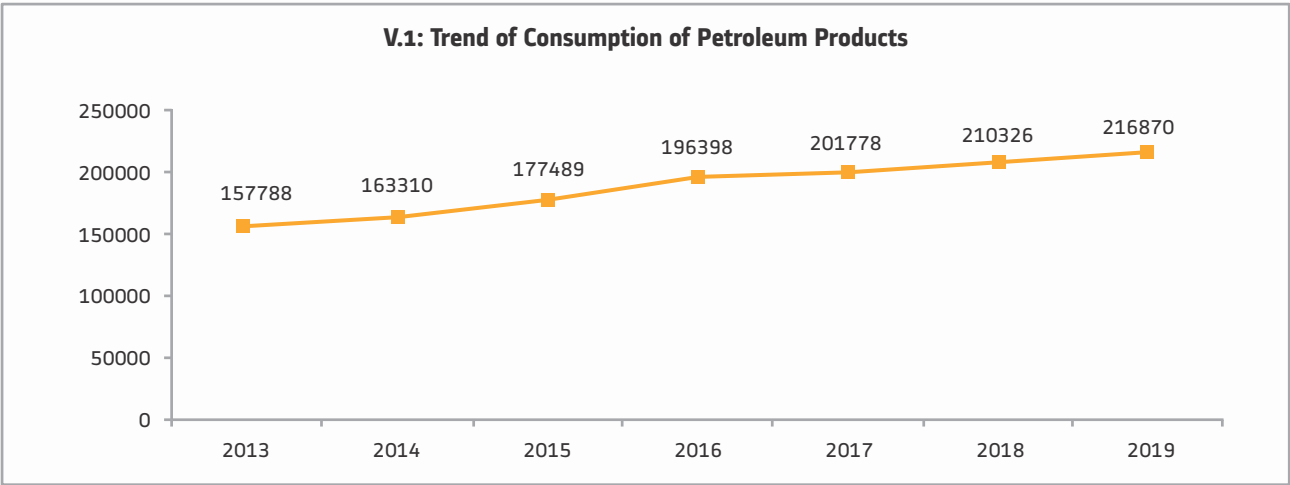
Products	2013	2014	2015	2016	2017	2018	2019 (P)	% Share to Total	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
LPG	15855	17671	19040	21231	22942	24207	26276	11.5	8.5
Motor Spirit	16891	18384	21089	23660	25393	27665	30061	13.2	8.7
Naphtha	11433	10965	12910	13493	12538	14146	13805	6.7	-2.4
SKO	7249	7127	6887	5931	4086	3541	2725	1.3	-23.0
ATF	5449	5678	6095	6805	7447	8220	8182	3.8	-0.5
HSDO	68641	69021	72665	76740	79298	82801	84092	38.8	1.6
LDO	384	354	403	458	476	580	639	0.3	10.2
Furnace Oil	5853	5464	6031	7382	6646	6244	5858	2.7	-6.2
LSHS	582	415	196	113	64	339	396	0.2	16.6
Lubes/Greases	3180	3421	3366	3664	3569	3802	3902	1.8	2.7
Bitumen/Asphalt	4986	5128	5570	6108	5839	6541	6797	3.1	3.9
Petroleum Coke	11285	13842	17006	24414	25784	21164	22443	10.3	6.0
Waxes	180	168	166	174	192	259	300	0.1	15.9
Others	5818	5673	6066	6226	7504	10817	11395	5.3	5.3
Total Consumption	157788	163310	177489	196398	201778	210326	216870	100.0	3.1
Refinery Boiler Fuel and Losses (RBF)	17557	17536	18349	20197	20910	21359	22735	-	6.4
Grand Total	175345	180846	195838	216595	222689	231686	239605	-	3.4

Note: Total may not tally due to rounding off. P:Provisional

1 :Consumption includes sales by oil companies, own consumption & direct private imports.

2. Growth rate in 2019 over 2018.

Source: Petroleum Planning & Analysis Cell.



V.2: Product-wise Consumption of Petroleum Products (Financial Year-wise)

(Figures in TMT)

Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share to Total	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
LPG	16294	18000	19623	21608	23342	24907	26330	12.3	5.7
Motor Spirit	17128	19075	21847	23765	26174	28284	29975	14.0	6.0
Naphtha	11305	11082	13271	13241	12889	14131	14268	6.7	1.0
SKO	7165	7087	6826	5397	3845	3459	2397	1.1	-30.7
ATF	5505	5723	6262	6998	7633	8300	7999	3.7	-3.6
HSDO	68364	69416	74647	76027	81073	83528	82602	38.6	-1.1
LDO	386	365	407	449	524	598	628	0.3	5.0
Furnace Oil (FO)	5787	5584	6482	7046	6605	6195	5912	2.8	-4.6
LSHS	449	377	150	104	116	369	390	0.2	5.5
Fuel Oil (FO+LSHS)	6236	5961	6632	7150	6721	6564	6302	2.9	-4.0
Lubes/Greases	3305	3310	3571	3470	3884	3668	3833	1.8	4.5
Bitumen	5007	5073	5938	5936	6086	6708	6720	3.1	0.2
Petroleum Coke	11756	14557	19297	23964	25657	21346	21708	10.1	1.7
Waxes	177	156	173	182	199	286	278	0.1	-2.8
Others	5780	5715	6179	6411	8139	11437	11087	5.2	-3.1
Total Consumption	158407	165520	184674	194597	206166	213216	214127	100.0	0.4
Refinery fuel and losses (RBF)	17868	17669	18773	20070	21164	21454	23510	-	9.6
Grand Total	176274	183189	203447	214667	227330	234670	237637	-	1.3

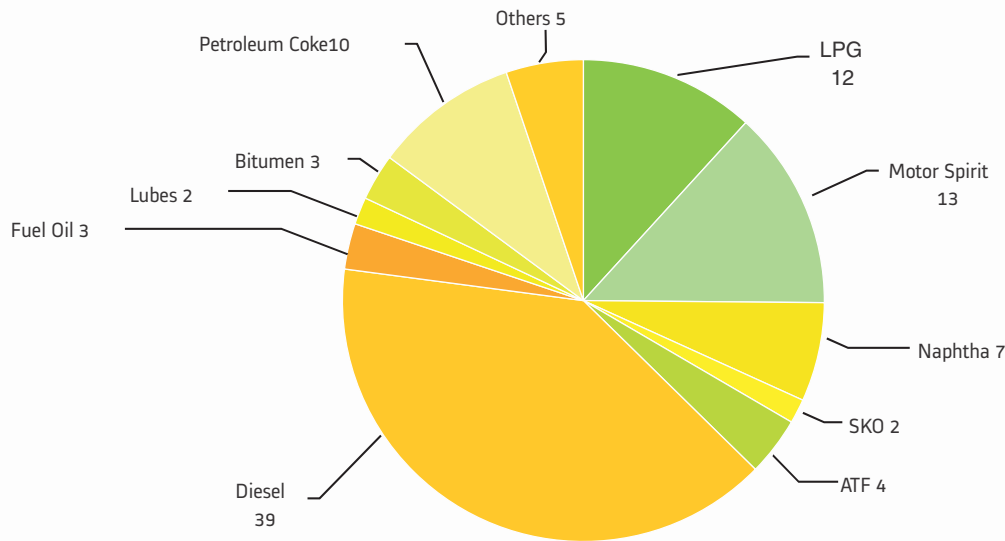
Note: Total may not tally due to rounding off. P: Provisional

1. Consumption includes sales by oil companies, own consumption & direct private imports.

2. Growth rate in 2019-20 over 2018-19.

Source: Petroleum Planning & Analysis Cell.

Figure V.2: Share of different Petroleum Products in total consumption during 2019-20 (%)



V.3: Product-wise Consumption of Petroleum Products by Public & Private Sector

(Figures in TMT)

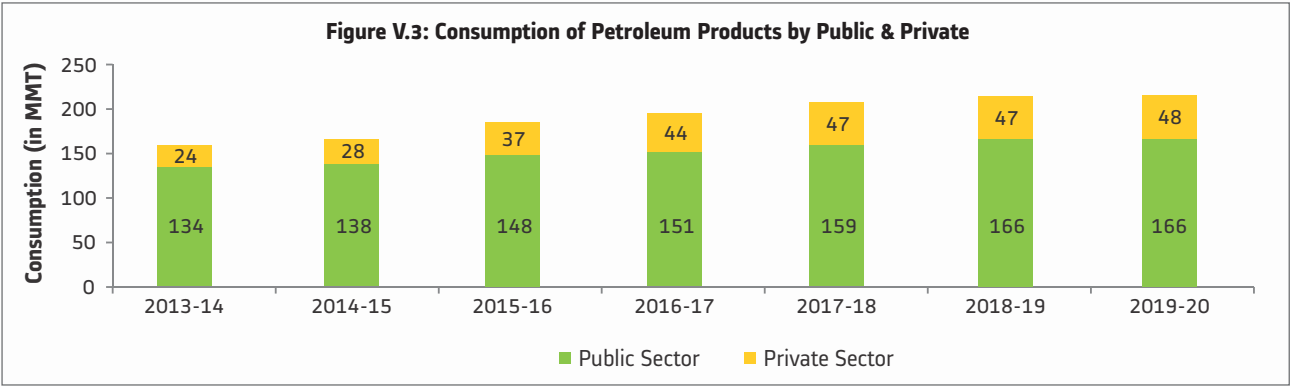
Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% to Total 2019-20	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. PUBLIC SECTOR									
LPG	15925	17571	19134	21179	22977	24591	26126	12.2	6.2
Motor Spirit	16727	18588	21079	22518	24329	25959	27179	12.7	4.7
Naphtha	5414	4814	4790	4905	5207	5583	6479	3.0	16.0
SKO	7165	7087	6826	5397	3845	3459	2397	1.1	-30.7
ATF	5304	5319	5629	6186	6988	7683	7598	3.5	-1.1
HSDO	68200	68701	72092	71450	74382	75775	73825	34.5	-2.6
LDO	386	365	407	449	519	577	602	0.3	4.4
Furnace Oil	4720	4790	5514	5905	5566	5278	4835	2.3	-8.4
LSHS	449	377	150	104	99	318	338	0.2	6.3
Lubes/Greases	1218	1162	1312	1339	1345	1313	1317	0.6	0.3
Bitumen/Asphalt	4500	4366	4819	4721	4883	5683	4995	2.3	-12.1
Petroleum Coke	2133	2391	3483	3952	5176	5770	5634	2.6	-2.4
Paraffin Wax	53	56	58	90	95	92	90	0.0	-2.4
Others	2083	2029	2241	2708	3326	4097	4292	2.0	4.7
Total (A)	134277	137616	147535	150904	158739	166178	165704	77.4	-0.3
B. PRIVATE SECTOR									
LPG	369	429	489	429	364	316	204	0.1	-35.4
Motor Spirit	401	487	768	1247	1846	2326	2797	1.3	20.3
Naphtha	5891	6268	8481	8335	7681	8548	7789	3.6	-8.9
ATF	201	404	632	812	645	617	400	0.2	-35.1
HSDO	164	715	2555	4577	6692	7753	8777	4.1	13.2
Furnace Oil	1067	794	968	1142	1056	968	1129	0.5	16.7
Lubes/Greases	2087	2148	2259	2131	2539	2355	2517	1.2	6.9
Bitumen/Asphalt	506	707	1118	1214	1202	1024	1725	0.8	68.4
Petroleum Coke	9622	12167	15815	20012	20480	15576	16074	7.5	3.2
Paraffin Wax	124	99	115	171	104	194	188	0.1	-3.1
Others	3697	3685	3938	3624	4817	7361	6821	3.2	-7.3
Total (B)	24130	27904	37139	43693	47427	47038	48422	22.6	2.9
TOTAL (A+B)	158407	165520	184674	194597	206166	213216	214127	100.0	0.4

Note: Total may not tally due to rounding off. P: Provisional

1. Consumption includes sales by oil companies, own consumption & direct private imports.

2. Growth rate in 2019-20 over 2018-19.

Source: Petroleum Planning & Analysis Cell.



V.4: Sector-wise Consumption (end use) of Liquefied Petroleum Gas (LPG)

(Figures in TMT)

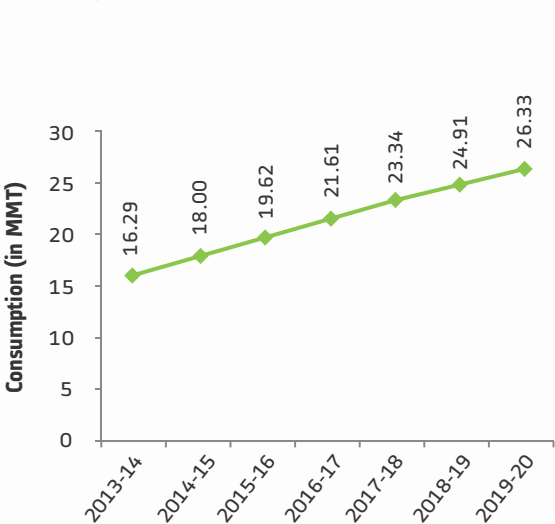
Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Domestic Distribution	14411.6	16040.4	17181.7	18871.4	20351.8	21728.0	23076.0	87.6
2	Non-Domestic/Industry/Commercial	1073.6	1051.0	1464.4	1775.9	2085.8	2364.4	2614.4	9.9
3	Transport	195.0	164.6	171.8	168.1	185.1	181.1	172.8	0.7
(i)	Auto LPG	194.3	163.8	170.9	167.3	184.4	180.3	171.9	0.7
(ii)	Railways	0.7	0.8	0.9	0.8	0.7	0.8	0.9	0.0
4	Power Generation	2.6	3.1	2.7	2.2	1.3	1.8	1.5	0.0
5	Agriculture Sector	4.0	6.1	7.1	7.8	7.5	22.0	25.7	0.1
6	Mining	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0
7	Manufacturing (Bulk LPG)	134.7	207.9	201.7	220.0	204.6	204.2	153.4	0.6
(i)	Chemicals	5.4	35.0	5.2	12.4	6.0	24.2	20.7	0.1
(ii)	Engineering	1.5	1.8	2.1	2.5	2.6	3.0	3.0	0.0
(iii)	Electronics	7.1	4.8	3.9	4.5	3.9	5.5	5.5	0.0
(iv)	Mechanical	14.9	13.9	12.4	13.2	13.9	18.6	15.4	0.1
(v)	Metallurgical	84.5	125.3	134.1	138.9	131.6	94.0	61.3	0.2
(vi)	Textiles	2.9	2.2	2.5	2.3	2.1	2.3	2.6	0.0
(vii)	Other Consumer/Industrial Goods	18.5	24.8	41.5	46.3	44.4	56.7	45.0	0.2
8	Resellers/Retail	57.8	45.2	44.9	67.0	74.3	0.0	0.0	0.0
9	Miscellaneous (Bulk)	45.9	52.7	59.9	66.6	67.1	88.9	81.9	0.3
	Total Sales	15867.4	17525.7	19089.3	21178.9	22977.4	24590.8	26125.7	99.2
10	Pvt Imports	368.5	429.2	489.0	429.3	364.5	316.0	204.0	0.8
	Total Consumption	16293.6	18000.1	19623.2	21608.2	23341.8	24906.8	26329.8	100.0

Note: Total may not tally due to rounding off.

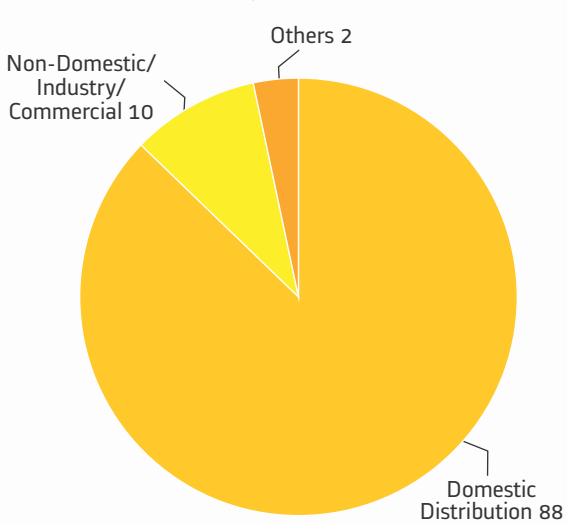
P : Provisional

Source: Petroleum Planning & Analysis Cell.

Figure V.4: Trends of LPG Consumption



Figures V.5: Sector-wise Consumption of LPG during 2019-20 (%)



V.5: Sector-wise Consumption (end use) of Naphtha

(Figures in TMT)

Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Fertilizers	515.9	301.5	315.9	349.3	367.7	351.6	149.7	1.0
2	Petrochemicals	9463.9	9530.1	10350.2	10350.9	10010.9	10601.6	10874.5	76.2
3	Power	215.1	199.2	50.3	60.2	66.5	5.3	0.4	0.0
4	Others	240.3	207.5	37.1	57.6	404.9	461.7	879.6	6.2
Total Sales		10435.2	10238.3	10753.5	10818.0	10850.1	11420.2	11904.2	83.4
5	Pvt Imports	870.0	843.7	2517.4	2422.8	1768.9	1727.5	1305.5	9.2
6	SEZ data	-	-	-	-	269.6	983.6	1058.0	7.4
Total Consumption		11305.2	11082.0	13270.8	13240.8	12888.6	14131.2	14267.8	100.0

Note: Total may not tally due to rounding off.

P : Provisional

Source: Petroleum Planning & Analysis Cell.

Figure V.6: Trends of Naphtha Consumption

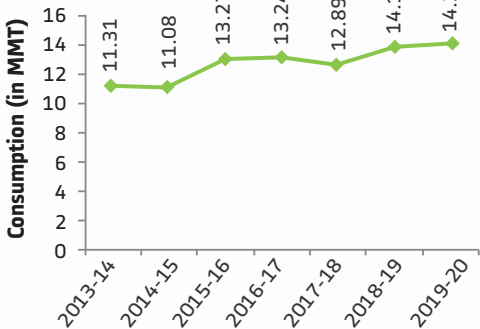
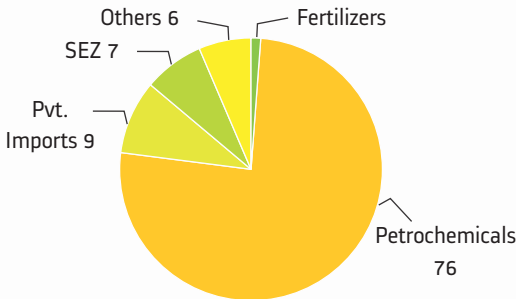


Figure V.7: Sector-wise Consumption of Naphtha during 2019-20 (%)



V.6: Sector-wise Consumption (end use) of Kerosene

(Figures in TMT)

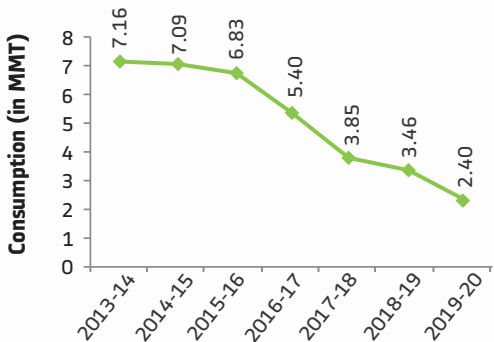
Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Domestic PDS	7008.9	6917.3	6648.9	5204.1	3633.6	3231.2	2173.7	90.7
2	Commercial/Industry	107.3	60.1	63.9	77.1	97.0	97.3	86.5	3.6
3	Others	48.6	109.3	113.4	115.6	114.5	131.0	136.6	5.7
Grand Total		7164.8	7086.7	6826.3	5396.8	3845.1	3459.5	2396.8	100.0

Note: Total may not tally due to rounding off.

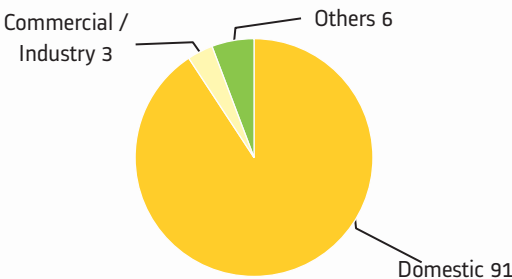
P : Provisional

Source: Petroleum Planning & Analysis Cell.

Figure V.8: Trends of SKO Consumption



V.9: Sector-wise Consumption of SKO during 2019-20 (%)



V.7: Sector-wise Consumption (end use) MS (Petrol)

(Figures in TMT)

Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Retail/Resellers	17016.8	18960.6	21727.5	23642.0	26050.2	28156.2	29849.3	99.6
2	Others	111.5	114.8	119.1	123.0	124.2	128.2	126.1	0.4
Grand Total		17128.3	19075.4	21846.6	23764.9	26174.5	28284.4	29975.5	100.0

Note: Total may not tally due to rounding off.
Source: Petroleum Planning & Analysis Cell.

P : Provisional

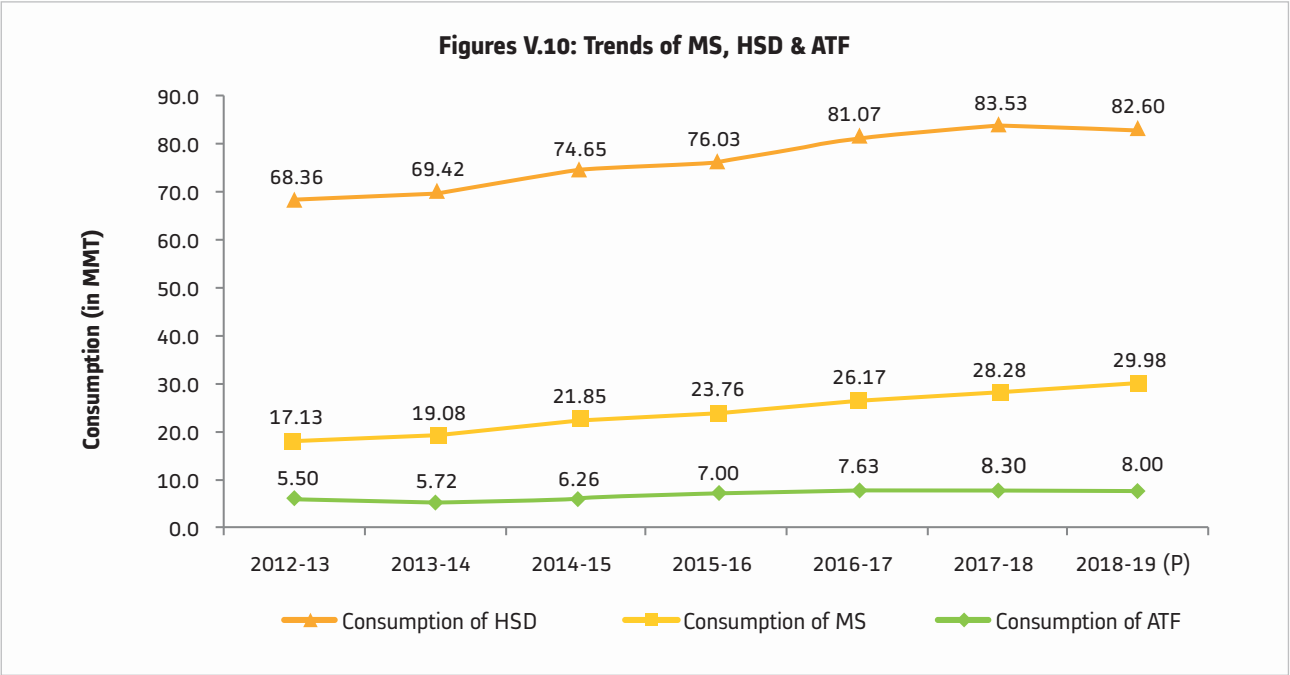
V.8: Sector-wise Consumption (end use) of Aviation Turbine Fuel (ATF)

(Figures in TMT)

Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Foreign airlines	1168.2	1167.4	1211.1	1433.5	1524.5	1815.8	1853.4	23.2
2	Indian airlines	3513.9	3658.6	3988.8	4158.0	4528.2	6214.2	6136.1	76.7
3	Others	822.5	757.2	787.1	1068.5	1279.9	11.3	9.1	0.1
Total Sales		5504.6	5583.3	5987.0	6660.0	7332.6	8041.3	7998.6	100.00
4	Pvt Imports	0.0	139.6	274.7	337.5	300.1	258.8	0.0	0.00
Total Consumption		5504.6	5722.9	6261.7	6997.5	7632.7	8300.1	7998.6	100.0

Note: Total may not tally due to rounding off.
Source: Petroleum Planning & Analysis Cell.

P : Provisional



V.9: Sector-wise Consumption (end use) of High Speed Diesel (HSD) Oil

(Figures in TMT)

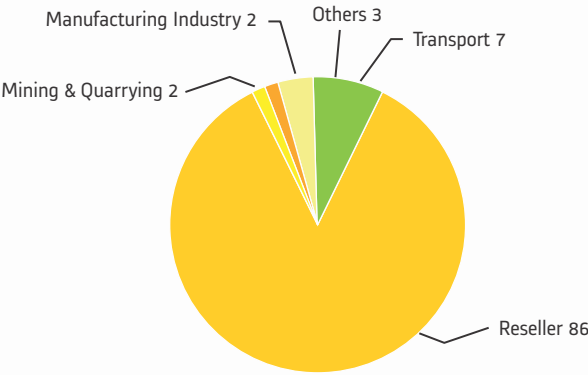
Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Transport	3203	4617	5765	5658	5999	6210	6011	7.3
(i)	Road Transport	206	1580	2671	2709	2731	2727	2660	3.2
(ii)	Aviation	1	1	1	2	3	3	3	0.004
(iii)	Shipping	365	344	366	296	629	763	808	1.0
(iv)	Railways	2631	2693	2726	2651	2636	2716	2539	3.1
2	Agriculture	429	575	630	607	618	639	616	0.7
3	Power Generation	204	197	224	208	223	222	214	0.3
4	Mining & Quarrying	873	998	1184	1224	1255	1465	1542	1.9
5	Manufacturing Industry	687	794	1096	1033	1155	1264	1334	1.6
(i)	Iron & Steel(Metallurgy)	154	162	170	159	153	148	135	0.2
(ii)	Textile	46	59	46	35	32	25	20	0.02
(iii)	Cement	125	149	204	159	185	255	266	0.3
(iv)	Ceramic & Glass	6	8	8	8	8	8	7	0.01
(v)	Chemicals & Allied	103	103	110	110	122	120	123	0.1
(vi)	Aluminium	28	19	18	24	16	16	13	0.02
(vii)	Civil Engineering	68	136	299	317	416	480	582	0.7
(viii)	Elec./Electronics	26	18	24	15	13	15	13	0.02
(ix)	Mechanical	70	78	137	144	138	135	117	0.1
(x)	Fertilizers	15	6	7	6	5	5	6	0.01
(xi)	Other Consumer/ Industrial Goods	45	56	73	56	65	57	52	0.1
6	Resellers/Retail	61465	60403	63772	65089	69846	71697	70704	85.6
7	Miscellaneous	1426	1748	1922	2161	1887	1938	2064	2.5
	Total	68287	69333	74592	75980	80983	83435	82485	99.9
8	Pvt Imports	77	83	55	46	90	93	117	0.1
	Total Consumption	68364	69416	74647	76027	81073	83528	82602	100.0

Note: Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

P : Provisional

V.11: Sector-wise Consumption of HSD during 2019-20 (%)



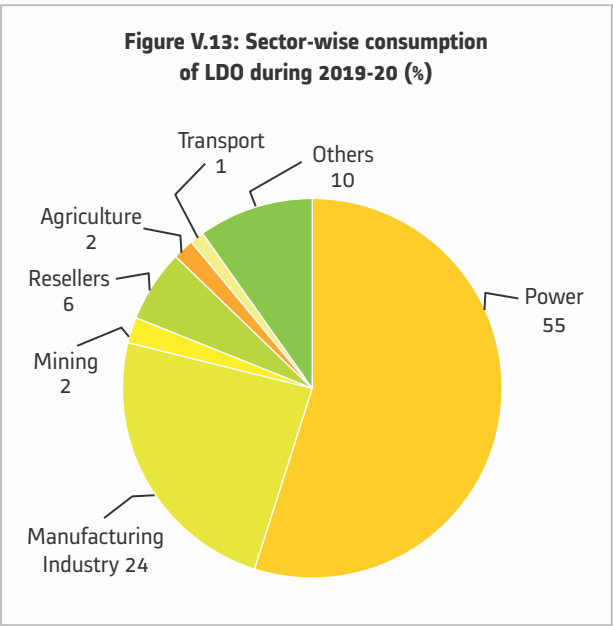
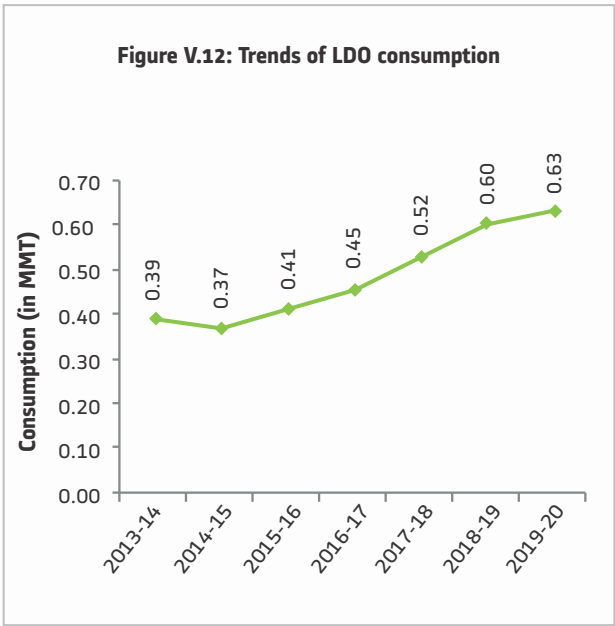
V.10: Sector-wise Consumption (end use) of Light Diesel Oil (LDO)

(Figures in TMT)

Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Transport	3.8	5.0	3.7	7.2	7.2	10.0	4.6	0.7
(i)	Road Transport	0.7	2.2	0.2	0.0	2.6	4.5	1.9	0.3
(ii)	Shipping	2.4	2.1	2.9	6.7	4.1	5.0	2.2	0.4
(iii)	Railways	0.8	0.6	0.6	0.6	0.5	0.5	0.4	0.1
2	Agriculture	1.3	1.1	1.3	2.0	9.3	15.6	12.5	2.0
3	Power Generation	131.8	132.2	154.2	174.3	142.9	276.5	342.1	54.5
4	Mining & Quarrying	3.4	3.8	2.2	2.3	6.1	22.4	14.4	2.3
5	Manufacturing Industry	63.7	54.6	60.7	59.5	148.8	174.8	153.3	24.4
(i)	Civil Engineering	4.2	4.6	10.3	20.2	33.2	41.9	43.1	6.9
(ii)	Metallurgical	40.7	30.1	26.8	19.3	54.7	67.7	64.0	10.2
(iii)	Textile & Fibre	1.5	1.1	1.1	1.4	2.1	2.4	1.9	0.3
(iv)	Cement	0.0	1.2	1.2	1.7	8.0	4.8	11.7	1.9
(v)	Ceramic & Glass	0.0	0.0	0.0	0.1	0.4	0.4	0.5	0.1
(vi)	Chemicals & Allied	10.9	9.0	12.0	8.9	10.8	17.4	16.5	2.6
(vii)	Aluminium	3.8	6.9	3.3	3.9	31.7	28.4	5.4	0.9
(viii)	Elec./Electronics	0.1	0.0	0.2	0.1	0.7	1.0	0.1	0.02
(ix)	Mechanical	1.3	0.7	4.1	2.1	2.9	6.1	6.2	1.0
(x)	Other Consumer/ Industrial Goods	1.1	1.0	1.6	1.8	4.3	4.6	3.8	0.6
6	Resellers	0.7	3.8	1.1	1.0	2.6	33.3	37.5	6.0
7	Miscellaneous	181.6	164.8	183.8	202.5	206.9	65.3	63.3	10.1
Total Sales		386.3	365.3	407.1	449.0	523.8	598.0	627.8	100.0
Total Consumption		386.3	365.3	407.1	449.0	523.8	598.0	627.8	100.0

Note: Total may not tally due to rounding off.
Source: Petroleum Planning & Analysis Cell.

P : Provisional



V.11: Sector-wise Consumption (end use) of Furnace Oil

(Figures in TMT)

	Sector	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Transport	315.3	346.4	379.5	444.1	600.8	786.3	849.2	14.4
(i)	Road Transport	6.2	10.2	45.0	36.9	20.2	110.0	120.5	2.0
(ii)	Shipping	306.7	334.5	332.6	407.2	580.6	676.3	728.7	12.3
(iii)	Railways	2.5	1.8	1.9	0.0	0.0	0.1	0.0	0.0
2	Agriculture	74.5	55.6	56.6	51.4	49.8	78.5	70.9	1.2
3	Power Generation	535.7	445.8	430.4	361.0	313.8	338.8	302.7	5.1
4	Mining & Quarrying	38.5	45.1	52.7	71.5	67.9	54.3	84.0	1.4
5	Manufacturing Industry	1833.3	1748.4	2136.5	2491.8	2345.9	2577.4	2142.5	36.2
(i)	Civil Engineering	55.9	32.8	47.9	49.6	43.0	52.1	48.8	0.8
(ii)	Metallurgical	549.9	611.4	763.9	981.7	930.6	885.2	778.5	13.2
(iii)	Textile & Fibre	57.7	69.9	68.4	74.1	45.7	48.6	41.0	0.7
(iv)	Cement	13.1	12.7	14.7	12.0	13.7	20.3	25.3	0.4
(v)	Ceramic & Glass	123.2	87.9	142.7	171.0	134.2	202.5	79.0	1.3
(vi)	Chemicals & Allied	201.3	165.9	193.1	238.9	242.7	295.2	240.4	4.1
(vii)	Aluminium	231.6	232.3	218.5	258.3	238.3	386.4	338.6	5.7
(viii)	Electrical	7.3	1.6	1.3	1.6	2.4	3.3	1.4	0.02
(ix)	Mechanical	15.2	10.9	16.4	16.6	13.6	27.5	23.0	0.4
(x)	Fertilizers	408.1	393.3	476.5	487.7	518.4	460.4	386.9	6.5
(xi)	Other Consumer/ Industrial Goods)	170.0	129.8	193.2	200.1	163.3	196.0	179.7	3.0
6	Resellers	309.1	196.9	270.2	357.3	321.2	298.4	289.6	4.9
7	Miscellaneous	1984.7	2175.4	2564.0	2485.4	2233.5	1449.5	1398.1	23.6
	Total Sales	5091.1	5013.6	5889.8	6262.3	5933.0	5583.1	5137.1	86.9
8	Pvt Imports	695.8	570.0	592.1	783.9	671.7	611.4	774.9	13.1
	Total Consumption	5787.0	5583.6	6481.9	7046.2	6604.7	6194.5	5912.0	100.0

Note: Total may not tally due to rounding off.

P : Provisional

Source: Petroleum Planning & Analysis Cell.

Figure V.14: Trends of Furnace Oil Consumption

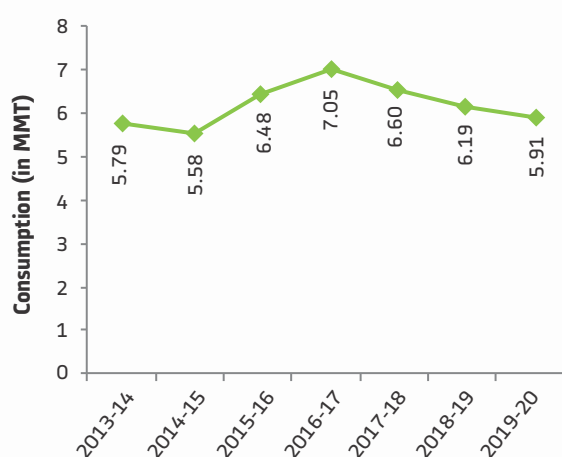
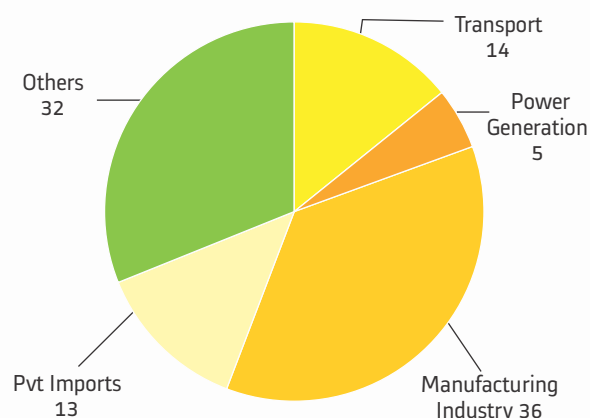


Figure V.15: Sector-wise consumption of Furnace Oil during 2019-20 (%)

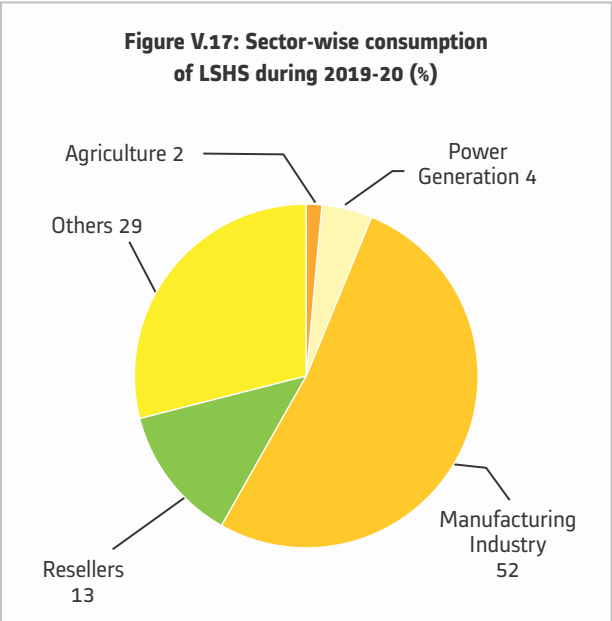
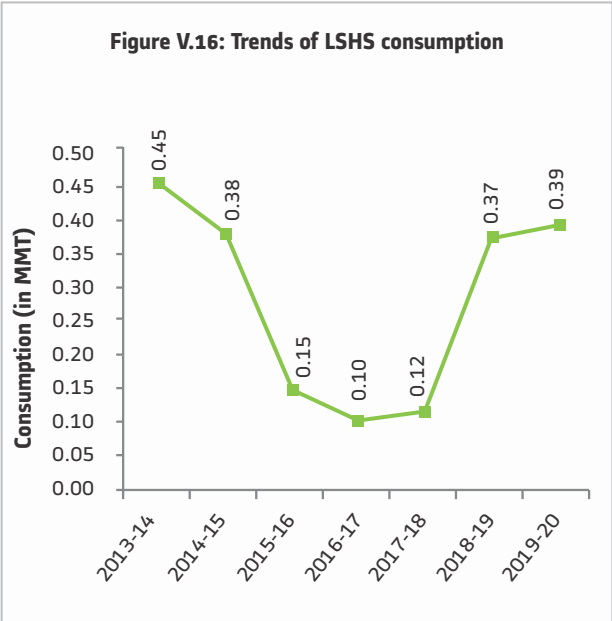


V.12: Sector-wise Consumption (end use) of Low Sulphur Heavy Stock

(Figures in TMT)

Sector		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Agriculture	0.0	0.0	0.0	0.0	1.2	7.9	6.4	1.6
2	Power Generation	328.1	226.2	50.7	16.4	0.0	9.3	17.9	4.6
3	Mining	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
4	Manufacturing Industry	76.3	103.6	70.4	50.9	53.8	175.1	201.9	51.8
(i)	Civil Engineering	0.0	0.0	0.0	0.0	1.1	3.1	6.1	1.6
(ii)	Metallurgical	0.7	0.0	0.0	0.0	2.4	60.3	78.7	20.2
(iii)	Iron & Steel	58.1	55.3	46.3	45.9	37.9	71.9	86.3	22.1
(iv)	Textile & Fibre	0.0	0.0	0.0	0.0	0.3	2.7	2.5	0.6
(v)	Cement	0.0	0.0	0.2	0.0	0.4	0.9	0.8	0.2
(vi)	Chemicals & Allied	2.8	46.6	20.7	3.7	5.7	13.6	12.4	3.2
(vii)	Electrical	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.2
(viii)	Mechanical	0.0	0.0	0.0	0.0	0.1	0.5	0.8	0.2
(ix)	Fertilizers	14.7	1.6	3.3	1.3	0.5	0.5	1.0	0.3
(x)	Other Consumer/ Industrial Goods)	0.0	0.0	0.0	0.0	5.3	21.5	12.7	3.3
5	Miscellaneous	44.3	47.5	29.2	36.9	46.3	128.7	113.0	29.0
6	Resellers	0.0	0.0	0.0	0.0	14.7	48.0	50.3	12.9
Total Sales		448.7	377.3	150.4	104.2	116.3	369.0	389.5	100.0
7	Pvt Imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Consumption		448.7	377.3	150.4	104.2	116.3	369.0	389.5	100.0

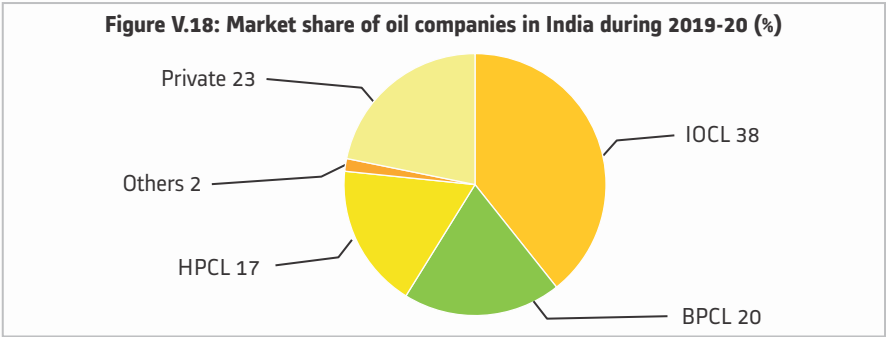
Note: Total may not tally due to rounding off. P : Provisional
Source: Petroleum Planning & Analysis Cell.



V.13: Consumption of Petroleum Products and Market Share of Oil Companies in India

Year	Consumption	IOCL	BPCL	HPCL	Other	Private	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2013-14	in TMT	69873	32776	30048	1581	24130	158407
	in %	44.1	20.7	19.0	1.0	15.2	100.0
2014-15	in TMT	71653	33394	30746	1824	27904	165520
	in %	43.3	20.2	18.6	1.1	16.9	100.0
2015-16	in TMT	75946	35514	33585	2490	37139	184674
	in %	41.1	19.2	18.2	1.3	20.1	100.0
2016-17	in TMT	77324	36376	34441	2763	43693	194597
	in %	39.7	18.7	17.7	1.4	22.5	100.0
2017-18	in TMT	80207	39524	35979	3029	47427	206166
	in %	38.9	19.2	17.5	1.5	23.0	100.0
2018-19	in TMT	83184	41338	37678	3978	47038	213216
	in %	39.0	19.4	17.7	1.9	22.1	100.0
2019-20 (P)	in TMT	81935	41851	37416	4502	48422	214127
	in %	38.3	19.5	17.5	2.1	22.6	100.0

Note: 1. Other companies include CPCL, GAIL, MRPL, NRL & ONGC
2. Private includes sales by private oil companies, own consumption & direct private imports
3. Total may not tally due to rounding off.
Source: Petroleum Planning & Analysis Cell.



V.14: Deliveries made to International/Coastal Bunkers

(Figures in TMT)

Items	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
INTERNATIONAL BUNKERS							
F.O	304.9	398.9	436.8	523.5	368.2	469.5	319.3
H.S.D	28.5	32.4	35.0	39.9	30.1	37.4	55.0
L.D.O	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	333.4	431.3	471.8	563.4	398.3	506.9	374.4
COASTAL BUNKERS							
F.O	201.9	202.4	232.8	232.1	312.1	371.3	401.4
H.S.D	778.1	763.3	727.8	673.0	588.7	652.1	700.9
L.D.O	2.3	1.9	2.6	6.9	4.6	5.3	2.1
TOTAL	982.3	967.6	963.2	911.9	905.4	1028.7	1104.4
TOTAL BUNKERS							
F.O	506.8	601.3	669.6	755.6	680.3	840.8	720.7
H.S.D	806.6	795.7	762.8	712.8	618.8	689.5	755.9
L.D.O	2.3	1.9	2.6	6.9	4.6	5.3	2.1
TOTAL	1315.7	1398.9	1435.0	1475.2	1303.6	1535.6	1478.8

Note: Total may not tally due to rounding off.
Source: Petroleum Planning & Analysis Cell.



V.15: State-wise Consumption of Major Petroleum Products during 2019-20

(Figures in TMT)

Region/State	LPG	MS	Naphtha	SKO	ATF	HSD	LDO	F.O.	HHS / LSHS	Lubes/ Greases	Bitumen	Petcoke	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Region: North														
Chandigarh	56	127	0	0	23	198	0	2	0	4	3	22	0	436
Delhi	823	876	0	1	2048	835	1	0	13	16	1		8	4621
Haryana	858	1029	3199	2	26	4717	25	0	57	53	135		120	10223
Himachal Pradesh	180	238	0	12	7	668	0	40	1	12	65	463	7	1694
Jammu & Kashmir	212	304	0	120	47	680	1	4	0	8	43	73	7	1500
Punjab	981	960	0	4	164	3214	9	171	3	41	232	1249	85	7114
Rajasthan	1390	1657	0	14	171	5272	49	0	79	50	336	1836	68	10921
Uttar Pradesh	3532	3320	0	353	256	9485	86	0	148	76	722	109	320	18407
Uttarakhand	308	326	0	4	16	744	1	68	7	17	44	111	10	1656
North Total	8340	8838	3199	511	2757	25812	172	286	308	277	1582	3863	625	56571
Region: North East														
Arunachal Pradesh	23	52	0	10	1	161	0	0	0	1	15	0	0.03	263
Assam	451	445	303	139	159	1024	4	5	0	29	30	183	51	2823
Manipur	41	68	0	10	10	118	0.1	0.6	0	0.4	5	0	0	255
Meghalaya	27	100	0	15	0	356	0.1	0	0	1	4	48	0.1	550
Mizoram	27	31	0	3	2	75	0	0	0	0.2	3	0	0.02	141
Nagaland	24	39	0	7	3	90	0.1	0.2	0	1	7	0	0	172
Sikkim	17	21	1	9	0	78	2	0	0	0.1	2	0	0	130
Tripura	53	58	0	20	9	87		0	0	1	4	0	0.1	232
North East Total	662	814	305	213	185	1990	6	6	0	32	71	232	52	4566
Region: East														
Andaman & Nicobar	12	19	0	1	22	157	0	0	0	1	5	0	0	217
Bihar	1404	852	0	190	38	2367	43	29	0	14	260	194	6	5397
Jharkhand3	78	526	1	84	51	1968	19	112	0	31	170	65	10	3416
Odisha	553	834	0.1	162	92	2662	56	922	0	21	100	356	271	6030
West Bengal	1795	996	1157	542	436	3439	44	390	0	65	227	67	152	9308
East Total	4143	3228	1158	979	639	10593	161	1453	0	131	762	683	439	24369
Region: West														
Chhattisgarh	295	613	0	54	42	1648	42	161	0	20	131	634	26	3667
Dadra & Nagar Haveli	22	20	0	0	0	141	1	80	0	102	3	0	5	373
Daman & Diu	10	19	0	0.1	1	93	0	25	0	45	2	0	2	197
Goa	71	186	0	0.5	159	306	0.2	39	0	5	13	6	4	790
Gujarat	1174	2067	6711	98	250	5608	29	748	1	96	375	1594	3785	22536
Madhya Pradesh	1068	1464	1	186	78	3655	55	94	0	43	228	822	166	7860
Maharashtra	3124	3462	345	54	1399	9529	81	766	6	303	653	126	948	20797
West Total	5763	7831	7057	392	1931	20979	209	1914	7	614	1404	3183	4936	56220
Region: South														
Andhra Pradesh	1190	1278	26	1	74	3834	20	259	69	27	191	541	189	7699
Karnataka	1770	2270	157	64	699	6602	20	292	0	46	191	865	91	13067
Kerala	1033	1559	0.4	58	533	2557	6	278	2	41	243	15	207	6533
Lakshadweep	1	0	0	0.5	0.0	15	0	0	0	0.1	0	0	0	17
Puducherry	45	134	0	0.02	1	290	0.1	39	1	2	1	0	4	517
Tamilnadu	2178	2735	2	154	639	6191	20	503	1	99	465	816	314	14116
Telangana	1001	1288	0	24	541	3622	14	110	1	46	188	77	40	6953
South Total	7218	9265	186	302	2486	23111	80	1479	74	262	1278	2314	846	48901
Total	26126	29975	11904	2397	7999	82485	628	5137	390	1317	5098	10275	6897	190627
Pvt. Imports	204	0	1306	0	0	117	0	775	0	2517	1623	10674	2070	19284
SEZ Data	0	0	1058	0	0	0	0	0	0	0	0	759	2398	4216
Total Consumption	26330	29975	14268	2397	7999	82602	628	5912	390	3833	6720	21708	11365	214127

Note: Total may not tally due to rounding off and All figures are Provisional

Source: Petroleum Planning & Analysis Cell.



V.16: State-wise & Product-wise Per Capita Consumption of Petroleum Products

(Figures in Kg)

State/UT	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
State-wise & Product-wise Per Capita Consumption of Petroleum Products							
Andhra Pradesh	126.3	127.0	125.2	133.3	140.8	158.4	155.9
Andaman & Nicobar	437.6	451.8	473.0	489.5	530.9	558.0	571.5
Arunachal Pradesh	123.8	128.5	144.5	162.7	175.3	179.7	190.5
Assam	60.3	61.1	68.0	71.7	80.8	88.0	90.6
Bihar	38.3	39.6	44.6	45.8	47.9	50.5	52.0
Chandigarh	335.9	384.1	417.4	367.9	404.5	412.6	413.3
Chhattisgarh	94.9	100.1	112.5	113.9	140.4	160.9	143.6
Dadra & Nagar Haveli	870.3	1097.9	1198.5	1278.4	1169.7	1160.5	1088.2
Daman & Diu	598.0	647.2	745.5	904.2	969.4	909.7	812.2
Delhi	256.1	269.6	298.3	291.4	298.4	291.9	275.9
Goa	446.5	470.8	500.7	534.8	534.5	547.1	541.9
Gujarat	282.0	291.9	314.3	314.5	316.9	351.4	373.2
Haryana	393.2	417.5	424.9	422.9	432.9	415.0	403.2
Himachal Pradesh	189.5	181.8	226.0	249.0	230.2	227.4	247.0
Jammu and Kashmir	98.3	95.7	106.9	100.3	115.1	119.7	119.5
Jharkhand	76.0	79.7	84.0	88.6	96.6	103.4	103.6
Karnataka	146.1	156.7	180.8	187.5	205.3	216.0	213.8
Kerala	158.5	161.4	166.3	171.5	184.1	189.9	195.7
Lakshadweep	206.0	228.9	232.7	213.8	225.7	235.0	256.6
Madhya Pradesh	83.6	88.6	96.5	95.9	101.9	110.3	108.3
Maharashtra	149.2	150.6	162.2	172.1	183.5	187.0	185.1
Manipur	60.3	63.7	66.0	59.9	76.2	88.5	93.6
Meghalaya	158.1	142.5	141.3	144.4	163.4	166.0	185.7
Mizoram	94.7	98.5	103.7	107.5	114.1	127.2	129.2
Nagaland	60.8	60.7	64.3	66.8	72.2	77.9	86.6
Odisha	87.6	93.6	106.4	123.4	135.6	141.4	143.7
Puducherry	362.1	369.0	418.5	436.0	445.5	435.6	415.2
Punjab	198.0	206.2	215.2	229.1	245.0	255.0	256.8
Rajasthan	154.9	158.5	163.5	160.1	164.2	166.2	159.1
Sikkim	156.8	152.9	164.9	171.7	192.7	207.1	214.1
Tamil Nadu	174.4	169.3	176.0	184.1	193.2	199.9	195.7
Telangana	-	136.5	161.7	173.8	186.0	198.4	197.0
Tripura	49.3	51.8	57.8	58.5	64.0	64.0	63.1
Uttar Pradesh	62.6	66.9	75.2	79.8	84.6	91.1	92.2
Uttarakhand	119.6	128.8	150.2	146.9	150.8	170.6	163.7
West Bengal	74.4	70.6	78.7	82.2	90.3	96.2	101.9
All India	122.8	126.6	136.9	141.5	149.7	157.3	157.5
Product-wise Per Capita Consumption of Petroleum Products							
Naphtha	8.6	8.5	8.9	9.0	9.0	9.4	9.8
MS	14.2	15.8	18.1	19.6	21.6	23.4	24.8
SKO	5.9	5.9	5.6	4.5	3.2	2.9	2.0
HSDO	56.4	57.3	61.6	62.8	66.9	68.9	68.2
LDO	0.3	0.3	0.3	0.4	0.4	0.5	0.5
F.O (Regular)	4.2	4.1	4.9	5.2	4.9	4.6	4.2
LSHS/HHS	0.4	0.3	0.1	0.1	0.1	0.3	0.3
All India	122.8	126.6	136.9	141.5	149.7	157.3	157.5

Note: 1: Population figures have been taken from Census of India, 2011

P : Provisional

2: Includes private sales by oil companies and excludes direct private imports.

Source: Petroleum Planning and Analysis Cell.



CHAPTER-VI



Trade



CHAPTER HIGHLIGHTS

- India's import bill on import of Crude Oil, LNG, and Petroleum Products decreased by 6.0% in value terms from ₹9,68,716 crore in 2018-19 to ₹9,10,125 crore in 2019-20. But in quantity term, import of crude oil, LNG and petroleum products increased by 5.2% from 281.54 MMT in 2018-19 to 296.32 MMT during 2019-20.
- Import of crude oil in the country during 2019-20 was 226.96 MMT which marginally higher by 0.2% over the imports of crude oil of 226.50 MMT during 2018-19. However, it decreased 8.5% in value terms over the same period.
- Around 53.4% crude oil imports and 45.6% petroleum products imports by Public sector. Exports of petroleum products by the public sector 21.6%.
- India's trade deficit was lower by 11.6% at ₹11,37,530 crore in 2019-20 from ₹12,86,948 crore during 2018-19.
- Self sufficiency of crude oil is 15% and self-sufficiency of gas is 47.2%. India's O+OEG import dependency is 77.99% during 2019-20.
- FDI inflow received was ₹59654.10 million in the P& NG Sector contributing 1.69% of total FDI inflow (₹3535583.80 million) in the economy during 2019-20.

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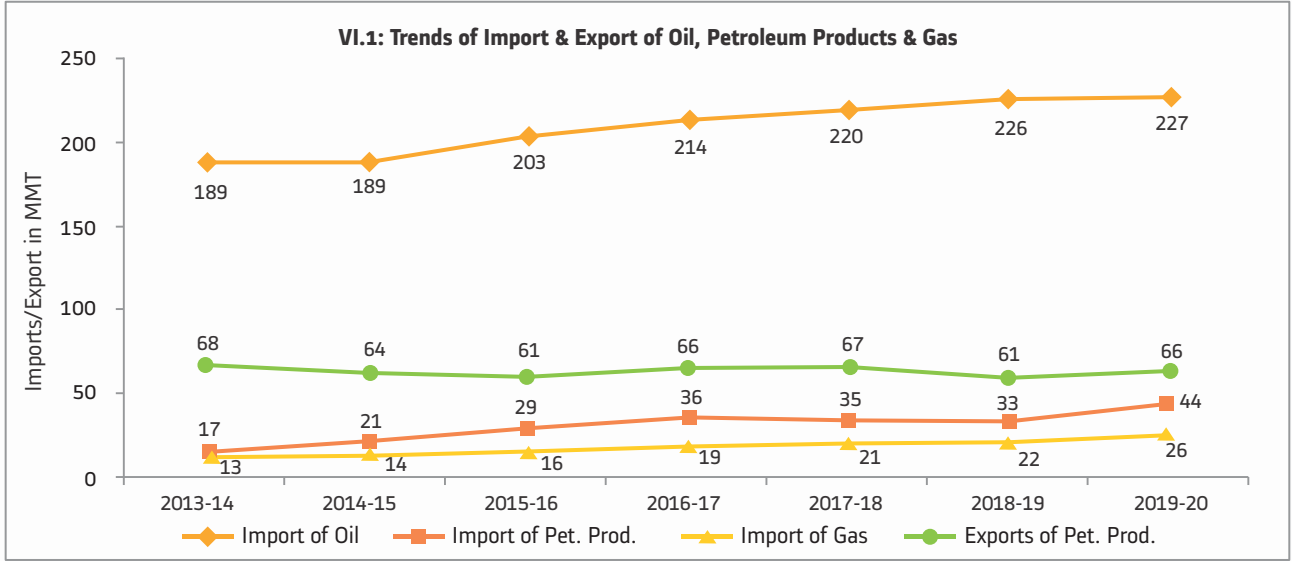
VI.1: Import/Export of Crude Oil, LNG and Petroleum Products

Year	Crude Oil		Petroleum Products		LNG		Total	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
	TMT	₹ Crore	TMT	₹ Crore	TMT	₹ Crore	TMT	₹ Crore
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gross Imports								
2013-14	189238	864875	16697	75896	13435	53455	219370	994225
2014-15	189435	687416	21301	74644	14043	58359	224779	820419
2015-16	202850	416579	29456	65361	16142	45038	248448	526978
2016-17	213932	470159	36287	71566	18754	41084	268973	582809
2017-18	220433	566450	35461	88374	20709	52122	276602	706946
2018-19	226498	783183	33348	113665	21691	71867	281537	968716
2019-20 (P)	226955	717001	43788	125742	25574	67383	296317	910125
Exports								
2013-14	-	-	67864	368279	-	-	67864	368279
2014-15	-	-	63932	288580	-	-	63932	288580
2015-16	-	-	60539	176780	-	-	60539	176780
2016-17	-	-	65513	194893	-	-	65513	194893
2017-18	-	-	66833	225388	-	-	66833	225388
2018-19	-	-	61096	267697	-	-	61096	267697
2019-20 (P)	-	-	65685	254018			65685	254018
Net Imports								
2013-14	189238	864875	-51167	-292383	13435	53455	151506	625946
2014-15	189435	687416	-42631	-213936	14043	58359	160847	531839
2015-16	202850	416579	-31083	-111419	16142	45038	187910	350198
2016-17	213932	470159	-29226	-123327	18754	41084	203460	387916
2017-18	220433	566450	-31372	-137014	20709	52122	209770	481558
2018-19	226498	783183	-27747	-154031	21691	71867	220441	701019
2019-20 (P)	226955	717001	-21898	-128276	25574	67383	230631	656108

Note: Total may not tally due to rounding off.

P: Provisional

Source: Petroleum Planning & Analysis Cell.

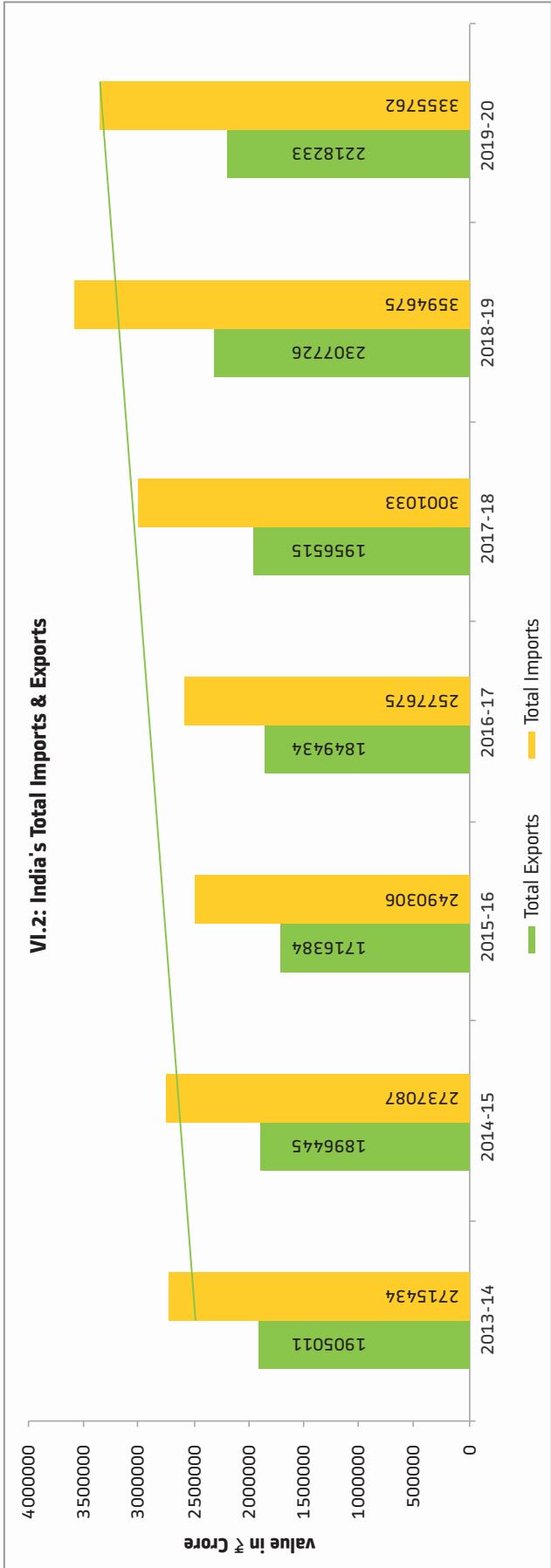


VI.2: India's Oil & Gas Trade and India's overall Trade Balance

(Value in ₹ Crore)

Year	India's Oil & Gas Trade					India's Overall Trade					% of Oil & Gas trade to India's total trade	
	Exports	Imports	Trade Balance	% variation over preceding year		Exports	Imports	Trade Balance	% variation over preceding year			
				Exports	Imports				Exports	Imports		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2013-14	368279	994225	-625946	-	-	1905011	2715434	-810423	-	-	19.33	36.61
2014-15	288580	820419	-531839	-21.64	-17.48	1896445	2737087	-840641	-0.45	0.80	15.22	29.97
2015-16	176780	526978	-350198	-38.74	-35.77	1716384	2490306	-773921	-9.49	-9.02	10.30	21.16
2016-17	194893	582809	-387916	10.25	10.59	1849434	2577675	-728242	7.75	3.51	10.54	22.61
2017-18	225388	706946	-481558	15.65	21.30	1956515	3001033	-1044519	5.79	16.42	11.52	23.56
2018-19	267697	968716	-701019	18.77	37.03	2307726	3594675	-1286948	17.95	19.78	11.60	26.95
2019-20 (P)	254018	910125	-656108	-5.11	-6.05	2218233	3355762	-1137530	-3.88	-6.65	11.45	27.12

P: Provisional
Source: PPAC & RBI



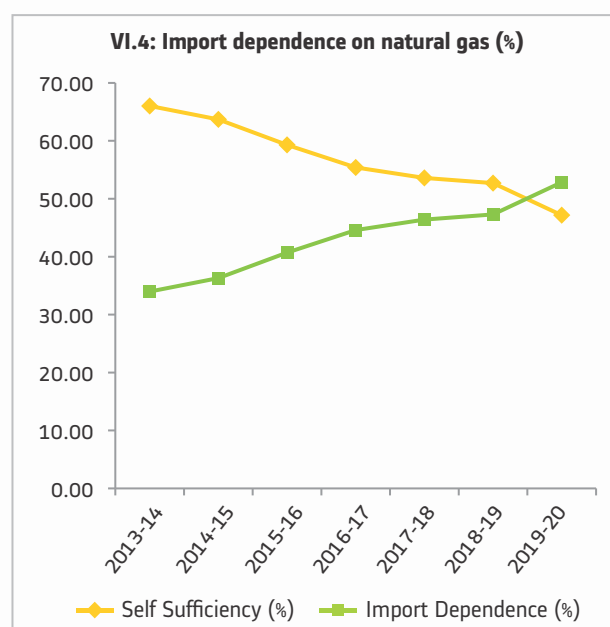
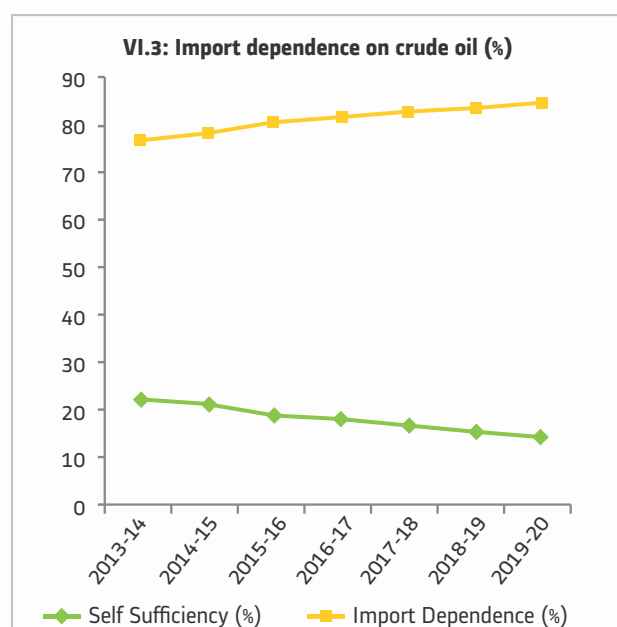
VI.3: Import Dependency

Elements	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Import dependence on crude oil (in MMT)							
Total Consumption	158.41	165.52	184.67	194.60	206.17	213.22	214.13
Indigenous crude oil processing	33.85	34.25	34.12	33.54	32.79	31.72	29.28
Products from Indigenous crude	31.58	31.95	31.83	31.29	30.59	29.59	27.31
Products from Fractionators	4.30	3.99	4.02	4.30	4.61	4.93	4.76
Total Indigenous production	35.88	35.95	35.85	35.59	35.20	34.52	32.07
Self Sufficiency (%)	22.65	21.72	19.41	18.29	17.07	16.19	14.98
Import Dependence (%)	77.35	78.28	80.59	81.71	82.93	83.81	85.02
Import dependence on natural gas (in BCM)							
Total Consumption	52.37	51.30	52.50	55.70	59.20	60.80	64.14
Indigenous gas production	34.57	32.69	31.14	30.80	31.70	32.10	30.26
Import of LNG	17.80	18.60	21.40	24.80	27.40	28.70	33.89
Self Sufficiency (%)	66.01	63.70	59.30	55.40	53.60	52.70	47.17
Import Dependence (%)	33.99	36.30	40.70	44.60	46.40	47.30	52.83
Import dependence on oil and oil equivalent gas (O+OEG)(in MMTOE)							
Total Consumption	222.16	228.71	250.44	264.27	280.17	289.33	293.65
Indigenous O+OEG production	73.04	71.22	69.56	68.94	69.43	69.10	64.63
Self Sufficiency (%)	32.88	31.14	27.78	26.09	24.78	23.88	22.01
Import Dependence (%)	67.12	68.86	72.22	73.91	75.22	76.12	77.99

Note:

1. SION norms has been taken as 93.3% of crude oil processed for working out products output from indigenous crude oil processed.
2. For converting production of petroleum products from fractionators, SION norms has been taken as 93.3%.
3. Net production and consumption of natural gas is inclusive of internal gas consumption but excluding flare and loss.
4. 1 BCM of Natural gas =1 Mtoe
5. Total may not due to rounding off.

Source: Petroleum Planning & Analysis Cell.



VI.4: Import / Export of Crude Oil and Petroleum Products (Calendar Year-wise)

ITEM	2015				2016				2017				2018				2019(P)			
	Qty. TMT	Value		USD Million	Qty. TMT	Value		USD Million	Qty. TMT	Value		USD Million	Qty. TMT	Value		USD Million	Qty. TMT	Value		Million USD
		₹ Crore				₹ Crore				₹ Crore				₹ Crore				₹ Crore		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Crude Oil Import	196490	446469	69658	215376	415672	61889	216445	528350	81347	226626	775927	112966	224627	726039	103314					
Product Import																				
LPG	8901	27110	4203	10197	26139	3870	11888	40241	6155	12138	46783	6788	14521	47000	6672					
Petrol	984	4157	643	549	1854	274	174	581	91	355	1797	256	2127	9567	1359					
Naphtha	2797	9624	1492	2926	8243	1218	1832	6414	977	2567	11486	1704	1628	6449	913					
Aviation Turbine Fuel	273	919	142	333	1010	149	288	1089	166	317	1675	244	76	358	52					
Kerosene	41	158	25	0	0	0	0	0	0	0	0	0	-	-	-					
Diesel	72	406	63	975	2685	399	1441	4491	690	324	1482	219	1990	8472	1205					
Lubes	2086	9480	1465	2257	8601	1270	2233	10185	1554	2786	15128	2221	2699	12407	1759					
Fuel Oil	948	2422	377	1150	1980	293	957	2325	356	1601	5359	796	2624	7340	1036					
Bitumen	856	1979	307	887	1443	213	911	1725	263	882	2121	315	1290	2997	424					
Petcoke	8307	5497	851	14710	7220	1066	13731	10811	1652	7017	9365	1387	11388	11623	1649					
Others ¹	1705	5167	800	2033	4810	712	2268	6609	1011	3614	14153	2062	3312	12294	1743					
Product Import	26971	66918	10368	36016	63984	9465	35722	84472	12914	31600	109349	15992	41654	118507	16812					
Total Import	223461	513387	80026	251392	479657	71354	252167	612823	94261	258226	885276	128958	266281	844546	120126					
Product Export																				
LPG	217	:	144	291	1023	151	348	1430	218	396	1919	280	455	1861	264					
MS/ Petrol	15893	59681	9300	16150	51224	7625	14262	53591	8226	13287	62539	9150	12956	57570	8178					
Naphtha/ NGL	6708	20160	3140	8417	21683	3220	8907	27885	4280	7916	32561	4770	7930	28931	4101					
Aviation Turbine Fuel	5253	16792	2621	7489	20813	3096	6968	23209	3564	7527	34316	5016	7244	30891	4382					
SKO/ Kerosene	12	50	8	15	48	7	17	65	10	18	95	14	39	174	24					
HSD/ Diesel	23160	71693	11189	27892	73678	10963	28868	92690	14248	28509	124329	18095	30543	125273	17768					
LDO	0	0	0	20	52	8	149	384	57	99	364	50	-	-	-					
LOBS/ Lube Oil	19	130	21	13	110	16	13	111	17	8	104	15	9	107	15					
Fuel Oil/LSHS	3154	5592	874	2439	3786	560	2363	4757	732	2259	6565	943	1747	4432	626					
Bitumen	107	206	31	57	52	9	61	109	17	23	75	11	25	83	12					
Petcoke	669	599	93	608	830	124	692	688	106	924	2509	359	768	1969	279					
Others ²	3419	10056	1575	2551	6631	986	3954	10396	1586	2486	8695	1276	2562	7674	1089					
Total Product Export	58611	185878	28995	65942	179930	26765	66603	215316	33061	63454	274070	39979	64278	258966	36738					
Net Import	164850	327509	51031	185451	299727	44589	185565	397507	61200	194772	611206	88979	202003	585580	83388					

Note: 1. Other imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE, Reformate, etc.
2. Other exports include VGO, Benzene, MTO, Sulphur, etc.
Source: Petroleum Planning & Analysis Cell.

P: Provisional



VI.5: Import / Export of Crude Oil and Petroleum Products

(Figures in TMT)

Import/Export	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crude Oil Import	189238	189435	202850	213932	220433	226498	226955	0.2
Product Import								
LPG	6567	8313	8959	11097	11380	13235	14809	11.9
Petrol	235	372	1012	476	174	670	2146	220.4
Naphtha	1020	1034	2931	2777	2212	2082	1662	-20.2
Aviation Turbine Fuel	0	140	286	338	300	259	65	-74.9
Kerosene	0	30	41	0	0	0	0	0.0
Diesel	77	124	177	1008	1361	555	2796	403.3
Lubes	2090	2148	2264	2131	2539	2457	2675	8.9
Fuel Oil	1331	902	1170	925	1213	1419	4583	222.9
Bitumen	246	517	879	951	950	877	1630	85.8
Petcoke	3571	6165	10041	14416	12777	7926	10674	34.7
Others ¹	1559	1557	1694	2169	2556	3869	2749	-28.9
Total Product Import	16697	21301	29456	36287	35461	33348	43788	31.3
Total Import	205935	210736	232306	250219	255894	259846	270742	4.2
Product Export								
LPG	227	254	195	317	359	417	463	11.1
Petrol	15247	16048	16817	15417	14036	12885	12710	-1.4
Naphtha	8322	7008	7116	8727	8951	6963	8897	27.8
Aviation Turbine Fuel	5745	5520	5686	7271	7183	7389	6906	-6.5
Kerosene	15	15	10	15	17	19	176	839.9
Diesel	26499	25566	24037	27453	29735	27931	31653	13.3
Lubes	20	11	17	13	13	8	8	-4.5
Fuel Oil	6159	4762	2806	2248	2525	2197	1527	-30.5
Bitumen	95	94	101	38	64	23	25	11.7
Petcoke	1698	613	840	673	561	1124	465	-58.6
Others ²	3837	4041	2914	3344	3387	2140	2854	33.4
Total Export	67864	63932	60539	65513	66833	61096	65685	7.5
Net Import	138071	146804	171768	184706	189061	198750	205057	3.2
Net Product Export	51167	42631	31083	29226	31372	27747	21898	-21.1

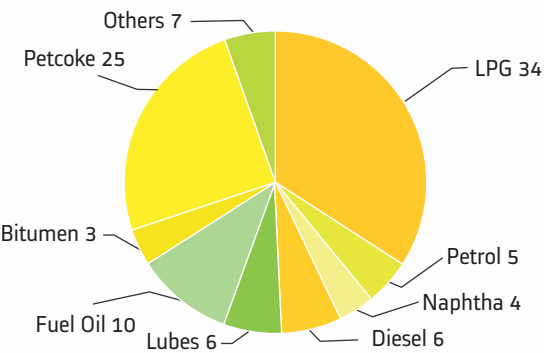
P: Provisional

1: Other imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE & Reformate.

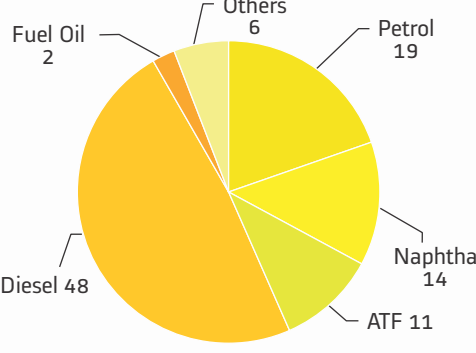
2: Other exports include VGO, Benzene, MTO & Sulphur.

Source: Petroleum Planning & Analysis Cell.

VI.5: Share of Imports of Major Pet. Products (%)



VI.6: Share of Exports of Major Pet. Products (%)

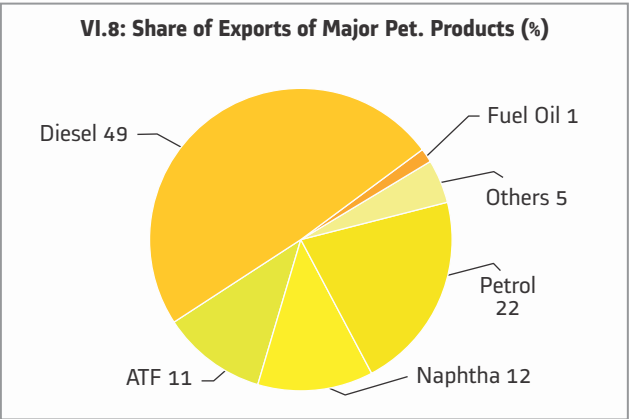
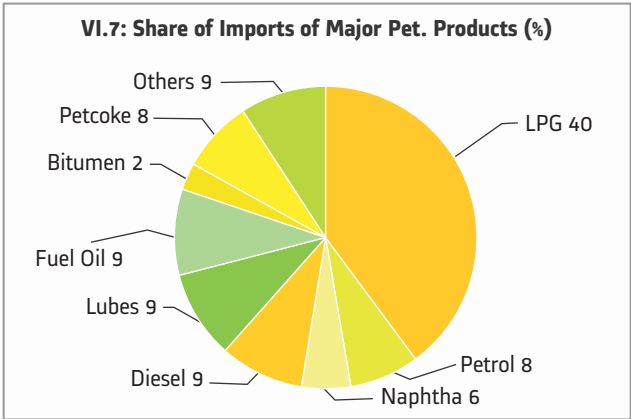


VI.6: Import / Export of Crude Oil and Petroleum Products

(Value in ₹ Crore)

Import/Export	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crude Oil Import	864875	687416	416579	470159	566450	783183	717001	-8.5
Product Import								
LPG	37213	36571	25778	32124	37875	49939	50347	0.8
Petrol	1481	2301	4207	1617	581	3104	9610	209.6
Naphtha	6044	4592	9581	8374	8161	9665	6678	-30.9
Aviation Turbine Fuel	0	706	889	1109	1159	1392	309	-77.8
Kerosene	0	172	158	0	0	0	0	0.0
Diesel	452	670	605	2959	4269	2486	11619	367.4
Lubes	12985	12702	9478	8625	12075	13349	11869	-11.1
Fuel Oil	5759	3659	2380	1848	3231	4782	11791	146.6
Bitumen	801	1623	1832	1638	1902	2149	3634	69.0
Petcoke	4082	5383	5633	7929	11100	10350	9713	-6.1
Others ¹	7080	6266	4821	5342	8020	16449	10172	-38.2
Total Product Import	75896	74644	65361	71566	88374	113665	125742	10.6
Total Import	940771	762060	481940	541725	654824	896848	842743	-6.0
Product Export								
LPG	1589	1455	785	1168	1501	1976	1970	-0.3
Petrol	92977	81971	59575	52920	54580	60419	54512	-9.8
Naphtha	46059	31619	20057	24616	29075	28893	31509	9.1
Aviation Turbine Fuel	33246	25413	16007	22294	25348	34030	28458	-16.4
Kerosene	98	81	35	54	68	98	560	473.2
Diesel	148273	115177	66492	80256	99492	123882	123919	0.0
Lubes	138	100	127	104	118	106	96	-9.5
Fuel Oil	22407	14251	4471	3930	5291	6537	3811	-41.7
Bitumen	321	245	176	37	119	72	89	23.4
Petcoke	3980	1806	750	804	687	3255	1096	-66.3
Others ²	19189	16462	8304	8710	9110	8429	7998	-5.1
Total Export	368279	288580	176780	194893	225388	267697	254018	-5.1
Net Import	572492	473481	305160	346832	429436	629152	588725	-6.4
Net Product Export	292383	213936	111419	123327	137014	154031	128276	-16.7

P: Provisional
1: Other imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE & Reformate.
2: Other exports include VGO, Benzene, MTO & Sulphur.
Source: Petroleum Planning & Analysis Cell.



VI.7: Import / Export of Crude Oil and Petroleum Products

(Value in Million US\$)

Import/Export	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crude Oil Import	142962	112744	63972	70196	87803	111915	101376	-9.4
Product Import								
LPG	6144	5955	3922	4775	5849	7178	7070	-1.5
Petrol	248	375	648	239	91	445	1357	205.0
Naphtha	982	744	1463	1240	1261	1391	941	-32.3
Aviation Turbine Fuel	0	114	135	163	178	200	45	-77.7
Kerosene	0	29	25	0	0	0	0	0.0
Diesel	74	108	92	438	660	360	1632	352.9
Lubes	2122	2067	1439	1276	1860	1910	1673	-12.4
Fuel Oil	942	599	363	273	499	696	1650	136.9
Bitumen	132	262	279	242	293	309	510	64.9
Petcoke	664	870	853	1174	1709	1494	1374	-8.0
Others ¹	1158	1015	733	793	1237	2358	1438	-39.0
Total Product Import	12466	12138	9952	10614	13637	16341	17689	8.2
Total Import	155427	124882	73924	80810	101440	128255	119065	-7.2
Product Export								
LPG	260	236	120	173	231	283	277	-2.0
Petrol	15397	13454	9120	7895	8464	8641	7708	-10.8
Naphtha	7584	5176	3071	3666	4505	4137	4439	7.3
Aviation Turbine Fuel	5487	4155	2440	3324	3931	4867	4021	-17.4
Kerosene	16	13	5	8	10	14	78	454.0
Diesel	24358	18870	10180	11964	15426	17675	17481	-1.1
Lubes	27	16	20	15	18	15	13	-10.8
Fuel Oil	3671	2321	688	583	817	923	537	-41.8
Bitumen	52	40	27	6	18	10	13	22.9
Petcoke	645	295	115	121	107	463	155	-66.5
Others ²	3169	2700	1275	1294	1412	1208	1128	-6.7
Total Export	60664	47277	27059	29049	34940	38236	35848	-6.2
Net Import	94763	77605	46865	51760	66500	90020	83217	-7.6
Net Product Export	48199	35139	17108	18436	21303	21895	18159	-17.1

P: Provisional

1: Other imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE & Reformate.

2: Other exports include VGO, Benzene, MTO & Sulphur.

Source: Petroleum Planning & Analysis Cell.

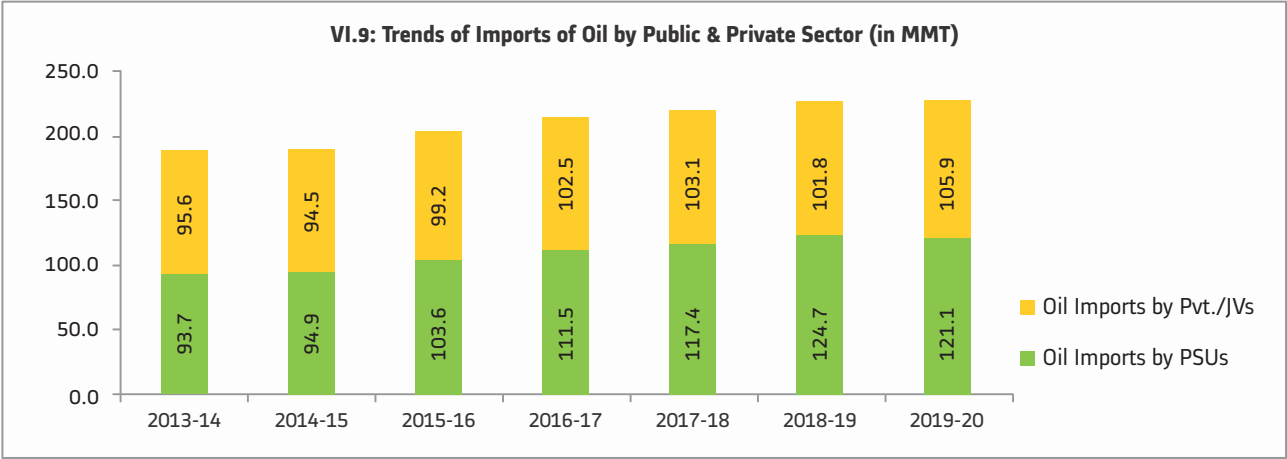


VI.8: Product-wise Volume of Imports by Public & Private Sector

(Figures in TMT)

Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. PUBLIC SECTOR							
Crude Oil Imports	93676	94909	103646	111467	117371	124665	121102
LPG	6199	7884	8470	10668	11015	12919	14605
Petrol	235	372	1012	476	174	670	2146
Naphtha	150	104	135	142	162	140	145
ATF	0	0	11	0	0	0	65
Kerosene	0	30	41	0	0	0	0
Diesel	0	40	122	962	1270	462	2679
Lubes	3	0	5	0	0	102	158
Fuel Oil	31	72	135	106	116	225	122
Bitumen	0	0	0	13	0	0	7
Others ¹	48	96	124	177	50	62	43
Total Product Import	6666	8598	10056	12544	12786	14580	19969
Total Imports (A)	100342	103507	113702	124012	130157	139245	141071
B. PRIVATE/JVs SECTOR							
Crude Oil Imports	95562	94526	99204	102464	103062	101832	105852
LPG	369	429	489	429	364	316	204
Naphtha	870	930	2796	2635	2050	1941	1517
ATF	0	140	275	338	300	259	0
Diesel	77	83	55	46	90	93	117
Lubes	2087	2148	2259	2131	2539	2355	2517
Fuel Oil	1300	830	1035	819	1097	1195	4461
Bitumen	246	517	879	937	950	877	1623
Petcoke	3571	6165	10041	14416	12777	7926	10674
Others ¹	1511	1461	1570	1992	2506	3807	2706
Total Product Import	10031	12704	19400	23743	22675	18769	23819
Total Imports (B)	105593	107229	118604	126207	125737	120601	129671
Total (A+B)	205935	210736	232306	250219	255894	259846	270742

P: Provisional
1: Other imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE & Reformate.
Source: Petroleum Planning & Analysis Cell.



VI.9: Product-wise Volume of Exports by Public & Private Sector

(Figures in TMT)

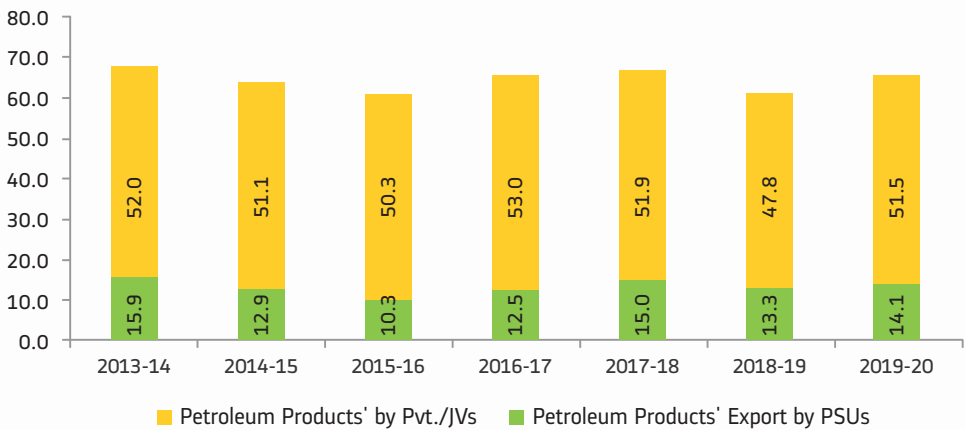
Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. PUBLIC SECTOR							
LPG	227	254	195	317	359	417	463
MS/ Petrol	377	454	350	658	794	873	690
Naphtha/ NGL	5250	4309	4486	4651	4466	3101	4089
Aviation Turbine Fuel	1736	1181	883	1363	1641	1585	1228
SKO/ Kerosene	15	15	10	15	17	19	176
HSD/ Diesel	1778	1702	1301	2348	4211	4845	5667
LDO	30	6	0	151	18	99	0
LOBS/ Lube Oil	20	11	17	13	13	8	8
Fuel Oil/LSHS	6025	4615	2588	2203	2525	1849	1492
Bitumen	95	94	101	38	64	23	25
Others ¹	333	226	334	759	854	494	329
Total (A)	15886	12867	10265	12514	14962	13312	14168
B. PRIVATE/JVs SECTOR							
MS/ Petrol	14870	15594	16467	14759	13242	12012	12020
Naphtha/ NGL	3072	2700	2630	4075	4485	3862	4808
Aviation Turbine Fuel	4009	4339	4803	5907	5542	5804	5678
HSD/ Diesel	24690	23857	22736	24955	25506	22988	25986
Fuel Oil/LSHS	134	148	218	45	-	348	35
Petcoke	-	-	-	673	561	1124	465
Others ¹	5202	4428	3419	2585	2533	1646	2525
Total (B)	51978	51065	50274	52999	51870	47783	51517
Total Exports (A+B)	67864	63932	60539	65513	66833	61096	65685

P: Provisional

1: Other exports include VGO, Benzene, MTO & Sulphur.

Source: Petroleum Planning & Analysis Cell.

VI.10: Trends of Exports of Petroleum Products by Public & Private Sector (in MMT)



VI.10: Product-wise Value of Imports by Public & Private Sector

(Value in ₹ Crore)

Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. PUBLIC SECTOR							
Crude Oil	447615	355382	223916	257790	310815	443629	396186
LPG	35087	34547	24251	30797	36626	48636	49617
Petrol	1481	2301	4207	1617	581	3104	9610
Naphtha	875	517	437	429	593	668	616
ATF	0	0	48	0	0	0	309
Kerosene	0	172	158	0	0	0	0
Diesel	0	223	275	2794	3921	2016	11116
Lubes	23	0	93	0	0	553	753
Fuel Oil	134	213	298	215	284	761	345
Bitumen	0	0	0	24	0	0	18
Others ¹	402	783	599	815	300	439	315
Total Product Import	38002	38756	30367	36691	42305	56178	72699
Total Imports (A)	485617	394138	254283	294481	353120	499808	468885
B. PRIVATE/JVs SECTOR							
Crude Oil	417260	332034	192663	212369	255635	339553	320815
LPG	2126	2023	1527	1327	1250	1303	730
Naphtha	5169	4075	9143	7945	7569	8997	6062
ATF	-	706	841	1109	1159	1392	0
Diesel	452	447	330	165	348	470	503
Lubes	12962	12702	9385	8625	12075	12796	11116
Fuel Oil	5625	3446	2082	1633	2947	4021	11446
Bitumen	801	1623	1832	1615	1902	2149	3615
Petcoke	4082	5383	5633	7929	11100	10350	9713
Others ¹	6678	5483	4222	4527	7719	16009	9857
Total Product Import	37894	35888	34994	34875	46069	57487	53042
Total (B)	455154	367922	227657	247244	301704	397041	373857
TOTAL (A+B)	940771	762060	481940	541725	654824	896848	842743

P: Provisional
1: Other imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, MTBE & Reformate.
Source: Petroleum Planning & Analysis Cell.



VI.11: Product-wise Value of Exports by Public & Private Sector

(Value in ₹ Crore)

Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. PUBLIC SECTOR							
LPG	1589	1455	785	1168	1501	1976	1970
MS/ Petrol	2358	2524	1374	2419	3240	4237	3123
Naphtha/ NGL	29044	19171	12683	12988	14356	12698	14448
Aviation Turbine Fuel	10128	5550	2506	4263	5771	7317	5083
SKO/ Kerosene	98	81	35	54	68	98	560
HSD/ Diesel	10445	7931	3897	7516	14777	22097	23068
LDO	135	28	0	399	37	364	0
LOBS/ Lube Oil	138	100	127	104	118	106	96
Fuel Oil/LSHS	21924	13806	4054	3823	5291	5648	3700
Bitumen	321	245	176	37	119	72	89
Others ¹	2070	849	879	2225	2673	1528	1004
Total (A)	78252	51741	26517	34995	47952	56140	53141
B. PRIVATE/JVs SECTOR							
MS/ Petrol	90620	79447	58201	50501	51340	56182	51389
Naphtha/ NGL	17015	12448	7374	11627	14719	16195	17061
Aviation Turbine Fuel	23118	19863	13501	18031	19577	26713	23375
HSD/ Diesel	137693	107218	62595	72341	84677	101422	100851
Fuel Oil/LSHS	483	444	417	107	0	889	111
Petcoke	0	0	0	804	687	3255	1096
Others ¹	21099	17418	8175	6485	6437	6901	6994
Total (B)	290027	236839	150262	159897	177436	211557	200876
TOTAL (A+B)	368279	288580	176780	194893	225388	267697	254018

P: Provisional
1: Other exports include VGO, Benzene, MTO & Sulphur.
Source: Petroleum Planning & Analysis Cell.

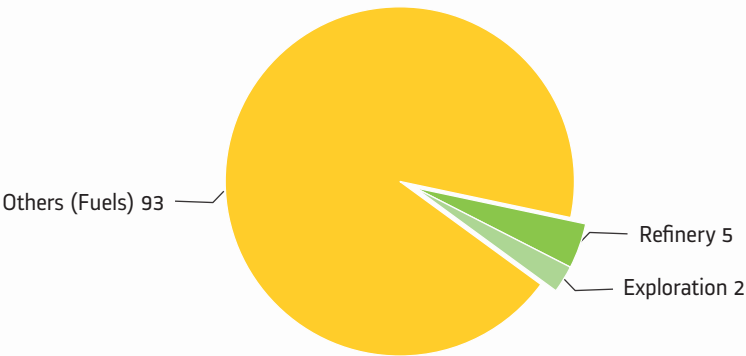


VI.12: Annual Growth of Foreign Direct Investment Equity Inflows

Year	FDI Inflow in P&NG Sector				FDI Inflow in All Sectors	% of FDI in P&NG to Total FDI
	Refinery	Exploration	Others (Fuels)	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
FDI Inflow (in ₹ Million)						
2013-14	1892.62	0	4891.15	6783.77	1475177.76	0.46
2014-15	61188.64	81.26	3686.23	64956.13	1816821.26	3.58
2015-16	851.91	3587.6	2330.85	6770.36	2623215.61	0.26
2016-17	551.11	3825.4	7594.06	11970.57	2916963.33	0.41
2017-18	0.07	958.99	601.87	1560.93	2888885.01	0.05
2018-19	333.75	4954.73	4113.82	9402.3	3098666.69	0.30
2019-20 (P)	3167.51	894.68	55591.91	59654.10	3535583.80	1.69
Year	FDI Inflow in P&NG Sector				FDI Inflow in All Sectors	% FDI Growth in All Sector
	Refinery	Exploration	Others (Fuels)	Total		
FDI Inflow (in US \$ Million)						
2013-14	32.88	0	79.35	112.23	24299.33	8.37
2014-15	1018.56	1.31	59.15	1079.02	29737.27	22.38
2015-16	13.39	54.21	35.43	103.03	40000.98	34.51
2016-17	8.24	57.21	114.96	180.41	43478.27	8.69
2017-18	0	14.86	9.32	24.18	44856.75	3.17
2018-19	4.78	73.10	60.55	138.43	44366.03	-1.09
2019-20 (P)	44.51	12.47	748.78	805.76	49977.05	12.65

P: Provisional
Source: Foreign Direct Investment Cell, Department of Industrial Policy & Promotion

Figure VI.11: Share of FDI inflow in the PNG Sector during 2019-20 (in %)



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CHAPTER-VII



Taxes and Duties



CHAPTER HIGHLIGHTS

- Central excise collection from Petroleum sector (Crude oil & Petroleum Products) during 2019-20 was at ₹226391 crore which was 38.7% higher as compared to 2018-19 (₹163162 crore). More than half of the excise duty (60.3%) was contributed by high speed diesel oil (₹132242) during 2019-20.
- During 2019-20, sales tax/VAT payments by PSUs increase in the payment has been observed for natural gas & petrol by 10.5% & 0.7% respectively vis-a-vis 2018-19. However, the decrease in the payment has observed for crude oil, diesel & ATF by 12.6%,3.4% and 11.3% respectively vis-à-vis 2018-19.
- GST payment made by 16 Major Oil & Gas Companies during the year 2019-20 at ₹7345 crore, was 7.7% lower than the GST payment during 2018-19 (₹7961 crore).
- Royalty (Cash basis) on oil and gas by upstream companies for year 2019-20 at ₹17292 crore were 11.8% lower as compared to 2018-19 (₹19610).

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VII.1: Realisation of Excise and Customs Duties from Crude Oil and Petroleum Products

(Value in ₹ Crore)

Products	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Excise Duties							
Motor Spirit	23404	29279	52297	67182	66991	52777	76070
Kerosene Oil	380	315	272	391	93	0	0
High Speed Diesel Oil	27321	42592	101178	147915	136422	99852	132242
Light Diesel Oil	330	289	261	295	69	0	0
Furnace Oil	828	604	435	477	81	0	0
Petroleum Gases and Other Gaseous Hydrocarbons	2017	1998	1903	2091	1416	44	1681
Aviation Turbine Fuel	1203	1063	1623	1521	1920	2540	2002
All others	11751	10989	9558	9271	3480	2762	7149
Total (A)	67234	87130	167526	229143	210473	157975	219144
B. Customs Duties							
Crude Petroleum	433	423	455	507	135	0	668
Petroleum Products	6112	6686	5694	7738	11413	5187	6580
Total (B)	6545	7109	6149	8245	11547	5187	7247
Grand Total (A+B)	73780	94239	173675	237675	222020	163162	226391

Note: Excise and customs duty paid on crude oil and petroleum products on the basis of their respective Central Excise Tariff Heads (CETH) under chapter-27 excludes CETH 2701 to 2708 & 2716 which do not pertain to oil & gas sector.

P: Provisional

Source: Central Board of Indirect Taxes & Customs (CBIC)

Figure VII.1: Realisation of Excise and Customs Duties from Crude Oil and Petroleum Products

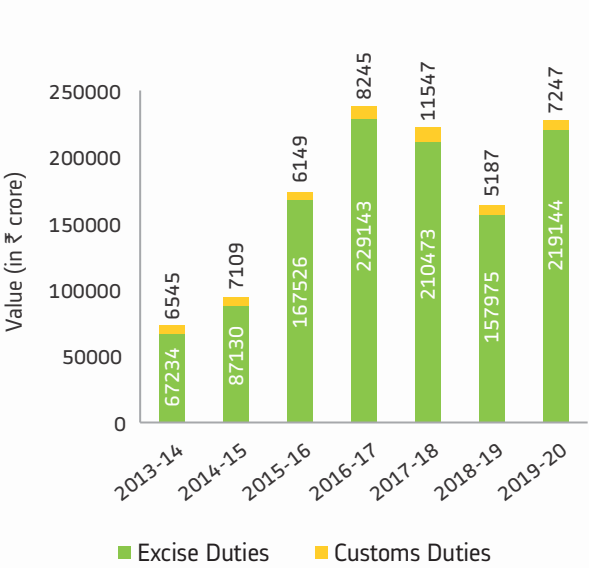
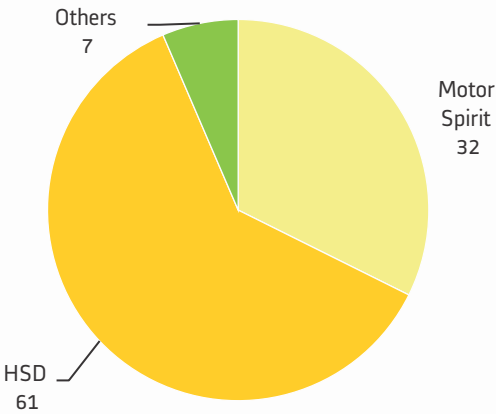


Figure VII.2: Product-wise Distribution of Excise duty during 2019-20 (%)



VII.2: Royalty and Oil Development Cess Paid by Oil Companies on Production of Oil & Gas

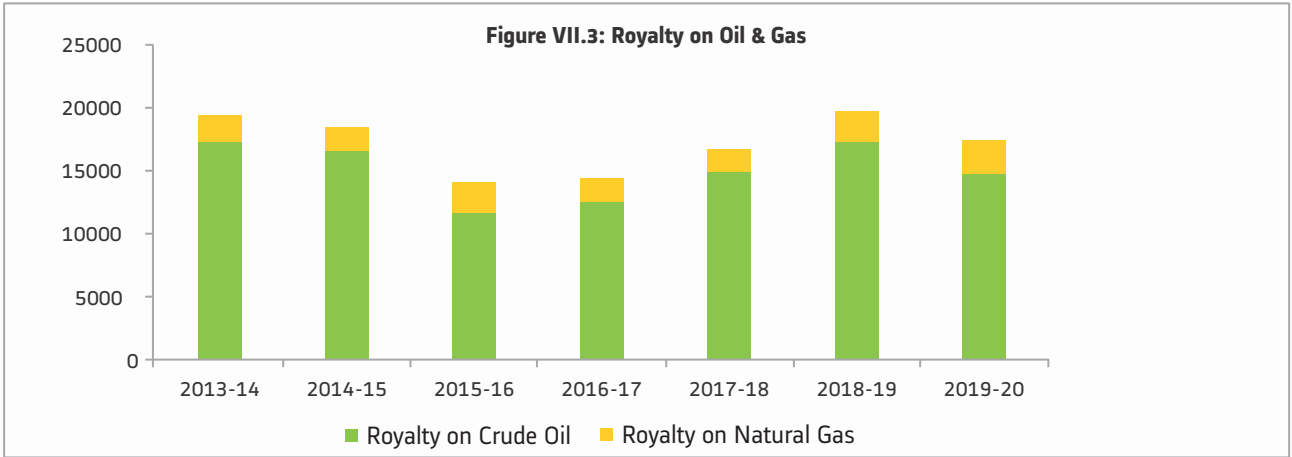
(Value in ₹ Crore)

Particulares	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Royalty on Crude Oil							
Western Region	12499	11694	7435	5909	9340	9905	8372
Eastern Region	1621	1219	1445	2938	1709	2315	2085
Southern Region	210	225	355	304	269	384	306
Central Region	0	0	0	0	0	0	0
Offshore	2882	3320	2196	3243	3503	4596	3961
Total Royalty on Crude Oil	17212	16458	11432	12394	14821	17200	14726
of which							
PSUs (ONGC & OIL) ⁴	10933	11733	9102	9923	9486	13144	11551
Pvt./JVs (RIL & CEIL) ⁴	6279	4725	2330	2470	5334	4055	3175
Royalty on Natural Gas							
Western Region	135	154	181	140	167	274	329
Eastern Region	174	203	228	165	148	192	212
Southern Region	198	168	172	138	127	182	171
Central Region	49	70	92	82	101	91	102
Offshore	1570	1347	1809	1351	1194	1672	1752
Total Royalty on Natural Gas	2127	1942	2481	1876	1737	2410	2566
of which							
PSUs (ONGC & OIL) ⁴	1862	1684	2233	1642	1535	2112	2325
Pvt./JVs (RIL & CEIL) ⁴	265	258	248	234	202	299	241
Total Royalty on Oil & Gas	19339	18399	13913	14269	16558	19610	17292
Oil Development Cess ³	18901	14491	18112	15558	16775	19402	15150
of which							
PSUs (ONGC & OIL) ⁴	10235	10486	10418	9573	10416	14660	11332
Pvt./JVs (RIL & CEIL) ⁴	8666	4005	7694	5985	6359	4741	3818

Note:

- 1. All figures including Oil Development Cess are on cash basis
- 2.Total may not tally due to rounding off.
- 3. Excludes National Calamity Contingent Fund (NCCD) and Education cess.
- 4. Includes data Royalty & Cess from ONGC (nomination block), OIL (Nomination block), CEIL (RJ-ON-90/1, RAVVA & CB-OS/2 block) and RIL (KG-DWN-98/3) and excludes other Pvt. Oil companies.

Source: Oil & Natural Gas Corp. Ltd., Oil India Ltd. , Reliance Industries Ltd. and Cairn Oil & Gas.



VII.3 Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Petroleum Products (as on 01.04.2020)

(Figures in Percentage)

State/U.T	Crude Oil	Natural Gas	MS (Petrol)
(1)	(2)	(3)	(4)
Andaman & Nicobar Island	6.00%	10.00%	6.00%
Andhra Pradesh	5.00%	14.50%	31% + ₹2.76 Per Litre
Arunachal Pradesh	4.00%	20.00%	16.20%
Assam	5.00%	14.50%	32.66% or ₹14.00/Ltr, Whichever is higher
Bihar	6.00%	20.00%	26% if sale price <= ₹65/ltr and 22% if sale price > ₹65/ltr
Chandigarh	12.50%	5.00%	17.45% +(MST 10 ₹per kl)
Chattisgarh	5.00%	25.00%	25% + ₹2 Per ltr
Delhi	5.00%	0.00%	27.00%
Goa	20.00%	12.50%	21% (Sold by PSU OMC to Auth RO), thers 20% + 0.50% Goa Green Cess
Gujarat	4.00%, Add Tax-1.00% on Total turnover (taxable value+ vat)	15.00%	17%, Cess-4% on Turnover
Haryana	12.50%, Additional Tax on VAT 5%	12.50%, Additional Tax on VAT 5%	22.26%, Additional Tax on VAT 5% or fixed rate of ₹14.25 per litre plus additional tax 5% (on ₹14.25) whichever is greater
Himachal Pradesh	13.75%	4.00%	25% or ₹14.5 per liter which ever is greater
Jammu & Kashmir	14.50%	21.00%	MST 24.00%, Rebate ₹2.5 per liter, Cess ₹5/- per ltr ₹50 per kl on MS leaving from jammu depot only
Jharkhand	5.00%	14.00%	22% on the sale price or ₹15.00 per litre, which ever is higher + Road Development Cess of ₹1.00 per Ltr. Rebate of ₹2.5 per Litre
Karnataka	0.00%	14.5%, PNG is 5.5%	35.00%
Kerala	5.00%	14.50% (w.e.f. 18.07.2016)	30.08%, Additional Sales Tax ₹1/- per litre, SSC 1% on total tax
Madhya Pradesh	5.00%	14.00%	33% + ₹3.50 per ltr Additional Tax + Cess 1% over Turnover inc VAT & Addl tax
Maharashtra	5.00%	13.50%	"Within Municipal Limits of Thane, Mumbai, Navi Mumbai, Solapur, Amravati, Nagpur Aurangabad, 26.00% + ₹8.12/ltr, Others 25% + ₹8.12/Ltr"
Manipur	5.00%	13.50%	25% wef 23.10.2019
Meghalaya	4.00%	14.50%	22%, Surcharge 2% on Tax
Mizoram	5.00%	13.50%	20.00%
Nagaland	5.00%, surcharge on tax 5%	5.00%, surcharge on tax 5%	25%, Surcharge on tax 5%. Road Maintenance Cess ₹2 paisa/Ltr (w.e.f 15.02.2020).
Odisha	5.00%	15% or 5% when used for Industrial Purpose, piped or Domestic use	26.00%
Puducherry	14.50%	14.50%	21.15%
Punjab	13%, Surcharge on Tax 10%	3%, Surcharge on Tax 10%	20.11%, Surcharge on tax 10.00%, Cess ₹2050 per kl. 10 paise per ltr additional cess on sale for Urban Area

Contdd...



VII.3 Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Petroleum Products (as on 01.04.2020)

(Figures in Percentage)

State/U.T	Crude Oil	Natural Gas	MS (Petrol)
(1)	(2)	(3)	(4)
Rajasthan	5.50%	10% (w.e.f 10.07.2019)	34.00%, Cess ₹1500/-per KL OMC 5.50% (w.e.f 22.03.2020)
Sikkim	4.50%	4.50%	25%, Cess ₹3000 per Kl, Sikkim Consumer Welfare Fund ₹100/Kl
Silvassa/Dadra Nagar Haveli	20.00%	20.00%	20.00%
Tamil Nadu	5.00%	5.00%	34.00%
Telangana	5.00%	14.50%	35.20%
Tripura	5.00%	4% & 15.5% Cess on Turnover (taxable value+vat)	23.00% & 3% Cess on Turnover (w.e.f 29.12.2018)
Uttar Pradesh	4.00%	When sold to industrial unit for use in process of chemical fertilizer- 14.5% and for other cases- 10%	26.8% or ₹16.74 per litre whichever is greater.
Uttarakhand	5.00%	20%	25% or ₹17per litre whichever is greater
West Bengal	5.00%	5.00%	25% or ₹13.12/Ltr whichever is higher, Cess ₹1000 per Kl, Additional Tax on tax 20%, Rebate Available ₹17/Kl.

Source: Indian Oil Corporation Ltd.

TTO: Total turnover (Taxable value + vat)



VII.3 Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Petroleum Products (as on 01.04.2020)

(Figures in Percentage)

State/U.T	HSD	ATF Domestic	ATF Bonded
(1)	(5)	(6)	(7)
Andaman & Nicobar Island	6% (HSD for Ship @ 8%)	10.00%	NA
Andhra Pradesh	22.25% + ₹3.07 Per Litre	1.00%	0.00%
Arunachal Pradesh	8.60% (w.e.f 05.10.2018)	20.00%	Nil
Assam	23.66% or ₹8.75/Ltr, Whichever is higher	23.65%	Nil
Bihar	19% if sale price <= ₹64/ltr and 15% if sale price > ₹64/ltr+Surcharge @ 30%	29.00% {ATF(Sch.Airlines):- 5%	
Chandigarh	9.02% +(MST ₹10/- per KL)	20.00% (MST:- ₹10/- per KL)	
Chattisgarh	25% + ₹1 per ltr	25.00%	4.00%
Delhi	16.75% plus ₹250 per KL Air Ambience Cess	25.00%	0.00%
Goa	18.00%+ 0.50% Goa Green Cess	18.00%	18.00%
Gujarat	17%, Cess-4% on Turnover	ATF duty paid:-30% & 5%	38.00%
Haryana	13.24 %, Additional Tax on VAT 5% or fixed rate of ₹8.15 per litre plus additional tax 5% (on ₹8.15) whichever is greater	20%, Additional Tax on VAT 5%	0.00%
Himachal Pradesh	14% or ₹8 per liter which ever is greater	25% or ₹14.5 per liter which ever is greater for defence and scheduled Airlines and 1% for non scheduled airlines	
Jammu & Kashmir	MST 16.00%, Rebate ₹0.5 per liter, CESS ₹1/- per ltr ₹50 per kl on MS leaving from jammu depot only	MST 26.25 %	
Jharkhand	22% on the sale price or ₹8.37 per ltr, which ever is higher + Road Development Cess of ₹1.00 per Ltr. Rebate of ₹2.5 per ltr	4.00% {ATF(Sch.Airlines):-5.00%}	
Karnataka	24%, 4% for captive power, 1% for foreign going vessel	28.00%	0.00%
Kerala	22.76%, Additional Sales Tax ₹1/- per litre, SSC 1% on total tax	5%, , cess 1% on tax	Nil
Madhya Pradesh	23% + ₹2 per ltr+ Cess 1% over Turnover inc VAT (taxable value+vat)	4% except for Indore & Bhopal. 25% @ Bhopal & Indore	
Maharashtra	"Within Municipal Limits of Thane, Mumbai, Navi Mumbai, Solapur, Amravati, Nagpur, Aurangabad, 24.00%+ ₹1/ltr, Other ₹21+₹ 1/ltr	ATF - duty paid Mumbai Pune, Raigad:-25.00%, ATF - duty paid, except Mumbai Pune 5.00%	30.00%
Manipur	14.50% (w.e.f 23.10.2019)	20.00%	Nil
Meghalaya	13.50 %, Surcharge 2% on Tax.	20.00% + 2% Surcharge	Nil
Mizoram	12.00%	20.00%	Nil
Nagaland	14.5%, Surcharge on tax 5% . Road Maintenance Cess ₹2 paisa/Ltr (w.e.f 15.02.2020)	1%, Surcharge on tax 5%	Nil
Odisha	26.00%	5.00%	0.00%
Puducherry	17.15%	14.50%	5.00%

Contdd...



VII.3 Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Petroleum Products (as on 01.04.2020)

(Figures in Percentage)

State/U.T	HSD	ATF Domestic	ATF Bonded
(1)	(5)	(6)	(7)
Punjab	11.8% for Normal and 13% for Branded Fuel. (Surcharge on tax:-10.00%), Cess- ₹1050 per KL. 10 paise per ltr additional cess on sale for Urban Area	13% ((4%)for when sold at the Airport in Punjab to Scheduled & Non Scheduled Airlines carrying passenger (surcharge 10.00%)) (w.e.f. 14.03.2015)	
Rajasthan	26.00%, Cess ₹1750/-per KL OMC 5.50% (w.e.f. 23.03.2020)	A) 26% , B) 5.50% when airlines maintain hub or connect two cities of Rajasthan C) 10.00% on Sale of ATF to any airline for use in aircraft which connects any city of Rajasthan (other than Jaipur) by a scheduled commercial flight	26.00%
Sikkim	17.5% to other ₹12.5% for retailer in sikkim, Cess ₹2500 per KI, Sikkim Consumer Welfare Fund ₹100 per KI Effective from 01.10.2016	1.00% (w.e.f. 06.06.2018)	NA
Silvassa/Dadra Nagar Haveli	15.00%	20.00%	20.00%
Tamil Nadu	25.00%	29.00%	5.00%
Telangana	27.00%	1.00%	0.00%
Tripura	15.50% & 3% Cess on Turnover (Taxable Value+VAT) (w.e.f. 29.12.2018)	16.00%	Nil
Uttar Pradesh	17.48% or ₹9.41 per litre whichever is greater	21.00%, In case of sale to CIVIL aircrafts at Agra & Varanasi - 4%	21.00%
Uttarakhand	17.48%or ₹9.41per liter whichever is greater	20.00%	20.00%
West Bengal	17% or ₹7.70/Litre whichever is higher, Cess ₹1000 per KI,Additional Tax on tax 20%, Rebate Available ₹290/KI.	25.00% + 20% Add. Tax on tax. For Bagdogra AFS- nil (No tax)	NA

Source: Indian Oil Corporation Ltd.

TTO: Total turnover (Taxable value + vat)

VII.4: GST Rates applicable on Select Petroleum Products (as on 01.04.2020)

(Figures in Percentage)

Product	For intra-state supply		For inter-state supply
	Central Tax	State / UT tax	Integrated Tax
Naphtha	9.0	9.0	18.0
Superior Kerosene Oil - PDS	2.5	2.5	5.0
Superior Kerosene Oil - Others	9.0	9.0	18.0
LPG - Domestic	2.5	2.5	5.0
LPG - Non-Domestic	9.0	9.0	18.0
Fuel Oil	9.0	9.0	18.0
IFO 180 CST & IFO 280 CST	2.5	2.5	5.0
Low Sulphur Heavy Stock	9.0	9.0	18.0
Light Diesel Oil	9.0	9.0	18.0
Lubes/Greases	9.0	9.0	18.0
Mineral Turpentine Oil	9.0	9.0	18.0
Sulphur	2.5	2.5	5.0
Asphalt / Bitumen	9.0	9.0	18.0

IFO: Intermediate Fuel Oil (For use in Bunker fuel)

Source: Indian Oil Corporation Ltd.



VII.5: Central Excise and Customs Tariff (as on 01.04.2020)

CUSTOMS				CENTRAL EXCISE		
Particulars	Basic Customs Duty	Additional Customs Duty (CVD)	Additional Customs Duty	Basic Excise Duty	Special Additional Excise Duty	Additional Excise Duty (Road and infrastructure Cess)
(A) Non-GST Petroleum Products						
Crude Oil	₹1/MT + ₹50/MT as NCCD	₹1/MT	-	₹1/MT+ Cess @ 20% + ₹50/ MT as NCCD	-	-
Petrol	2.50%	₹2.98/ltr. + ₹10.00/ ltr SAD	₹10.00/ltr.	₹2.98/ltr	₹10.00/ltr	₹10.00/ltr.
Petrol (branded)	2.50%	₹4.16/ltr. + ₹10.00/ ltr SAD	₹10.00/ltr.	₹4.16/ltr	₹10.00/ltr	₹10.00/ltr.
High Speed Diesel	2.50%	₹4.83/ltr+ ₹4.00/ ltr	₹10.00/ltr.	₹4.83/ltr	₹4.00/ltr	₹10.00/ltr.
High Speed Diesel (branded)	2.50%	₹7.19/ltr+ ₹4.00/ ltr	₹10.00/ltr.	₹7.19/Ltr	₹4.00/ltr	₹10.00/ltr.
Aviation Turbine Fuel ²	5.00%	11%	-	11%	-	-
Liquefied Natural Gas	2.50%	Nil	-	Nil	-	-
Natural Gas[Gaseous state]	5.00%	Nil	-	Nil	-	-
Natural Gas[Compressed]	5.00%	14.00%	-	14.00%	-	-
(B) GST Petroleum Products						
Particulars			Customs Tariff (in %)			
			Basic Customs Duty	CVD (in lieu of IGST)		
LPG	Domestic ³		Nil	5.00%		
	Non - Domestic		5.00%	18.00%		
Kerosene	PDS		Nil	5.00%		
	Non PDS		5.00%	18.00%		
Naphtha	Fertilizer		Nil	18.00%		
	Non- Fertilizer		4.00%	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		5.00%	18.00%		
Light Diesel Oil			5.00%	18.00%		
Low Sulphur Heavy Stock/ HPS & other Residues	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: NCCD: National Calamity Contingent Duty.

1. In addition to the above , 10% Social Welfare Surcharge (3% in case of petrol and diesel) 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.

2. 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.

3. Basic Customs duty is Nil for import of domestic LPG sold to household consumers (including NDEC) by PSU OMCs. Basic Customs duty rate is 5% for other importers of domestic LPG."

Source: PPAC



VII.6: Sales Tax / VAT Payments by Oil & Gas Companies

(Value in ₹ Crore)

State & UT	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andaman & Nicobar islands	NIL	NIL	NIL	NIL	51	92	94
Andhra Pradesh	12604	8777	7806	8908	9693	10784	10168
Arunachal Pradesh	54	56	54	62	67	49	26
Assam	2160	2268	2163	2571	3108	3879	3641
Bihar	2931	2885	3638	4501	5447	6584	5993
Chandigarh	74	84	75	54	54	62	60
Chhattisgarh	2397	2645	2617	3200	3682	3986	3877
Dadra Nagar Haveli/ Daman & Diu	115	149	152	156	42	2	2
Delhi	3108	2797	3158	3589	3944	4379	3833
Goa	388	478	534	650	657	694	754
Gujarat	14610	15879	14701	15958	15593	16229	15337
Haryana	4591	5112	5976	7000	7647	8286	7648
Himachal Pradesh	204	234	263	317	344	364	440
Jammu & Kashmir	941	951	1004	1110	1329	1449	1459
Jharkhand	1825	2076	2476	2967	3224	2796	3296
Karnataka	7800	8668	8652	11103	13306	14417	15381
Kerala	5173	5378	6121	6899	7300	7995	8074
Ladakh	-	-	-	-	-	-	14
Lakshadweep	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Madhya Pradesh	6232	6832	7631	9160	9380	9485	10720
Maharashtra	19141	19795	19417	23160	25256	27191	26791
Manipur	102	116	114	117	162	181	192
Meghalaya	2	2	1	1	NIL	NIL	NIL
Mizoram	44	58	53	48	55	88	91
Nagaland	64	83	80	78	86	97	116
Odisha	2519	2865	3027	4283	6870	5660	5495
Puducherry	29	22	18	22	15	8	5
Punjab	3852	4179	4907	5833	6062	6576	5548
Rajasthan	7396	8373	9211	10591	12094	12714	13319
Sikkim	66	74	98	105	110	134	129
Tamil Nadu	12297	12316	11004	12563	15507	18143	18175
Telangana		4527	6391	7552	8776	10037	10045
Tripura	160	180	197	168	205	277	384
Uttar Pradesh	11607	12578	14175	15850	17420	19168	20112
Uttarakhand	1049	1157	1221	1414	1323	1595	1495
West Bengal	5510	5563	5869	6427	7042	7866	7534
TOTAL	129045	137157	142807	166414	185850	201265	200247

Note: 1. Totals may not tally due to round off. (P) Provisional
2. As the amounts have been rounded off to the nearest crore, hence some amounts are zero.
Source: PPAC (Based on 16 major oil & gas companies)



VII.7: GST Payment by Oil & Gas Companies

(Value in ₹ Crore)

State/UT	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)
Andaman & Nicobar islands	1.01	0.19	0.31
Andhra Pradesh	172.13	257.13	155.93
Arunachal Pradesh	0.84	6.19	0.11
Assam	116.42	559.07	475.27
Bihar	90.55	158.90	144.54
Chandigarh	0.51	1.19	1.02
Chhattisgarh	38.55	18.01	9.41
Dadra & Nagar Haveli and Daman & Diu	9.61	11.93	20.08
Delhi	114.32	51.55	51.02
Goa	4.83	2.87	9.16
Gujarat	1021.61	2059.61	1800.77
Haryana	379.26	658.95	684.78
Himachal Pradesh	14.51	3.46	4.25
Jammu & Kashmir	38.37	20.45	16.66
Jharkhand	56.97	12.55	15.76
Karnataka	329.16	355.88	268.51
Kerala	135.98	145.90	170.85
Ladakh	-	-	0.76
Lakshadweep	0.00	0.00	0.16
Madhya Pradesh	73.23	86.74	98.39
Maharashtra	797.02	1271.76	1126.37
Manipur	1.81	1.28	1.48
Meghalaya	0.20	0.70	0.35
Mizoram	0.82	0.52	1.29
Nagaland	0.83	0.54	0.56
Odisha	51.95	92.53	192.40
Other territory (Offshore areas of India beyond 12 Nautical Miles)	7.64	10.74	10.73
Puducherry	2.47	0.88	0.98
Punjab	156.58	115.83	128.15
Rajasthan	87.84	204.75	175.60
Sikkim	2.89	2.08	0.39
Tamil Nadu	517.26	642.12	561.92
Telangana	88.23	18.78	20.63
Tripura	6.34	20.30	17.47
Uttar Pradesh	362.17	616.29	619.17
Uttarakhand	19.89	6.33	6.85
West bengal	271.87	545.41	553.25
TOTAL	4973.67	7961.41	7345.33

Note:

(P) Provisional

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

2. As the amounts have been rounded off to the nearest crore, hence some amounts are zero.

Source: PPAC (Based on 16 major oil & gas companies)



VII.8: Sales Tax/VAT Payments on Crude Oil & Natural Gas by CPSEs

(Value in ₹ Crore)

State/UT	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sales Tax /VAT on Crude Oil							
Andhra Pradesh	37.51	44.56	30.55	24.82	13.63	47.66	16.36
Assam	479.39	440.24	472.71	462.11	578.26	719.80	619.77
Gujarat	101.61	237.08	418.11	487.19	548.71	747.94	713.53
Maharashtra	971.23	1114.00	1094.05	1197.22	1304.57	1581.91	1355.82
Rajasthan	0.03	0.02	0.43	0.02	0.05	0.13	0.29
Tamil Nadu	55.25	46.79	30.58	32.95	42.72	74.54	65.96
Total VAT/Sales Tax	1645.02	1882.69	2046.43	2204.31	2487.94	3171.98	2771.73
Sales Tax /VAT on Natural Gas							
Andhra Pradesh	213.70	107.39	139.19	137.45	190.80	347.83	261.42
Arunachal Pradesh	0.39	0.00	0.00	0.00	0.00	0.00	0.00
Assam	156.42	194.57	246.27	188.93	178.20	237.70	236.31
Bihar	-	-	-	-	-	-	0.62
Gujarat	2084.37	2270.82	2131.33	1678.38	2084.29	2541.29	2612.36
Haryana	126.79	144.35	103.88	93.11	113.66	147.48	146.24
Himachal Pradesh	0.00	14.14	0.37	0.40	0.38	0.87	0.98
J & K	0.00	67.63	0.00	0.00	0.00	0.00	0.00
Jharkhand	0.52	0.31	0.24	0.34	0.44	0.34	0.89
Kerala	11.49	0.17	0.00	10.72	147.54	8.49	4.67
Madhya Pradesh	229.43	201.12	195.44	132.52	120.68	162.34	161.11
Maharashtra	896.17	973.76	865.69	805.63	672.49	580.35	569.54
Odisha	0.00	0.00	0.00	0.00	0.00	0.29	0.15
Punjab	145.32	126.69	64.43	13.04	1.97	5.65	39.93
Rajasthan	94.38	115.65	125.64	122.99	147.41	232.65	435.63
Tamil Nadu	62.05	66.63	58.07	35.90	42.72	52.35	119.90
Telangana	0.00	3.50	4.86	4.73	4.57	4.81	6.08
Tripura	44.47	53.40	59.18	41.68	43.72	66.33	150.21
Uttar Pradesh	1255.59	1379.30	1303.51	947.52	1263.12	1839.69	2133.99
Uttarakhand	5.24	7.66	10.33	3.90	6.41	10.31	14.29
West Bengal	0.16	0.19	0.18	0.23	0.20	0.04	0.00
Chandigarh	0.00	60.12	0.00	0.04	0.03	0.14	0.01
Dadra Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.05	0.04
Daman & Diu	0.00	0.00	0.00	0.00	0.02	0.02	0.04
Delhi	17.06	19.05	15.95	11.94	11.20	11.51	15.38
Total VAT/Sales Tax	5343.55	5806.45	5324.56	4229.45	5029.85	6250.53	6909.79

Note: 1. Totals may not tally due to round off. P: Provisional

2. As the amounts have been rounded off to the nearest crore, hence some amounts are zero.

Sources: CPSEs (ONGC, OIL, GAIL, IOCL, BPCL, HPCL, CPCL, MRPL, NRL)



VII.9: Sales Tax/VAT Payments on Petrol by CPSEs

(Value in ₹ Crore)

State/UT	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
States							
Andhra Pradesh	3371.27	2310.29	2195.68	2793.90	2826.55	3099.78	3149.12
Arunachal Pradesh	10.56	10.10	17.98	9.47	22.63	15.32	7.54
Assam	284.83	304.02	488.74	610.11	796.59	962.40	1024.09
Bihar	737.89	767.70	996.50	1146.18	1476.32	2087.58	2049.58
Chhattisgarh	618.73	671.91	696.10	833.24	904.13	1157.40	1266.85
Goa	1.01	35.99	150.33	158.48	200.86	227.70	284.97
Gujarat	1369.50	1541.07	1381.76	1716.87	1702.77	2077.39	1803.45
Haryana	1144.85	1210.50	1420.28	1559.08	1746.73	2001.46	2044.20
Himachal Pradesh	65.18	73.80	83.81	98.58	119.10	133.26	172.15
J & K	273.95	285.59	333.65	380.55	473.60	594.75	572.68
Jharkhand	412.91	448.94	639.61	751.83	805.35	828.49	896.64
Karnataka	2571.15	2718.32	2842.13	3669.30	4442.66	4880.08	5010.68
Kerala	1855.44	1986.27	2492.80	2820.99	2998.10	3512.89	3696.94
Madhya Pradesh	1437.15	1603.50	1954.40	2360.20	2442.07	2878.28	2870.75
Maharashtra	5168.01	5444.84	5911.13	7302.21	9937.35	10047.47	9510.23
Manipur	27.81	30.50	49.42	56.33	83.39	89.37	91.70
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	11.04	10.66	25.22	22.30	25.75	37.35	38.68
Nagaland	13.14	18.78	35.53	38.20	45.25	49.61	58.00
Odisha	571.11	694.45	823.84	1019.38	1246.41	1510.00	1579.07
Punjab	1267.50	1425.93	1328.65	1462.10	1669.82	2076.98	1659.27
Rajasthan	1839.79	2062.23	2322.74	2563.15	2854.23	3198.41	3532.50
Sikkim	17.54	21.87	26.34	28.03	31.17	41.67	43.46
Tamil Nadu	3495.29	3748.45	3650.45	4098.32	5583.79	6536.79	6669.33
Telangana	0.00	1388.98	2167.49	2354.75	2655.35	3206.46	3198.10
Tripura	18.80	22.03	59.94	55.83	67.07	92.48	113.77
Uttar Pradesh	3559.33	3845.60	4683.63	5389.92	5999.97	6336.22	6836.56
Uttarakhand	377.87	402.76	457.97	526.12	546.44	687.28	667.36
West Bengal	1183.14	1195.96	1374.33	1513.65	1788.22	2049.79	2076.06
Union Territories							
Andaman & Nicobar Islands	0.00	0.00	0.00	0.00	6.18	8.84	9.20
Chandigarh	10.27	16.76	19.59	16.04	19.64	20.83	20.28
Dadra Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delhi	1390.60	1251.76	1439.68	1708.87	1766.33	1904.16	1851.42
Puducherry	4.07	4.08	3.14	4.14	6.11	5.37	3.16
Total VAT/Sales Tax	33109.73	35553.64	40072.86	47068.12	55289.93	62355.86	62807.79

Note: Totals may not tally due to round off. P: Provisional
Sources: CPSEs (ONGC, OIL, GAIL, IOCL, BPCL, HPCL, CPCL, MRPL, NRL)



VII.10: Sales Tax/VAT Payments on Diesel by CPSEs

(Value in ₹ Crore)

State/UT	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
States							
Andhra Pradesh	7660.30	5332.55	4883.16	5144.48	5886.53	6509.15	5808.76
Arunachal Pradesh	18.29	20.70	32.96	14.65	37.82	31.09	17.43
Assam	570.00	593.49	749.25	975.91	1260.57	1421.73	1424.93
Bihar	1675.95	1558.56	1966.52	2266.15	2769.49	3569.92	3346.54
Chhattisgarh	1694.21	1879.76	1722.57	1980.39	2229.48	2694.08	2483.68
Goa	285.70	338.25	314.68	392.19	360.17	371.90	379.74
Gujarat	2468.09	2915.23	2703.56	3157.48	3533.46	4187.27	4041.71
Haryana	2778.11	3115.37	3834.79	4496.64	4998.65	5479.65	4852.70
Himachal Pradesh	75.96	94.64	125.37	164.40	187.82	205.51	248.01
J & K	400.62	404.48	435.58	496.62	622.12	708.73	664.71
Jharkhand	1290.32	1452.10	1461.67	1617.24	1763.21	1284.13	2019.38
Karnataka	4205.19	4757.27	4781.52	6185.60	7719.25	8270.97	8763.05
Kerala	2641.31	2765.02	3084.74	3400.36	3482.26	3995.57	3923.98
Madhya Pradesh	3131.04	3468.29	3686.54	4368.95	4278.25	4503.53	3874.67
Maharashtra	8180.14	9505.49	8999.00	10401.79	11429.66	12615.79	12466.46
Manipur	30.68	36.41	54.45	50.97	70.46	78.46	80.89
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	9.37	9.09	24.98	23.53	27.97	48.09	49.90
Nagaland	14.25	21.09	35.01	32.29	38.53	46.78	57.43
Odisha	1625.79	2055.94	2024.67	2876.48	2939.77	3975.91	3838.72
Punjab	1377.97	1603.47	1779.52	2170.27	2470.11	2915.18	2536.77
Rajasthan	4298.43	4910.11	5011.45	5434.74	5899.11	6507.56	6456.52
Sikkim	22.75	26.19	37.28	44.13	48.94	78.33	71.56
Tamil Nadu	6872.17	7174.37	6222.94	6958.56	8620.05	10102.95	9676.62
Telangana	0.00	2932.27	3970.28	4708.09	5449.11	6436.13	6183.40
Tripura	20.25	25.12	69.41	62.58	73.65	92.98	110.44
Uttar Pradesh	5870.05	6353.20	6907.22	7811.68	8651.16	9205.46	9258.61
Uttarakhand	594.88	670.31	675.04	739.92	663.37	811.40	706.33
West Bengal	2917.79	2764.71	3043.87	3160.17	3726.93	4556.50	3967.96
Union Territories							
Andaman & Nicobar Islands	0.00	0.00	0.00	0.00	23.41	66.32	70.32
Chandigarh	2.61	4.20	10.18	7.73	9.67	12.38	10.98
Dadra Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delhi	767.78	808.54	1058.84	1133.31	1229.17	1239.14	965.05
Puducherry	5.43	5.21	2.96	2.85	3.16	2.83	1.62
Total VAT/Sales Tax	61505.43	67601.43	69710.01	80280.15	90503.31	102025.42	98358.87

Note: 1. Totals may not tally due to round off. P: Provisional
2. As the amounts have been rounded off to the nearest crore, hence some amounts are zero.
Sources: CPSEs (ONGC, OIL, GAIL, IOCL, BPCL, HPCL, CPCL, MRPL, NRL)



VII.11: Sales Tax/VAT Payments on ATF by CPSEs

(Value in ₹ Crore)

State/UT	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
States							
Andhra Pradesh	153.41	47.18	4.21	4.57	6.61	9.26	6.92
Arunachal Pradesh	1.24	0.00	0.10	0.09	5.11	2.05	1.45
Assam	143.64	135.96	94.65	122.13	142.92	224.84	201.75
Bihar	17.62	18.72	17.87	23.38	33.69	48.72	57.10
Chhattisgarh	6.03	4.30	1.42	3.77	6.86	0.46	9.22
Goa	48.94	46.73	33.20	50.95	54.43	80.63	75.45
Gujarat	148.17	129.65	79.29	134.61	154.59	221.92	152.62
Haryana	47.27	50.96	29.75	38.43	60.31	51.81	32.19
Himachal Pradesh	12.64	0.00	9.11	7.70	9.62	12.47	10.16
J & K	80.62	5.63	48.22	49.17	60.55	96.74	78.07
Jharkhand	5.17	6.15	3.70	5.59	8.27	9.78	11.70
Karnataka	368.10	314.69	207.30	201.05	347.06	383.92	536.29
Kerala	111.33	101.61	67.26	104.44	137.42	196.57	46.65
Madhya Pradesh	29.77	13.74	9.91	9.07	20.47	32.13	17.41
Maharashtra	857.08	797.10	598.44	609.83	720.79	848.93	657.56
Manipur	4.83	4.79	3.15	3.43	5.50	12.93	19.76
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	0.00	1.99	1.32	1.15	1.03	2.63	2.27
Nagaland	2.60	1.98	2.85	2.75	0.60	0.67	0.20
Odisha	17.85	4.65	4.58	10.77	17.57	28.45	23.16
Punjab	30.24	0.01	15.03	30.72	35.58	54.27	50.71
Rajasthan	117.12	97.60	81.79	89.97	101.99	142.86	97.54
Sikkim	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Tamil Nadu	288.52	224.45	133.05	173.02	223.67	340.66	402.17
Telangana	0.00	91.96	74.15	89.48	51.40	28.31	19.60
Tripura	4.48	4.26	3.67	3.98	6.53	11.87	9.61
Uttar Pradesh	153.15	130.85	110.34	118.22	156.41	211.35	191.65
Uttarakhand	2.43	1.37	2.14	4.98	11.36	16.77	18.37
West Bengal	222.56	155.92	97.27	137.64	179.89	239.01	293.68
Union Territories							
Andaman & Nicobar Islands	0.00	0.00	0.00	0.00	11.12	16.02	14.37
Chandigarh	58.40	0.00	42.92	27.49	23.87	36.92	28.75
Dadra Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Daman & Diu	1.50	1.30	0.82	0.79	0.96	1.71	1.50
Delhi	933.43	776.07	555.94	702.17	860.18	1198.81	979.46
Puducherry	0.00	0.00	0.00	0.00	0.00	0.11	0.03
VAT/Sales Tax	3868.14	3169.62	2333.45	2761.34	3456.36	4563.59	4047.53

Note: 1. Totals may not tally due to round off.

P: Provisional

2. As the amounts have been rounded off to the nearest crore, hence some amounts are zero.

Sources: CPSEs (ONGC, OIL, GAIL, IOCL, BPCL, HPCL, CPCL, MRPL, NRL)



CHAPTER-VIII



Manpower



CHAPTER HIGHLIGHTS

- Total manpower employed in oil and gas sector CPSEs stood at 1,03,832 as on 31.03.2020 in which share of male employee is 91.9% (95,378) and that of female employees is 8.1% (8,454).
- Out of 8.1% female employees, highest female deployment (38.1%) corresponds to Marketing vertical followed by Exploration & Production (20.3%) and Refining (16.7%). Out of 91.9% male employees, highest male deployment (29.6%) corresponds to Exploration & Production vertical followed by Marketing (26.4%) and Refining (25.7%).
- Out of 8.1% female employees, highest female deployment (66%) corresponds to Executive/Managerial Category followed by Clerical (13.6%), Supervisory (11.2%) and Workmen (9.1%). Out of 99.1% male employees, highest male deployment (56.1%) corresponds to Executive/Managerial Category followed by Workmen (31.6%), Supervisory (8.2%) and Clerical (4.1%).
- Exploration & production vertical accounted for the highest manpower deployment (28.9%) followed by marketing (27.3%) and refinery (24.4%) as on 31.03.2020.
- Out of 28.9% employed in Exploration & Production vertical, 94.3% are male employees and 5.7% are female employees. Among the top three verticals considering manpower deployment, `Marketing` vertical is the one with lowest disparity between male (88.6%) and female employees (11.4%).
- Executive/Managerial categories employed the highest proportion of manpower (56.9%) followed by Workmen (29.7%), Supervisory (8.4%) and Clerical (4.9%) accounted for the balance as on 31.03.2020.
- Out of 56.9% employed in Executive/Managerial category, 90.6% are male employees and 9.4% are female employees. The `Clerical` category is the one with lowest disparity between male (77.4%) and female employees deployment (22.6%).
- ONGC and IOCL together accounted for over 60.8% of the total manpower employed in the oil & gas CPSEs as on 31.03.2020.



VIII.1: Sector-wise Manpower Employed in Oil & Gas CPSEs in India (as on 31st March)

(Figures in Number)

Sector	2014	2015	2016	2017	2018	2019	2020 (P)	% Share of Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Exploration & Production	32388	32850	33455	33150	31823	31019	29987	28.9
Refining	25689	25233	24693	25038	25198	25690	25322	24.4
Marketing	32220	31094	31260	30698	29994	29657	28380	27.3
Pipelines	4985	5087	5384	5689	5869	6101	6204	6.0
Research & Development	2015	2126	2101	1986	1960	1898	1842	1.8
Others	15751	14329	13720	13492	13033	12368	12097	11.7
Grand Total	113048	110719	110613	110053	107877	106733	103832	100

Note: Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower

P:Provisional

Source: Central Public Sector Enterprises

VIII.2: Category-wise Manpower Employed in Oil & Gas CPSEs in India (as on 31st March)

(Figures in Number)

Category	2014	2015	2016	2017	2018	2019	2020 (P)	% Share of Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Executive/Managerial	60571	59598	59707	59962	59890	60182	59114	56.9
Supervisory	10773	10407	10047	9988	9614	9008	8751	8.4
Clerical	7218	7036	5710	5392	5457	5275	5089	4.9
Workmen	34486	33678	35149	34711	32916	32268	30878	29.7
Grand Total	113048	110719	110613	110053	107877	106733	103832	100

Note: Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower

P:Provisional

Source: Central Public Sector Enterprises

Figure VIII.1: Sector-wise Manpower (in %) as on 31.03.2020

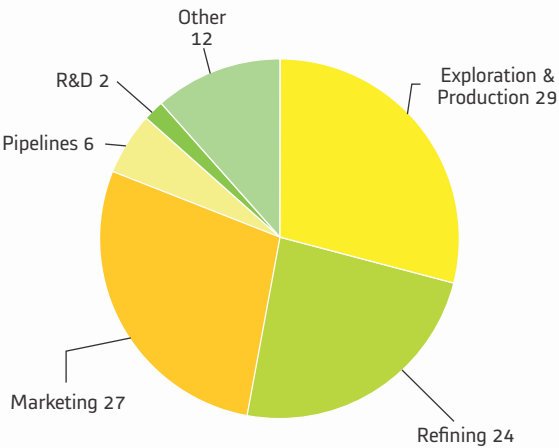
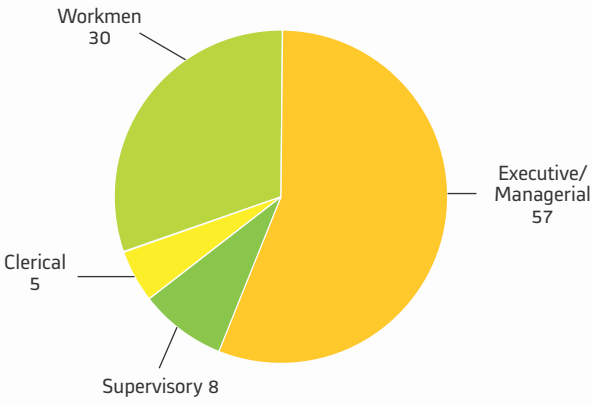


Figure VIII.2: Category-wise Manpower (in %) as on 31.03.2020



VIII.3: Category-wise and Sector-wise Manpower Employed in Oil & Gas CPSEs in India (as on 31st March)

(Figures in Number)

Category	2014	2015	2016	2017	2018	2019	2020(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Exploration and Production							
1. Executive/Managerial	20940	20785	20258	19394	18574	18128	17304
2. Supervisory	2540	2538	2321	2157	1947	1713	1594
3. Clerical	330	475	545	574	550	541	550
4. Workman	8578	9052	10331	11025	10752	10637	10539
Total	32388	32850	33455	33150	31823	31019	29987
2. Refining							
1. Executive/Managerial	10028	10080	10075	10410	10789	11084	11027
2. Supervisory	3491	3371	3144	2958	2809	2699	2575
3. Clerical	1645	1580	700	679	684	684	685
4. Workman	10525	10202	10774	10991	10916	11223	11035
Total	25689	25233	24693	25038	25198	25690	25322
3. Marketing							
1. Executive/Managerial	14762	14642	15202	15805	16162	16730	16632
2. Supervisory	3113	3101	3193	3515	3540	3452	3426
3. Clerical	3521	3334	3233	2870	2625	2461	2277
4. Workman	10824	10017	9632	8508	7667	7014	6045
Total	32220	31094	31260	30698	29994	29657	28380
4. Pipelines							
1. Executive/Managerial	-	-	3777	4081	4250	4485	4545
2. Supervisory	-	-	207	222	265	232	251
3. Clerical	-	-	164	162	345	393	393
4. Workman	-	-	1236	1224	1009	991	1015
Total	4985	5087	5384	5689	5869	6101	6204
5. Research & Development							
1. Executive/Managerial	-	-	1768	1672	1663	1636	1574
2. Supervisory	-	-	101	91	84	67	67
3. Clerical	-	-	33	34	28	26	28
4. Workman	-	-	199	189	185	169	173
Total	2015	2126	2101	1986	1960	1898	1842
6. Others							
1. Executive/Managerial	-	-	8627	8600	8452	8119	8032
2. Supervisory	-	-	1081	1045	969	845	838
3. Clerical	-	-	1035	1073	1225	1170	1156
4. Workman	-	-	2977	2774	2387	2234	2071
Total	15751	14329	13720	13492	13033	12368	12097
Grand Total	113048	110719	110613	110053	107877	106733	103832

Note:Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower

P:Provisional

Source: Central Public Sector Enterprises



VIII.4: Gender-wise & Sector-wise Manpower Employed in Oil & Gas CPSEs as on 31st March, 2020

(Figures in Number)

Sector/Category/CPSE	ONGC*	OIL	GAIL	IOCL	BPCL	HPCL	CPCL	MRPL	NRL	Balmer Lawrie	EIL	Total (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Male Employees												
1. Exploration & Production	24922	3262	34	0	40	12	0	0	0	0	0	28270
2. Refining	190	0	0	13164	4046	2557	1525	1720	706	0	0	23908
3. Marketing	52	0	648	13500	5625	5123	19	88	77	0	24	25156
4. Pipelines	83	345	1730	3063	264	412	0	0	5	0	0	5902
5. Research & Development	811	41	11	400	75	63	14	3	0	14	45	1477
6. Others	1838	2620	1955	0	159	610	38	0	78	962	2405	10665
Total	27896	6268	4378	30127	10209	8777	1596	1811	866	976	2474	95378
% Male Manpower of Total	92.7	93.8	93.5	91.3	90.8	90.5	94.8	93.3	94.7	90.7	88.2	91.9
Female Employees												
1. Exploration & Production	1636	73	2	0	4	2	0	0	0	0	0	1717
2. Refining	7	0	0	807	227	160	68	118	27	0	0	1414
3. Marketing	3	0	53	1831	776	544	0	12	0	0	5	3224
4. Pipelines	4	19	88	154	6	31	0	0	0	0	0	302
5. Research & Development	232	8	2	79	15	14	6	1	0	1	7	365
6. Others	327	312	159	0	12	168	14	0	21	99	320	1432
Total	2209	412	304	2871	1040	919	88	131	48	100	332	8454
% Female Manpower of Total	7.3	6.2	6.5	8.7	9.2	9.5	5.2	6.7	5.3	9.3	11.8	8.1
Total Employees												
1. Exploration & Production	26558	3335	36	0	44	14	0	0	0	0	0	29987
2. Refining	197	0	0	13971	4273	2717	1593	1838	733	0	0	25322
3. Marketing	55	0	701	15331	6401	5667	19	100	77	0	29	28380
4. Pipelines	87	364	1818	3217	270	443	0	0	5	0	0	6204
5. Research & Development	1043	49	13	479	90	77	20	4	0	15	52	1842
6. Others	2165	2932	2114	0	171	778	52	0	99	1061	2725	12097
Total Manpower	30105	6680	4682	32998	11249	9696	1684	1942	914	1076	2806	103832
% Share of Total Manpower	29.0	6.4	4.5	31.8	10.8	9.3	1.6	1.9	0.9	1.0	2.7	100.0

Notes: Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower included in ONGC's Others
Source: Central Public Sector Enterprises

P:Provisional

*:OVL's Manpower (310 employees)



VIII.5: Gender-wise & Category-wise Manpower Employed in Oil & Gas CPSEs as on 31st March, 2020

(Figures in Number)

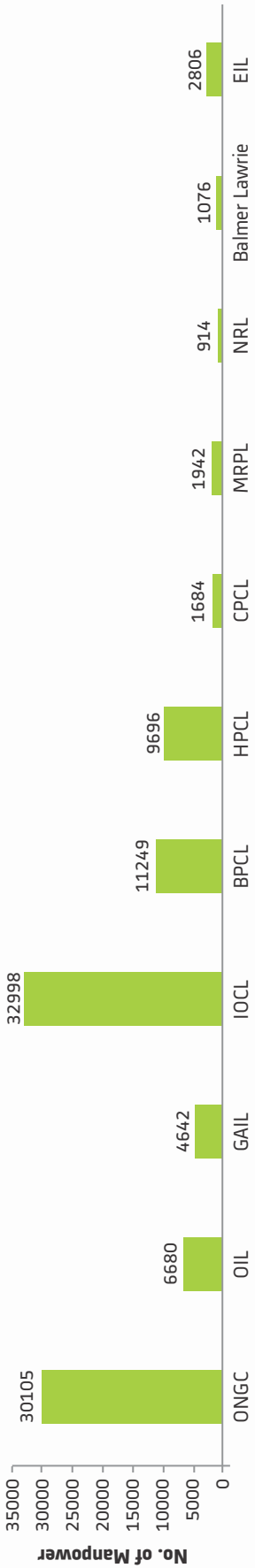
Sector/Category/CPSE	ONGC	OIL	GAIL	IOCL	BPCL	HPCL	CPCL	MRPL	NRL	Balmer Lawrie	EIL	Total (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Male Employees												
1. Executive/Managerial	17715	1456	3473	16086	5353	5205	191	841	442	434	2336	53532
2. Supervisory	1311	622	234	4654	0	0	599	124	0	209	48	7801
3. Clerical	415	484	620	628	738	852	28	0	32	54	89	3940
4. Workmen	8455	3706	51	8759	4118	2720	778	846	392	279	1	30105
Total	27896	6268	4378	30127	10209	8777	1596	1811	866	976	2474	95378
Female Employees												
1. Executive/Managerial	1514	200	264	1891	586	693	7	37	38	60	292	5582
2. Supervisory	102	43	12	685	0	0	52	0	0	26	30	950
3. Clerical	210	75	27	142	437	213	17	0	8	10	10	1149
4. Workmen	383	94	1	153	17	13	12	94	2	4	0	773
Total	2209	412	304	2871	1040	919	88	131	48	100	332	8454
Total Employees												
1. Executive/Managerial	19229	1656	3737	17977	5939	5898	198	878	480	494	2628	59114
2. Supervisory	1413	665	246	5339	0	0	651	124	0	235	78	8751
3. Clerical	625	559	647	770	1175	1065	45	0	40	64	99	5089
4. Workmen	8838	3800	52	8912	4135	2733	790	940	394	283	1	30878
Total	30105	6680	4682	32998	11249	9696	1684	1942	914	1076	2806	103832

Notes: Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower included in ONGC's Others
Source: Central Public Sector Enterprises

P:Provisional

*:OVL's Manpower (287 employees)

Figures VIII.3: Regular Manpower Employed in CPSEs as on 31.03.2020



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CHAPTER-IX



Energy



CHAPTER HIGHLIGHTS

- Coal & Lignite production in the country declined marginally by 0.2% to 771.31 MMT during the year 2019-20 was 771.31 MMT as compared to 773 MMT in 2018-19.
- Gross Electricity Generation has increased from 1.598 Million GWh in 2019-20 as compared to 1.585 Million GWh in 2018-19, thus, achieving a growth rate of 0.9%.
- During FY 2018-19, Petroleum and Natural gas contributed in economic activity with Gross Value Added (at current prices) of ₹3,38,910 crore vis-a-vis ₹3,20,570 crore in 2017-18, thus, registering a growth rate of 5.7%. Also, it is to note that contribution of P&NG in total GVA (at current prices) has declined from 2.1% in 2017-18 to 2% in 2018-19.
- During FY 2018-19, Petroleum and Natural gas contributed in economic activity with Gross Value Added [at constant prices (2011-12)] of ₹3,45,145 crore vis-a-vis ₹3,86,770 crore in 2017-18, thus, registering a negative growth rate of 10.8%. Also, it is to note that contribution of P&NG in total GVA [at constant prices (2011-12)] has declined from 3.2% in 2017-18 to 2.7% in 2018-19.
- Total Coal and Lignite consumption which was increasing since 2013-14 to 2018-19, marked a decline of 1.5% for the first time in 2019-20 (9,98,420 TMT) vis-a-vis 2018-19 (10,14,064 TMT).
- Natural gas consumption has increased by 22.5% from 52,375 MMSCM (2013-14) to 64,143 MMSCM (2019-20), with noticeable increase of 5.5% in 2019-20 (64,143 MMSCM) vis-a-vis 2018-19 (60,798 MMSCM).

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IX.1: Gross Value Added by Economic Activity at Current Prices

(Value in ₹ crore)

Sectors		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.(a)	Petroleum & Natural Gas	111426	120334	116892	112110	115476	120233	130351
(b)	Manufacture of coke and refined petroleum products	148584	168740	226152	196579	180126	200338	208559
	Total	260010	289074	343044	308689	295602	320570	338910
2.	Railways	72296	78724	92459	100451	106786	116252	124309
3.	Transport by other means	388023	427352	481455	515790	568118	612823	667442
4.	Storage	6165	6026	6407	7021	7442	8384	9070
5.	Communication & Services related to broadcasting	142969	177804	206442	237281	247809	241980	268468
6.	Electricity	168197	204852	220178	268059	273734	324196	333860
7.	Gas	15652	16868	15560	14627	19115	22865	26120
8.	Water Supply	17512	22062	28231	32116	40248	50408	62867
9.	Other Utility Services	13989	16373	18289	20163	22611	27632	33566
10.	GVA	9202692	10363153	11504279	12574499	13965200	15513122	17139962
11.	Contribution of P& NG in total GVA (%)	2.83	2.79	2.98	2.45	2.12	2.07	1.98
Growth Rate (%)								
1.(a)	Petroleum & Natural Gas	17.94	7.99	-2.86	-4.09	3.00	4.12	8.42
(b)	Manufacture of coke and refined petroleum products	89.37	13.57	34.02	-13.08	-8.37	11.22	4.10
	Total	50.35	11.18	18.67	-10.01	-4.24	8.45	5.72
2.	Railways	18.23	8.89	17.45	8.64	6.31	8.87	6.93
3.	Transport by other means	15.02	10.14	12.66	7.13	10.15	7.87	8.91
4.	Storage	20.69	-2.25	6.32	9.58	6.00	12.66	8.18
5.	Communication & Services related to broadcasting	13.53	24.37	16.11	14.94	4.44	-2.35	10.95
6.	Electricity	15.84	21.79	7.48	21.75	2.12	18.43	2.98
7.	Gas	6.72	7.77	-7.75	-6.00	30.68	19.62	14.24
8.	Water Supply	19.04	25.98	27.96	13.76	25.32	25.24	24.72
9.	Other Utility Services	15.63	17.04	11.70	10.25	12.14	22.21	21.48
10.	GVA	13.52	12.61	11.01	9.30	11.06	11.08	10.49

P: Provisional
Source: National Statistical Office, MoSPI



IX.2: Gross Value Added by Economic Activity at Constant Price

(Value in ₹ crore)

Sectors		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.(a)	Petroleum & Natural Gas	101834	101298	112927	146481	158125	164890	141164
(b)	Manufacture of coke and refined petroleum products	136011	142692	208277	242589	222153	221881	203981
	Total	237845	243990	321204	389071	380278	386770	345145
2.	Railways	69162	73685	80720	85452	82161	87886	92291
3.	Transport by other means	360142	382631	409551	438458	464899	494669	529069
4.	Storage	5715	5209	5529	6245	6100	6660	6892
5.	Communication & Services related to broadcasting	134504	156030	176047	201243	203896	192827	202453
6.	Electricity	148517	152873	163722	170139	185281	203597	214089
7.	Gas	14269	14131	12832	13213	14144	14495	16230
8.	Water Supply	15934	18343	22159	24030	28811	34834	42009
9.	Other Utility Services	12915	14253	15334	16776	18261	21179	24231
10.	GVA	8546275	9063649	9712133	10491870	11328285	12074413	12803128
11.	Contribution of P& NG in total GVA (%)	2.78	2.69	3.31	3.71	3.36	3.20	2.70
Growth Rate (%)								
1.(a)	Petroleum & Natural Gas	7.79	-0.53	11.48	29.71	7.95	4.28	-14.39
(b)	Manufacture of coke and refined petroleum products	73.35	4.91	45.96	16.47	-8.42	-0.12	-8.07
	Total	37.53	2.58	31.65	21.13	-2.26	1.71	-10.76
2.	Railways	13.10	6.54	9.55	5.86	-3.85	6.97	5.01
3.	Transport by other means	6.76	6.24	7.04	7.06	6.03	6.40	6.95
4.	Storage	11.88	-8.85	6.14	12.95	-2.32	9.17	3.49
5.	Communication & Services related to broadcasting	6.81	16.00	12.83	14.31	1.32	-5.43	4.99
6.	Electricity	2.29	2.93	7.10	3.92	8.90	9.89	5.15
7.	Gas	-2.71	-0.97	-9.19	2.97	7.05	2.48	11.97
8.	Water Supply	8.32	15.12	20.80	8.44	19.90	20.91	20.60
9.	Other Utility Services	6.75	10.36	7.58	9.41	8.85	15.98	14.41
10.	GVA	5.42	6.05	7.15	8.03	7.97	6.59	6.04

P: Provisional

Source: National Statistical Office, MoSPI

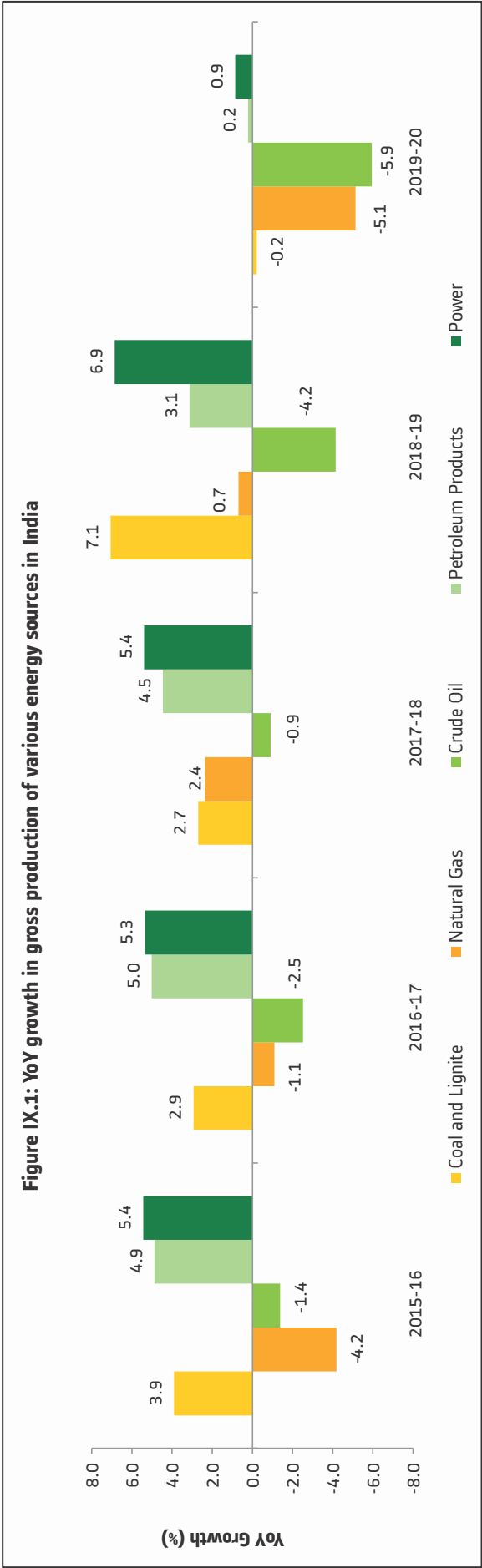


IX.3: Gross Production of Various Energy Sources in India

Year	Coal & Lignite					Hydro-Carbon				Power									Gross Electricity Generation
	Coal			Lignite	Grand Total	Natural Gas	Crude Oil	Petroleum Products	Thermal				Hydro		Nuclear	ORS*	Total	Non-Utilities	
	Cooking	Non-Cooking	Total						Steam	Diesel	Gas	Total							
				(TMT)									(MMSCM)				(GWh)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
2013-14	56818	508947	565765	44271	610036	35407	37788	220756	745533	1998	44522	792054	134848	34228	65520	1026649	148988	1175637	
2014-15	57446	551733	609179	48270	657449	33657	37461	221136	835291	1576	41075	877941	129244	36102	61785	1105072	162057	1267129	
2015-16	60887	578343	639230	43842	683072	32249	36942	231923	895340	551	47122	943013	121377	37414	65781	1167584	168372	1335956	
2016-17	61661	596207	657868	45230	703098	31897	36009	243551	944022	401	49094	993516	122378	37916	81548	1235358	172046	1407404	
2017-18	40148	635252	675400	46644	722044	32649	35684	254405	986591	348	50208	1037146	126123	38346	101839	1303455	179777	1483232	
2018-19	41132	687586	728718	44283	773001	32873	34203	262361	1022265	215	49834	1072314	134894	37813	126759	1371779	213074	1584853	
2019-20(P)	52840	676260	729100	42210	771310	31184	32169	262944	994197	199	48443	1042838	155769	46472	138319	1383398	215000	1598398	

P: Provisional GWh: Giga Watt hour (106 x Kilo Watt hour) *: Other renewable sources

Source : M/o Coal, M/o Power, CEA and Oil Companies.



IX.4: Imports & Exports of Various Energy Sources in India

Year	Coal			Lignite			Natural Gas	Crude Oil	Petroleum Products			Electricity		
	Import	Export	Net Import	Import	Export	Net Import	Import	Import	Import	Export	Net Import	Import	Export	Net Import
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(TMT)														
(MMSCM)														
2013-14	166857	2188	164669	1	2	-1	17801	189238	16697	67864	-51167	5598	1651	3947
2014-15	217780	1238	210865	1	3	-2	18607	189435	21301	63932	-42631	5008	4433	575
2015-16	203949	1575	202374	1	1	0	21388	202850	29456	60539	-31083	5244	5150	94
2016-17	190953	1773	189180	19	5	14	24849	213932	36287	65513	-29226	5617	6710	-1093
2017-18	208273	1503	206770	10	4	6	27439	220433	35461	66833	-31372	5072	7203	-2131
2018-19	235240	1313	233927	19	40	-21	28740	226498	33348	61096	-27747	4396	8469	-4073
2019-20(P)	248550	670	247880	-	-	-	33887	226955	43788	65685	-21898	-	-	-

P: Provisional

Source : M/o Coal, M/o Power, CEA and Oil Companies.



IX.5: Consumption of Various Energy Sources in India

Year	Coal	Lignite	Total Coal & Lignite	Natural Gas	Crude Oil	Petroleum Products	Electricity
	(TMT)			(MMSCM)	(TMT)		(GWh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2013-14	739342	43897	783239	52375	222497	158407	874209
2014-15	822131	46954	869085	51300	223242	165520	948522
2015-16	836727	42211	878938	52517	232865	184674	1001191
2016-17	837220	43155	880375	55697	245362	194597	1061183
2017-18	898519	46317	944836	59170	251935	206166	1123427
2018-19	968253	45811	1014064	60798	257205	213216	1209972
2019-20 (P)	955270	43150	998420	64143	254386	214127	NA

Note: Consumption of Crude oil in terms of Crude oil processed NA: Not Available P: Provisional
Source : M/o Coal, M/o Power, CEA and Oil Companies.

IX.6: Availability of Various Energy Sources in India

Year	Coal	Lignite	Total Coal & Lignite	Natural Gas	Crude Oil	Petroleum Products	Electricity
	(TMT)			(MMSCM)	(TMT)		(GWh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2013-14	722568	44637	767205	52373	227027	169589	974436
2014-15	827516	49584	877100	51300	226896	178505	1054355
2015-16	847576	45475	893051	52517	239792	200840	1104228
2016-17	858576	47318	905894	55697	249941	214325	1163290
2017-18	896086	46977	943063	59170	256117	223033	1232505
2018-19	958250	42724	1000974	60798	260701	234614	1307685
2019-20 (P)	978320	42210	1020530	64143	259124	241046	N/A

Note: NA: Not Available P: Provisional

1. Availability of Coal & Lignite is equal to sum of Production (Coking + Non-coking), Change of Vendible Stock (closing stock-Opening stock) and net imports (Imports-Exports)
2. Availability of Natural Gas is equal to sum of net production of gas and imports of LNG
3. Availability of Crude oil is equal to sum of gross production and imports of crude oil.
4. Availability of Petroleum products is equal to sum of production of petroleum products and gas and net imports (Imports- Exports) of petroleum products.
5. Net Availability of Electricity is sum of Gross Electricity Generated from Utilities - Consumption in Power Station Auxiliaries + Purchases from Non-Utilities + Net Import from Other Countries

Source : M/o Coal, M/o Power, CEA and Oil Companies.



IX.7: Availability of Oil Gas and Petroleum Products (Product-wise)

Items		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crude Oil (in MMT)	Gross Production	37.79	37.46	36.94	36.01	35.68	34.20	32.17
	Imports	189.24	189.43	202.85	213.93	220.43	226.50	226.95
	Availability	227.03	226.90	239.79	249.94	256.12	260.70	259.12
Natural Gas (in BCM)	Production (Net)	34.57	32.69	31.12	30.85	31.73	32.05	30.26
	Imports	17.80	18.61	21.39	24.85	27.44	28.74	33.89
	Availability	52.37	51.30	52.51	55.70	59.17	60.79	64.14
Total Petroleum Products (in MMT)	Production	220.76	221.14	231.92	243.55	254.40	262.36	262.94
	Imports	16.70	21.30	29.46	36.29	35.46	33.35	43.79
	Export	67.86	63.93	60.54	65.51	66.83	61.10	65.69
	Availability	169.59	178.50	200.84	214.32	223.03	234.61	241.05
of which								
LPG	Production	10.03	9.84	10.57	11.33	12.38	12.79	12.82
	Imports	6.57	8.31	8.96	11.10	11.38	13.24	14.81
	Export	0.23	0.25	0.20	0.32	0.36	0.42	0.46
	Availability	16.37	17.90	19.33	22.11	23.40	25.60	27.17
Motor Spirit	Production	30.28	32.33	35.32	36.59	37.78	38.04	38.62
	Imports	0.24	0.37	1.01	0.48	0.17	0.67	2.15
	Export	15.25	16.05	16.82	15.42	14.04	12.88	12.71
	Availability	15.26	16.65	19.52	21.65	23.92	25.82	28.05
Naphtha	Production	18.51	17.39	17.86	19.95	20.01	19.79	20.68
	Imports	1.02	1.03	2.93	2.78	2.21	2.08	1.66
	Export	8.32	7.01	7.12	8.73	8.95	6.96	8.90
	Availability	11.20	11.42	13.68	14.00	13.27	14.90	13.44
Kerosene	Production	7.42	7.56	7.50	6.04	4.41	4.07	3.14
	Imports	0.00	0.03	0.04	0.00	0.00	0.00	0.00
	Export	0.02	0.02	0.01	0.02	0.02	0.02	0.18
	Availability	7.40	7.57	7.53	6.03	4.39	4.05	2.97
ATF	Production	11.22	11.10	11.79	13.83	14.59	15.48	15.24
	Imports	0.00	0.14	0.29	0.34	0.30	0.26	0.06
	Export	5.74	5.52	5.69	7.27	7.18	7.39	6.91
	Availability	5.48	5.72	6.39	6.90	7.71	8.35	8.40
Diesel (HSD+LDO)	Production	94.18	94.79	99.02	103.11	108.47	111.24	111.84
	Imports	0.08	0.12	0.18	1.01	1.36	0.56	2.80
	Export	26.50	25.57	24.04	27.45	29.74	27.93	31.65
	Availability	67.76	69.34	75.16	76.67	80.09	83.86	82.98
Fuel Oils	Production	13.41	11.92	9.73	9.96	9.49	10.03	8.61
	Imports	1.33	0.90	1.17	0.92	1.21	1.42	4.58
	Export	6.16	4.76	2.81	2.25	2.53	2.20	1.53
	Availability	8.58	8.06	8.09	8.64	8.17	9.26	11.67
Lube Oils	Production	0.94	0.95	1.04	1.03	1.04	0.95	0.93
	Imports	2.09	2.15	2.26	2.13	2.54	2.46	2.67
	Export	0.02	0.01	0.02	0.01	0.01	0.01	0.01
	Availability	3.01	3.08	3.28	3.15	3.56	3.40	3.60
Bitumen	Production	4.79	4.63	5.16	5.19	5.28	5.80	5.24
	Imports	0.25	0.52	0.88	0.95	0.95	0.88	1.63
	Export	0.09	0.09	0.10	0.04	0.06	0.02	0.03
	Availability	4.94	5.05	5.94	6.10	6.16	6.66	6.85
Petroleum Coke	Production	12.07	12.45	13.32	13.94	14.75	14.68	15.53
	Imports	3.57	6.16	10.04	14.42	12.78	7.93	10.67
	Export	1.70	0.61	0.84	0.67	0.56	1.12	0.47
	Availability	13.94	18.00	22.52	27.68	26.97	21.48	25.74
Others	Production	17.93	18.19	20.62	22.59	26.21	29.50	30.29
	Imports	1.56	1.56	1.69	2.17	2.56	3.87	2.75
	Export	3.84	4.04	2.91	3.34	3.39	2.14	2.85
	Availability	15.65	15.70	19.40	21.41	25.38	31.23	30.19

Note: Total may not tally due to rounding off. P: Provisional

Source: Oil Companies & Petroleum Planning & Analysis Cell.



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CHAPTER-X



CPSEs: Key Financial Indicators



CHAPTER HIGHLIGHTS

- Total budgeted Internal and Extra Budgetary Resources (IEBR) for CPSE's under the Ministry of Petroleum and Natural gas at ₹98522 crore in 2020-21, which is 5.2% higher than IEBR budgeted for the year 2019-20 (₹93639 crore).
- Actual expenditure of I&EBR during 2019-20 is ₹ 105603 crore i.e. 112.8% of BE ₹93639 crore for the FY 2019-20.
- Operating Expenditure (OPEX) for the FY 2019-20 is ₹112415 crore i.e. 95% of the total BE ₹118305 crore.
- Total dividend paid to the Central Government by the Oil & Gas CPSEs is ₹12270 crore for the year 2019-20. ONGC (₹4394 crore) followed by BPCL (₹2821 crore) and IOCL (₹2545 crore), are the top three contributor for the year 2019-20.
- The dividend paid (payment-basis) by Oil & gas CPSEs under the Ministry of Petroleum and Natural Gas, for the year 2019-20 (₹25685 crore) is 15.3% lower than the dividend paid in 2018-19 (₹30323 crore).

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X.1: Budget Outlay & Actual Expenditure of CPSEs

(Value in ₹ crore)

CPSEs	2015-16	2016-17	2017-18	2018-19	2019-20			2020-21
	Actual	Actual	Actual	Actual	BE	Actual	% Achievement	BE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CPSE-wise Internal & Extra Budget Resources (I&EBR)								
Oil & Natural Gas Co. Ltd. (ONGC)	30110	28006	72902	29450	32921	29538	89.73	32502
ONGC Vides Ltd. (OVL)	6470	17617	6798	5827	5161	5435	105.31	7235
Oil India Ltd. (OIL)	3622	11083	8154	3181	4105	4247	103.46	3877
Gail Authority India Ltd. (GAIL)	1880	1814	3680	7143	5339	4562	85.45	5412
Indian Oil Corporation Ltd. (IOCL)	11485	20737	21457	28208	25084	31421	125.26	26233
Hindustan Petroleum Corporation Ltd. (HPCL)	1430	5757	7210	12438	9500	16311	171.70	11500
Bharat Petroleum Corporation Limited (BPCL)	8287	16949	8998	10993	7900	11064	140.05	9000
Mangalore Refinery & Petrochemicals Ltd (MRPL)	1550	616	1281	1072	818	1318	161.11	1150
Chennai Petroleum Corporation Ltd. (CPCL)	1272	1269	1020	1314	1105	961	86.93	569
Numaligarh Refinery Ltd. (NRL)	70	503	420	465	455	562	123.53	949
Balmer Lawrie & Co. Ltd. (BLL)	45	74	83	132	40	46	115.78	35
Engineers India Ltd. (EIL)	*	*	*	87	1212	171	14.08	60
Total (I&EBR)	66223	104426	132004	100309	93639	105636	112.81	98522
Sector-wise Internal & Extra Budget Resources								
Exploration & Production Sector	-	72383	95455	49613	49057	44769	91.26	52018.50
Refining & Marketing Sector	-	30524	32794	46990	39391	56668	143.86	41653.58
Petro-Chemicals Sector	-	1446	3672	3487	3940	3949	100.22	4754.48
Engineering Sector	-	74	83	219	1252	217	17.33	95.00
Total (I&EBR)	-	104426	132004	100309	93639	105603	112.78	98522

Note: Above figures are printed in budget document.

- Grant from GoI for Jagdishpur Haldia Pipeline Project- ₹728 crore in BE 2020-21.
- HPCL IEBR of ₹11500 crore consists of standalone capex of ₹10300 crore and equity investment of ₹1200 in HPCL JVs/Subsidiaries.
- Includes BPCL's equity investments in JV / Subsidiaries including BPRL. Capex and investments of BPRL is being reported separately by BPRL.
- Due to typo error, in NRL during actual 2017-18 amount of ₹419.03 crore is printed as ₹419.93 crore owing to which Total actual 2017-18 has been inadvertently printed as ₹132003.88 crore instead if ₹132002.98 crore.
- OVL is 100% subsidiary of ONGC, CPCL is subsidiary of IOCL, MRPL & HPCL are subsidiaries of ONGC and NRL is Subsidiary of BPCL.

* For the purpose of reporting IEBR , EIL was introduced first time w.e.f 2018-19.

Source: Central Public Sector Enterprises



X.2: Operating Expenditure (OPEX)

(Value in ₹ crore)

CPSE	2015-16	2016-17	2017-18	2018-19	2019-20			2020-21
	Actual	Actual	Actual	Actual	BE	Actual	% Achievement	BE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ONGC	20300	21035	20886	23692	23211	24355	104.93	24342
OVL	7411	10922	15138	21562	23774	21006	88.36	20445
OIL	7462	7893	8431	10227	10699	10222	95.53	11552
GAIL	47916	42772	46164	65898	63731	63405	99.49	66961
IOCL	16654	26657	21823	24794	25469	21376	83.93	25749
HPCL	11833	12326	13194	14001	15143	14959	98.78	14514
BPCL	4286	4469	5769	6937	7505	6344	84.54	6772
MRPL	1142	1246	1450	1425	1874	1623	86.60	2077
CPCL	814	978	1058	1079	1180	1119	94.79	1102
NRL	648	522	689	684	791	753	95.27	841
BL	45	74	83	132	40	51	126.58	35
EIL	1339	1172	1399	2102	2573	2786	108.26	2625
Total	84677	90216	91628	117050	118305	112415	95.02	120677

Note: Operating expenses includes all revenue expenses (excluding Depreciation & Finance cost etc.)

Source: Central Public Sector Enterprises



X.3: Financial parameters of performance of CPSEs during 2019-20

Performance Parameters (1)	Unit (2)	ONGC (3)	OVL (4)	IOCL (5)	GAIL (6)	HPCL (7)	OIL (8)	BPCL (9)	CPCL (10)	MRPL (11)	NRL (12)	EIL (13)	Balmer Lawrie (14)
Cash and Bank Balance at year end	₹ crore	968	4,079	589	550	113	3577	116	4	28	378	2723	22
Revenue from Operations (Net)	₹ crore	96213	16957	486256	71871	268766	12129	284383	48650	51002	12081	3203	1530
Authorised Capital	₹ crore	15000	25000	15000	5000	2500	2000	2635	400	3000	1000	400	300
Paid up Capital	₹ crore	6290	15000	9414	4510	1524	1084	1967	149	1753	736	316	171
Govt. equity in the CPSE	%	60.41	-	51.50	51.76	-	56.66	52.98	-	-	-	51.50	-
Gross Turnover	₹ crore	96213	16957	573843	71730	286250	12129	326393	48624	60752	14073	3203	1612
Profit After Tax	₹ crore	13445	454	1313	6621	2637	2584	2683	(2,078)	(2,708)	1381	430	177
Debt equity ratio	Ratio	0.07	0.86	1.24	0.09	0.93	0.38	1.26	7.30	1.21	-	-	0.01
Reserves & Surpluses	₹ crore	188048	34881	84588	39443	27438	23302	31248	1043	6047	4569	2029	1149
Net worth	₹ crore	194338	49881	87851	41854	28962	23128	33214	1192	7800	5304	2345	1320
Dividend Payable (Accrual)	₹ crore	6290	300	3902	2886	1486	1149	3579	0	0	1103	325	128
Dividend as a %age of Equity	%	100.00	2.00	41.45	64.00	97.50	5.00	10.78	-	-	150.00	103.00	75.00
Dividend as a %age of PAT	%	46.78	66.08	297.13	43.60	56.34	44.48	133.40	-	-	79.88	75.64	72.39
EPS	₹	10.69	3.03	1.43	14.68	17.31	23.83	13.64	(139.52)	(15.45)	18.78	6.81	10.36
Payout Ratio	%	46.78	66.00	297.13	49.63	56.34	44.48	133.40	-	-	79.88	75.64	96.52
Long Term Borrowings	₹ crore	2245	37121	53059	3757	26875	8885	24154	2965	9460	0	0	12
Short Term Borrowings	₹ crore	11704	5876	63486	1800	16146	0	17721	5733	2436	74	0	2

Note:

BPCL: Paid Up share capital has been adjusted for shares issued to BPCL trust. Borrowings for 2019-20 is excluding lease obligation as per IND AS 116.

EIL: Cash & Bank Balance Includes Advances received from Clients, Amount held on behalf of Client, Income receive in advance, Unpaid Dividend.

CPCL: Revenue from Operations (Net) represents amount net of discounts

MRPL: Long terms borrowings includes other financial liabilities (₹ 1508.47 crore for the year 2019-20) also.

GAIL: Cash and Bank Balance at year end excludes Earmarked Balances. Long term borrowing includes Current maturities

OIL: Dividend has been calculated based on the opening networth

Balmer Lawrie: There is no direct holding by Govt. of India in Balmer Lawrie & Co. Ltd. Balmer Lawrie Investments Ltd., a Government Company holds 61.8% of shares in Balmer Lawrie. Central Govt. holds 59.67% in Balmer Lawrie Investments Ltd.

Source: Central Public Sector Enterprises



X.4: Dividend Paid (Payment-Basis) by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of CPSE	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corp. Ltd.	8341	7914	4919	9518	7764	9595	7234
Dividend to Central Government of India	5764	5456	3391	6544	5275	6290	4394
Dividend to other Stakeholder	2577	2458	1528	2974	2489	3305	2840
ONGC Videsh Ltd.	-	-	-	-	210	300	510
Dividend to other Stakeholder	0	0	0	0	210	300	510
Indian Oil Corp. Ltd.	1505	2112	2938	10804	9712	9910	4843
Dividend to Central Government of India	1188	1449	1721	6231	5535	5383	2545
Dividend to State Government	2	2	3	12	11	11	6
Dividend to other Stakeholder	316	661	1214	4561	4166	4516	2292
GAIL India Ltd.	1281	1129	698	1459	1750	1734	3286
Dividend to Central Government of India	735	633	391	804	942	920	1702
Dividend to other Stakeholder	546	496	306	655	809	814	1583
Hindustan Petroleum Corp. Ltd.	288	525	1456	3478	2321	1371	1432
Dividend to Central Government of India	147	268	744	1778	57	0	0
Dividend to other Stakeholder	141	257	712	1700	2264	1371	1432
Oil India Ltd.	1683	631	1082	1242	1419	1078	1166
Dividend to Central Government of India	1147	427	732	835	938	685	666
Dividend to other Stakeholder	536	204	350	408	480	393	500
Bharat Petroleum Corp. Ltd.	795	1229	2784	5640	3182	3905	5315
Dividend to Central Government of India	437	675	1529	3098	1729	2091	2821
Dividend to State Government	7	11	24	49	27	34	46
Dividend to other Stakeholder	352	543	1231	2493	1425	1780	2448
Chennai Petroleum Corp. Ltd.	0	0	0	60	313	275	0
Dividend to other Stakeholder	0	0	0	60	313	275	0
Mangalore Refinery & Petrochemicals Ltd.	0	0	0	0	1052	526	175
Dividend to other Stakeholder	0	0	0	0	1052	526	175
Numaligarh Refinery Ltd.	74	118	552	993	1810	1214	1324
Dividend to State Government	9	15	68	123	223	150	163
Dividend to other Stakeholder	64	103	484	870	1586	1064	1161
Engineers India Ltd.	219	202	135	236	190	300	275
Dividend to Central Government of India	163	140	87	136	99	156	142
Dividend to other Stakeholder	56	62	48	100	90	144	133
Balmer Lawrie Ltd.	50	51	51	57	80	114	125
Dividend to other Stakeholder	50	51	51	57	80	114	125
Total Dividend Paid	14237	13912	14614	33487	29801	30323	25685
Dividend to Central Government of India	9581	9049	8595	19425	14576	15525	12270
Dividend to State Government	18	27	95	183	262	195	215
Dividend to other Stakeholder	4638	4836	5924	13878	14964	14603	13200
Tax on Dividend	2406	2605	2891	6682	5369	5781	4683
Total Dividend Paid incl. Dividend on Tax	16643	16517	17505	40169	35170	36103	30369

Note: Total may not tally due to round-off

1. OVL is 100% subsidiary of ONGC, CPCL is subsidiary of IOCL, MRPL & HPCL are subsidiaries of ONGC and NRL is Subsidiary of BPCL.

2. Dividend paid excludes Dividend Distribution Tax.

Source: Central Public Sector Enterprises

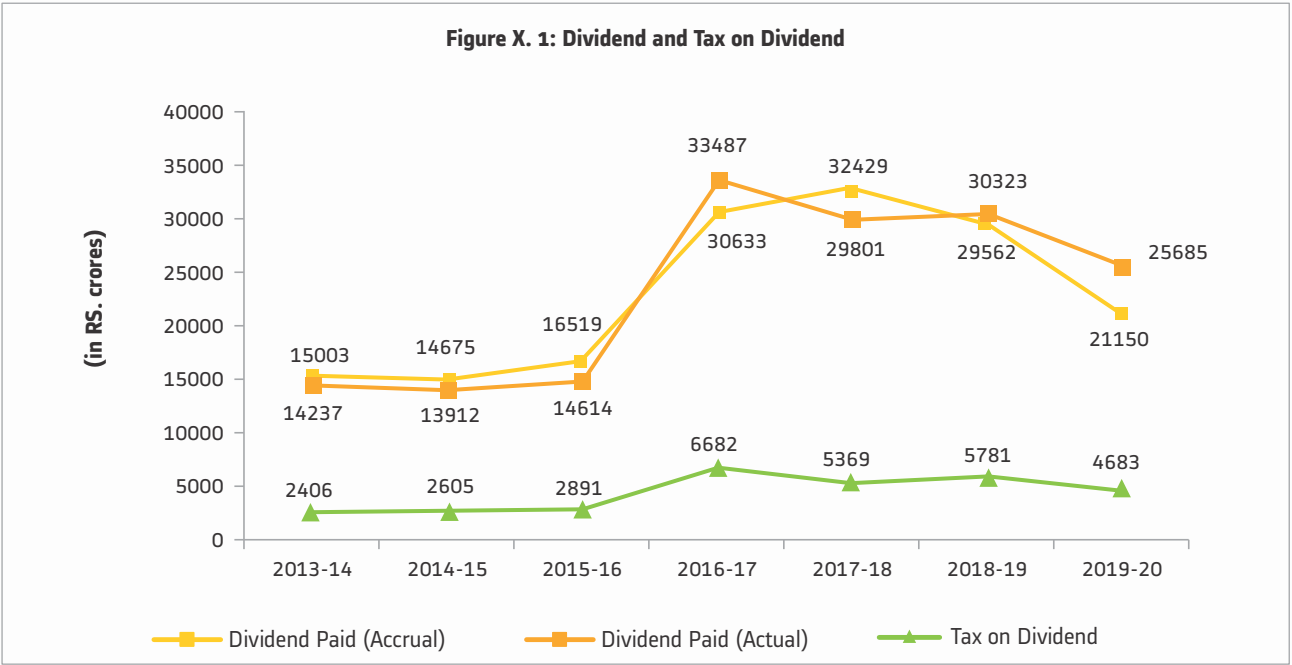


X.5 Dividend Payable (Accrual-Basis) by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of Company	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corp. Ltd.	8128	8128	7272	7764	8470	8806	6290
ONGC Videsh Ltd.	-	-	-	210	300	510	300
Indian Oil Corp. Ltd.	2112	1602	3399	9226	11169	8909	3902
GAIL India Ltd.	1319	761	698	1535	1619	1809	2886
Hindustan Petroleum Corp. Ltd.	525	830	1168	3048	2590	2423	1486
Oil India Ltd.	1292	1202	962	1121	1173	1155	1149
Bharat Petroleum Corp. Ltd.	1229	1627	2242	4700	4555	4122	3579
Chennai Petroleum Corp. Ltd.	0	0	60	313	275	0	0
Mangalore Refinery & Petrochemicals Ltd.	0	0	0	1052	526	175	0
Numaligarh Refinery Ltd.	118	294	515	1368	1361	1251	1103
Engineers India Ltd.	219	168	135	200	253	253	325
Balmer Lawrie Ltd.	60	62	69	97	138	151	128
Total	15003	14675	16519	30633	32429	29562	21150

Source: Central Public Sector Enterprises



X.6: Profit Earned After Tax by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of CPSEs	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corporation Ltd.	22095	17733	16004	17900	19945	26716	13445
ONGC (Videsh) Ltd.	4445	1904	-3633	757	981	1682	454
Indian Oil Corporation Ltd.	7019	5273	11242	19106	21346	16894	1313
GAIL (India) Ltd.	4375	3039	2226	3503	4618	6026	6621
Hindustan Petroleum Corporation Ltd.	1734	2733	3726	6209	6357	6029	2637
Oil India Ltd.	2981	2510	2302	1549	2668	2590	2584
Bharat Petroleum Corporation Ltd.	4061	5085	7432	8039	7919	7132	2683
Chennai Petroleum Corporation Ltd.	-304	-39	742	1030	913	-213	-2078
Mangalore Refinery & Petrochemicals Ltd.	601	-1712	1148	3644	2224	332	-2708
Numaligarh Refineries Ltd.	371	718	1210	2101	2045	1968	1381
Engineers India Ltd.	480	308	276	325	378	370	430
Balmer Lawrie Ltd.	157	147	164	170	185	189	177
Total	48001	37686	42823	64320	69562	69714	26941

Source: Central Public Sector Enterprises

X.7: Tax on Dividend Paid by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of CPSEs	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corporation Ltd.	1397	1576	1000	1935	1152	1684	1201
ONGC (Videsh) Ltd.	-	-	-	43	62	105	-
Indian Oil Corporation Ltd.	256	359	586	2177	1921	1985	986
GAIL (India) Ltd.	224	154	142	295	353	356	675
Hindustan Petroleum Corporation Ltd.	49	89	296	708	473	282	294
Oil India Ltd.	287	125	220	253	289	222	240
Bharat Petroleum Corporation Ltd.	127	197	497	998	420	648	923
Chennai Petroleum Corporation Ltd.	-	-	-	12	64	57	-
Mangalore Refinery & Petrochemicals Ltd.	-	-	-	-	214	108	36
Numaligarh Refineries Ltd.	20	60	112	202	368	249	272
Engineers India Ltd.	37	37	27	47	37	60	55
Balmer Lawrie Ltd.	9	9	11	12	17	24	-
Total	2406	2605	2891	6682	5369	5781	4683

Source: Central Public Sector Enterprises



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CHAPTER-XI



International Petroleum Statistics



CHAPTER HIGHLIGHTS

- As per 2019, World's Proven Crude Oil reserves accounted for 1733.86 Thousand million barrels. Middle East with reserves of 833.8 Thousand Million Barrels contributed for the highest share (48%), followed by Central & South America (19%). Noticeably, Asia Pacific region constituted a share of mere 3% of the total basket.
- As per 2019, World's Proven Natural gas reserves accounted for 198.8 Trillion cubic meters. Considering all regions, Middle East with reserves of 75.6 Trillion cubic meters stood with the highest share (38%).
- As per 2019, World Production of Crude Oil accounted for 95192 Thousand barrels daily (b/d), which is marginally lower by 0.1% than the Crude Oil production in 2018 (95254 Thousand b/d). Also, United States is the one with the highest share in crude oil production with 17045 thousand b/d (18%) of total World oil production, followed by Saudi Arabia (12%) and Russia (12%).
- As per 2019, World Natural gas production accounted for 3989.34 BCM as compared to 3857.5 BCM in 2018, thus, registering a growth of 0.4%. Also, United States is leading with the highest share in natural gas production with 920.9 BCM i.e. 23% of total World gas production, followed by Russia (17%) and Iran (6%).
- In 2019, World Consumption of Crude Oil accounted for 98272 thousand b/d which is 0.9% higher than Crude Oil consumption in 2018 (97348 thousand b/d). Also, United States is the one with highest share in crude oil consumption with 19400 thousand b/d i.e. 19.7% of total World oil consumption, followed by China (14056 thousand b/d) and India (5271 thousand b/d).
- As per 2019, World Natural Gas Consumption accounted for 3929 BCM as compared to 3852 BCM in 2018, thus, registering a growth of 2%. Also, United States is leading in natural gas consumption with share of 21.5% (846.6 BCM) of total World Natural Gas Consumption followed by Russia (11.3%, 444.3 BCM) and China (7.8%, 307.3 BCM).
- As per 2019, World Oil Refining capacity accounted for 101340 thousand b/d, thus, registering a growth of over 1.5% vis-à-vis 2018 (99814 thousand b/d). Also, India with refining capacity of 5008 thousand b/d constituted for 5% in total World refining capacity.
- As per 2019, share by OPEC Countries in World crude oil import is 48.4%. Among all countries, China is the one with the highest share of 21.9% (10180 thousand b/d) followed by United States (14.6%, 6792 thousand b/d) and India (9.7%, 4505 thousand b/d).
- As per 2019, OPEC Countries accounted for 22478 thousand b/d contributing 50% in World crude oil export (45182 thousand b/d). Among all countries, Saudi Arabia is leading with 15.6% (7038 thousand b/d) followed by Russia (11.6%, 5253 thousand b/d) and Iraq (8.8%, 3968 thousand b/d).
- As per 2019, Russia is the highest exporter of Natural Gas with share of 19.8% in total World export of Natural Gas. China is leading among all Countries considering import of Natural Gas with 10.7% of total World Natural Gas Imports.
- As per 2019, the World primary energy consumption has increased by 8.4% since 2013. China is contributing with the highest share of 24.3% (141.70 Exajoules) in Global Primary energy consumption among all countries. Also, India with the consumption of 34.06 Exajoules (5.8%) stood as the third largest consumer of Primary Energy.



XI.1: World Energy Outlook-2019

Total Primary Energy Consumption (MMToE)		Refining Capacity (Thousand barrels daily)	
World	13807.3	World	101340.2
India (Rank 3)	806.1	India (Rank 4)	5007.8
Top Five Countries		Top Five Countries	
China	3363.3	USA	18974.0
USA	2234.3	China	16199.2
India	806.1	Russian Federation	6721.0
Russian Federation	707.0	India	5007.8
Japan	440.7	South Korea	3393.4
Production - Oil (Thousand barrels daily)		Consumption- Oil (Thousand barrels daily)	
World	95192.5	World	98272.5
India (Rank 23)	826.4	India (Rank 3)	5270.7
Top Five Countries			
USA	17044.6	USA	19400.0
Saudi Arabia	11832.3	China	14055.5
Russian Federation	11539.6	India	5270.7
Canada	5650.8	Japan	3812.0
Iraq	4779.5	Saudi Arabia	3787.6
Production - Natural Gas (BCM)		Consumption- Natural Gas (BCM)	
World	3989.3	World	3929.2
India (Rank 27)	26.9	India (Rank 13)	59.7
Top Five Countries			
USA	920.9	USA	846.6
Russian Federation	679.0	Russian Federation	444.3
Iran	244.2	China	307.3
Qatar	178.1	Iran	223.6
China	177.6	Canada	120.3
Crude Oil Imports (Thousand barrels daily)		Crude Oil Exports (Thousand barrels daily)	
World	46409.3	World	45181.8
India (Rank 3)	4505.3	India	0.0
Top Five Countries			
China	10180.4	Saudi Arabia	7038.1
United States of America	6791.8	Russia	5253.0
India	4505.3	Iraq	3968.2
Japan	3022.7	Canada	3261.4
SouthKorea	2929.0	United States of America	2978.3
Petroleum Product Imports (Thousand barrels daily)		Petroleum Product Exports (Thousand barrels daily)	
World	28836.9	World	30133.8
India (Rank 6)	968.6	India (Rank 7)	1359.8
Top Five Countries			
United States of America	2299.8	United States of America	5589.3
Singapore	2243.8	Russia	2555.9
Netherlands	1800.1	Netherlands	2234.2
China	1389.4	Singapore	1621.8
Mexico	1078.4	China	1462.9
Natural Gas Imports (BCM)		Natural Gas Exports (BCM)	
World	1212.8	World	1316.6
India (Rank 13)	30.2	India	0.0
Top Five Countries			
China	130.2	Russia	260.9
Germany	123.5	Qatar	143.0
Japan	111.3	United States of America	131.9
United States of America	77.6	Norway	111.3
Italy	70.9	Australia	100.3

Note: Detail country-wise XI.5, XI.6, XI.8 to XI.10 XI.12 to XI.17 & XI.23.

Source: BP Statistical Review of World Energy, June 2020 and OPEC Annual Statistical Bulletins, 2020



XI.2: International Petroleum Statistics

Item/Year	Unit	2013	2014	2015	2016	2017	2018	2019 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. World reserves of oil & gas at year end								
(i) Crude Oil	Thousand	1693	1695	1682	1690	1728	1736	1734
of which OPEC	Million Barrels	1181	1181	1183	1189	1215	1215	1215
(ii) Natural Gas	TCM	189	190	188	191	196	197	199
2. World production of oil & gas								
(i) Crude Oil	Thousand	86794	88910	91733	92072	92798	95254	95192
of which OPEC	barrels daily	35300	35262	36677	37799	37769	37563	35566
(ii) Natural Gas	BCM	3358	3426	3501	3540	3673	3858	3989
3. World Oil Refinery								
(i) Refinery capacity	Thousand	95831	96980	97416	97937	98416	99814	101340
(ii) Crude throughput	barrels daily	77021	77910	79969	80419	82040	82961	82989
(iii) Output of Pet. Products		86535	87619	89167	90114	89148	89963	90367
4. World Oil & Gas Consumption								
(i) Crude Oil	Thousand	90152	90903	92610	94404	96013	97348	98272
(ii) Natural Gas	BCM	3377	3399	3478	3559	3659	3852	3929
5. World Imports								
(i) Crude Oil	Thousand	41636	41238	42821	44673	46413	46784	46409
(ii) Petroleum Products	barrels daily	24496	24925	26751	27802	28948	29347	28837
(iii) Natural Gas	BCM	1062	1003	1025	1079	1166	1212	1213
6. World Export								
(i) Crude Oil	Thousand	40470	40202	41510	44192	44662	45900	45182
(ii) Petroleum Products	barrels daily	26450	26794	28309	29919	30660	31188	30134
(iii) Natural Gas	BCM	1047	1029	1056	1116	1216	1271	1317
7. World Primary Energy Consumption								
(i) Oil	MTOE	4221	4255	4341	4557	4607	4442	4479
(ii) Natural Gas		3054	3073	3147	3073	3142	3309	3376
(iii) Coal		3887	3889	3785	3706	3718	3790	3767
(iv) Hydro-Electric		859	879	883	913	920	891	899
(v) Nuclear Energy		564	575	583	591	597	577	595
(vi) Renewables		281	317	367	417	490	616	692
Total		12866	12989	13105	13259	13475	13625	13807

Source : BP Statistical Review of World Energy June-2020 and OPEC Annual Statistical Bulletin, 2020



XI.3: World Proven Oil Reserves (Country-wise)

(Figures in Thousand million barrels)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Venezuela	298.35	299.95	300.88	302.25	302.81	303.81	303.81	17.5
2	Saudi Arabia	265.79	266.58	266.46	266.21	295.96	297.67	297.58	17.2
3	Canada	173.04	172.16	171.51	170.53	172.65	170.77	169.69	9.8
4	Iran	157.80	157.53	158.40	157.20	155.60	155.60	155.60	9.0
5	Iraq	144.21	143.07	142.50	148.77	147.22	145.02	145.02	8.4
6	Russian Federation	105.02	103.16	102.38	106.17	106.30	107.21	107.21	6.2
7	Kuwait	101.50	101.50	101.50	101.50	101.50	101.50	101.50	5.9
8	UAE	97.80	97.80	97.80	97.80	97.80	97.80	97.80	5.6
9	USA	48.46	54.96	47.99	49.97	61.23	68.89	68.89	4.0
10	Libya	48.36	48.36	48.36	48.36	48.36	48.36	48.36	2.8
11	Nigeria	37.07	37.45	37.06	37.45	37.45	36.97	36.97	2.1
12	Kazakhstan	30.00	30.00	30.00	30.00	30.00	30.00	30.00	1.7
13	China	24.68	25.17	25.63	25.66	25.95	26.19	26.19	1.5
14	Qatar	25.06	25.71	25.24	25.24	25.24	25.24	25.24	1.5
15	Brazil	15.59	16.18	13.00	12.63	12.79	13.44	12.71	0.7
16	Algeria	12.20	12.20	12.20	12.20	12.20	12.20	12.20	0.7
17	Norway	7.05	6.54	8.01	7.60	7.92	8.64	8.52	0.5
18	Angola	9.01	8.42	9.52	9.52	8.38	8.16	8.16	0.5
19	Azerbaijan	7.00	7.00	7.00	7.00	7.00	7.00	7.00	0.4
20	Mexico	11.08	10.82	7.98	7.22	6.43	5.80	5.80	0.3
21	Oman	4.97	5.15	5.31	5.37	5.37	5.37	5.37	0.3
22	India	5.71	5.74	4.79	4.68	4.55	4.48	4.66	0.3
23	Vietnam	4.40	4.40	4.40	4.40	4.40	4.40	4.40	0.3
24	South Sudan	3.50	3.50	3.50	3.50	3.50	3.50	3.50	0.2
25	Egypt	3.90	3.68	3.47	3.38	3.33	3.08	3.08	0.2
26	Yemen	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.2
27	Republic of Congo	2.67	2.87	2.98	2.98	2.98	2.98	2.98	0.2
28	Malaysia	3.80	3.60	3.02	2.84	2.84	2.84	2.84	0.2
29	United Kingdom	3.03	2.81	2.54	2.31	2.50	2.70	2.70	0.2
30	Syria	2.50	2.50	2.50	2.50	2.50	2.50	2.50	0.1
	Rest of World	36.39	33.65	33.28	31.53	30.49	30.81	30.57	1.8
	Total World	1692.96	1695.46	1682.20	1689.78	1728.25	1735.92	1733.86	100.0
of which:	OECD	249.2	252.2	242.7	242.2	255.3	261.3	260.1	15.0
	Non-OECD	1443.8	1443.3	1439.5	1447.6	1473.0	1474.6	1473.7	85.0
	OPEC	1180.5	1180.6	1182.6	1189.0	1215.0	1214.8	1214.7	70.1
	Non-OPEC	512.4	514.9	499.6	500.7	513.2	521.1	519.2	29.9
	European Union	5.8	5.6	5.1	4.7	4.9	5.1	5.0	0.3

Notes:

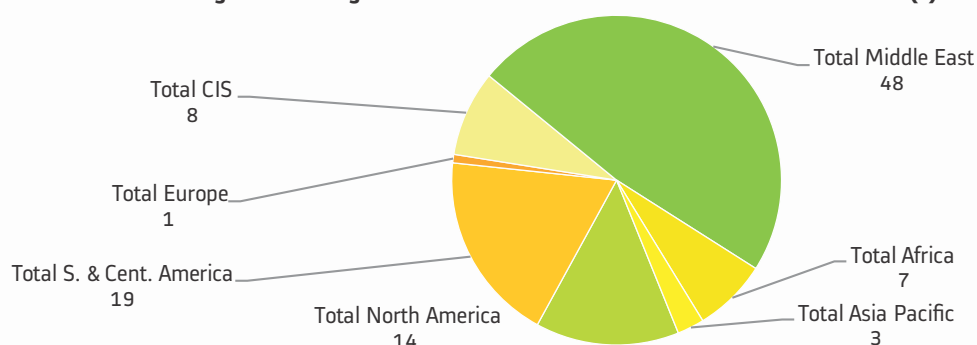
P: Provisional

1. Total may not add up due to rounding off.

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

Source: BP Statistical Review of World Energy, June 2020.

Figures XI.1: Region-wise Distribution of Proven Crude Oil reserves -2019 (%)

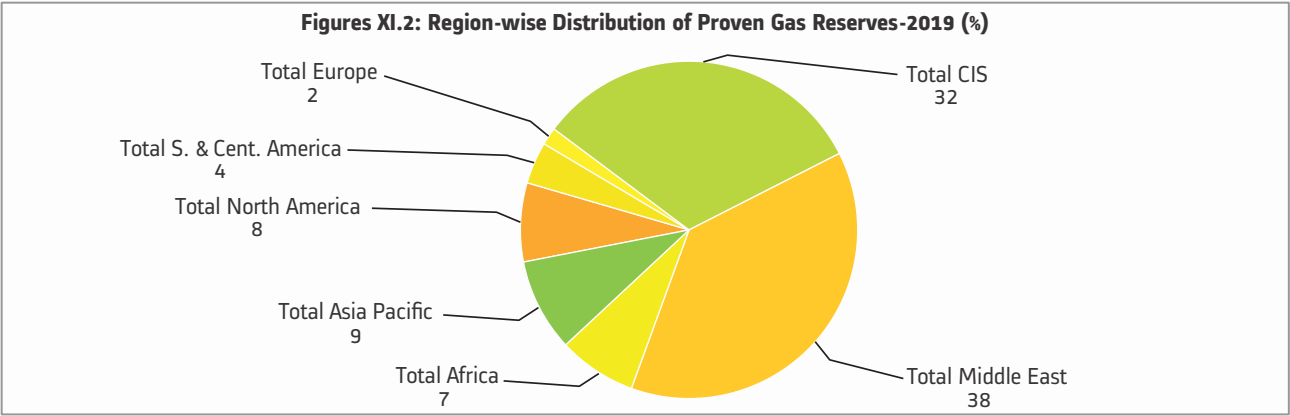


XI.4: World Proven Gas Reserves (Country-wise)

(Figures in Trillion cubic metres)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Russian Federation	34.94	35.05	34.96	34.83	38.29	38.04	37.96	19.1
2	Iran	32.13	32.13	31.64	31.85	31.93	32.02	32.02	16.1
3	Qatar	25.54	25.39	25.15	24.92	24.70	24.68	24.68	12.4
4	Turkmenistan	19.49	19.49	19.49	19.49	19.49	19.49	19.49	9.8
5	USA	9.17	10.00	8.34	8.74	11.89	12.87	12.87	6.5
6	China	3.37	3.58	4.68	5.48	6.07	6.36	8.40	4.2
7	Venezuela	6.19	6.24	6.33	6.37	6.34	6.30	6.30	3.2
8	Saudi Arabia	7.76	7.91	8.01	8.04	5.65	5.89	5.98	3.0
9	United Arab Emirates	5.94	5.94	5.94	5.94	5.94	5.94	5.94	3.0
10	Nigeria	4.85	5.06	5.02	5.20	5.35	5.39	5.39	2.7
11	Algeria	4.34	4.34	4.34	4.34	4.34	4.34	4.34	2.2
12	Iraq	3.00	3.00	3.00	3.63	3.56	3.54	3.54	1.8
13	Azerbaijan	1.01	1.34	1.32	1.32	1.32	2.13	2.85	1.4
14	Kazakhstan	2.01	2.01	2.01	2.65	2.65	2.65	2.65	1.3
15	Australia	2.82	2.39	2.39	2.39	2.39	2.39	2.39	1.2
16	Egypt	1.78	2.10	2.01	2.14	2.14	2.14	2.14	1.1
17	Canada	1.93	1.89	2.07	2.00	1.98	1.91	1.98	1.0
18	Kuwait	1.69	1.69	1.69	1.69	1.69	1.69	1.69	0.9
19	Other Africa	1.27	1.29	1.24	1.36	1.34	1.37	1.63	0.8
20	Norway	2.03	1.91	1.84	1.75	1.72	1.61	1.53	0.8
21	Libya	1.43	1.43	1.43	1.43	1.43	1.43	1.43	0.7
22	Indonesia	2.92	2.88	2.82	2.91	2.88	2.76	1.43	0.7
23	India	1.30	1.37	1.20	1.18	1.24	1.29	1.33	0.7
24	Uzbekistan	1.21	1.21	1.21	1.21	1.21	1.21	1.21	0.6
25	Myanmar	0.52	0.52	0.52	1.17	1.17	1.17	1.17	0.6
26	Ukraine	1.14	1.14	1.07	1.05	1.03	1.09	1.09	0.5
27	Malaysia	1.02	1.11	1.00	0.95	0.95	0.95	0.95	0.5
28	Oman	0.66	0.65	0.66	0.66	0.66	0.67	0.67	0.3
29	Vietnam	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.3
30	Israel	0.19	0.18	0.17	0.17	0.46	0.41	0.46	0.2
	Rest of World	6.34	6.02	5.71	5.54	5.36	4.70	4.60	2.3
Total World		188.65	189.88	187.91	191.02	195.79	197.08	198.76	100.0
of which: OECD		17.95	18.00	16.35	16.40	19.76	20.06	20.09	10.1
Non-OECD		170.70	171.88	171.56	174.62	176.03	177.02	178.66	89.9
European Union		1.45	1.31	1.30	1.18	1.15	0.69	0.68	0.3

Notes: 1. Total may not add up due to rounding off. P: Provisional
2.Total proved reserves of natural gas - 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 natural gas 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. Source: BP Statistical Review of World Energy, June 2020.



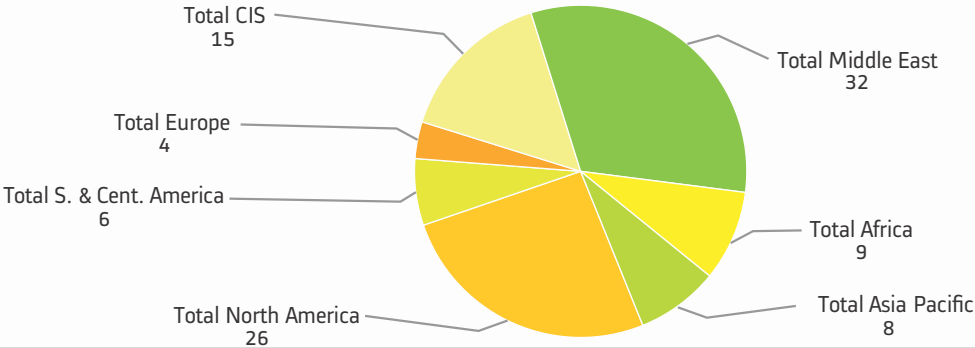
XI.5: World Crude Oil Production (Country-wise)

(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	USA	10099	11801	12781	12349	13135	15360	17045	17.9
2	Saudi Arabia	11393	11519	11998	12406	11892	12261	11832	12.4
3	Russian Federation	10807	10860	11007	11269	11255	11438	11540	12.1
4	Canada	4128	4418	4572	4655	5037	5501	5651	5.9
5	Iraq	3103	3239	3986	4423	4538	4632	4779	5.0
6	United Arab Emirates	3566	3603	3898	4038	3910	3912	3998	4.2
7	China	4216	4246	4309	3999	3846	3798	3836	4.0
8	Iran	3609	3714	3853	4578	5007	4801	3535	3.7
9	Kuwait	3134	3106	3069	3150	3009	3050	2996	3.1
10	Brazil	2096	2341	2525	2591	2721	2679	2877	3.0
11	Nigeria	2279	2276	2201	1900	1969	2007	2109	2.2
12	Kazakhstan	1737	1710	1695	1655	1838	1927	1931	2.0
13	Mexico	2875	2784	2587	2456	2224	2068	1918	2.0
14	Qatar	1991	1975	1933	1938	1882	1900	1883	2.0
15	Norway	1832	1881	1940	1991	1965	1845	1731	1.8
16	Algeria	1485	1589	1558	1577	1540	1511	1486	1.6
17	Angola	1738	1701	1796	1745	1671	1519	1417	1.5
18	Libya	1048	518	437	412	929	1165	1227	1.3
19	United Kingdom	865	854	964	1015	1005	1092	1118	1.2
20	Oman	942	943	981	1004	971	978	971	1.0
21	Venezuela	2680	2692	2631	2347	2096	1475	918	1.0
22	Colombia	1010	990	1006	886	854	865	886	0.9
23	India	926	905	893	874	885	869	826	0.9
24	Indonesia	883	847	838	876	838	808	781	0.8
25	Azerbaijan	888	861	851	838	793	796	779	0.8
26	Egypt	710	714	726	691	660	699	686	0.7
27	Malaysia	627	649	696	726	718	707	651	0.7
28	Argentina	644	638	646	610	590	591	620	0.7
29	Ecuador	527	557	543	548	531	517	531	0.6
30	Australia	407	436	384	361	348	356	490	0.5
	Rest of World	4550	4543	4430	4166	4140	4126	4145	4.4
Total World		86794	88910	91733	92072	92798	95254	95192	100.0
of which: OECD		20780	22749	23781	23310	24193	26682	28381	29.8
Non-OECD		66014	66161	67951	68762	68604	68572	66811	70.2
OPEC		35300	35262	36677	37799	37769	37563	35566	37.4
Non-OPEC		51494	53648	55056	54273	55029	57691	59626	62.6
European Union		1425	1406	1499	1485	1470	1540	1531	1.6

Notes: 1. Total may not add up due to rounding off. P: Provisional
2. Production includes crude oil, shale oil, oil sands, condensates (both lease condensate and gas plant condensate) and NGLs (natural gas liquids - ethane, LPG and naptha separated from the production of natural gas).
Source: BP Statistical Review of World Energy, June 2020.

Figures XI.3: Region-wise Distribution of Crude Oil Production-2019 (%)



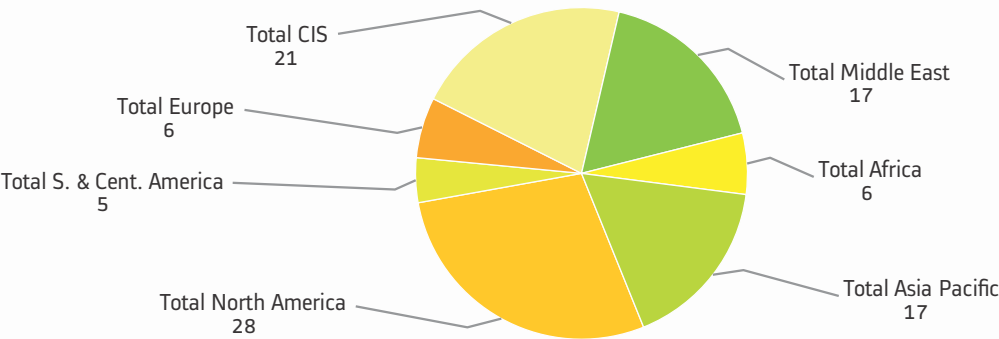
XI.6: World Natural Gas Production (Country-wise)

(Figures in Billion cubic metres)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	USA	655.69	704.73	740.30	727.36	746.17	835.87	920.88	23.1
2	Russian Federation	614.50	591.16	584.44	589.28	635.56	669.11	679.04	17.0
3	Iran	157.53	175.45	183.55	199.34	219.53	238.33	244.16	6.1
4	Qatar	168.16	169.53	174.91	173.61	168.62	176.49	178.13	4.5
5	China	121.81	131.18	135.67	137.94	149.19	161.53	177.56	4.5
6	Canada	151.92	158.99	160.76	171.80	175.60	179.03	173.10	4.3
7	Australia	61.80	66.64	76.04	96.42	112.82	130.10	153.46	3.8
8	Norway	107.93	108.01	116.24	115.89	123.22	121.29	114.39	2.9
9	Saudi Arabia	95.03	97.26	99.23	105.32	109.25	112.10	113.64	2.8
10	Algeria	79.34	80.17	81.41	91.39	92.98	93.84	86.24	2.2
11	Malaysia	72.59	72.17	76.85	76.70	78.47	77.26	78.81	2.0
12	Indonesia	77.62	76.40	76.16	75.08	72.70	72.80	67.54	1.7
13	Egypt	53.96	46.96	42.59	40.25	48.81	58.56	64.94	1.6
14	Turkmenistan	58.96	63.50	65.87	63.22	58.68	61.52	63.16	1.6
15	United Arab Emirates	53.24	52.89	58.68	60.32	62.36	61.38	62.53	1.6
16	Uzbekistan	55.90	56.30	53.61	53.12	53.40	57.16	56.27	1.4
17	Nigeria	33.10	39.98	47.57	42.64	47.21	48.27	49.28	1.2
18	Argentina	34.56	34.49	35.49	37.28	37.15	39.43	41.62	1.0
19	United Kingdom	36.98	37.43	40.66	41.74	41.88	40.52	39.63	1.0
20	Oman	30.79	29.35	30.75	31.48	32.32	36.03	36.34	0.9
21	Thailand	38.93	39.09	37.48	37.27	35.95	34.73	35.77	0.9
22	Trinidad & Tobago	38.75	38.07	35.96	31.28	31.87	33.96	34.56	0.9
23	Mexico	52.49	51.30	47.95	43.65	38.27	35.19	33.99	0.9
24	Pakistan	35.59	34.99	35.05	34.68	34.65	34.20	33.87	0.8
25	Bangladesh	21.95	23.02	25.85	26.45	26.59	26.58	28.71	0.7
26	Netherlands	72.41	60.39	45.87	44.29	38.53	32.30	28.09	0.7
27	India	31.06	29.36	28.14	26.58	27.69	27.49	26.91	0.7
28	Venezuela	30.59	31.79	36.07	37.24	38.61	31.62	26.46	0.7
29	Brazil	21.95	23.35	23.80	24.12	27.18	25.16	25.82	0.6
30	Azerbaijan	17.45	18.38	18.78	18.28	17.76	19.05	24.32	0.6
	Rest of World	275.29	283.59	284.93	286.34	289.50	286.62	290.12	7.3
	Total World	3357.85	3425.91	3500.64	3540.36	3672.52	3857.50	3989.34	100.0
	of which: OECD	1184.8	1232.0	1271.5	1286.9	1323.3	1419.3	1506.2	37.8
	Non-OECD	2173.1	2193.9	2229.2	2253.4	2349.2	2438.3	2483.2	62.2
	European Union	150.9	137.4	124.9	124.1	119.3	109.3	101.0	2.5

Notes: 1. Total may not add up due to rounding off. P: Provisional
2. Excludes gas flared or recycled. Includes natural gas produced for Gas-to-Liquids transformation.
Source: BP Statistical Review of World Energy, June 2020.

Figures XI.4: Region-wise Distribution of Natural Gas Production-2019 (%)



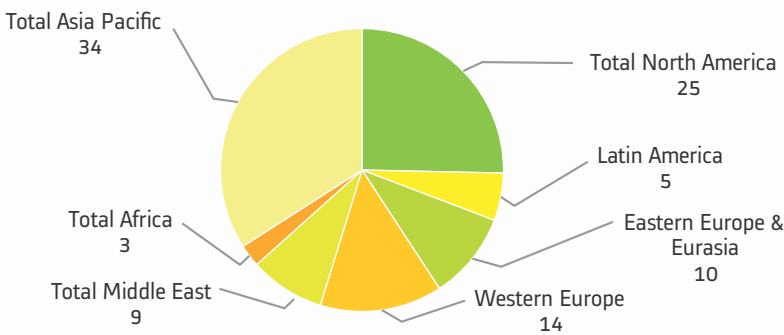
XI.7: World Output of Petroleum Products (Country-wise)

(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	United States	19106	19654	19886	20079	20298	20685	20437	22.6
2	China	10248	10795	10175	10449	11059	11608	12501	13.8
3	Russia	6536	6636	5954	5976	6147	6264	6257	6.9
4	India	4515	4798	4888	5236	5268	5371	5545	6.1
5	South Korea	2695	2767	3006	3111	3299	3386	3394	3.8
6	Japan	3669	3518	3509	3517	3450	3272	3236	3.6
7	Saudi Arabia	1842	2104	2204	2511	2630	2817	2586	2.9
8	Canada	2071	2052	2021	2033	2160	2054	2466	2.7
9	Germany	2139	2115	2164	2185	2145	2053	2067	2.3
10	Iran	1918	1812	1664	1618	1680	1691	1705	1.9
11	Brazil	2179	2211	2063	1912	1787	1764	1637	1.8
12	Italy	1495	1408	1567	1557	1597	1539	1513	1.7
13	Spain	1239	1244	1336	1327	1345	1384	1343	1.5
14	Netherlands	1186	1214	1278	1280	1282	1305	1329	1.5
15	United Kingdom	1411	1333	1341	1314	1285	1289	1301	1.4
16	Singapore	1044	1032	1268	1297	1322	1242	1236	1.4
17	France	1261	1264	1271	1273	1303	1226	1114	1.2
18	United Arab Emirates	653	626	940	1089	1043	1027	1005	1.1
19	Indonesia	890	939	863	889	908	1008	970	1.1
20	Kuwait	992	918	874	857	883	891	886	1.0
21	Venezuela	1245	1163	1254	1050	976	804	743	0.8
22	Belgium	666	735	729	701	730	702	738	0.8
23	Algeria	506	655	940	621	609	621	660	0.7
24	Mexico	1517	1464	1221	1080	869	712	656	0.7
25	Iraq	601	523	419	449	537	592	632	0.7
26	Poland	518	516	566	556	552	589	617	0.7
27	Argentina	682	682	549	532	517	511	521	0.6
28	Egypt	487	511	512	487	491	519	509	0.6
29	Australia	628	604	465	469	459	515	503	0.6
30	South Africa	436	476	491	461	472	481	450	0.5
	Rest of World	12160	11850	13749	14198	12045	12041	11810	13.1
	Total World	86535	87619	89167	90114	89148	89963	90367	100.0
	of which: OECD	-	-	44683	44657	45343	45406	45373	50.2
	OPEC	-	-	8115	8394	8571	8631	8368	9.3

Notes: Data may include products from GTL and condensate units. P: Provisional
Source : OPEC Annual Statistical Bulletins 2020

Figures XI.5: Region-wise Distribution of Output of Petroleum Products 2019 (%)



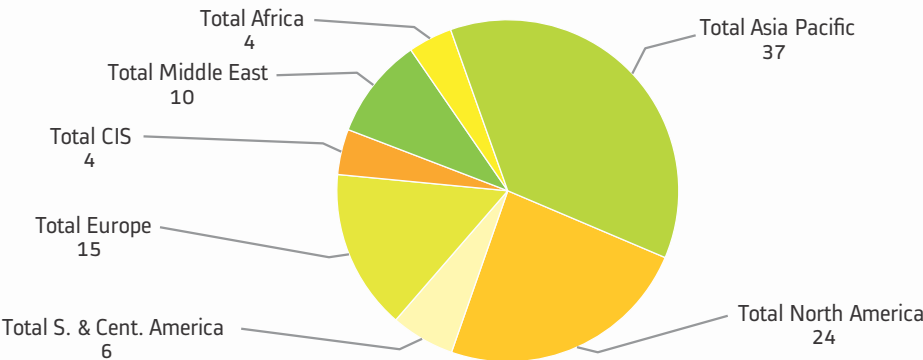
XI.8: World Crude Oil Consumption (Country-wise)

(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	USA	18006	18136	18524	18618	18883	19428	19400	19.7
2	China	10668	11134	11911	12248	12842	13375	14056	14.3
3	India	3781	3906	4230	4632	4860	5112	5271	5.4
4	Japan	4508	4292	4138	4006	3971	3855	3812	3.9
5	Saudi Arabia	3451	3764	3883	3875	3838	3769	3788	3.9
6	Russian Federation	3134	3298	3143	3219	3195	3282	3317	3.4
7	South Korea	2455	2454	2577	2771	2801	2781	2760	2.8
8	Canada	2345	2387	2347	2393	2393	2443	2403	2.4
9	Brazil	2655	2721	2559	2436	2481	2377	2398	2.4
10	Germany	2336	2273	2269	2307	2374	2260	2281	2.3
11	Iran	2020	1901	1713	1764	1808	1835	2018	2.1
12	Mexico	2034	1960	1939	1950	1883	1821	1733	1.8
13	Indonesia	1662	1680	1558	1572	1660	1724	1732	1.8
14	United Kingdom	1505	1506	1552	1597	1610	1584	1545	1.6
15	France	1597	1543	1545	1529	1539	1538	1530	1.6
16	Thailand	1267	1270	1330	1364	1407	1432	1453	1.5
17	Singapore	1217	1259	1328	1372	1405	1431	1404	1.4
18	Spain	1181	1176	1219	1262	1270	1297	1298	1.3
19	Italy	1246	1180	1227	1236	1249	1277	1218	1.2
20	Australia	1012	1021	985	992	1034	1054	1046	1.1
21	United Arab Emirates	852	880	957	1028	1012	1057	1042	1.1
22	Turkey	748	771	915	973	1022	987	1005	1.0
23	Taiwan	981	1013	1021	1046	1038	1050	998	1.0
24	Malaysia	802	802	751	839	803	813	829	0.8
25	Netherlands	889	856	826	843	818	844	825	0.8
26	Western Africa	587	552	564	627	689	727	756	0.8
27	Egypt	756	806	834	857	804	757	743	0.8
28	Iraq	716	681	683	760	724	705	716	0.7
29	Belgium	651	649	669	674	685	702	683	0.7
30	Poland	520	521	542	594	646	663	670	0.7
	Rest of World	14571	14511	14869	15015	15265	15372	15542	15.8
	Total World	90152	90903	92610	94404	96013	97348	98272	100.0
	of which: OECD	44465	44092	44700	45210	45747	46115	45822	46.6
	Non-OECD	45687	46811	47910	49194	50266	51233	52450	53.4
	European Union	12526	12315	12507	12746	12996	12976	12913	13.1

Notes: 1. Total may not add up due to rounding off. P: Provisional
2. 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.
Source: BP Statistical Review of World Energy, June 2020.

Figures XI.6: Region-wise Distribution of Crude Oil Consumption - 2019 (%)



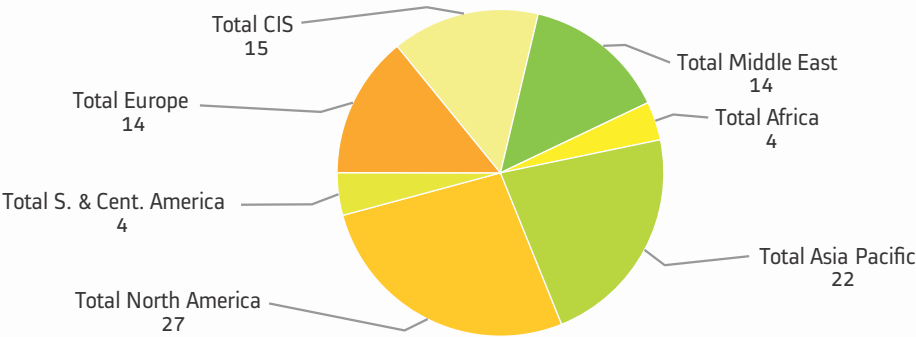
XI.9: World Natural Gas Consumption (Country-wise)

(Figures in Billion cubic metres)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	USA	707.0	722.3	743.6	749.1	740.0	819.9	846.6	21.5
2	Russian Federation	424.9	422.2	408.7	420.6	431.1	454.5	444.3	11.3
3	China	171.9	188.4	194.7	209.4	240.4	283.0	307.3	7.8
4	Iran	153.8	173.4	184.0	196.3	209.1	224.1	223.6	5.7
5	Canada	104.3	109.6	109.8	106.2	109.3	118.3	120.3	3.1
6	Saudi Arabia	95.0	97.3	99.2	105.3	109.3	112.1	113.6	2.9
7	Japan	123.5	124.8	118.7	116.4	117.0	115.7	108.1	2.8
8	Mexico	77.8	78.8	80.8	83.0	86.0	87.6	90.7	2.3
9	Germany	85.0	73.9	77.0	84.9	87.7	85.9	88.7	2.3
10	United Kingdom	76.3	70.1	72.0	80.7	78.6	79.3	78.8	2.0
11	United Arab Emirates	64.7	63.4	71.5	72.7	74.7	74.4	76.0	1.9
12	Italy	66.7	59.0	64.3	67.5	71.6	69.2	70.8	1.8
13	India	49.0	48.5	47.8	50.8	53.7	58.1	59.7	1.5
14	Egypt	49.5	46.2	46.0	49.4	55.9	59.6	58.9	1.5
15	South Korea	55.0	50.0	45.6	47.6	49.8	57.8	56.0	1.4
16	Australia	37.2	40.1	42.1	41.7	41.2	41.4	53.7	1.4
17	Thailand	48.9	49.9	51.0	50.6	50.1	50.0	50.8	1.3
18	Argentina	46.0	46.2	46.7	48.2	48.3	48.7	47.5	1.2
19	Pakistan	35.6	35.0	36.5	38.7	40.7	43.6	45.7	1.2
20	Algeria	32.1	36.1	37.9	38.6	39.5	43.4	45.2	1.2
21	Indonesia	44.5	44.0	45.8	44.6	43.2	44.5	43.8	1.1
22	France	45.1	37.9	40.8	44.5	44.8	42.7	43.4	1.1
23	Uzbekistan	46.2	48.5	46.3	43.3	43.1	44.4	43.4	1.1
24	Turkey	44.0	46.6	46.0	44.5	51.6	47.2	43.2	1.1
25	Malaysia	44.6	44.7	46.8	45.0	45.0	41.0	42.3	1.1
26	Qatar	35.5	38.5	42.4	40.2	39.9	41.4	41.1	1.0
27	Netherlands	39.1	34.5	34.1	35.2	36.2	35.4	36.8	0.9
28	Spain	30.3	27.5	28.5	29.1	31.7	31.5	36.1	0.9
29	Brazil	38.4	40.7	42.9	37.1	37.6	35.9	35.8	0.9
30	Bangladesh	22.0	23.0	25.9	26.5	26.6	27.4	34.4	0.9
	Rest of World	482.67	478.32	500.57	511.17	524.78	533.67	542.38	13.8
	Total World	3376.6	3399.4	3478.0	3559.0	3658.6	3851.7	3929.2	100.0
of which: OECD		1606.9	1581.9	1615.1	1649.1	1669.5	1756.5	1801.1	45.8
Non-OECD		1769.7	1817.5	1862.9	1909.9	1989.0	2095.1	2128.2	54.2
European Union		450.8	401.4	418.7	448.8	463.8	457.2	469.6	12.0

Notes: 1. Total may not add up due to rounding off.
2. Excludes gas flared or recycled. Includes natural gas produced for Gas-to-Liquids transformation.
Source: BP Statistical Review of World Energy, June 2020.

Figures XI.7: Region-wise Distribution of Natural Gas Consumption-2019 (%)



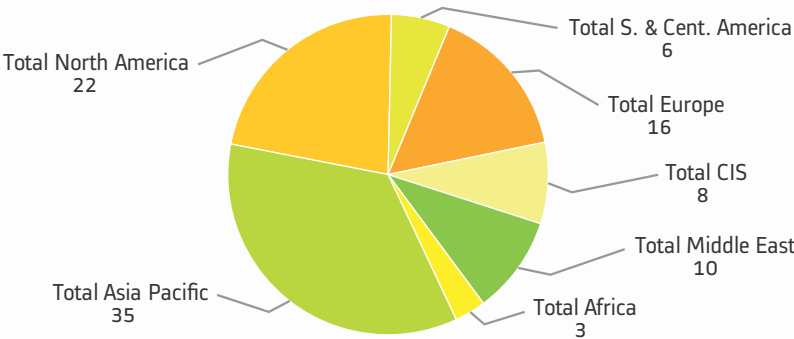
XI.10: World Oil Refining Capacity (Country-wise)

(Figures in Thousand barrels daily*)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	USA	17925	17967	18317	18617	18567	18762	18974	18.7
2	China	14503	15253	15024	14895	15231	15655	16199	16.0
3	Russian Federation	6279	6417	6523	6594	6596	6596	6721	6.6
4	India	4319	4319	4307	4620	4699	4972	5008	4.9
5	South Korea	2878	3123	3128	3259	3298	3346	3393	3.3
6	Japan	4123	3749	3721	3600	3343	3343	3343	3.3
7	Saudi Arabia	2507	2899	2899	2901	2826	2835	2835	2.8
8	Iran	1985	1985	1985	1985	2130	2240	2405	2.4
9	Brazil	2097	2238	2281	2289	2285	2285	2290	2.3
10	Germany	2061	2077	2049	2051	2069	2085	2085	2.1
11	Canada	1929	1929	1931	1934	1970	2025	2054	2.0
12	Italy	1861	1900	1900	1900	1900	1900	1900	1.9
13	Spain	1546	1546	1562	1562	1562	1564	1586	1.6
14	Mexico	1606	1522	1522	1522	1546	1558	1558	1.5
15	Singapore	1414	1514	1514	1514	1514	1514	1514	1.5
16	Netherlands	1279	1279	1298	1298	1299	1299	1309	1.3
17	United Arab Emirates	712	728	1149	1149	1229	1229	1307	1.3
18	Venezuela	1303	1303	1303	1303	1303	1303	1303	1.3
19	France	1375	1375	1375	1245	1245	1245	1245	1.2
20	Thailand	1237	1252	1252	1235	1235	1235	1235	1.2
21	United Kingdom	1498	1337	1337	1227	1227	1227	1227	1.2
22	Indonesia	1099	1099	1111	1111	1111	1094	1094	1.1
23	Taiwan	1197	1197	988	988	1083	1083	1083	1.1
24	Iraq	823	791	763	779	779	849	919	0.9
25	Turkey	596	596	596	596	596	818	822	0.8
26	Egypt	810	810	810	810	810	795	795	0.8
27	Belgium	776	776	776	776	776	776	776	0.8
28	Kuwait	936	936	936	936	736	736	736	0.7
29	Algeria	647	651	651	651	657	657	657	0.6
30	Malaysia	612	612	612	618	625	625	625	0.6
	Rest of World	13899	13799	13795	13973	14170	14164	14342	14.2
	Total World	95831	96980	97416	97937	98416	99814	101340	100.0
	of which: OECD	44557	44165	44366	44448	44248	44812	45138	44.5
	Non-OECD	51274	52815	53050	53489	54168	55002	56202	55.5
	European Union	14275	14161	14209	13988	13984	14022	14053	13.9

Notes: Total may not add up due to rounding off. P: Provisional
*: Atmospheric distillation capacity at year end on a calendar-day basis.
Source: BP Statistical Review of World Energy, June 2020.

Figures XI.8: Region-wise Distribution of Refinery Capacity-2019 (%)



XI.11: World Oil Refinery Throughput (Country-wise)

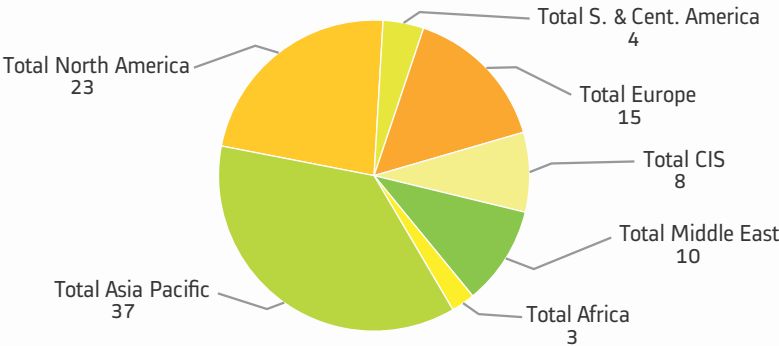
(Figures in Thousand barrels daily*)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	USA	15306	15844	16183	16185	16581	16962	16562	20.0
2	China	9599	10155	10684	11084	11744	12483	13432	16.2
3	Russian Federation	5636	5926	5773	5715	5703	5864	5829	7.0
4	India	4462	4475	4561	4930	5010	5154	5119	6.2
5	Japan	3453	3289	3258	3280	3215	3059	3047	3.7
6	South Korea	2484	2516	2784	2928	3061	3031	2922	3.5
7	Saudi Arabia	1876	2201	2447	2753	2802	2770	2601	3.1
8	Iran	2000	1941	1868	1875	1959	2022	2208	2.7
9	Canada	1719	1615	1640	1594	1757	1653	1822	2.2
10	Germany	1857	1833	1875	1887	1870	1775	1761	2.1
11	Brazil	2035	2085	1972	1812	1741	1733	1751	2.1
12	Italy	1259	1198	1347	1293	1399	1346	1343	1.6
13	Spain	1168	1185	1306	1302	1326	1363	1318	1.6
14	Netherlands	1065	1090	1157	1172	1180	1192	1217	1.5
15	United Arab Emirates	650	643	1098	1078	1119	1096	1099	1.3
16	United Kingdom	1197	1125	1118	1071	1073	1041	1066	1.3
17	Thailand	1056	1005	1107	1056	1093	1131	1025	1.2
18	France	1117	1096	1152	1122	1149	1085	978	1.2
19	Singapore	936	839	901	929	994	974	930	1.1
20	Indonesia	822	848	836	885	885	916	918	1.1
21	Taiwan	847	850	838	861	848	889	890	1.1
22	Belgium	555	645	644	640	685	663	693	0.8
23	Turkey	421	406	526	531	542	472	675	0.8
24	Kuwait	873	879	905	841	686	679	663	0.8
25	Iraq	598	487	409	440	527	596	611	0.7
26	Mexico	1223	1155	1064	933	767	609	592	0.7
27	Malaysia	557	552	514	574	570	566	586	0.7
28	Algeria	492	615	591	584	573	601	569	0.7
29	Egypt	514	530	530	509	508	519	562	0.7
30	Poland	488	486	532	517	508	540	546	0.7
	Rest of World	10755	10397	10350	10038	10166	10174	9655	11.6
	Total World	77021	77910	79969	80419	82040	82961	82989	100.0
	of which: OECD	36922	37046	38139	37938	38732	38516	38124	45.9
	Non-OECD	40099	40865	41830	42481	43308	44445	44866	54.1
	European Union	11202	11154	11788	11698	11980	11796	11596	14.0

Notes: Total may not add up due to rounding off.
*: Atmospheric distillation capacity on a calendar-day basis.
Source: BP Statistical Review of World Energy, June 2020.

P: Provisional

Figures XI.9: Region-wise Distribution of Refinery Throughput-2019 (%)



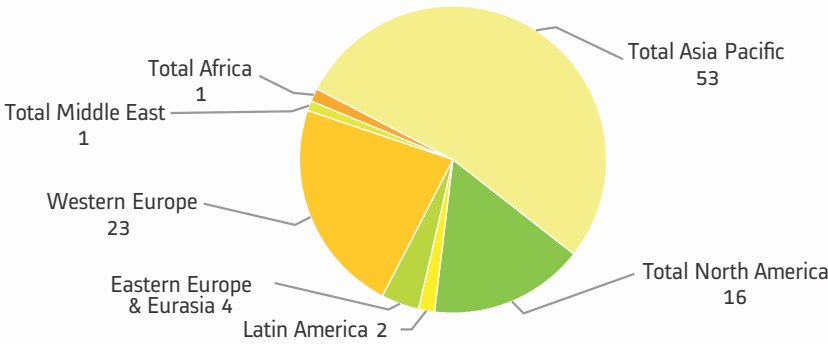
XI.12: World Imports of Crude Oil (Country-wise)

(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	China	5658	6178	6731	7625	8426	9260	10180	21.9
2	United States	7730	7344	7363	7850	7969	7768	6792	14.6
3	India	3793	3791	3936	4308	4341	4544	4505	9.7
4	Japan	3409	3245	3234	3158	3235	3056	3023	6.5
5	South Korea	2450	2476	2781	2928	3041	3037	2929	6.3
6	Germany	1828	1807	1843	1837	1832	1720	1736	3.7
7	Spain	1169	1192	1308	1292	1332	1365	1339	2.9
8	Italy	1179	1086	1262	1226	1340	1252	1274	2.7
9	Netherlands	952	957	1057	1092	1093	1099	1154	2.5
10	France	1110	1077	1146	1092	1147	1061	976	2.1
11	Thailand	868	806	874	853	906	951	932	2.0
12	United Kingdom	1018	940	856	797	894	889	910	2.0
13	Singapore	783	786	806	897	982	919	848	1.8
14	Canada	651	564	566	889	807	747	803	1.7
15	Belgium	558	650	648	642	688	666	697	1.5
16	Turkey	375	353	506	502	520	423	627	1.4
17	Poland	471	479	534	495	497	543	539	1.2
18	Greece	392	421	446	473	478	491	461	1.0
19	South Africa	406	459	421	432	403	437	452	1.0
20	Belarus	454	454	462	366	365	368	363	0.8
21	Sweden	339	378	406	396	401	402	344	0.7
22	Australia	451	441	318	333	334	361	328	0.7
23	Malaysia	201	209	179	198	209	210	285	0.6
24	Bahrain	219	211	218	212	223	220	226	0.5
25	Indonesia	402	383	374	366	344	336	217	0.5
26	Brazil	364	333	252	134	150	186	189	0.4
27	Romania	109	138	136	153	159	170	178	0.4
28	Chile	195	173	162	161	168	164	175	0.4
29	Czech Republic	132	149	144	107	158	150	156	0.3
30	Bulgaria	113	102	121	124	137	128	141	0.3
	Rest of World	3858	3657	3733	3735	3834	3862	3631	7.8
Total World		41636	41238	42821	44673	46413	46784	46409	100.0
of which: OECD		-	-	26224	26862	27640	26867	25892	55.8
OPEC		-	-	23000	24603	24267	24275	22478	48.4

Notes: Total may not add up due to rounding off. P: Provisional
Data may include lease condensate and volume of Oil in transit.
Source : OPEC Annual Statistical Bulletins 2020

Figures XI.10: Region-wise Distribution of Imports of Crude Oil in 2019 (%)



XI.13: World Imports of Natural Gas (Country-wise)

(Figures in Billion Standard Cubic Metres)

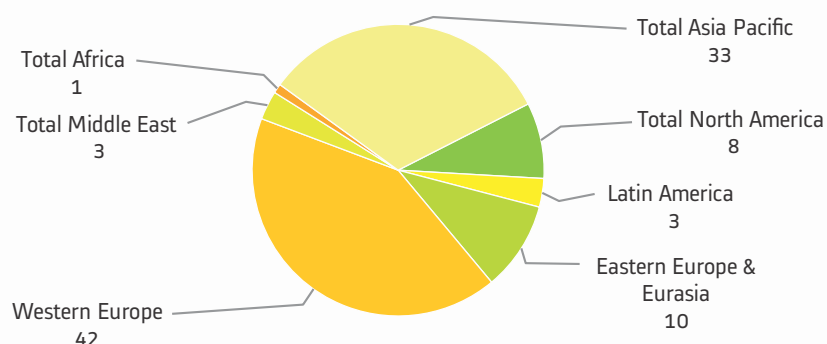
S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	China	51.2	57.7	59.7	72.8	92.0	121.3	130.2	10.7
2	Germany	96.2	92.6	103.0	112.2	125.0	127.0	123.5	10.2
3	Japan	125.1	127.5	122.5	120.1	120.5	119.4	111.3	9.2
4	United States	81.7	76.3	77.0	85.1	85.9	81.8	77.6	6.4
5	Italy	62.0	55.8	61.2	65.3	69.6	67.9	70.9	5.8
6	France	47.9	45.1	44.7	46.4	48.3	49.3	54.7	4.5
7	South Korea	53.2	49.1	44.4	44.5	49.9	58.6	53.8	4.4
8	Netherlands	15.6	16.5	26.1	29.5	32.9	44.3	49.1	4.0
9	United Kingdom	48.9	43.4	45.1	48.5	47.6	48.2	47.6	3.9
10	Turkey	45.3	49.3	48.4	46.4	55.1	50.0	45.2	3.7
11	Belgium	31.9	29.8	35.0	39.4	42.1	43.8	43.1	3.6
12	Spain	35.4	33.2	30.6	30.4	33.0	33.6	36.0	3.0
13	India	17.4	18.6	18.7	26.2	26.7	29.6	30.2	2.5
14	Canada	26.7	21.9	19.6	20.7	24.3	21.7	25.5	2.1
15	United Arab Emirates	29.0	25.8	27.1	27.5	26.0	26.1	22.5	1.9
16	Belarus	18.6	18.4	17.3	17.2	17.6	18.8	18.7	1.5
17	Hungary	6.1	7.1	5.5	6.3	9.5	10.9	14.9	1.2
18	Russia	28.0	24.2	18.0	15.9	18.2	15.1	14.7	1.2
19	Singapore	12.0	12.4	12.4	12.8	13.4	13.8	14.1	1.2
20	Thailand	10.4	10.5	13.5	12.8	13.8	14.2	13.6	1.1
21	Poland	12.7	12.0	10.9	12.5	13.2	13.9	13.5	1.1
22	Ukraine	26.1	19.2	16.5	11.1	14.1	10.6	11.8	1.0
23	Pakistan	-	-	1.4	4.5	6.6	9.0	11.2	0.9
24	Austria	6.4	7.8	6.0	7.4	8.5	10.8	11.2	0.9
25	Mexico	18.5	19.7	20.4	23.3	18.4	13.7	10.1	0.8
26	Brazil	16.8	17.5	19.0	13.4	10.7	10.8	9.9	0.8
27	Argentina	11.8	11.2	10.7	11.6	12.2	10.9	9.6	0.8
28	Kazakhstan	5.3	4.8	4.7	5.2	5.6	7.2	8.1	0.7
29	Iraq	-	-	-	-	1.5	4.1	6.1	0.5
30	Australia	6.5	6.3	7.3	6.9	6.2	6.3	5.8	0.5
	Rest of World	115.4	89.7	98.1	103.5	118.0	119.5	118.5	9.8
Total World		1061.8	1003.2	1024.7	1079.2	1166.3	1211.9	1212.8	100.0
of which: OECD		-	-	755.8	801.0	872.4	895.0	904.5	74.6
OPEC		-	-	40.4	41.0	37.0	40.6	34.1	2.8

Notes: Total may not add up due to rounding off.

P: Provisional

Source : OPEC Annual Statistical Bulletins 2020

Figures XI.11: Region-wise Distribution of Imports of Natural Gas in 2019 (%)



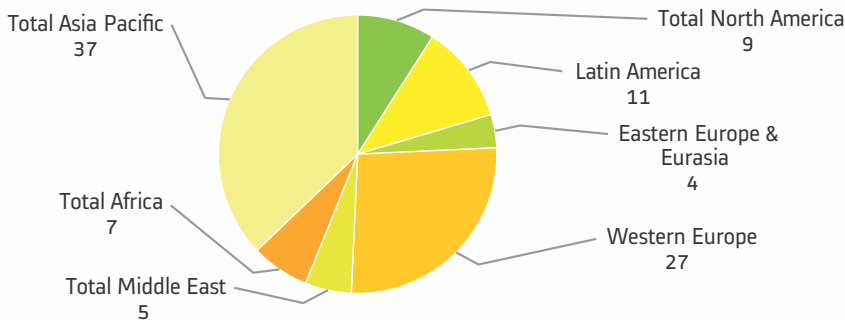
XI.14: World Imports of Petroleum Products (Country-wise)

(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	United States	2129.0	1897.0	2086.0	2205.0	2175.0	2172.7	2299.8	8.0
2	Singapore	2272.7	2354.2	2535.7	2472.6	2621.3	2334.9	2243.8	7.8
3	Netherlands	1843.3	1792.5	1900.5	1931.5	1927.2	1865.0	1800.1	6.2
4	China	1093.1	957.7	1150.9	1220.3	1368.5	1397.5	1389.4	4.8
5	Mexico	559.9	616.4	712.1	745.1	847.7	1089.0	1078.4	3.7
6	India	372.3	487.9	636.5	814.1	843.5	776.5	968.6	3.4
7	South Korea	899.4	885.7	844.2	900.6	869.0	934.6	967.1	3.4
8	France	881.4	897.3	857.0	825.5	861.7	896.1	939.1	3.3
9	Germany	802.1	791.9	800.1	827.1	880.1	866.6	905.1	3.1
10	Japan	1003.3	992.7	972.9	868.9	923.5	976.0	896.3	3.1
11	Indonesia	461.4	554.6	506.0	498.6	586.1	510.6	726.6	2.5
12	Brazil	544.4	610.5	556.1	550.5	697.8	640.2	725.3	2.5
13	United Kingdom	595.4	607.8	652.4	734.3	695.1	749.1	697.9	2.4
14	Malaysia	505.4	530.3	569.5	647.8	760.1	751.6	679.3	2.4
15	Australia	423.2	429.7	545.5	553.4	608.2	627.6	636.0	2.2
16	Belgium	545.8	490.1	546.7	552.9	575.6	621.4	564.5	2.0
17	Nigeria	331.0	438.7	441.0	423.4	391.7	442.0	459.6	1.6
18	Turkey	461.1	480.2	498.3	522.8	555.7	573.6	441.9	1.5
19	Spain	284.1	330.3	321.7	363.8	400.7	362.1	365.1	1.3
20	Italy	260.2	252.5	261.9	324.7	346.5	362.9	322.7	1.1
21	Saudi Arabia	482.0	465.0	588.0	591.1	486.8	898.4	319.4	1.1
22	Canada	217.5	241.6	240.7	245.6	270.2	301.6	308.2	1.1
23	Morocco	166.3	163.2	161.0	276.9	285.7	294.2	300.1	1.0
24	United Arab Emirates	292.1	349.8	358.0	340.2	344.4	350.6	265.9	0.9
25	Egypt	177.6	185.8	367.2	351.3	318.2	278.8	263.8	0.9
26	Ukraine	153.3	168.8	163.1	196.2	201.2	213.1	222.0	0.8
27	Poland	107.7	120.6	127.2	169.7	209.7	202.9	195.9	0.7
28	Ecuador	133.2	157.4	151.7	122.6	134.2	193.8	187.5	0.7
29	Venezuela	133.0	158.3	187.1	160.2	164.7	245.1	167.1	0.6
30	Chile	140.0	134.9	154.0	156.3	160.0	162.4	154.4	0.5
	Rest of World	6225	6381	6858	7209	7438	7256	7346	25.5
Total World		24496	24925	26751	27802	28948	29347	28837	100.0
of which: OECD		-	-	13170	13741	13983	14369	14302	49.6
OPEC		-	-	2046	1939	1890	2424	1684	5.8

Notes: Total may not add up due to rounding off. P: Provisional
Source : OPEC Annual Statistical Bulletins 2020

Figures XI.12: Region-wise Distribution of Imports of Petroleum Products in 2019 (%)



XI.15: World Exports of Crude Oil (Country-wise)

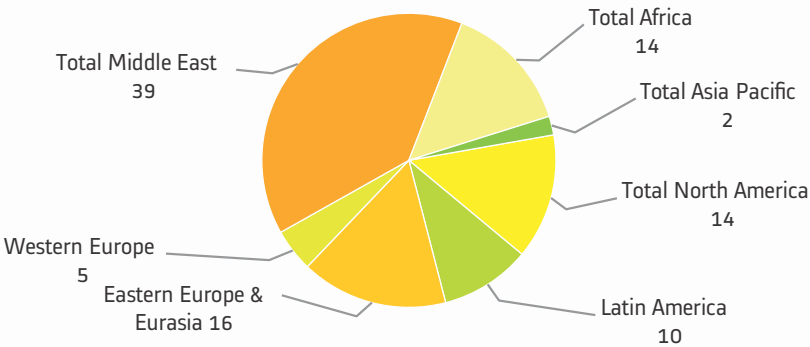
(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Saudi Arabia	7570.7	7153.5	7163.3	7463.4	6968.3	7371.5	7038.1	15.6
2	Russia	4689.4	4488.4	4899.3	5079.3	5057.5	5206.8	5253.0	11.6
3	Iraq	2390.4	2515.5	3004.9	3803.5	3802.0	3862.0	3968.2	8.8
4	Canada	2058.7	2276.2	2301.2	2742.1	2893.8	3177.4	3261.4	7.2
5	United States	134.0	350.8	464.6	590.8	1158.3	2046.6	2978.3	6.6
6	United Arab Emirates	2701.4	2496.7	2441.5	2407.8	2378.7	2296.5	2414.2	5.3
7	Nigeria	2193.0	2120.1	2114.0	1738.0	1811.1	1979.5	2008.2	4.4
8	Kuwait	2058.5	1994.8	1963.8	2128.2	2010.0	2050.0	1986.3	4.4
9	Kazakhstan	1276.9	1250.9	1229.3	1229.5	1370.7	1401.2	1410.9	3.1
10	Angola	1669.4	1607.9	1710.9	1670.1	1576.7	1420.6	1318.7	2.9
11	Brazil	365.6	517.3	736.0	891.3	1127.4	1147.0	1301.3	2.9
12	Norway	1198.5	1203.2	1234.7	1372.7	1362.1	1254.9	1233.5	2.7
13	Mexico	1270.7	1219.8	1247.1	1274.3	1264.6	1285.5	1200.4	2.7
14	Libya	836.0	329.4	288.4	350.1	792.1	998.5	1035.7	2.3
15	Venezuela	1528.0	1964.9	1974.0	1835.0	1596.4	1273.1	846.6	1.9
16	Oman	838.2	804.3	788.0	887.5	803.0	807.8	838.6	1.9
17	United Kingdom	614.4	570.7	594.8	620.3	693.1	817.7	835.4	1.8
18	Iran	1215.4	1109.2	1081.1	1921.7	2125.0	1849.6	651.1	1.4
19	Columbia	703.3	722.0	667.0	613.5	615.0	581.0	616.0	1.4
20	Algeria	744.0	622.9	642.2	668.3	632.6	571.0	584.2	1.3
21	Azerbaijan	692.1	669.4	663.1	655.1	615.3	608.6	559.3	1.2
22	Qatar	240.7	595.5	490.7	503.4	466.0	477.3	524.5	1.2
23	Ecuador	388.2	422.4	432.9	414.7	385.4	371.2	397.8	0.9
24	Congo	240.7	260.9	227.0	254.3	261.2	307.1	309.4	0.7
25	Malaysia	209.0	229.0	338.1	342.8	344.8	357.5	287.0	0.6
26	Australia	205.6	244.3	221.8	199.5	179.3	214.3	249.7	0.6
27	Gabon	207.5	207.4	206.4	205.2	188.4	174.1	206.9	0.5
28	Sudan	133.0	168.0	166.0	119.6	98.5	114.8	138.2	0.3
29	Equatorial Guinea	206.7	196.7	182.4	157.6	124.8	121.0	110.2	0.2
30	Brunei	114.6	108.0	112.0	104.7	98.0	91.9	106.9	0.2
	Rest of World	1776	1781	1924	1948	1862	1664	1512	3.3
Total World		40470	40202	41510	44192	44662	45900	45182	100.0
of which: OECD		-	-	6223	6867	7675	8861	9845	21.8
OPEC		-	-	23000	24603	24267	24275	22478	49.7

Notes: Total may not add up due to rounding off.
Source : OPEC Annual Statistical Bulletins 2020

P: Provisional

Figures XI.13: Region-wise Distribution of Exports of Crude Oil in 2019 (%)



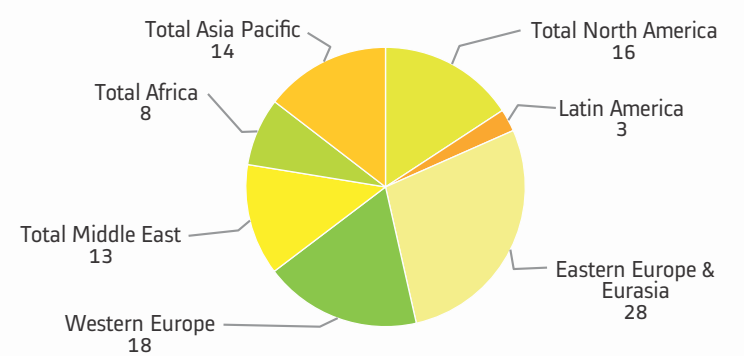
XI.16: World Exports of Natural Gas (Country-wise)

(Figures in Billion Standard Cubic Metres)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Russia	210.8	193.9	197.7	208.0	229.4	248.6	260.9	19.8
2	Qatar	122.9	122.6	129.9	130.3	128.6	143.4	143.0	10.9
3	United States	44.5	42.9	50.5	66.1	89.3	102.2	131.9	10.0
4	Norway	106.6	106.8	114.2	114.4	122.5	121.0	111.3	8.5
5	Australia	29.6	32.4	39.5	58.7	74.8	91.6	100.3	7.6
6	Canada	82.4	78.0	78.3	82.0	84.7	80.3	75.7	5.8
7	Turkmenistan	41.3	45.0	40.3	37.7	37.7	36.4	55.4	4.2
8	Netherlands	59.5	58.7	51.0	56.6	48.0	54.5	54.3	4.1
9	Algeria	46.7	44.2	43.4	54.0	53.9	51.4	42.5	3.2
10	Malaysia	35.4	34.9	35.0	34.2	36.8	34.0	36.4	2.8
11	Nigeria	24.5	26.8	26.7	25.1	32.5	28.6	36.0	2.7
12	Germany	13.9	20.1	26.4	27.5	35.9	38.4	28.0	2.1
13	Indonesia	31.4	31.7	30.3	30.4	29.8	29.6	25.2	1.9
14	Belgium	13.1	13.2	17.1	21.2	24.0	24.6	24.0	1.8
15	Kazakhstan	11.4	10.8	12.3	12.5	14.2	17.6	17.7	1.3
16	Trinidad & Tobago	17.7	17.0	15.9	14.2	12.6	16.4	16.7	1.3
17	Bolivia	17.1	17.8	18.1	17.8	16.4	15.1	12.8	1.0
18	Azerbaijan	7.0	7.8	7.3	7.6	8.0	9.2	11.5	0.9
19	Myanmar	8.7	11.7	13.9	12.8	12.2	11.3	10.9	0.8
20	France	5.0	7.1	5.5	3.7	6.0	5.9	10.8	0.8
21	Uzbekistan	13.5	8.1	7.6	10.1	10.3	12.9	10.0	0.8
22	United Arab Emirates	12.6	13.5	13.2	13.2	12.1	7.1	9.4	0.7
23	Libya	5.5	5.0	4.7	4.7	4.5	4.3	9.1	0.7
24	Iran	9.3	8.4	8.5	8.6	12.9	12.3	8.8	0.7
25	Oman	11.3	10.3	10.0	10.6	11.2	13.4	8.5	0.6
26	Brunei	9.2	7.8	8.5	8.5	8.9	8.3	8.3	0.6
27	United Kingdom	9.8	10.8	14.2	10.3	11.3	7.6	8.0	0.6
28	Egypt	6.1	0.7	-	0.7	1.2	1.2	6.7	0.5
29	Equatorial Guinea	5.1	4.8	5.6	5.6	6.2	5.5	4.7	0.4
30	Peru	-	5.2	4.8	5.1	5.3	4.7	4.5	0.3
	Rest of World	35.2	31.1	25.5	23.8	34.4	33.8	33.3	2.5
Total World		1047.1	1029.0	1055.7	1115.8	1215.6	1271.1	1316.6	100.0
of which: OECD		-	-	388.2	437.3	496.5	449.0	469.7	35.7
OPEC		-	-	102.1	112.3	122.8	109.8	111.0	8.4

Notes: Total may not add up due to rounding off. P: Provisional
Source : OPEC Annual Statistical Bulletins 2020

Figures XI.14: Region-wise Distribution of Exports of Natural Gas in 2019 (%)



XI.17: World Exports of Petroleum Products (Country-wise)

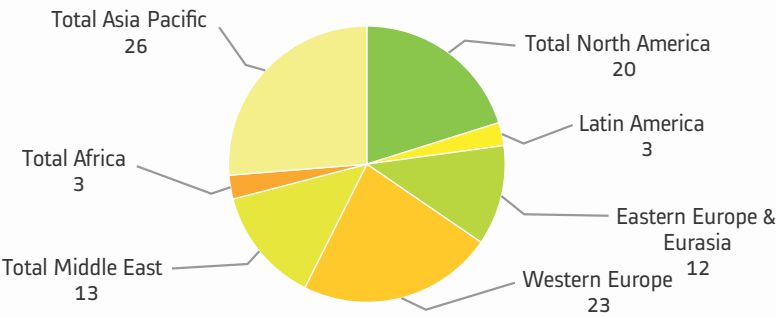
(Figures in Thousand barrels daily)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	United States	3487.0	3825.0	4273.0	4669.3	5219.0	5551.6	5589.3	18.5
2	Russia	2468.6	2610.7	2725.8	2501.7	2478.6	2509.9	2555.9	8.5
3	Netherlands	2079.3	2081.2	2245.3	2303.5	2335.2	2296.9	2234.2	7.4
4	Singapore	1729.8	1761.0	1870.5	1995.0	2088.3	1776.7	1621.8	5.4
5	China	665.8	692.7	836.4	1088.5	1168.8	1276.1	1462.9	4.9
6	South Korea	1161.9	1206.1	1279.5	1312.9	1368.7	1435.2	1409.1	4.7
7	India	1475.1	1374.1	1245.4	1401.7	1411.4	1344.3	1359.8	4.5
8	Saudi Arabia	794.0	987.8	1154.7	1502.6	1438.2	1971.2	1300.3	4.3
9	United Arab Emirates	280.2	255.9	414.8	630.0	653.7	916.0	881.8	2.9
10	Malaysia	473.8	466.3	440.8	609.3	632.1	662.6	645.9	2.1
11	Kuwait	805.3	751.1	739.4	707.4	640.0	630.4	637.1	2.1
12	Japan	513.3	509.3	559.5	594.8	575.3	548.1	609.4	2.0
13	Belgium	493.7	523.9	531.7	537.8	623.5	621.6	607.6	2.0
14	Italy	490.4	417.5	564.8	582.2	634.4	580.4	557.3	1.8
15	Qatar	511.0	522.1	521.0	568.1	639.4	552.2	537.6	1.8
16	Algeria	453.0	582.6	605.4	541.1	569.7	532.1	506.2	1.7
17	Canada	505.2	464.0	483.9	435.9	490.9	444.0	480.7	1.6
18	United Kingdom	553.2	483.8	484.9	523.2	505.6	481.3	449.7	1.5
19	Germany	413.6	433.5	453.4	465.5	483.1	461.9	449.1	1.5
20	Norway	360.2	372.4	402.2	351.8	433.2	416.1	428.5	1.4
21	Spain	369.0	384.7	411.5	422.9	470.7	453.0	419.5	1.4
22	France	405.7	411.3	440.3	428.1	434.8	423.9	368.3	1.2
23	Iran	394.0	469.9	514.3	515.0	270.2	272.1	284.6	0.9
24	Bahrain	246.8	248.3	249.3	230.3	240.7	237.9	249.1	0.8
25	Sweden	191.9	245.9	297.7	320.6	349.6	346.9	229.7	0.8
26	Brazil	150.6	152.8	124.5	124.4	133.1	170.5	217.2	0.7
27	Mexico	183.0	201.6	191.1	181.7	156.3	140.2	110.1	0.4
28	Egypt	46.5	45.2	46.5	36.3	30.7	63.1	106.8	0.4
29	Iraq	11.5	9.3	13.7	36.8	20.1	45.7	106.6	0.4
30	Australia	57.4	55.8	41.9	49.5	50.7	64.5	95.6	0.3
	Rest of World	4679	4248	4145	4251	4114	3962	3622	12.0
Total World		26450	26794	28309	29919	30660	31188	30134	100.0
of which: OECD		-	-	14421	14944	15885	15938	15702	52.1
OPEC		-	-	3853	4307	3882	4666	3883	12.9

Notes: Total may not add up due to rounding off.
Source: OPEC Annual Statistical Bulletins 2020.

P: Provisional

Figures XI.15: Region-wise Distribution of Exports of Petroleum Products in 2019 (%)

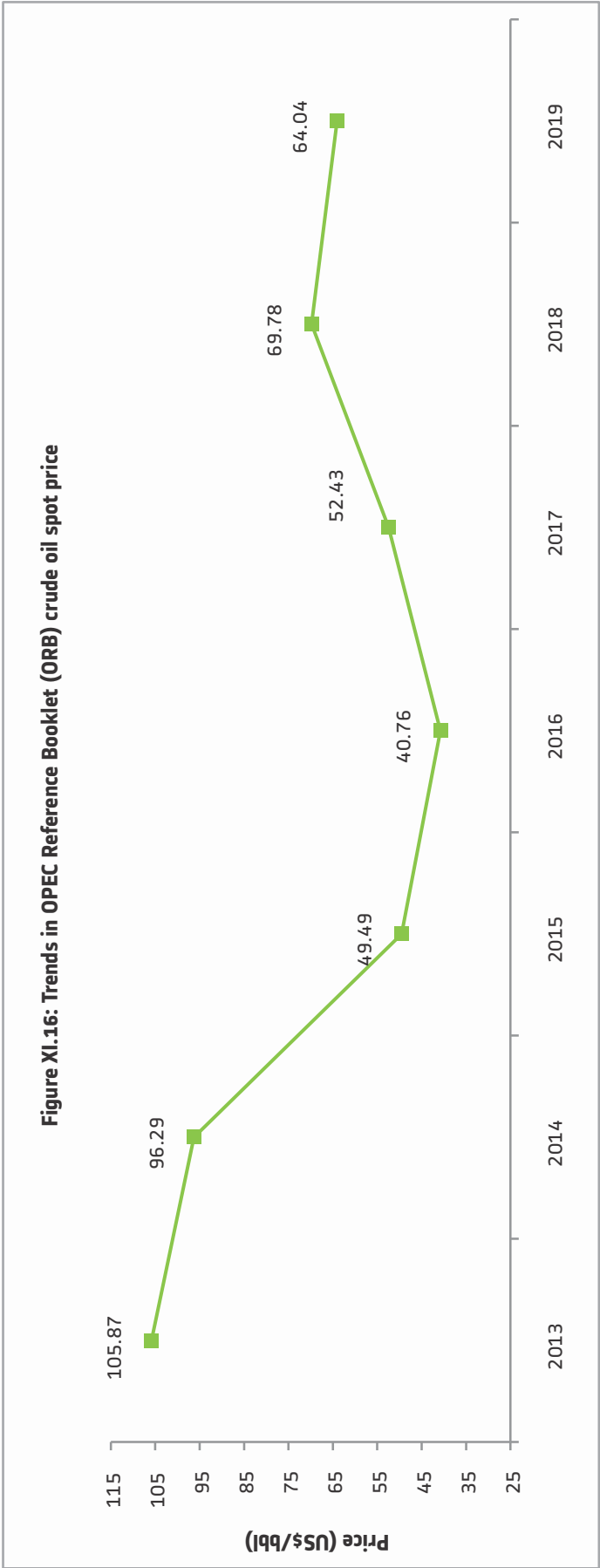


XI.18: Spot Prices of Key OPEC Crude

(Figures in US \$/bbl)

Period	Country/Crude Name											
	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Indonesia	Iran		Iraq	Oman	OPEC
	Kuwait Export	Brega	Forcados	Dukhan	Arab Heavy	Murban	Minas	Iran Light	Iran Heavy	Basrah Light	Oman	ORB
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2013	105.04	108.88	111.95	107.05	103.89	108.21	107.41	107.19	105.73	103.60	105.51	105.87
2014	95.32	98.79	101.35	98.44	93.68	99.45	98.68	97.26	96.18	94.45	97.04	96.29
2015	48.13	52.08	54.41	52.87	47.01	53.87	49.17	51.40	48.80	47.87	51.21	49.49
2016	39.30	43.73	43.70	43.69	38.45	44.83	41.11	41.66	39.57	39.53	41.96	40.76
2017	51.60	53.62	54.58	54.12	50.96	54.82	48.99	52.36	51.71	51.87	53.32	52.43
2018	68.90	70.65	72.56	71.22	68.79	72.20	65.44	69.10	67.97	68.62	70.10	69.78
2019	64.25	63.76	66.19	63.65	63.85	64.72	60.25	62.74	61.85	63.44	64.00	64.04

Source : OPEC Annual Statistical Bulletins 2020



XI.19: Crude Oil Spot Prices

(Figures in US \$/bbl)

Country	Crude	2013	2014	2015	2016	2017	2018	2019
(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Algeria	Zarzaitine	108.85	99.19	53.00	44.02	54.08	71.35	64.42
Angola	Cabinda	108.47	98.07	51.77	42.83	54.30	71.15	65.34
Egypt	Suex Mix	105.35	95.13	48.94	40.41	51.56	68.47	62.61
Indonesia	Minas	107.41	98.68	49.17	41.11	48.99	65.44	60.25
Iran	Iran Light	107.19	97.26	51.40	41.66	52.36	69.10	62.74
Libya	Brega	108.88	98.79	52.08	43.73	53.62	70.65	63.76
Malaysia	Miri	115.51	105.10	57.93	46.39	56.93	75.90	69.30
Malaysia	Tapis	114.39	103.15	55.75	45.69	56.33	73.78	69.15
Mexico	Isthmus	105.16	93.65	51.14	42.37	54.60	68.74	63.00
Mexico	Maya	97.31	85.80	44.11	36.52	47.00	62.71	57.51
Nigeria	Forcados	111.95	101.35	54.14	43.70	54.58	72.56	66.19
Norway	Ekosfisk	109.88	99.72	53.12	44.01	54.49	71.86	65.24
Norway	Oseberg	110.04	99.99	53.54	44.52	55.04	72.34	65.38
Oman	Oman	105.51	97.04	51.21	41.96	53.32	70.10	64.00
Qatar	Dukhan	107.05	98.44	52.87	43.69	54.12	71.22	63.65
Russia	Urals	108.00	98.08	51.90	42.16	53.27	70.13	64.38
Saudi Arabia	Arab Heavy	103.89	93.68	47.01	38.45	50.96	68.79	63.85
United Kingdom	Brent	108.62	99.08	52.41	43.76	54.17	71.22	64.19
United Kingdom	Forties	108.65	99.14	52.50	43.42	54.20	71.21	64.66
U.S.A	WTI	97.96	93.26	48.73	43.27	50.82	65.16	57.02
UAE	Dubai	105.45	96.71	50.94	41.39	53.08	69.68	63.48

Source : OPEC Annual Statistical Bulletins 2020

XI.20: Spot Prices of Petroleum Products in Major Markets

(Figures in US \$/bbl)

Product	Specifications	2013	2014	2015	2016	2017	2018	2019
(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
US Gulf								
Gasoline	Regular unleaded 87	116.55	107.90	67.58	57.15	68.57	80.17	72.70
Gas Oil	0.2% sulphur	121.75	111.39	63.80	50.10	62.31	80.99	74.61
Fuel Oil	3.0 % sulphur	93.05	82.67	40.78	32.13	47.05	60.17	52.55
Singapore								
Gasoline	Premium unleaded 87	121.51	111.96	71.41	57.81	69.51	81.30	74.15
Gas Oil	0.05% sulphur	123.38	112.67	64.57	52.05	65.69	84.05	77.22
Fuel Oil	380 centistokes	95.67	86.58	44.27	34.92	49.24	64.74	56.70
Rotterdam								
Gasoline	Premium unleaded 98	122.57	115.10	75.53	63.58	75.13	87.34	79.52
Gas Oil	10ppm sulphur	123.87	112.91	66.03	53.28	66.35	85.94	79.50
Fuel Oil	3.5% sulphur	93.89	83.68	40.75	29.64	44.31	59.04	48.90

Note: US Gulf and Singapore apply to cargo. Rotterdam prices apply to barge size lots.

Source : OPEC Annual Statistical Bulletins 2020



XI.21: Airfield Prices of Jet A-1 Fuel at Major International Airports

(U.S.C./U.S GALLON)

Countries / Ports	2014	2015	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
France							
Paris	303.58	183.00	125.31	160.03	206.93	206.91	86.89
Germany							
Frankfurt	298.08	178.60	121.17	157.83	206.85	202.44	79.40
Italy							
Rome	na	190.71	127.15	162.60	207.92	208.29	111.40
Malaysia							
Kualalampur	290.47	170.00	117.39	151.96	na	na	na
Singapore							
Paya Lebar/Changi	285.65	165.17	115.15	147.34	197.17	191.39	68.10
U.A.E							
Abu Dhabi	300.99	178.37	133.35	163.53	209.45	209.00	87.39
Dubai	292.99	170.37	127.15	157.33	206.89	200.45	74.00
U.K							
London(Heathrow)	303.29	183.49	127.39	160.76	204.46	204.79	106.93
Kuwait	274.67	166.90	120.45	152.26	188.50	189.76	100.53
New York	304.34	172.75	117.86	158.27	208.06	202.00	80.53
Japan							
Tokyo	303.54	180.31	126.26	162.11	190.33	218.97	124.80
India							
Mumbai	316.85	207.25	164.18	202.54	227.54	227.06	105.24
Delhi	315.32	205.06	129.84	165.94	211.90	212.57	89.97
Chennai	317.61	208.31	142.64	178.95	220.64	212.41	88.36

Note: Prices are as on 1st April
Source : Air India

na : not available



XI.22: Oil Trade Movements

(Figures in Thousand Barrels daily)

Country/Year	2013	2014	2015	2016	2017	2018	2019 (P)	% Share in 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Imports								
USA	9859	9241	9451	10056	10148	9943	9094	12.8
Europe	12920	12957	13993	14354	14700	14896	14867	21.0
China	6978	7398	8333	9214	10241	11024	11825	16.7
India	4370	4155	4380	4945	4920	5196	5379	7.6
Japan	4637	4383	4332	4180	4142	3940	3779	5.3
Rest of World	20012	21193	22026	23776	25663	26154	25980	36.6
Total World	58776	59328	62515	66526	69814	71154	70925	100
Exports								
Canada	3296	3536	3836	3890	4241	4513	4683	6.6
Mexico	1347	1293	1323	1380	1290	1314	1268	1.8
USA	3563	4033	4521	5078	5888	7054	8016	11.3
S. & Cent. America	3790	3939	4107	4147	3958	3741	3422	4.8
Europe	2545	2467	2926	3082	3392	3419	3159	4.5
Russia	7948	7792	8313	8814	8992	9080	9186	13.0
Other CIS	2166	2092	2100	2096	2201	2201	2265	3.2
Saudi Arabia	8365	7911	7968	8606	8404	8638	8397	11.8
Middle East (ex Saudi Arabia)	12242	12699	13537	15321	16255	16098	15010	21.2
North Africa	2127	1743	1701	1727	2226	2410	2420	3.4
West Africa	4590	4849	4880	4401	4531	4552	4560	6.4
Asia Pacific (ex Japan)	6307	6450	6780	7356	7811	7568	7963	11.2
Rest of World	491	524	525	625	625	565	577	0.8
Total World	58776	59328	62515	66526	69814	71154	70925	100

Note: Bunker fuel use is not included as exports. Infra-area movements (for example, between countries within Europe) are excluded.

Source: BP Statistical Review of World Energy, June 2020.



XI.23: World Primary Energy Consumption by Fuel during 2019

(Figures in Million Tonnes Oil Equivalent)

S. No.	Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	China	647.47	264.06	1949.28	74.19	270.13	158.18	3363.30
2	USA	858.19	727.43	270.66	181.27	57.69	139.11	2234.34
3	India	237.54	51.28	444.39	9.61	34.43	28.82	806.07
4	Russian Federation	152.41	381.75	86.61	44.46	41.35	0.39	706.97
5	Japan	174.77	92.90	117.07	13.96	15.73	26.24	440.67
6	Canada	104.41	103.37	13.33	21.38	81.27	12.49	336.25
7	Germany	108.53	76.17	54.99	15.97	4.30	50.54	310.49
8	Brazil	109.76	30.77	15.66	3.44	84.95	48.31	292.88
9	South Korea	123.07	48.09	82.01	31.06	0.59	6.91	291.72
10	Iran	90.99	192.13	1.23	1.36	6.16	0.12	292.00
11	Saudi Arabia	160.65	97.64	0.10	-	-	0.38	258.78
12	France	73.07	37.32	6.44	84.98	12.45	14.65	228.91
13	Indonesia	78.54	37.65	81.29	-	3.62	9.34	210.43
14	United Kingdom	72.05	67.74	6.26	11.95	1.27	25.78	185.05
15	Mexico	76.37	77.90	12.11	2.39	5.06	8.24	182.08
16	Turkey	47.16	37.13	40.49	-	18.97	9.80	153.55
17	Australia	49.72	46.17	42.56	-	3.04	10.06	151.55
18	Italy	57.75	60.82	7.11	-	9.60	15.18	150.46
19	Spain	63.10	31.03	5.01	12.43	5.37	17.80	134.74
20	Thailand	63.18	43.67	17.04	-	1.34	6.94	132.18
21	South Africa	27.46	3.68	91.02	3.02	0.16	2.77	128.11
22	United Arab Emirates	45.34	65.29	2.46	-	-	0.89	113.98
23	Taiwan	44.87	19.98	38.91	6.88	1.18	1.70	113.52
24	Poland	31.20	17.51	45.59	-	0.98	5.89	101.18
25	Malaysia	36.42	36.33	21.42	-	5.75	0.74	100.67
26	Vietnam	24.77	8.47	49.40	-	13.95	1.01	97.60
27	Egypt	34.89	50.65	1.98	-	2.85	1.38	91.75
28	Pakistan	20.94	39.23	13.14	2.03	7.58	1.46	84.38
29	Singapore	70.91	10.95	0.62	-	-	0.20	82.69
30	Netherlands	38.37	31.65	6.36	0.83	0.02	5.46	82.70
	Rest of World	754.80	587.20	242.90	73.63	208.95	80.78	1948.26
	Total World	4478.69	3375.96	3767.47	594.85	898.73	691.56	13807.27
	of which: OECD	2079.68	1547.47	766.16	424.02	294.07	400.26	5511.65
	Non-OECD	2399.01	1828.50	3001.31	170.84	604.66	291.31	8295.62
	European Union	612.37	403.44	183.64	174.98	70.20	179.98	1624.62

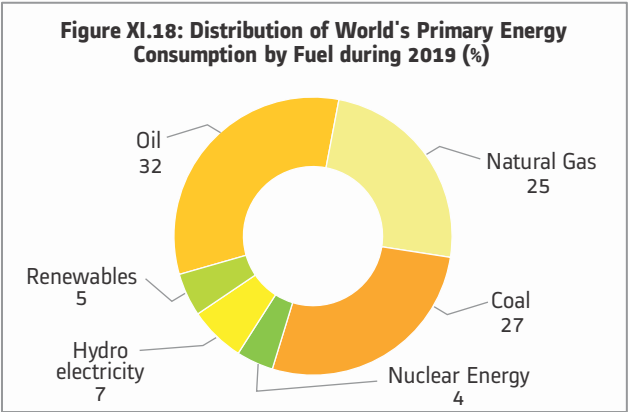
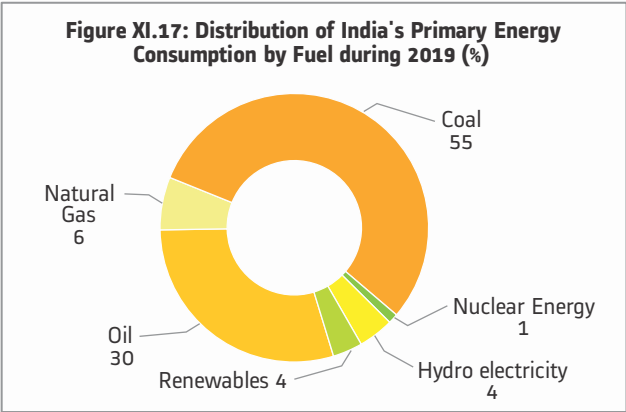
Notes: Total may not add up due to rounding off. P: Provisional

1. Primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.

2. Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis.

3. Conversion factor used for Oil as per product basket of 1 Mtoe = 0.0431 Exajoules, for all other fuels 1 Mtoe = 0.0419 Exajoules.

Source: BP Statistical Review of World Energy, June 2020.



XI.24: Primary Energy Consumption in Select Countries of the World

(Figures in Exajoules)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Share 2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	China	121.37	124.20	125.38	126.95	130.83	135.77	141.70	24.3
2	USA	92.10	93.05	92.15	92.02	92.33	95.60	94.65	16.2
3	India	26.08	27.86	28.77	30.07	31.33	33.30	34.06	5.8
4	Russian Federation	28.61	28.71	28.14	28.76	28.87	30.04	29.81	5.1
5	Japan	19.75	19.24	18.97	18.65	18.89	18.84	18.67	3.2
6	Canada	13.88	14.03	13.99	13.94	14.11	14.35	14.21	2.4
7	Germany	13.75	13.17	13.40	13.62	13.78	13.44	13.14	2.3
8	Brazil	12.13	12.40	12.23	11.92	12.06	12.13	12.40	2.1
9	South Korea	11.55	11.64	11.87	12.16	12.37	12.55	12.37	2.1
10	Iran	9.85	10.28	10.22	10.79	11.30	11.83	12.34	2.1
11	Saudi Arabia	9.80	10.50	10.83	10.98	11.01	10.91	11.04	1.9
12	France	10.31	9.87	9.92	9.76	9.70	9.87	9.68	1.7
13	Indonesia	7.57	7.09	7.10	7.30	7.57	8.23	8.91	1.5
14	United Kingdom	8.51	8.02	8.11	8.01	7.99	7.96	7.84	1.3
15	Mexico	7.74	7.70	7.69	7.79	7.90	7.83	7.72	1.3
16	Turkey	5.07	5.23	5.72	6.01	6.37	6.29	6.49	1.1
17	Australia	5.67	5.75	5.84	5.88	5.87	6.00	6.41	1.1
18	Italy	6.59	6.23	6.37	6.43	6.49	6.53	6.37	1.1
19	Spain	5.65	5.54	5.61	5.66	5.74	5.82	5.72	1.0
20	Thailand	4.95	5.09	5.25	5.36	5.45	5.60	5.61	1.0
21	South Africa	5.15	5.22	5.05	5.30	5.25	5.30	5.40	0.9
22	United Arab Emirates	4.09	4.08	4.48	4.66	4.72	4.80	4.83	0.8
23	Taiwan	4.71	4.82	4.77	4.85	4.87	4.93	4.81	0.8
24	Poland	4.09	3.93	3.98	4.15	4.32	4.38	4.28	0.7
25	Malaysia	3.90	3.94	4.00	4.21	4.27	4.21	4.26	0.7
26	Vietnam	2.39	2.61	2.90	3.11	3.32	3.72	4.12	0.7
27	Egypt	3.48	3.47	3.55	3.74	3.84	3.92	3.89	0.7
28	Pakistan	2.88	2.77	2.92	3.19	3.37	3.48	3.56	0.6
29	Singapore	3.06	3.15	3.35	3.48	3.59	3.61	3.55	0.6
30	Netherlands	3.68	3.47	3.52	3.58	3.53	3.53	3.51	0.6
	Rest of World	76.55	76.18	77.10	78.28	79.36	81.47	82.54	14.1
Total World		534.91	539.25	543.17	550.60	560.42	576.23	583.90	100.0
of which: OECD		230.26	228.31	228.75	229.64	231.84	235.39	233.43	40.0
Non-OECD		304.65	310.94	314.42	320.96	328.58	340.84	350.47	60.0
European Union		70.45	67.71	68.52	69.14	69.91	69.81	68.81	11.8

Notes: Total may not add up due to rounding off.

P: Provisional

1. Primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.

2. Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis.

3. Conversion factor used for Oil as per product basket of 1 Mtoe = 0.0431 Exajoules, for all other fuels 1 Mtoe = 0.0419 Exajoules.

Source: BP Statistical Review of World Energy, June 2020.



XI.25: Per Capita Primary Energy Consumption International Comparisons during 2019

(Figures in Kg. Oil Equivalent)

S. No.	Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total	Population (Million) Mid-2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	China	461.7	188.3	1390.0	52.9	192.6	112.8	2398.2	1402.4
2	USA	2601.4	2205.0	820.4	549.5	174.9	421.7	6772.8	329.9
3	India	169.7	36.6	317.4	6.9	24.6	20.6	575.7	1400.1
4	Russian Federation	1038.9	2602.2	590.4	303.1	281.9	2.6	4819.2	146.7
5	Japan	1387.0	737.3	929.1	110.8	124.8	208.3	3497.4	126.0
6	Canada	2733.2	2706.0	349.0	559.7	2127.4	327.0	8802.3	38.2
7	Germany	1302.9	914.4	660.1	191.7	51.6	606.7	3727.4	83.3
8	Brazil	518.2	145.3	73.9	16.2	401.1	228.1	1382.8	211.8
9	South Korea	2375.8	928.3	1583.2	599.6	11.4	133.3	5631.7	51.8
10	Iran	1080.6	2281.8	14.7	16.2	73.2	1.4	3467.9	84.2
11	Saudi Arabia	4590.1	2789.8	2.9	-	-	10.8	7393.6	35.0
12	France	1125.9	575.0	99.2	1309.4	191.8	225.8	3527.2	64.9
13	Indonesia	289.1	138.6	299.2	-	13.3	34.4	774.5	271.7
14	United Kingdom	1072.2	1008.0	93.1	177.9	18.9	383.6	2753.8	67.2
15	Mexico	597.6	609.5	94.8	18.7	39.6	64.5	1424.7	127.8
16	Turkey	563.4	443.7	483.7	-	226.6	117.1	1834.5	83.7
17	Australia	1926.9	1789.7	1649.5	-	117.9	390.1	5874.0	25.8
18	Italy	957.7	1008.7	117.9	-	159.3	251.7	2495.2	60.3
19	Spain	1325.6	651.8	105.3	261.2	112.8	374.0	2830.7	47.6
20	Thailand	950.1	656.8	256.2	-	20.2	104.4	1987.7	66.5
21	South Africa	460.7	61.7	1527.2	50.7	2.7	46.4	2149.5	59.6
22	United Arab Emirates	4627.0	6662.3	250.9	-	-	90.7	11630.7	9.8
23	Taiwan	1901.1	846.8	1648.9	291.4	50.0	72.1	4810.3	23.6
24	Poland	812.5	455.9	1187.4	-	25.6	153.5	2634.8	38.4
25	Malaysia	1110.3	1107.7	653.2	-	175.4	22.6	3069.3	32.8
26	Vietnam	257.5	88.0	513.5	-	145.0	10.5	1014.5	96.2
27	Egypt	346.2	502.4	19.7	-	28.3	13.7	910.2	100.8
28	Pakistan	94.8	177.6	59.5	9.2	34.3	6.6	382.0	220.9
29	Singapore	12226.4	1887.4	107.6	-	-	34.9	14256.3	5.8
30	Netherlands	2192.7	1808.9	363.5	47.5	0.9	312.3	4725.7	17.5
	Rest of World	309.0	240.4	99.4	30.1	85.5	33.1	797.6	2442.7
Total World		576.2	434.3	484.7	76.5	115.6	89.0	1776.3	7773.0

Notes: Total may not add up due to rounding off. P: Provisional

1. Primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.

2. Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis.

3. Conversion factor used for Oil as per product basket of 1 Mtoe = 0.0431 Exajoules, for all other fules 1 Mtoe = 0.0419 Exajoules.

Source: BP Statistical Review of World Energy, June 2020.



XI.26: Growth in Per-Capita Primary Energy Consumption in Select Countries of the World

(Figures in Gigajoule per capita)

S. No.	Country	2013	2014	2015	2016	2017	2018	2019 (P)	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	China	87.20	88.75	89.12	89.78	92.07	95.10	98.83	3.9
2	USA	291.07	292.00	287.18	284.87	284.02	292.28	287.63	-1.6
3	India	20.36	21.50	21.96	22.70	23.41	24.62	24.93	1.2
4	Russian Federation	198.22	198.44	194.09	197.97	198.39	206.11	204.32	-0.9
5	Japan	153.90	150.12	148.21	145.96	148.16	148.11	147.20	-0.6
6	Canada	393.29	393.45	388.42	383.06	384.12	387.05	379.94	-1.8
7	Germany	169.34	161.65	163.84	165.70	166.76	161.68	157.33	-2.7
8	Brazil	60.34	61.16	59.83	57.81	58.04	57.93	58.77	1.5
9	South Korea	229.41	229.95	233.56	238.53	242.15	245.25	241.50	-1.5
10	Iran	128.81	132.71	130.19	135.65	140.13	144.64	148.88	2.9
11	Saudi Arabia	326.04	339.70	341.58	338.34	332.50	323.66	322.03	-0.5
12	France	161.40	153.77	153.96	150.95	149.59	151.89	148.61	-2.2
13	Indonesia	30.06	27.80	27.49	27.91	28.61	30.73	32.93	7.2
14	United Kingdom	130.99	122.59	123.15	120.88	119.76	118.62	116.10	-2.1
15	Mexico	65.12	63.95	63.09	63.12	63.28	62.08	60.52	-2.5
16	Turkey	66.73	67.74	72.88	75.30	78.56	76.38	77.79	1.9
17	Australia	243.78	243.71	243.89	242.46	238.81	240.82	254.32	5.6
18	Italy	109.59	103.14	105.13	106.00	107.03	107.69	105.26	-2.3
19	Spain	120.32	118.41	120.26	121.48	123.03	124.61	122.42	-1.8
20	Thailand	72.66	74.33	76.34	77.71	78.76	80.66	80.64	0.0
21	South Africa	96.01	95.70	91.10	94.25	92.12	91.62	92.23	0.7
22	United Arab Emirates	445.17	442.38	484.18	497.61	497.06	498.45	494.37	-0.8
23	Taiwan	201.18	205.25	202.43	205.29	205.56	207.81	202.34	-2.6
24	Poland	107.10	103.30	104.53	109.26	113.70	115.58	112.88	-2.3
25	Malaysia	132.37	131.92	132.01	137.15	137.37	133.46	133.39	0.0
26	Vietnam	26.30	28.48	31.24	33.22	35.07	38.95	42.70	9.6
27	Egypt	39.34	38.36	38.43	39.60	39.86	39.80	38.71	-2.7
28	Pakistan	15.07	14.20	14.65	15.65	16.21	16.39	16.44	0.3
29	Singapore	561.77	570.42	599.36	615.24	628.68	626.19	611.55	-2.3
30	Netherlands	218.39	205.67	207.61	210.76	207.44	206.69	205.37	-0.6
Total World		74.17	73.90	73.59	73.75	74.23	75.50	75.68	0.2
of which: OECD		182.03	179.41	178.71	178.38	179.09	180.88	178.50	-1.3
Non-OECD		51.23	51.62	51.53	51.95	52.53	53.83	54.70	1.6
European Union		139.10	133.42	134.73	135.66	136.90	136.43	134.25	-1.6

Notes: Total may not add up due to rounding off.

P: Provisional

1. Primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.

2. Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis.

Source: BP Statistical Review of World Energy, June 2020.



XI.27: Trends in World Primary Energy Consumption by Fuel

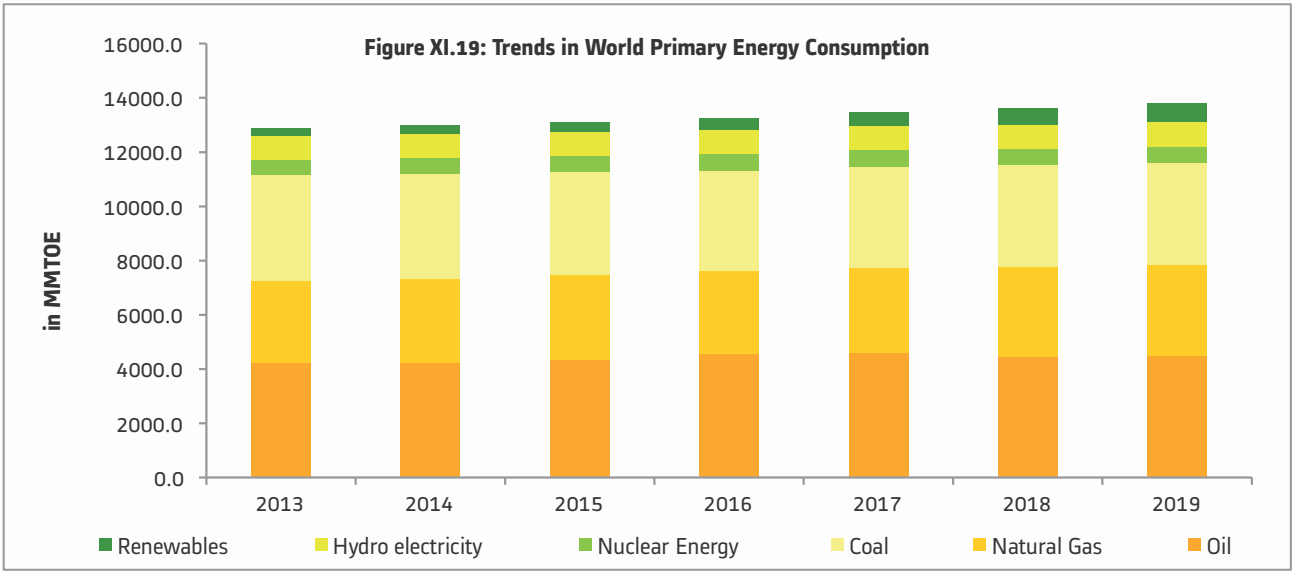
(Figures Million Tonnes Oil Equivalent)

Year	Oil	Natural	Coal Gas	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2013	4220.9	3054.4	3887.0	563.9	859.2	280.7	12866.1
2014	4254.8	3073.0	3889.4	575.0	879.3	317.3	12988.8
2015	4341.0	3146.7	3784.7	582.7	883.2	366.7	13105.0
2016	4557.3	3073.2	3706.0	591.2	913.3	417.4	13258.5
2017	4607.0	3141.9	3718.4	597.1	919.9	490.2	13474.6
2018	4442.0	3309.3	3789.8	576.6	891.1	616.4	13625.3
2019 (P)	4478.7	3376.0	3767.5	594.9	898.7	691.6	13807.3

Notes: Total may not add up due to rounding off. P: Provisional

- 1. Primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.
- 2. Energy from all sources of non-fossil power generation is accounted for on an input-equivalent basis.
- 3. Conversion factor used for Oil as per product basket of 1 Mtoe = 0.0431 Exajoules, for all other fules 1 Mtoe = 0.0419 Exajoules.

Source: BP Statistical Review of World Energy, June 2020.



XI.28: Economic Indicators of OPEC Nations' during 2019

Country	Population	GDP at market prices	Per capita GDP	Value of Petroleum Exports	Value of Total Export	Petroleum Exports as % of total	Proven crude oil reserves	Gas Reserves	Crude Oil Production	Natural Gas Marketed Production	Production of Petroleum Products	Refinery Throughput	Crude Refining Capacity	Export of Crude Oil	Export of Natural Gas	Exports of Refined Products
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Algeria	43.41	172551	3975	22674	38059	59.58	12200	4504	1023	89.58	660	660	657	584	42.50	506
Angola	30.18	81759	2709	32246	33755	95.53	7783	343	1373	10.55	55	54	80	1319	0.58	17
Congo	5.54	11576	2089	7072	8775	80.59	2882	284	329	0.58	16	17	21	309	-	6
Equatorial Guinea	1.36	12142	8928	2644	4356	60.70	1100	39	110	6.23	-	-	-	110	4.68	-
Gabon	2.08	17212	8275	4767	6467	73.71	2000	26	218	0.46	12	14	24	207	-	8
Iran	83.27	474974	5704	19233	69331	27.74	208600	33988	2356	253.77	1705	1718	2201	651	8.80	285
Iraq	39.13	262912	6719	80027	82309	97.23	145019	3714	4576	11.54	633	639	762	3968	-	107
Kuwait	4.42	133843	30281	52433	72079	72.74	101500	1784	2678	13.95	886	660	736	1986	-	637
Libya	6.58	33018	5018	24188	25732	94.00	48363	1505	1097	14.19	59	90	380	1036	9.10	21
Nigeria	208.28	475820	2285	45106	64787	69.62	36890	5761	1737	47.83	8	9	446	2008	35.95	20
Saudi Arabia	34.22	792967	23173	202370	261530	77.38	258600	9423	9808	117.00	2586	2484	2896	7038	-	1300
U.A.E	9.50	421142	44331	49636	389372	12.75	97800	6091	3058	55.10	1005	1037	1124	2414	9.37	882
Venezuela	32.25	70140	2175	22492	23659	95.07	303806	5674	1013	20.56	743	781	1891	847	-	95
Total OPEC	500.22	2960056	5917	564889	1080212	52.29	1226543	73136	29375	641.35	8368	8162	11218	22478	111	3883

Note:

- 1. Totals may not add up due to independent rounding.
 - 2. Crude oil exports may include lease condensate and volume of oil in transit.
- Source: OPEC Annual Statistical Bulletin, 2020



CHAPTER-XII



Bio-Fuels



CHAPTER HIGHLIGHTS

- Ethanol Blending with Petrol by Oil Marketing Companies during 2019-20 was 4.5%. Total 166.72 crore litres ethanol blended in the country during the year 2019-20 as compared to 183.26 crore litres in 2018-19, which is marginally lower by 9%.
- Bio Diesel blended by CPSEs with diesel has increased to 10.4 crore litres in 2019-20 vis-à-vis 8.08 crore litres in 2018-19, achieved a growth rate of 28.8%.
- Ethanol received by Oil's CPSEs under the Ethanol blending Programme during 2019-20 was 169.96 crore litres which is 9.3% lower as compared to 187.42 crore litres in 2018-19.
- Total 49935 retail outlets are selling biofuels blended petrol/diesel during 2019-20.

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APPENDIX



XII.1: Ethanol Blended with Petrol

(Figures in Crore Litres)

Company Name	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
(1)	(2)	(3)	(4)	(5)	(6)
As per Financial Year-wise					
IOCL	41.60	49.00	40.30	79.80	74.90
BPCL	21.51	23.71	19.54	49.96	45.72
HPCL	26.10	29.10	19.30	53.50	46.10
Total CPSEs	89.21	101.81	79.14	183.26	166.72
(Figures in %)					
IOCL	3.2	3.4	2.7	5.0	4.4
BPCL	2.5	2.6	2.0	4.8	4.2
HPCL	3.3	3.5	2.1	5.5	4.9
Total CPSEs	3.0	3.2	2.3	5.0	4.5
As per Ethanol Supply Year (ESY) Year-wise					
IOCL	50.98	35.36	67.61	84.89	78.02
BPCL	26.81	15.16	37.56	51.98	45.60
HPCL	32.18	16.45	45.34	54.34	46.91
Total CPSEs	109.98	66.96	150.51	191.20	170.53
(Figures in %)					
IOCL	3.6	2.4	4.3	5.0	5.1
BPCL	3.0	1.6	3.7	4.7	4.7
HPCL	3.8	1.9	4.8	5.3	5.1
Total CPSEs	3.5	2.0	4.2	5.0	5.0

ESY: Ethanol Supply Year (1st December to 30th November)

P: Provisional

Source: Oil Companies



XII.2: State-wise Percentage of Ethanol Blended with Petrol (Sales) by CPSEs

(Figures in %)

State/UT	2015-16	2016-17	2017-18	2018-19	2019-20(P)	2015-16	2016-17	2017-18	2018-19	2019-20(P)
	As per Financial Year-wise					As per Ethanol Supply Year (ESY) Year-wise				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Andhra Pradesh	4.9	4.0	1.8	6.1	4.8	4.9	1.7	4.4	6.1	3.4
Andman & Nikobar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arunachal Pradesh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Assam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bihar	1.4	5.7	6.5	6.4	6.6	4.2	6.3	6.4	6.6	8.2
Chandigarh	4.6	4.2	3.0	5.9	6.0	0.8	2.7	1.5	6.7	8.9
Chhattisgarh	0.0	0.2	0.0	1.2	4.2	0.1	0.0	0.0	3.8	6.2
Dadar & Nagar Haveli	2.1	2.7	1.6	8.4	5.1	4.9	0.4	3.2	7.5	4.1
Daman & Diu	3.2	2.5	1.1	8.5	6.1	7.0	0.1	1.9	6.8	0.0
Delhi	4.6	5.5	5.0	8.5	5.5	6.0	4.4	8.5	6.6	7.3
Goa	3.7	3.7	0.0	7.5	3.2	5.1	0.1	4.6	4.6	4.8
Gujarat	0.7	1.5	1.0	4.8	5.1	1.4	0.9	3.2	6.0	6.3
Haryana	5.3	5.1	2.6	6.4	8.1	6.3	2.6	5.9	8.5	9.5
Himachal Pradesh	2.8	2.8	2.6	4.1	4.6	0.7	2.6	0.2	4.8	7.9
Jammu & Kashmir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jharkhand	0.0	1.0	0.0	0.0	0.1	0.9	0.1	0.0	0.1	3.8
Karnataka	4.3	3.9	2.7	7.7	6.6	4.1	2.1	6.7	7.0	7.3
Lakshadweep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kerala	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.2	0.1
Ladakh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madhya Pradesh	0.1	0.3	0.0	3.1	4.5	0.3	0.0	1.1	5.1	6.3
Maharashtra	5.9	6.1	2.7	9.1	5.7	7.0	1.8	7.9	6.6	5.7
Manipur	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meghalaya	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mizoram	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nagaland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Odisha	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.4
Pondicherry	0.6	0.5	0.3	0.7	0.7	0.5	0.3	0.1	1.0	0.4
Punjab	2.7	3.0	3.7	6.4	7.3	3.2	3.6	6.3	7.7	9.1
Rajasthan	0.7	0.0	0.0	0.4	1.8	0.1	0.0	0.1	2.0	1.4
Sikkim	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tamil Nadu	0.1	0.0	0.2	1.2	1.4	0.1	0.1	0.3	2.1	1.1
Telangana	4.2	5.3	1.7	8.2	3.8	6.6	0.4	7.4	5.4	3.1
Tripura	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uttar Pradesh	8.1	7.5	8.2	9.1	8.6	7.8	7.9	8.9	8.9	9.5
Uttarakhand	4.6	5.2	5.5	7.6	8.5	5.6	5.3	5.0	8.3	9.7
West Bengal	0.3	1.6	1.0	1.6	1.1	1.4	1.0	1.2	1.8	1.1
Total	3.0	3.2	2.3	5.0	4.5	3.5	2.0	4.2	5.0	5.0

Source: Oil Companies

P: Provisional



XII.3: Quantity of Bio Diesel Blended with Diesel

(Figures in Crore Litres)

Company Name	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)
IOCL	0.40	1.19	2.29	3.70	4.10
BPCL	0.19	0.67	0.82	1.60	1.26
HPCL	0.38	1.10	1.24	2.78	5.05
Total CPSEs	0.97	2.96	4.35	8.08	10.41

Note: As per FY/ESY

P: Provisional

Source: Oil Companies

XII.4: Ethanol received by CPSE OMCs under Ethanol Blending Programme

(Figures in Crore Litres)

Company Name	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)
As per Financial Year-wise					
IOCL	42.30	47.40	41.20	82.00	76.70
BPCL	19.33	21.89	18.51	48.70	44.85
HPCL	18.19	28.67	21.57	56.72	48.42
Total CPSEs	79.82	97.96	81.28	187.42	169.96
As per Ethanol Supply Year (ESY) Year-wise					
IOCL	52.79	35.94	67.61	84.11	80.39
BPCL	25.35	13.43	37.56	50.46	44.35
HPCL	33.30	17.18	45.34	54.00	48.30
Total CPSEs	111.44	66.55	150.51	188.57	173.03

Note: Difference between ethanol received and blending due to stock & inventories etc.

Source: Oil Companies

P: Provisional

XII.5: Number of Retail Outlets selling Biofuels blended Petrol/Diesel

(Figures in Crore Litres)

Company Name	2015-16	2016-17	2017-18	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)
IOCL	16892	18296	17070	23622	25587
BPCL	1670	2600	6907	10029	10940
HPCL	9348	9001	8200	12418	13408
Total CPSEs	27910	29897	32177	46069	49935

Note: As per FY/ESY

P: Provisional

Source: Oil Companies



XII.6: State-wise/UT-wise Ethanol received by CPSE OMCs under Ethanol Blending Programme

(Figures in crore liters)

State/UT	2015-16	2016-17	2017-18	2018-19	2019-20(P)	2015-16	2016-17	2017-18	2018-19	2019-20(P)
	As per Financial Year-wise					As per Ethanol Supply Year (ESY) Year-wise				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Andhra Pradesh	5.04	5.26	2.60	9.66	7.76	6.52	2.27	6.49	10.16	5.34
Andman & Nikobar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bihar	1.08	5.01	6.33	7.11	7.45	3.71	5.98	6.28	6.84	8.39
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chhattisgarh	0.00	0.10	0.00	0.94	3.45	0.12	0.00	0.00	3.26	4.70
Dadar & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delhi	4.70	6.84	6.87	10.71	6.75	6.91	5.64	10.91	8.40	6.69
Goa	0.64	0.83	0.00	1.96	0.85	1.08	0.00	1.17	1.21	0.79
Gujarat	1.18	2.93	2.18	10.59	11.14	2.89	1.76	6.68	13.36	12.36
Haryana	4.99	5.33	3.97	9.97	12.54	6.67	3.58	7.35	12.38	13.07
Himachal Pradesh	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.07	1.62
Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jharkhand	0.00	0.16	0.00	0.00	0.17	0.48	0.04	0.00	0.07	2.41
Karnataka	9.22	9.12	6.91	21.32	19.61	9.87	5.10	17.81	19.40	18.77
Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kerala	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Madhya Pradesh	0.19	0.39	0.00	5.54	7.99	0.41	0.01	1.79	9.31	10.24
Maharashtra	18.84	24.85	12.45	40.79	25.80	31.39	7.40	35.99	29.78	21.92
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Odisha	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.35
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Punjab	2.79	3.82	4.58	8.44	10.47	3.62	4.41	6.56	10.40	11.53
Rajasthan	1.10	0.00	0.00	0.93	3.27	0.07	0.00	0.10	4.10	2.67
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tamil Nadu	0.36	0.04	0.58	4.34	4.87	0.29	0.18	0.99	7.48	3.52
Telangana	4.43	6.94	2.55	13.08	5.94	8.79	0.43	10.90	8.88	4.65
Tripura	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uttar Pradesh	23.71	24.70	29.65	37.65	37.79	25.84	27.32	34.01	38.70	40.15
Uttarakhand	1.21	0.00	1.50	2.35	2.43	1.40	1.32	2.00	2.45	2.44
West Bengal	0.28	1.62	1.13	2.03	1.56	1.37	1.11	1.47	2.30	1.44
Total CPSEs	79.86	97.94	81.30	187.42	169.96	111.44	66.55	150.51	188.57	173.03

Source: Oil Companies

P: Provisional



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Abbreviations	
(I) Companies/Organisations	
AFPC, Syria	Al Furat Petroleum Company, Syria.
AGC	Assam Gas Company
BL	Balmer Lawrie & Co. Ltd.
BLIL	Balmer Lawrie Investments Ltd.
BORL	Bharat Oman Refinery Ltd.
BP	British Petroleum
BPCL	Bharat Petroleum Corporation Ltd.
CAIRN	Cairn India Limited
CPCL	Chennai Petroleum Corporation Ltd.
DGCIS	Directorate General of Commercial Intelligence and Statistics
DGH	Directorate General of Hydrocarbons
DNPL	Duliajan Numaligarh Pipeline Limited
EIL	Engineers India Ltd
GAIL	Gail (India) Limited
GOI	Government of India
GPOC, South Sudan	Greater Pioneer Operating Company, South Sudan
HMEL	HPCL Mittal Energy Ltd.
HPCL	Hindustan Petroleum Corporation Ltd.
IEC, Russia.	Imperial Energy Corporation, Russia.
IOCL	Indian Oil Corporation Ltd.
ISPRL	Indian Strategic Petroleum Reserves Limited.
MECL	Mansarovar Energy Colombia Ltd.
MoPNG	Ministry of Petroleum & Natural Gas
MoSPI	Ministry of Statistics And Programme Implementation
MRPL	Mangalore Refinery & Petrochemical Ltd.
NEL	Nyara Energy Ltd. (Formerly known as Essar Oil Ltd.)
NRL	Numaligarh Refinery Ltd.
OIL	Oil India Limited
OMC	Oil Marketing Company.
ONGC	Oil & Natural Gas Corporation Ltd.
OPEC	Organization of the Petroleum Exporting Countries
OVL	ONGC Videsh Ltd
P&NG	Petroleum & Natural Gas
PPAC	Petroleum Planning & Analysis Cell.
RBI	Reserve Bank of India.
RIL	Reliance Industries Ltd.

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(II) Petroleum Products	
ATF	Aviation Turbine Fuel.
CBFS	Carbon Black Feed Stock
CBM	Coal bed Methane
CNG	Compressed Natural Gas.
EBP	Ethanol Blended Petrol
FO	Furnace Oil
HHS	Hot Heavy Stock
HSD	High Speed Diesel.
HSDO	High Speed Diesel Oil
HSFO	Heavy/High Sulphur Fuel Oil
LABFS	Linear Alkyl Benzene Feed Stock
LDF	Light Distillate Feedstock
LDO	Light Diesel Oil
LNG	Liquefied Natural Gas
LO	Lubricating Oil
LOBS	Lube Oil Base Stocks.
LPG	Liquefied Petroleum Gas.
LSHS	Low Sulphur Heavy Stock
LSWR	Low Sulphur Waxy Residue.
Mogas	Motor Gasoline.
Motor Spirit	Petrol
MS	Motor Spirit/Petrol
MTBE	Methyl Tertiary Butyl Ether
MTO	Mineral Turpentine Oil
NGL	Natural Gas Liquids
Pet-coke	Petroleum Coke.
PNG	Piped Natural Gas
RFO	Residual Fuel Oil
RPO	Rubber Process Oil.
SKO	Superior Kerosene Oil
VGO	Vacuum Gas Oil



(III) Prefixes Used in Metric Tables	
Prefix	Meaning
Centi	One Hundredth (1/100=0.01)
Deci	One Tenth (1/10=0.1)
Deka	Ten(10)
Hecto	One Hundred (100)
Kilo	One Thousand (1,000)
Mega	One Million (1,000,000)
Milli	One Thousandth (1/1000=0.001)
Unit	One (1)
(IV) Others	
A&AA	Assam & Assam Arakan
A.N Islands	Andaman Nicobar Islands
ACG, Azerbaijan	Azeri-Chirag-Deepwater Gunashli, Azerbaijan
Addl.	Additional
bbl.	Barrel
BCM	Billion Cubic Meter
BE	Budgetary Estimates.
BMC	Bombay Municipal Corporation.
Bn.Cu.Mtr.	Billion Cubic Meters
BPA	Bassein Platform A
BPB	Bassein Platform B
CAGR	Compound Annual Growth Rate
CEA.	Chief Economic Advisor
CGD	City Gas Distribution
China Hong Kong SAR	China Hong Kong Special Administrative Region
CIF	Cost Insurance Freight
CIS	Commonwealth of Independent States
CPSEs	Central Public Sector Enterprises
CRBC	Central Region Basin Coast
CSR	Corporate Social Responsibility
CST	Central Sales Tax
Cyl.	Cylinder
DBTL	Direct Benefit Transfer of LPG
Dom.	Domestic
DVPL	Dahej-Vijaipur Pipeline
DWT	Dead Weight Tonnage
EPS	Earning per share
ERBC	Eastern Region Basin cost
FDI	Foreign Direct Investment
FDZ	Free Delivery Zone
FOB	Free on Board
FPC	Federal Power Commission
GBS	Gross Budgetary Support
GCV	Gross Calorific Value
GDP	Gross Domestic Product
GNOP	Greater Nile Oil Project
GREP	Gas Rehabilitation and Expansion
GVA	Gross Value Added
HELP	Hydrocarbon Exploration Licensing Policy
HVJ	Hazira-Vijaipur-Jagdishpur
I&EBR	Internal and Extra Budgetary Resources

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(IV) Others(Contd.)	
Int. Con.	Internal Consumption
JV	Joint Venture
K.Cal	Kilocalories
K.g	Kilogram.
KG - D6	Krishna Godavari Dhirubhai 6
Kl	Kilo litre
KM	Kilometer
LK	Line kilometer
ltr	Litre.
M.Sq.Km	Million square kilometer
MMSCMD	Million Metric Standard Cubic Meter per day
MMT	Million Metric Tonnes
MMTOE	Million Metric Ton of Oil Equivalent
MMTPA	Million Metric Tonnes Per Annum
Mn. Tonne	Million Tonne.
MST	Manufacturers' Sales Tax
MT	Metric Ton
MUT	Mumbai-Uran Trunk
MWh	Megawatt Hour
n.a	Not Available
NCV	Net Calorific Value
NE	North East.
NELP	New Exploration Licensing Policy
NNI	Net National Income
NRBC	Northern Region Basin Coast
OEG	Oil Equivalent of Gas
PAT	Profit after Tax.
PDS	Public Distribution System
PMUY	Pradhan Mantri Ujjwala Yojana.
PPP	Purchasing Power Parity
PSC	Production Sharing Contract
R.E.S.	Renewable Energy Source
R/P ratio	Reserves-to-Production Ratio
RBF	Refinery Boiler Fuel and Losses
RE	Revised Estimate
RON	Research Octane Number
RSP	Retail Selling Price
S.& Cent. America	South & Central America
S.E.Z	Special Economic Zone
SAD	Special Additional Duty
SCM	Standard Cubic Meter.
SDR	Special Drawing Right
SION	Standard Input Output Norms
SKM	Square Kilometer
SRBC	Southern Region Basin Coast
t/w/d	Tonne/Well/Day
TCF	Trillion Cubic Feet
TMT	Thousand Metric Tonnes
TMTPA	Thousand Metric Tonnes per Annum.
Tr.Cu.ft.	Trillion Cubic Feet
VAT	Value Added Tax
Vol.	Volume
WPI	Wholesale Price Index
WRBC	Western Region Basin Coast



Conversion Factors	
(V) Metric Units	
Linear	
10 Millimetres	1 Centimetre.
10 Centimetres	1 Decimetre
10 Decimetres	1 Metre
10 Metres	1 Decametre
10 Decametres	1 Hectometre
10 Hectometres	1 Kilometre
Area	
100 Sq. Millimetres	1 Sq. Centimetre
100 Sq. Centimetres	1 Sq. Decimetre
100 Sq. Decimetres	1 Sq. Metre
100 Sq. Metres	1 Sq. Decametre-1 Acre.
100 Sq. Acres	1 Sq. Hectometre-1 Hectare.
100 Hectares	1 Sq. Kilometre.
Weight	
10 Milligrams	1 Centigram
10 Centigrams	1 Decigram
10 Decigrams	1 Gram
10 Grams	1 Decagram
10 Decagrams	1 Hectogram
10 Hectograms	1 Kilogram.
100 Kilograms	1 Quintal
1000 Kilograms	1 Metric Tonne.
Capacity	
10 Millilitres	1 Centilitre
10 Centilitres	1 Decilitre
10 Decilitres	1 Litre
10 Litres	1 Decalitre
10 Decalitres	1 Hectolitre
10 Hectolitres	1 Kilolitre
Volume	
1000 Cubic Millimetres	1 Cubic Centimetre
1000 Cubic Centimetres	C
1000 Cubic Decimetres	1 Cubic Metre

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(VI) Linear and Square Measures	
Length	
1 Inch	25.4 Millimetres (mm)
	0.0254 Metres.
1 Foot	12 Inches.
	0.333333 Yard
	0.3048 Metre (m).
1 Yard	36 Inches.
	3 Feet
	0.9144 Metre (m)
1 Metre	39.3701 Inches.
	3.28084 Feet
	1.09361 Yards
	0.001 Kilometre (km.)
1 Kilometre	1000 Metre (m)
	0.621371 Mile
1 Mile	1760 Yard
	1.60934 Kilometre (km.)
1 International	6076.12 Feet
1 Nautical Mile	1.852 Kilometre (km)
	1.5152 Statute mile
Area	
1 Square Inch	645.16 Square Millimetres (mm2).
1 Square Foot	0.0929030 Square Metre (m2).
1 Square Yard	9 Square Feet.
	0.836127 Square Metre (m2).
1 Square Metre	10.7639 Square Feet.
	1.19599 Square Yards.
1 Acre	4840 Square Yards
	4046.86 Sq. Metres (m2)
	0.404686 Hectares.
1 Hectare	10,000 Square Metres (m2).
	2.47105 Acres.
	0.01 Square Kilometre (km2)
1 Square Kilometre	100 Hectares.
	0.386102 Square Mile.
1 Square Mile	640 Acres.
	258.999 Hectares
	2.58999 Square Kilometre (km2).



(VII) Mass and Weights	
1 Ounce	28.3495 Grams (g).
1 Pound	0.453592 Kilogram (Kg.)
	0.00892857 Hundred Weight
1 Kilogram	2.20462 Pounds.
	0.01 Quintal
1 Hundred Weight (Cwt)	112 Pounds.
	50.8023 Kilograms (Kg.)
1 American (Short) Ton	2000 Pounds.
	0.892857 Long Ton
	0.97185 Tonnes
1 Tonne (Metric Ton)	2204.62 Pounds
	1000 Kilograms (Kg.)
	1.10231 Short tons
	0.984207 Long Ton
1 Imperial (Long) Ton	2240 Pounds
	1.12 Short Tons.
	1.01605 Tonnes.

(VIII) Energy and Power	
1 International Table (IT) Calorie	4.1868 Joules (J).
115 C calorie	4.1855 Joules (J)
1 Thermochemical Calorie	4.184 Joules (J)
1 Kilo Calories (IT)	1000 Calories
	3.96832 British Thermal Units
	1.163 Watt Hours
	1 Thermie
1 Kilowatt Hour	3412.14 British Thermal Units
	859.845 Kilo Calories
	3.6 Megajoules (MJ)
	1.34102 Horse Power Hours.
1 Therm	100,000 British Thermal Units (BTU).
	105.506 Megajoules (MJ)
	29.3071 Kilowatt Hours
	25.1996 Thermies
	25200 Kilocalories
1Metric Horsepower (Pferdestaerke or Cheval Vapeur)	735.499 watts (W).
	542.476 Foot Pounds Force/Second.
	0.986320 Imperial Horse Power
1 Imperial Horsepower	745.700 Watts (W)
	550 Foot Pounds Force/Second
	1.01387 Metric Horse Power.
1 Kilowatt	737.562 Foot Pounds Force/Second
	1.35962 Metric Horsepower
	1.34102 Imperial Horsepower.
	1000 Watts.
1 BTU	0.252 Kilocalories
	1.055 Kilojoules



(IX) Cubic Measures Volume	
1 Cubic Inch	16.3871 Cubic Centimetres (cm3)
1 Pint	0.568261 Cubic Decimetres (dm3) or Litres.
1 Litre	61.024 Cubic Inches
	1.75975 Pints
	1 Cubic Decimeter (dm3)
	0.264172 American Gallons
	0.219963 Imperial Gallons
1 Hectolitre	0.0353147 Cubic Foot
	100 Cubic Decimetres (dm3) or 100 Litres
1 American Gallon	231 Cubic Inches
	3.78541 Cubic Decimetres or Litres
	0.832674 Imperial Gallon.
	0.133681 Cubic Foot.
	0.0238095 American Barrel.
1 Imperial Gallon	0.00378541 Cubic Metre (M3)
	277.420 Cubic Inches
	4.54609 Cubic Decimetres (dm3) or Litres
	1.20095 American Gallon
	0.160544 Cubic Foot
1 Cubic Foot	0.02894 American Barrel
	0.00454609 Cubic Metre (m3)
	28.3168 Cubic Decimetres (dm3) or Litres
	7.48052 American Gallons
	6.22883 Imperial Gallons
1 Americal Barrel	0.17811 American Barrel
	0.0283168 Cubic Metre (m3)
	9702 Cubic Inches
	158.987 Cubic Decimetres (dm3) or Litres
	42 American Gallons
1 Cubic Metres	34.9726 Imperial Gallons
	5.6146 Cubic Feet
	0.158987 Cubic Metre (M3)
	1000 Litres.
	264.172 American Gallons
1 Kilolitre	219.969 Imperial Gallons
	35.3147 Cubic Feet
1 Gross Ton (Shipping)	1000 Cubic Decimetres (dm3) or Litres
	6.28981 Americal Barrels.
1 Ton of Liquefied Methane	2.83168 Cubic Metres or 100 Cubic Feet or Permanently Enclosed Space
	Approx. 16 Barrels
	Approx. 1400 Cubic Metres of Natural Gas depending upon Methane Content



(X) Product Conversion Factor (Conversion Factor from Volume to Tonnes at Natural Temp.)			
Product	Litres to Metric Tonnes	Tonnes per K.L	American Barrels to Metric Tonnes
Aviation Spirit 100/130	1421	0.7034	8.94
Aviation Spirit 144/145	1449	0.6901	9.11
Aviation Spirit 73 ON	1432	0.6983	9.01
Motor Spirit 79 ON	1427	0.7008	8.98
Motor Spirit 80 ON	1427	0.7008	8.98
Motor Spirit 93 ON	1386	0.7215	8.72
Motor Spirit 95 ON	1359	0.7358	8.55
Motor Spirit 83 ON/87 ON	1411	0.7087	8.88
JP-4	1384	0.7225	8.71
JP-5	1273	0.7855	8.01
Aviation Turbine Fuel	1288	0.7764	8.10
Naphtha	1467	0.6817	9.23
Power Alcohol	1286	0.7776	8.09
Benzol	1154	0.8666	7.26
SBP Spirit/Hexane	1457	0.6863	9.16
Mineral Turpentine (Laws 140/205)	1302	0.7680	8.19
Liquefied Petroleum Gas	1785	0.5602	11.23
Superior Kerosene	1285	0.7782	8.08
Inferior Kerosene	1265	0.7905	7.96
Power Kerosene (Vap. Oil)	1251	0.7994	7.87
High Speed Diesel	1210	0.8263	7.61
Light Diesel Oil	1172	0.8532	7.37
Malarial Oil	1172	0.8532	7.37
Special Larvicides	1175	0.8511	7.39
Furnace Oil	1071	0.9337	6.74
Tea Drier Oil	1071	0.9337	6.74
Hot Heavy Stock/LSHS	1017	0.9833	6.40
Refinery Gas/Ref. Boiler Fuel	1071	0.9337	6.74
Lubricants/Greases	1114	0.8977	7.01
Jute Batching Oil/Wash Oils	1167	C	7.34
Bitumen	1002	0.9980	6.30
SBP/Alcohol Mixture	1414	0.7072	8.89
Methanol Mixture	1106	0.9042	6.96
Carbon Black Feed Stock	1134	0.8818	7.13
Carburetor Testing Fluid	1388	0.7205	8.73
Benzene	1131	0.8812	7.05
Toluene	1148	0.8711	7.19
Demineralised Water	1002	0.9930	6.30
S. Glass Kleanzit	1003	0.9970	6.31
Miscellaneous	1114	0.8977	7.01
Wax/P. Coke/Chemicals	1114	0.8977	7.01
Aromex	1221	0.8190	7.68
Linear Alkyl Benzene Feed Stock	1205	0.8239	7.88

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(XI) Volume per Metric Ton of Petroleum Products				
Products	Kilolitre	Imperial Gallon	U.S. Gallon	Barrel
Liquefied Petroleum Gas	1.8519	407.365	489.213	11.648
Aviation Spirit	1.3699	301.332	361.873	8.613
Natural Gasoline	1.3514	297.265	356.990	8.496
Motor Spirit	1.3514	297.265	356.990	8.496
Kerosene	1.2346	271.569	326.137	7.764
Jet Fuel	1.2346	271.569	326.137	7.764
Distillate Fuel Oil	1.1494	252.415	293.522	6.988
Lubricating Oil	1.1111	252.845	303.647	7.231
Fuel Oil N.O.S.	1.0939	241.727	290.301	6.911
Residual Fuel Oils	1.0526	231.551	278.071	6.623
Asphalt and Bitumen	0.9615	211.515	254.013	6.050
Crude Oil	1.1856	260.910	313.340	7.441

(XII) Conversion Factors for Duty Reduction from 15° C to 29.5° C	
Product	Conversion Factor
Aviation Spirit 100/130	0.9827
Aviation Spirit 114/145	0.982
Aviation Spirit 73 Clear	0.9824
Aviation Turbine Fuel	0.9862
Motor Spirit 83	0.983
Motor Spirit 93	0.9836
High Speed Diesel Oil	0.9879
Kerosene	0.9864
Light Diesel Oil	0.9877
Furnace Oil	0.9899
Special Boiling Point Spirit 55/115	0.9820
Special Boiling Point Spirit 64/69	0.9806
Solvent 1425	0.9820
Hexane	0.9806

(XIII) Crude Oil Conversions*					
To convert the following into	Metric Tonnes	Barrels	Kilolitres	1000 Imp. Gallon	1000 U.S. Gallon
Metric Tons	1	7.33	1.16	0.256	0.308
Barrels 0.136	1	0.159	0.035	0.042	
Kilolitres 0.863	6.29	1	0.220	0.264	
1,000 Imp. Gallons	3.91	28.6	4.55	1	1.201
1,000 U.S. Gallons	3.25	23.8	3.79	0.833	

* Based on World Average Gravity (Excluding Natural Gas liquids)

(XIV) Natural Gas Conversions		
1 SCM (Standard Cubic Meter)	= 1 cubic metre @ 1 atmosphere pressure and 15.56 ° C	
1 Cubic Metre	= 35.31 Cubic feet	
1 BCM(Billion Cubic Metre) / Year of gas (consumption or production)	= 2.74 MMSCMD	365 Days a Year
1 TCF (Trillion Cubic Feet) of Gas Reserve	= 3.88 MMSCMD	100% Recoverable for 20 years @ 365 days/ annum)
1 MMTPA of LNG	=3.60 MMSCMD	Molecular Weight of 18 @ 365 days/ annum)
1 MT of LNG	=1314 SCM	Molecular Weight of 18
Gross Calorific Value (GCV)	10000 Kcal/ SCM	
Net Calorific Value (NCV)	90% of GCV	
1 Million BTU (MMBTU)	= 25.2 SCM	@10000 Kcal/SCM; 1 MMBTU= 252,000 Kcal)
Specific Gravity of Gas	0.62	Molecular Weight of Dry Air=28.964 gm/mole)
Density of Gas	=0.76 Kg/SCM	Molecular Weight of Gas 18 gm/mol
Gas required for 1 MW of Power generation	=4128 SCM per Day	@50% efficiency of Combined Cycle Operation; at a station heat rate of 860 Kcal/Kwh~ 1720 Kcal/Kwh@50% Thermal Efficiency)
Power Generation from 1 MMSCMD Gas	=242 MW	@50% efficiency of Combined Cycle Operation; at a station heat rate of 860 Kcal/Kwh~ 1720 Kcal/Kwh@50% Thermal Efficiency)



(XV) Other Conversion						
Crude oil*						
From	To convert					
	tonnes (metric)	kilolitres	barrels	US gallons	tonnes/year	
	Multiply by					
Tonnes (metric)	1	1.165	7.33	307.86	–	
Kilolitres	0.8581	1	6.2898	264.17	–	
Barrels	0.1364	0.159	1	42	–	
US gallons	0.00325	0.0038	0.0238	1	–	
Barrels/day	–	–	–	–	–	49.8
Products						
From	To convert					
	barrels	tonnes	kilolitres	tonnes		
	to tonnes	to barrels	to tonnes	to kilolitres		
	Multiply by					
Liquefied petroleum gas (LPG)	0.086	11.60	0.542	1.844		
Gasoline	0.120	8.35	0.753	1.328		
Kerosene	0.127	7.88	0.798	1.253		
Gas oil/ diesel	0.134	7.46	0.843	1.186		
Residual fuel oil	0.157	6.35	0.991	1.010		
Product basket	0.125	7.98	0.788	1.269		
Natural Gas (NG) and Liquefied Natural Gas (LNG)						
From	To					
	billion cubic	billion cubic	million tonnes	million tonnes	trillion British	million barrels
	metres NG	feet NG	oil equivalent	LNG	thermal units	oil equivalent
	Multiply by					
1 billion cubic metres NG	1	35.3	0.90	0.74	35.7	6.60
1 billion cubic feet NG	0.028	1	0.025	0.021	1.01	0.19
1 million tonnes oil equivalent	1.11	39.2	1	0.82	39.7	7.33
1 million tonnes LNG	1.36	48.0	1.22	1	48.6	8.97
1 trillion British thermal units	0.028	C	0.025	0.021	1	0.18
1 million barrels oil equivalent	0.15	5.35	0.14	0.11	5.41	1



Units	
1 metric tonne	1.1023 short tons
1 kilolitre	2204.62 lb.
	6.2898 barrels
1 kilocalorie (kcal)	1 cubic metre
	4.187 kJ
1 kilojoule (kJ)	3.968 Btu
	0.239 kcal
1 British thermal unit (Btu)	0.948 Btu
	0.252 kcal
1 kilowatt-hour (kWh)	1.055 kJ
	860 kcal
1 barrel of ethanol	3412 Btu
	3600 kJ
1 barrel of biodiesel	0.57 barrel of oil
1 barrel of biodiesel	0.88 barrel of oil

*Based on worldwide average gravity.
Source: BP Statistical Review of World Energy 2016

Calorific equivalents	
One tonne of oil equivalent equals approximately:	
Heat units	10 million kilocalories
	42 gigajoules
Solid fuels	40 million Btu
	1.5 tonnes of hard coal
Electricity	3 tonnes of lignite
	12 megawatt-hours

One million tonnes of oil or oil equivalent produces about 4400 gigawatt-hours (=4.4 terawatt hours) of electricity in a modern power station.

(XVI) Petroleum Specific Gravities			
Degrees	Specific	Barrels	Long
A.P.I.	Gravity	per tonne*	Ton*
25	0.9042	6.98	7.09
26	0.8984	7.02	7.13
27	0.8927	7.06	7.18
28	0.8871	7.10	7.22
29	0.8816	7.15	7.27
30	0.8762	7.19	7.31
31	0.8708	7.24	7.36
32	0.8654	7.28	7.40
33	0.8602	7.33	7.45
34	0.8550	7.37	7.49
35	0.8499	7.42	7.54
36	0.8448	7.46	7.58
37	0.8398	7.51	7.63
38	0.8348	7.55	7.67
39	0.8299	7.60	7.72
40	0.8251	7.64	7.76
41	0.8203	7.69	7.81
42	0.8156	7.73	7.85

*Approximate figure at 15.6 degrees C or 60 degrees F.



(XVII) Petroleum Specific Gravity Ranges		
Products	Specific	Barrels
	Gravity	Per tonne
Crude Oils	0.80-0.97	8.0-6.6
Aviation gasolines	0.70-0.78	9.1-8.2
Motor Gasolines	0.71-0.79	9.0-8.1
Kerosene	0.78- 0.84	8.2-7.6
Gas Oil	0.82-0.90	7.8-7.1
Diesel Oils	0.82-0.92	7.8-6.9
Lubricating Oils	0.85-0.95	7.5-6.7
Fuel Oils	0.92-0.99	6.9-6.5
Asphaltic Bitumen	1.00-1.10	6.4-5.8

(XVIII) Multiplier for Conversion of one Metric Tonne of Petroleum Products to one Tonne of Oil Equivalent	
Product	Multiplier
L.P.G.	1.130
Naphtha	1.075
Aviation Gasoline	1.070
Motor Gasoline	1.070
Jet Fuel	1.065
Kerosene	1.045
Gas/diesel	1.035
Residual Fuel Oils	0.985
Others	0.960



(XIX) Average International Calorific Value of different Fuels		
Products	K Cals./Kg. (M. Cals/Tonne)	BTUs/Kg.
A. Oil Equivalence:		
Average Crude Oil/NGLS(a)	10300	40870
United Nations	10175	40375
B. Oil Products:		
NGL	12135	48150
Motor Gasoline	11135	44190
Kerosene	10638	42210
Jet Fuel	11790	46790
Gas Oil	10790	42820
Fuel Oil	10440	41430
C. Coal Equivalence:		
Average Hard Coal (b)	7000	27775
D. INDIA		
Hard Coal	5000	19840
Lignite-Brown Coal	2310	916
Firewood@	4750	18848
Charcoal@	6900	27379
E. Natural Gas-Production: (Average) India		K cals/Cu. Metre
		8000-9480
F. Electricity:		
Output Basis(c)		860
Fuel Input basis(d)		2500-2700

Note:

(a) Represent average global factor for crude Oil/NGL production. For a specific crude oil, relevant conversion factors may have to be used.

(b) Factor used by United Nations to represent average calorific value of hard coals for purposes of standardising coal production to hard coal equivalent base.

(c) Calorific value of 1kwh of electricity.

(d) Represents K cals of hydro-carbon energies required to produce 1 kwh of electricity.

@ : As per Report of Fuel Policy Committee 1974

Conversion Factor: 1 K Cal=4.19 KJoules.



(XX) Coefficients used to Convert from Original Units into Standard Coal Equivalents			
Products	Hard Coal	Lignite Brown Coal	Fuel Wood
A. Primary Solids			
Standard Factor	1	0.385	0.333
India	0.714	0.330	
B. Other Hydrocarbons			
Petroleum Crude		1.454	
Natural Gas Liquids (wt.av.)		1.542	
Gasoline		1.500	
Kerosene & Jet Fuel		1.474	
Gas-Diesel Oil		1.450	
Residual Fuel Oil		1.416	
Liquefied Petroleum Gases		1.554	
Natural Gasoline		1.532	
Condensate		1.512	
Other Natural Gas Liquids		1.512	
Natural Gas (in Tera joules)*		34.121	
Other Gases(in Tera joules)*		34.121	
Hydro, Nuclear and Geothermal Electricity (In 1,000 kwh)		0.123	

Note: The average calorific value of gas is measured in Kcal/m3 (st.) i.e. in Kcal per cubic metre of gas under standard conditions at 150 C, 013.25 mbar, dry.

(XXI) Coal Replacement and Equivalents of different Fuels			
Fuels	Original	Unit	Unit
	Unit	million tonnes of coal equivalent (mtce)	million tonnes of coal replacement (mtcr)
Coal coking (6640 K cal/Kg), Non Cooking coal used in steam generation (500 Kcal/kg)	1mt	1.0	1.0
Hard Coke	1mt	1.3	1.3
Soft Coke	1mt	1.5	1.3
Firewood (4750 Kcal/Kg.)	1mt	0.95	0.95
Char Coal (6900 Kcal/Kg.)	1mt	1.0	1.0
Oil Products: 10,000 Kcal/Kg.			
Black Products:(Fuel Oil, FO, Refinery Fuel, LSHS & HHS)	1mt	2.0	2.0
Kerosene & LPG	1mt	2.0	8.0
HSDO & LDO	1mt	2.0	9.0
Motor Spirit & Jet Fuel	1mt	2.0	7.5
Natural Gas(9000k CAL/kg)	109m3	1.8	3.6
Electricity	109 kwh	1.0	1.0

m : Million mt: Million Tonnes

Source : Fuel Policy Committee 1974



(XXII) Approximate Calorific Equivalents(Oil =10000 Kcal/Kg.)	
Items	Million Tonnes of Oil equals
Heat Units	40 million BTU
	397 million therms
	10,000 Tera calories
Solid Fuels	1.5 million tonnes of Coal
	3.0 million tonnes of lignite
Natural Gas (1 cub.ft.=1000 BTU)	1 Cub metre = 9000 K cal.
	1.111 thousand million cub metres
	39.2 thousand million cubic feet
	107 million cubic feet per day of a year
Electricity (1 Kwh=3412 BTU) (1 Kwh=860 KCal)	12 thousand million KWH

(XXIII) Heat Units & others expressed in terms of Million Tonnes of Oil	
Items	Million Tonnes of Oil equals
Heat Units	
10 million BTU	0.25
100 million therms	0.25
10000 Tera calories	1
Solid Fuels	
1 million tonne of coal	0.67
1 million tonne of lignite approximates to	0.33
Natural Gas	
1 thousand million cubic metres(BCM)	0.9
Town Gas	
1 thousand million cubic Metres (BCM)	0.42
Electricity	
12 thousand million KWH	0.86

Note: One Million tonne of oil produces about 4000 million units(KWH) of electricity in a modern power station.
Source: BP Statistical Review of World Energy

(XXIV) Exchange Rates							
Year	Calendar Years					Financial Years	
	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Average for the year	Year	Average for the year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2014	66.75	59.80	60.61	61.93	62.27	2014-15	61.14
2015	62.24	63.50	64.91	65.92	64.14	2015-16	65.46
2016	67.50	66.93	66.96	67.46	67.21	2016-17	67.09
2017	67.01	64.46	64.29	64.74	65.13	2017-18	64.45
2018	64.31	67.04	70.15	72.07	68.39	2018-19	69.94
2019	70.49	69.56	70.34	71.23	70.41	2019-20	70.87
2020	72.36	75.86	74.40				

Source: RBI



NOTES



Ministry of Petroleum and Natural Gas
Government of India

Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi - 110 001
www.petroleum.nic.in