सत्यमेव जयते

INDIAN PETROLEUM & NATURAL GAS STATISTICS 2018-19

Ministry of Petroleum and Natural Gas
Economics & Statistics Division

सत्यमेव जयते

Government of India

INDIAN PETROLEUM & NATURAL GAS STATISTICS 2018-19

FEBRUARY, 2020

धर्मेन्द्र प्रधान
ଧର୍ମେନ୍ଦ୍ର ପ୍ରଧାନ
Dharmendra Pradhan

सत्यमेव जयते

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

Minister
Petroleum & Natural Gas;
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New Delhi

MESSAGE

Energy is a key driver of economic growth and the Government's focus has been to bring about transformational changes in the energy landscape of India to fulfill the twin objectives of energy justice and climate justice. The Petroleum and Natural Gas Ministry has endeavored to "Reform, Perform and Transform' the sector. The Government has taken several reforms and accomplished major task with far-reaching impacts in the sectors of Exploration and Production, Refinery, Marketing, Natural Gas and International Cooperation.

Availability of correct and updated data will be an important pillar in achieving the above milestones. Data being the new oil is an asset and is a lifeline for the emerging digital economy. Indian Petroleum and Natural Gas Statistics is a comprehensive document available on a single platform encapsulating performance of oil and gas sector for India for year 2018-19 along with glimpse of major international scenarios.

I am sure this publication would be widely used by all stakeholders and provide valuable insights into oil and gas sector.

(Dharmendra Pradhan)

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Dr. M. M. Kutty
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FOREWORD

Energy is one of the most essential building blocks in human development, and acts as a key enabler in supporting the economic development of the county. The oil and gas sector is among the eight core industries in India and is a key contributor to India's economy and accounted for more than 35% of our energy mix in 2018. India is today the third largest primary energy consumer as well as third largest oil consumer in the world and 4th largest country by refining capacity. Oil & Gas sector also plays a key role in influencing decision making for all the other important sections of the economy.

"Indian Petroleum & Natural Gas (IPNG) Statistics 2018-19", 53rd edition in the series, is an annual publication of Ministry of Petroleum & Natural Gas and is a continued effort to provide comprehensive picture of Oil & Gas sector in India. IPNG Statistics referred widely, both within and outside the country, is an integrated, holistic, reliable, updated database of petroleum and natural gas sector, covering the entire gamut of hydrocarbon data including production, consumption and trade.

I compliment the efforts of the officers and staff 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 from 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 : 1/1/2020

(Dr. M M Kutty)

इन्द्राणी कौशल
आर्थिक सलाहकार

Indrani Kaushal
Economic Adviser

सत्यमेव जयते

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PREFACE

India is already the world's third largest energy consumer and expected to be the bright spot for energy growth with the global demand centers shifting towards Asia. Secure, efficient, affordable and sustainable access to all forms of energy will be the key for fuelling the Government's goal for India to be a USD 5.0 trillion economy by 2024-25.

The Indian Petroleum & Natural Gas Statistics is a reference work, 53rd in the series, presents comprehensive statistics 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 like exploration, production, refining, transportation and marketing, imports and exports of crude oil & petroleum products, taxes and duties, manpower employed in oil & gas CPSEs, etc., and a glimpse of the global petroleum scenario, through user friendly graphics, charts and tables. The Publication concludes with a list of definitions, appendices including conversion factors.

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

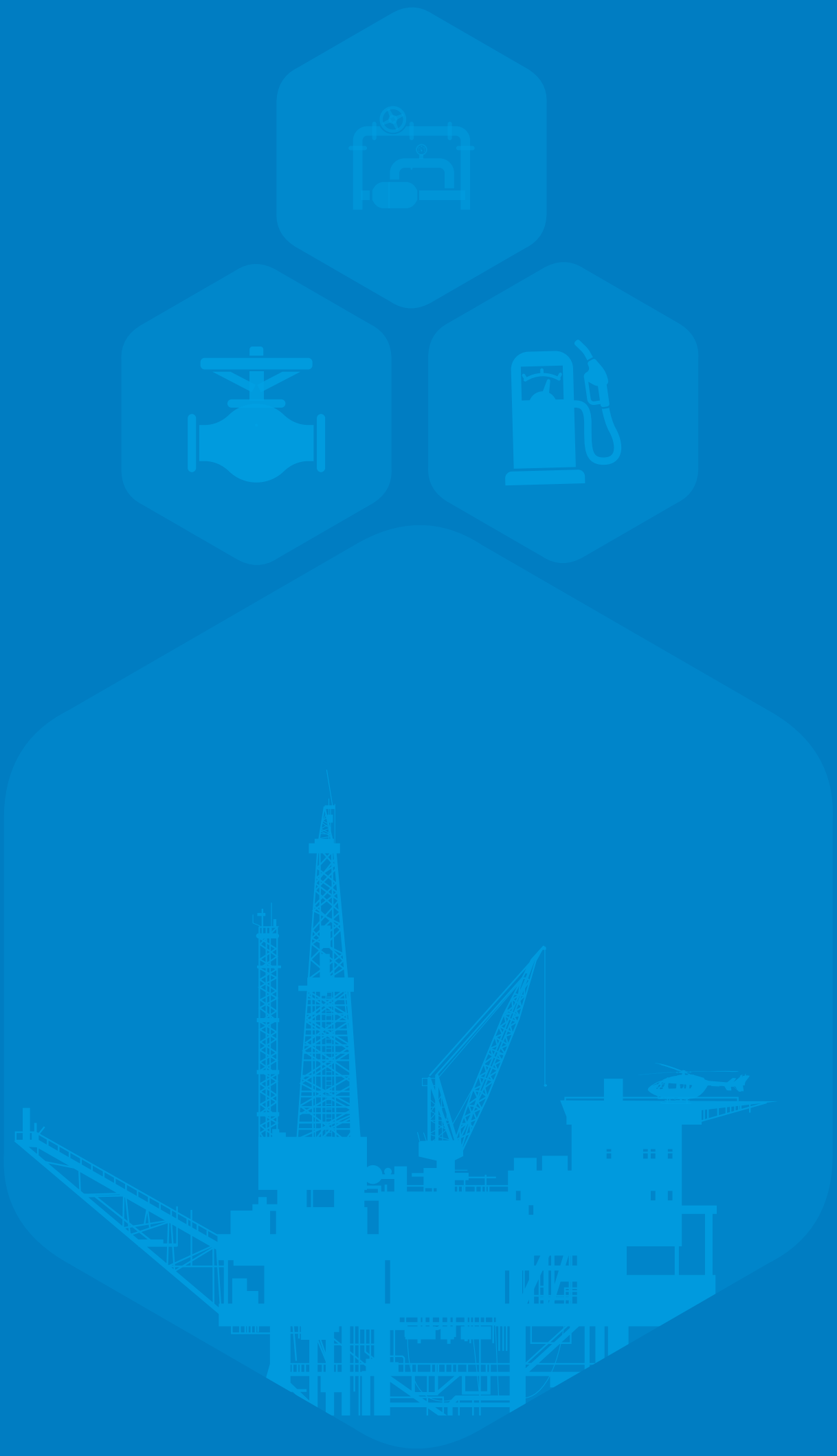
I take this opportunity to put on record the contribution of my team of officers and staff in the Economic & Statistics Division whose collaboration and untiring efforts have been instrumental in bringing out this publication. We are particularly grateful to Sh Shyam Lal, Senior Statistical Officer in the Division who played a key role in the collation/analysis of this publication amongst all other assignments and also in steering previous editions of the book. Oversigtht of Sh Gaurav Katiyar, Dy Director, E&S Division is also acknowledged for this Publication. Thanks are also extended to Sh Gaurawa Kumar Rastogi, Sh Amit Duhan and Sh Ramit Kalia, Technical Officers in the E&S Division who suggested new insights/tables from their technical expertise and in-depth knowledge of energy data management.

We welcome any comments / suggestions towards improving any aspect of the publication. I am sure that this publication would prove to be useful for all kinds of data users including academicians, policymakers and entire research fraternity in oil & gas sector.

Indrani

(Indrani Kaushal)
Economic Adviser

New Delhi



CONTENT

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CONTENT

FIGURE INDEX

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, 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:

   - 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.

   - Data on Taxes and Duties (excise, customs, royalty on oil & gas, oil development cess, sales tax payment) may not be strictly comparable with earlier issues of publication prior to 2017-18 due to change in nomenclature, rationalization, classification and source of reporting.

   - Following new tables are included

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

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

   ▶ III.10: Distillate Yield of PSU Refineries

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

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

- VII.7: GST Payment by Oil & Gas Companies
- VII.9: Sales Tax/VAT Payments on Petrol by CPSEs
- VII.10: Sales Tax/VAT Payments on Diesel by CPSEs
- VII.11: Sales Tax/VAT Payments on ATF by CPSEs
- VIII.12: Gender-wise & Category-wise Manpower Employed in Oil & Gas CPSEs as on 31.03.2019
- XI.1: World Energy Outlook-2018
- XI.11: World Imports of Petroleum Products
- XI.16: World Exports of Natural Gas

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. India's primary energy demand is expected to grow at a CAGR of 4.2 % during 2017-2040, much faster than any major economy in the world. 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 ₹783183, Petroleum products ₹113665 and LNG ₹71867 crore) was 26.95% in 2018-19 of the country's overall imports (₹3594373). 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 249.37 MMTPA as on 01.04.2019. 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 206.17 MMT in 2017-18 to 213.22 MMT in 2018-19, India is in a position to export surplus products after meeting domestic demand.

I.1 Crude Oil and Natural Gas Production:

The crude oil production during the year 2018-19 is at 34.20 Million Metric Tonnes (MMT) as against production of 35.68 MMT in 2017-18, showing a decline of 4.15%. 71.15% of crude oil production is by ONGC and OIL from nomination regime and remaining 28.85% of crude production by Private/JVs companies from PSC regime. Shortfall in production was mainly due to declining production from old and marginal fields, delay in completion of some projects in western offshore, unplanned shutdown of wells, processing platform/plants, pipelines and Bandh & blockade in Assam region.

Natural Gas production during the year 2018-19 is at 32.87 Billion Cubic Meters (BCM) which is 0.67% higher than production of 32.65 BCM in 2017-18. 83.34% of natural gas production is by ONGC and OIL from nomination regime and remaining 16.66% of natural gas production is by Private/JVs companies from PSC regime. Shortfall in production in some fields was mainly due to decline of production from old and marginal fields, shutdown of plants of major customers, underperformance of wells, issues and resistance from local groups for development projects in onland areas and unplanned shutdown of wells, processing platforms/plants, pipelines.

Ministry of Petroleum & Natural Gas has undertaken a series of reforms and new initiatives. Some of these include Hydrocarbon Exploration Licensing Policy (HELP)/ Open Acreage Licensing Policy (OALP), Discovered Small Field (DSF) Policy, Policy to Promote and Incentivize Enhanced Recovery Methods for Oil and Gas, Policy framework for exploration and exploitation of Unconventional Hydrocarbons under existing Production Sharing Contracts (PSCs), Coal Bed Methane contracts and Nomination fields, Policy for Relaxations, Extensions and Clarifications under PSC regime for early monetization of hydrocarbon discoveries, Policy for early monetization of Coal Bed Methane, Setting up of National Data Repository, Appraisal of Unapprised areas in Sedimentary Basins, Re-assessment of Hydrocarbon Resources, Policy for Extension of PSCs, Policy framework to streamline the working of PSCs in Pre-NELP and NELP Blocks, National Bio-fuels Policy 2018, Production of biodiesel from used cooking oil (UCO), Pradhan Mantri Urja Ganga, Expansion of City Gas Distribution (CGD) network in the country.

With a view to promote exploration, early monetization, incentivise production, streamline procedure and promote ease of doing business, a series of policy decisions have been taken by the Government on 19th February, 2019 in the hydrocarbon sector, the highlights of which are given below:

(i) Weightage to Minimum Work Programme (MWP) has been enhanced.
(ii) Revenue sharing ceiling at highest revenue point to be set at 50%.
(iii) The timeline for completion of committing Minimum Work Programme reduced.
(iv) No production & revenue sharing, only statutory levies except in case of windfall gain.
(vi) Full marketing and pricing freedom at Arm's Length basis based on competitive bidding.
(vii) Grant of concessional royalty, if production commences within 4 years / 5 years.
(viii) New gas discoveries to get pricing and marketing freedom.
(x) National Oil Companies (NOCs) have been given freedom to choose field specific implementation model like Technical Services Model, Joint-Venture Model, Farming-out Model, etc., for enhancing production.
(xi) NOCs have also been mandated to bid-out fields with complete marketing and pricing freedom on revenue sharing model under the supervision of DGH.

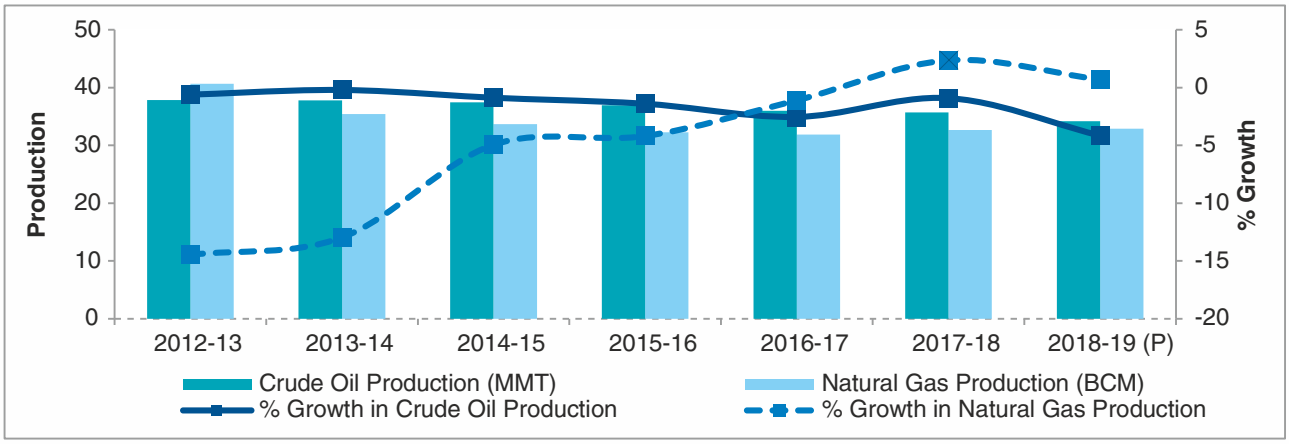
The trends in the production of crude oil and natural gas for the year 2012-13 to 2018-19 have been depicted below:

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
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 (P)	**34.20**	**-4.15**	**32.87**	**0.69**

P: Provisional

Figure I.1: Crude Oil & Natural Gas Production



I.2 Refinery Capacity & Refinery Crude Throughput:

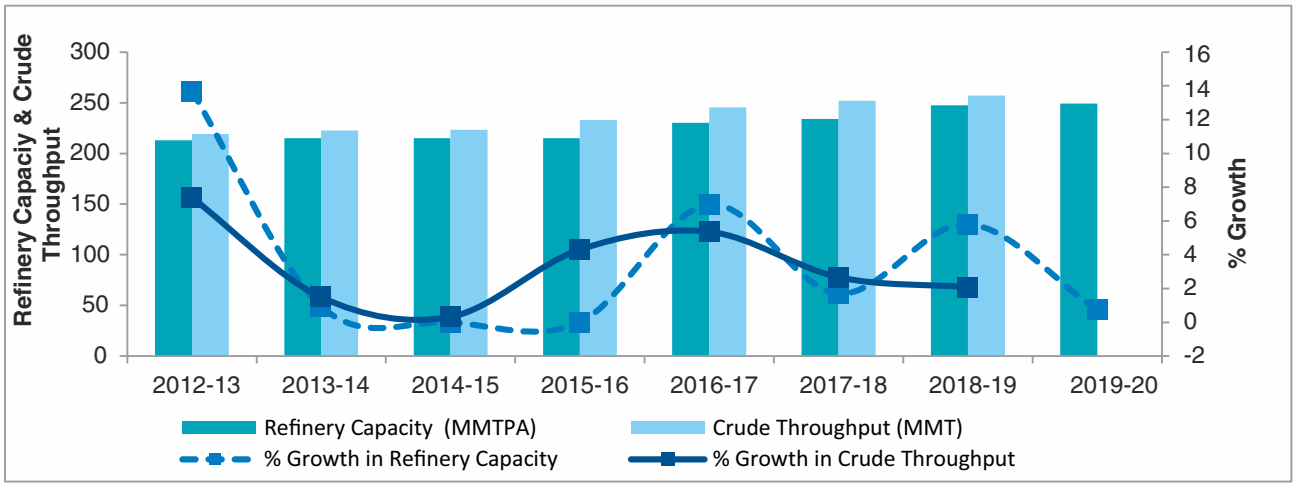
Indian refinery industry has done well in establishing itself as a major player globally. India, which is second largest refiner in Asia after China, is emerging as a refinery hub with refining capacity exceeding demand. The country's refinery capacity has increased to 249.37 MMTPA as on 01.04.2019. Crude Oil Processed for the year 2018-19 is 257.20 MMT as against 251.93 MMT in 2017-18, showing an increase of about 2.09%. Refinery capacity utilisation is 103.89% for the year 2018-19. The trend in Refinery Capacity and Crude throughput during 2012-13 onwards are depicted in Table 1.2.

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 (%)
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 (P)	**247.57**	**5.81**	**257.20**	**2.09**	**103.89**
2019-20	249.37	0.73	-	-	-

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

Figure I.2: Refinery Capacity and Refinery Crude Throughput



I.3 Production and Consumption of Petroleum Products

The production of petroleum products is at 262.36 MMT in year 2018-19 as against 254.40 MMT achieved in 2017-18, showing an increase of about 3.13%. During the year 2018-19, the consumption of petroleum products in India was 213.22 MMT with a growth of 3.42% as compared to consumption of 206.17 MMT during 2017-18. During 2018-19, Diesel (HSD+LDO) accounted for the highest consumption share (39.5%) followed by Petrol/Motor Spirit (13.3%), LPG (11.7%), Petroleum Coke (10.0%), Naphtha (6.6%) and ATF (3.9%). Consumption of Kerosene (10.0%), Fuel Oil (2.3%), Lubes (5.6%) and Petcoke (16.8%) has shown negative growth. The decline in consumption of kerosene is associated with rapid expansion of electricity access and increase in domestic LPG consumption under Pradhan Mantri Ujjawala Yojana (PMUY) along with clean fuel expansion and also rationalization of SKO allocation to respective States.

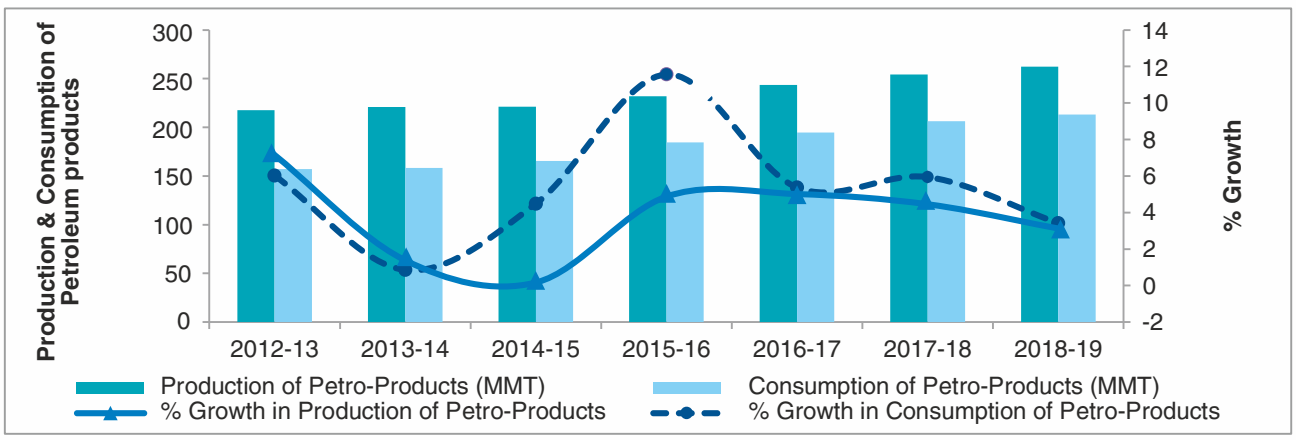
Year-wise production and consumption of petroleum products since 2012-13 to 2018-19 are depicted below:

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
2012-13	217.736	7.15	157.06	6.03
2013-14	220.756	1.39	158.41	0.86
2014-15	221.136	0.17	165.52	4.49
2015-16	231.923	4.88	184.67	11.57
2016-17	243.551	5.01	194.60	5.37
2017-18	254.405	4.46	206.17	5.95
2018-19(P)	**262.361**	**3.13**	**213.22**	**3.42**

P: Provisional

Figure I.3: Production and Consumption of Petroleum Products



I.4 Import & Price of Crude Oil:

Import of crude oil during 2018-19 was 226.50 MMT valued at ₹783183 crore as against import of 220.43 MMT valued at ₹566450 crore in 2017-18 which marked an increase of 2.75% in quantity terms and 38.26% in value terms as compared to the import of crude oil during 2017-18.

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 and 2017-18 was recorded at $46.17/bbl, $47.56/bbl and $56.43/bbl respectively. The price has increased to $ 69.88/ bbl during the current financial year 2018-19. 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 rupee dollar exchange rate was moving in a narrow band till FY 2011-12, but subsequently there was a depreciation of the Indian rupee thus making the prices of crude oil and petroleum products expensive in domestic currency.

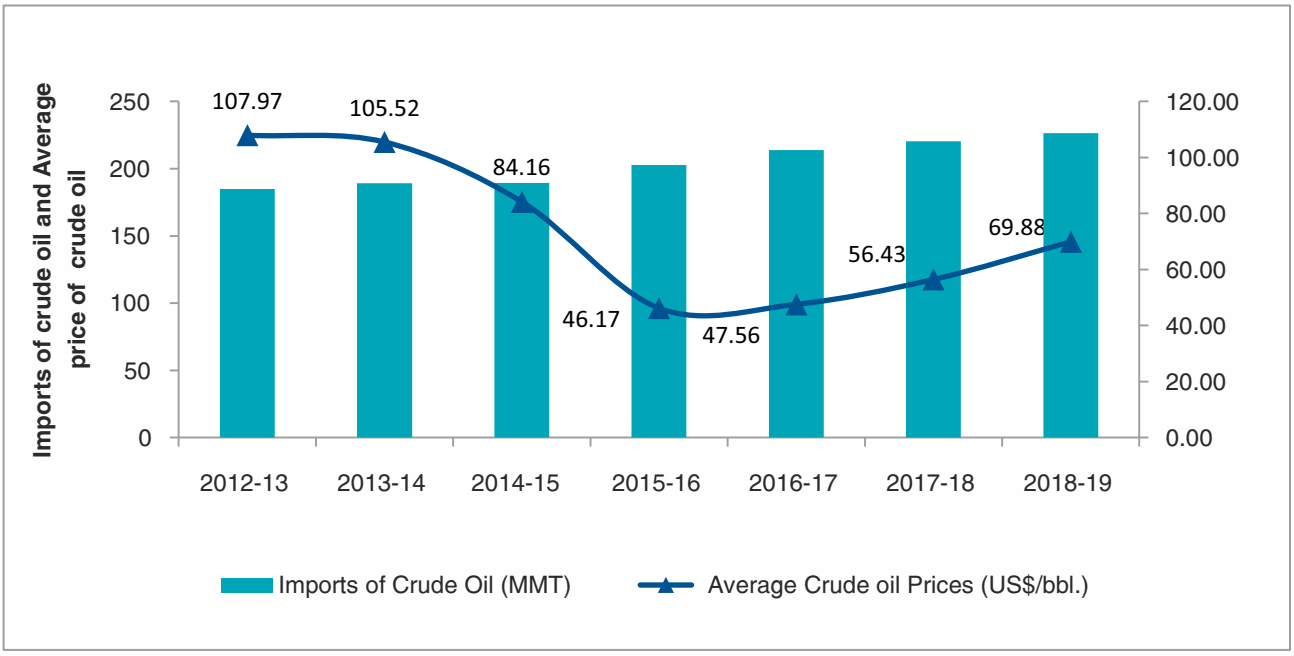
The trends in growth of crude oil imports and crude oil international (Indian Basket) prices 2012-13 to 2018-19 are depicted below:

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
2012-13	184.80	7.61	107.97	-3.50
2013-14	189.24	2.40	105.52	-2.27
2014-15	189.44	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(P)	**226.50**	**2.75**	**69.88**	**23.84**

P: Provisional

Figure I.4: Quantity of Crude Oil Imports and Average International Crude Oil Prices (Indian basket)



I.5 Imports & Exports of Petroleum Products:

During the year 2018-19 the import of petroleum products having decreased to 33.35 MMT valued at ₹113665 crore which shows decrease of 5.96% in quantity terms and 28.62% increase in value terms against 35.46 MMT imports of petroleum products valued at ₹88374 crore during 2017-18 while exports of petroleum products were 61.10 MMT valued at ₹267697 crore during which shows a decrease of 8.58% in quantity terms and 18.77% increase in value terms against the exports of 66.83 MMT valued at ₹225388 crore during 2017-18.

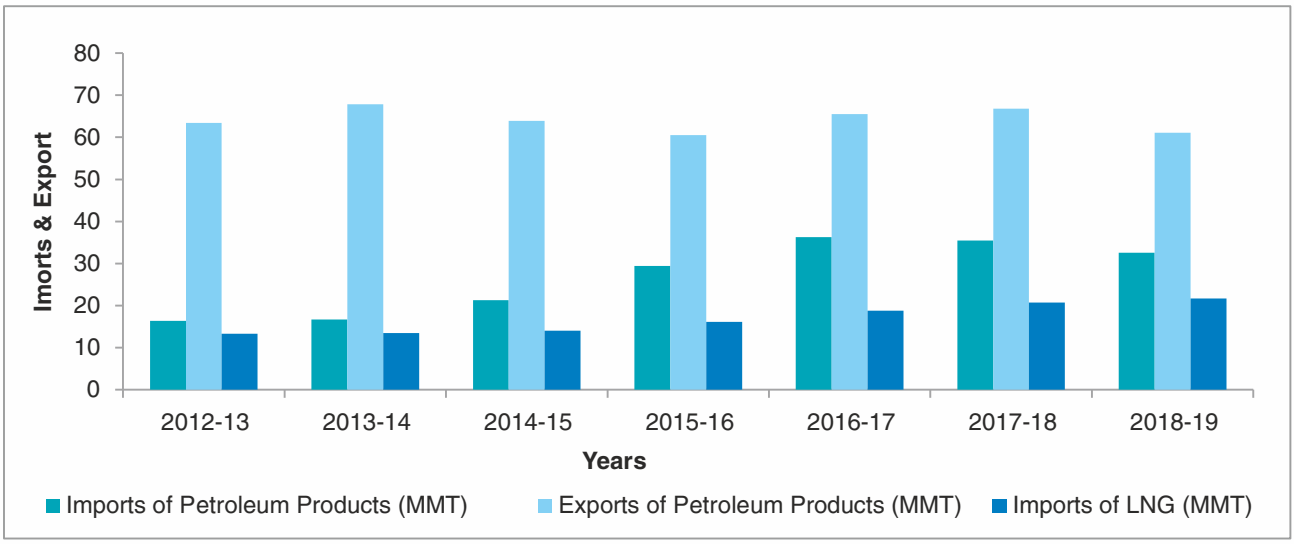
The trend in imports/exports of petroleum products and LNG are depicted in Table 1.5 & Figure 1.5.

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
2012-13	16.35	3.18	63.41	4.23	13.29	0.60
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 (P)	**33.35**	**-5.96**	**61.10**	**-8.58**	**21.69**	**4.74**

P: Provisional

Figure I.5: Trend in Imports & Exports of Petroleum Products



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 2018-19, FDI inflow received was ₹9402 Million contributing 0.31% of total FDI inflow in the economy.

Figure I.5: Trend in Imports & Exports of Petroleum Products

Years	FDI inflows				Annual Growth (%)			
	All Sector		P&NG Sector		All Sector		P&NG Sector	
	₹ Million	US$ Million	₹ Million	US$ Million	₹ Million	US$ Million	₹ Million	US$ Million
2012-13	1219067	22424	11926	215	-26.18	-36.15	-88.02	-89.42
2013-14	1475178	24299	6784	112	21.01	8.37	-43.12	-47.75
2014-15	1891071	30931	64957	1079	28.19	27.29	857.51	861.44
2015-16	2623216	40001	6770	103	38.72	29.33	-89.58	-90.45
2016-17	2916963	43478	11971	180	11.20	8.69	76.81	75.11
2017-18	2888885	44857	1561	24	-0.96	3.17	-86.96	-86.60
2018-19 (P)	**3098667**	**44366**	**9402**	**138**	**7.26**	**-1.09**	**502.35**	**472.50**

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 2018-19 was ₹100308.70 crore against Budget Estimate (BE) of ₹89335.09 crore. CPSEs have achieved an actual expenditure of ₹100308.70 which is 112.28% of Actual to total BE 2018-19. Budget Estimates (BE) of IEBR of oil and gas CPSEs under Ministry of Petroleum & Natural Gas in 2019-20 is ₹93639.30 crore. Year-wise Actual expenditure of the Ministry of Petroleum & Natural Gas is given at Table X.1.

I.8: Indian Economy-Selected Indicators

Indicator	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(3)	(4)	(5)	(6)	(7)	(8)	(8)
1.Gross Domestic Product1 :							
(i) At current prices (₹ Crore)	9944013	11233522	12467959	13771874	15362386	17095005	19010164
(ii) At constant prices (₹ Crore)	9213017	9801370	10527674	11369493	12298327	13179857	14077586
2. GVA at Basic Price1 :							
(i) At current prices (₹ Crore)	9202692	10363153	11504279	12574499	13935917	15482715	17199815
(ii) At constant prices (₹ Crore)	8546275	9063649	9712133	10491870	11318972	12104165	12906936
3. Per Capita NNI (Population in Million)1 :							
(i) At current prices (₹)	70983	79118	86647	94797	104659	114958	126406
(ii) At constant prices (₹)	65538	68572	72805	77659	82931	87623	92565
4. Foreign Exchange Reserves :	1588418	1828375	2137647	2378740	2398193	2760848	2855882
(i) Gold (₹ Crore)	139737	129616	119160	133429	128828	139742	159585
(ii) SDR (₹ Crore)	23538	26826	24944	9960	9379	10017	10076
(iii) Foreign Currency Assets (₹ Crore)	1412631	1660914	1985458	2219061	2244939	2597569	2665564
(iv) Reserve Tranch Position (₹ Crore)	12513	11019	8085	16290	15047	13520	20657
5. Foreign Trade :							
(i) Import (₹ Crore)	2669162	2715434	2737087	2490306	2577675	3001033	3594373
(ii) Export(₹ Crore)	1634319	1905011	1896348	1716384	1849434	1956515	2307663
(iii) Balance of Trade (₹ Crore)	-1034843	-810423	-840738	-773921	-728242	-1044519	-1286710
6. Index of Production :							
(i) Agricultural (2007-08=100)	124.2	129.8	124.0	120.8	131.8	136.7	132.7
(ii) Industrial (2011-12=100)	103.3	106.8	111.0	114.7	120.0	125.3	129.8
7. Wholesale Price Index (2011-12=100)	106.9	112.5	113.9	109.7	111.6	114.9	119.8
8. Consumer Price Index:							
(i) Industrial Workers (2010=100 & 2012=100)	127.5	114.2	120.2	126.0	130.9	136.5	140.4
(ii) Agricultural Labourers (1986-87=100)	704.0	763.0	803.0	843.0	866.0	887.0	924.0
(iii) Rural Labourers (1986-87=100)	705.0	765.0	807.0	848.0	872.0	894.0	932.0
9. Energy Generation (Gross) :							
Coal (MMT)	556.400	565.770	609.180	639.230	657.870	675.400	730.350
Lignite (MMT)	46.450	44.270	48.270	43.840	45.230	46.260	44.290
Natural Gas (BCM)	40.679	35.407	33.657	32.249	31.897	32.649	32.873
Crude Oil (MMT)	37.862	37.788	37.461	36.942	36.009	35.684	34.203
Petroleum Products	217.736	220.756	221.136	231.923	243.551	254.405	262.361
10. Electricity Generated (GWh)							
(i) Total Utilities	964489	1021167	1116850	1167584	1235358	1303455	1371817
Thermal	760454	792477	877941	943013	993516	1037146	1072311
Hydro	113720	134848	129244	121377	122378	126123	134894
Nuclear	32866	34228	36102	37414	37916	38346	37813
RES	57449	59615	73563	65781	81548	101839	126800
(ii) Non-utilities	144010	156843	162057	168372	172046	179777	175000
Total Electricity	1108499	1178010	1278907	1335956	1407404	1483232	1546817
11. POL Traffic by Rail (MMT)	40.607	41.159	41.095	43.238	42.422	43.110	43.490

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 : Economic Survey 2018-19, Oil Companies, CEA,Ministry of Power, Ministry of Coal, Ministry of Railway, MoSPI and RBI.

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

Item	Unit	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Production								
(i) Crude Oil	MMT	37.862	37.788	37.461	36.942	36.009	35.684	34.203
(ii) Natural Gas	BCM	40.679	35.407	33.657	32.249	31.897	32.649	32.873
(iii) Petroleum Products	MMT	217.736	220.756	221.136	231.923	243.551	254.405	262.361
2. Consumption								
(i) Crude Oil (in terms of refinery crude processed)	MMT	219.21	222.50	223.24	232.86	245.36	251.93	257.20
(ii) Natural Gas (including LNG)	BCM	57.37	52.37	51.30	52.52	55.70	59.17	60.80
(iii) Petroleum Products	MMT	157.06	158.41	165.52	184.67	194.60	206.17	213.22
3. Reserves (Balance Recoverable) as on 31st March								
(i) Crude Oil	MMT	651.55	647.34	635.59	621.28	604.10	594.49	618.95
(ii) Natural Gas	BCM	1171.66	1199.10	1251.99	1227.50	1289.70	1339.57	1380.64
4. Imports & Exports								
(i) Gross Imports :								
(a) Qty : Crude Oil	MMT	184.80	189.24	189.44	202.85	213.93	220.43	226.50
LNG	MMT	13.29	13.44	14.04	16.14	18.75	20.71	21.69
Pol. Products	MMT	16.35	16.70	21.30	29.46	36.29	35.46	33.35
Total (a)	MMT	214.44	219.37	224.78	248.45	268.97	276.60	281.54
(b) Value: Crude Oil	₹ Billion	7846.52	8648.75	6874.16	4165.79	4701.59	5664.50	7831.83
LNG	₹ Billion	417.57	534.55	583.59	450.38	410.84	521.22	718.67
Pol. Products	₹ Billion	688.52	758.96	746.44	653.61	715.66	883.74	1136.65
Total (b)	₹ Billion	8952.61	9942.25	8204.19	5269.78	5828.09	7069.46	9687.15
(ii) Exports :								
(a) Qty : Pol. Products	MMT	63.41	67.86	63.93	60.54	65.51	66.83	61.10
(b) Value: Pol. Products	₹ Billion	3200.90	3682.79	2885.80	1767.80	1948.93	2253.88	2676.97
(iii) Net Imports :								
(a) Qty : Crude Oil	MMT	184.80	189.24	189.44	202.85	213.93	220.43	226.50
LNG	MMT	13.29	13.44	14.04	16.14	18.75	20.71	21.69
Pol. Products	MMT	-47.05	-51.17	-42.63	-31.08	-29.23	-31.37	-27.75
Total (a)	MMT	151.04	151.51	160.85	187.91	203.46	209.77	220.44
(b) Value: Crude Oil	₹ Billion	7846.52	8648.75	6874.16	4165.79	4701.59	5664.50	7831.83
LNG	₹ Billion	417.57	534.55	583.59	450.38	410.84	521.22	718.67
Pol. Products	₹ Billion	-2512.38	-2923.83	-2139.36	-1114.19	-1233.27	-1370.14	-1540.31
Total (b)	₹ Billion	5751.72	6259.46	5318.39	3501.98	3879.16	4815.58	7010.19
(iv) Unit Value of Crude oil imports(gross)	₹./MT	42460.69	45703.02	36287.71	20536.30	21977.04	25697.16	34577.91
5. India's Total Imports	₹ Billion	26691.62	27154.34	27370.87	24903.06	25776.75	30010.33	35943.73
6. India's Total Exports	₹ Billion	16343.19	19050.11	18963.48	17163.84	18494.34	19565.15	23076.63
7. Petroleum Imports as % of India's total Imports	%	33.54	36.61	29.97	21.16	22.61	23.56	26.95
8. Petroleum Exports as % of India's total Exports	%	19.59	19.33	15.22	10.30	10.54	11.52	11.60
9. Contribution of Oil Sector to Centre/State Resources								
(i) Royalty from crude oil	₹ Crore	15068	16971	16623	11446	12269	12057	16964
(ii) Royalty from gas	₹ Crore	2078	2112	1938	2471	1867	1722	2364
(iii) Oil Development Cess	₹ Crore	14551	14562	14590	14238	12542	13544	18984
(iv) Excise & Custom duties	₹ Crore	68851	73780	94239	173675	230573	213012	163162
(v) Sales Tax	₹ Crore	115036	129045	137157	142848	166414	186394	201265
(vi) Dividend	₹ Crore	14784	14237	13912	14614	33487	29801	30323

P: Provisional

Source: Oil & Gas Comapanies, PPAC, RBI and Economic Survey

I.10: International Petroleum Statistics

Item/Year	Unit	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. World reserves of oil & gas at year end								
(i) Crude Oil	Thousand Million Barrels	1687	1694	1697	1684	1692	1728	1730
of which OPEC		1201	1206	1206	1208	1214	1240	1242
(ii) Natural Gas	TCM	188	189	190	189	191	196	197
2. World production of oil & gas								
(i) Crude Oil	MMT	4120	4129	4223	4355	4368	4380	4474
of which OPEC		1822	1770	1764	1830	1886	1874	1854
(ii) Natural Gas Net	MMTOE	2858	2892	2950	3011	3045	3162	3326
3. World Oil Refinery								
"(i) Refinery capacity at year end"	MMT	4719	4784	4841	4863	4886	4911	4982
(ii) Crude throughput		3815	3837	3878	3983	4009	4083	4131
4. World Oil & Gas Consumption								
(i) Crude Oil	MMT	4180	4230	4263	4343	4422	4477	4529
(ii) Natural Gas	MMTOE	2853	2897	2917	2981	3053	3142	3309
5. World Imports								
(i) Crude Oil	MMT	2143	2073	2048	2134	2227	2315	2331
(ii)Pol. Products	MMT	1085	1120	1140	1224	1272	1324	1341
(iii) Natural Gas	BCM	1040	1062	1003	1024	1079	1158	1210
6. World Export of Crude Oil & POL from OPEC								
(i) Crude Oil	MMT	2061	2015	2002	2069	2203	2233	2281
of which OPEC	MMT	1243	1193	1145	1167	1246	1228	1228
(ii)Pol. Products	MMT	1153	1210	1226	1295	1369	1403	1426
of which OPEC	MMT	167	166	160	177	198	179	215
(iii) Natural Gas	BCM	1030	1047	1029	1055	1115	1204	1276
7. World Primary Energy Consumption								
(i) Oil	MTOE	4176	4221	4255	4341	4557	4607	4662
(ii) Natural Gas		3011	3054	3073	3147	3073	3142	3309
(iii) Coal		3817	3887	3889	3785	3706	3718	3772
(iv) Hydro-Electric		832	859	879	883	913	920	949
(v) Nuclear Energy		559	564	575	583	591	597	611
(vi) Renewables		239	281	317	367	417	490	561
Total		**12634**	**12866**	**12989**	**13105**	**13259**	**13475**	**13865**

Note:

TMT: Thousand Million Tonnes, TCM: Trillion Cubic Meters, MMT: Million Metric Tonnes, MTOE: Million Tonnes Oil Equivalent

Source : BP Statistical Review of World Energy June-2019 and OPEC Annual Statistical Bulletin, 2019

CHAPTER - II

EXPLORATION - 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 689 wells (of which 82% are development wells) with 15.07 lakh metreage area drilled by Oil & Gas Companies during 2018-19.
- Balance recoverable reserves of crude oil as on 01.04.2019 is 618.94 MMT, out of which 277.60 MMT (45%) are in offshore. ONGC (nomination) has the largest share of 70% in reserves of crude oil with OIL (nomination) and PSC regime contributing 12% and 18% respectively.
- Balance recoverable reserves of natural gas as on 01.04.2019 were 1380.64 BCM, out of which 888.34 BCM (64%) are in offshore. PSC regime has the largest share of 50% in natural gas reserves followed by with ONGC (nomination) and OIL (nomination) at 41% and 9% respectively.
- Out of total crude oil & condensate production of 34.20 MMT in 2018-19, 61% (21.04 MMT) is from ONGC (nomination), 10% (3.29 MMT) from OIL (nomination) and 29% (9.87 MMT) from PSC regime
- Out of total natural gas production of 32.87 BCM in 2018-19, 75% (24.68 BCM) is from ONGC (nomination), 8% (2.72 BCM) from OIL (nomination) and 17% (5.48 BCM) from PSC regime.
- Maximum production of crude Oil (8.67 MMT) occurred in Mumbai High asset of ONGC and maximum production of natural gas (11.56 BCM) occurred in Bassein & Satellite fields of ONGC in 2018-19.
- Total consumption of natural gas in 2018-19 stands at 60.80 BCM which is 2.8% higher than the consumption during the 2017-18 (59.17 BCM). The Sectorial sale of Gas was in 2018-19 5.84 as against 52.83 BCM. 33.47 BCM (62%) is consumed for energy purpose as fuel and the balance 38% is used for non-energy purpose as feedstock for various industries.
- In 2018-19 highest consumption of natural gas was in fertilizer industry at 14.99 BCM (28%) followed by power sector 12.01 BCM (22%) and City or Local Natural Gas Distribution Network at 9.21 BCM (17%).
- Oil & Gas production from abroad assets is 24.94 MMTOE during 2018-19 which 37% of domestic oil and gas production.

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)									
2012-13	81	304	638	40	93	269	121	397	907
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 (P)	70	356	696	31	116	310	101	472	1006
(B) Oil India Limited (Nomination)									
2012-13	17	37	128	-	-	-	17	37	128
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 (P)	17	33	112	-	-	-	17	33	112
(C) PSC Regime									
2012-13	13	69	140	10	31	116	23	100	256
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 (P)	44	151	295	18	33	95	62	184	390
Total (A+B+C)									
2012-13	111	410	906	50	124	385	161	534	1291
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 (P)	131	540	1103	49	149	404	180	689	1507

Note: P: Provisional

1. Total may not tally due to rounding off

2.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 & DGH

Figure II.1: Share of wells drilled during 2018-19 (%)

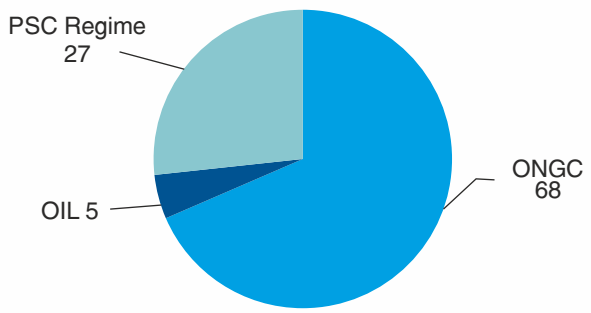
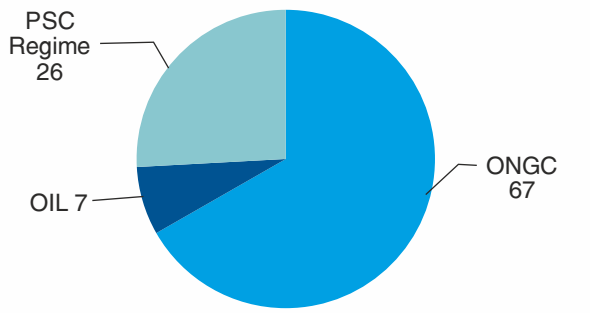


Figure II.2: Share in metreage drilled during 2018-19 (%)



II.2: Exploratory & Development Drilling by Oil Companies

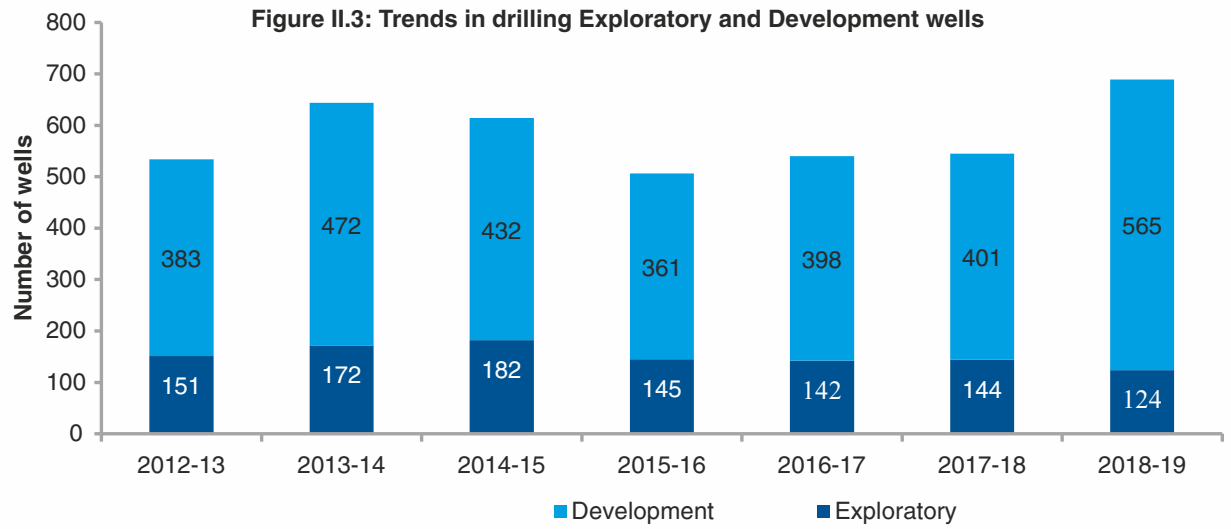
Year	Exploratory		Development		Total	
	Wells (Nos.)	Metreage ('000')	Wells (Nos.)	Metreage ('000')	Wells (Nos.)	Metreage ('000')
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(A) Onshore						
2012-13	109	315	301	591	410	906
2013-14	128	349	389	687	517	1037
2014-15	130	344	366	652	496	995
2015-16	105	320	320	587	425	907
2016-17	102	277	312	628	414	904
2017-18	85	266	338	649	423	915
2018-19 (P)	89	229	451	874	540	1103
(B) Offshore						
2012-13	42	145	82	240	124	385
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 (P)	35	104	114	300	149	404
Total (A+B)						
2012-13	151	460	383	831	534	1291
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 (P)	124	333	565	1174	689	1507

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

Figure II.3: Trends in drilling Exploratory and Development wells



II.3: Status of Wells

(in Numbers)

Category / Year #	Oil	Gas	Dry	Under Test	Injector	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(A) Oil India Ltd. (Nomination)							
2013	473	121	440	96	106	1147	2383
2014	422	116	441	98	105	1236	2418
2015	368	94	450	77	86	1379	2454
2016	378	107	449	78	128	1358	2498
2017	386	107	436	18	48	1559	2554
2018	394	103	537	36	44	1479	2593
2019	383	95	539	16	32	1561	2626
(B) Oil & Natural Gas Corporation Ltd. (Nomination)							
2013	5292	707	2764	84	1049	2793	12689
2014	5547	735	2788	88	1053	2833	13044
2015	5780	770	2808	80	1059	2890	13387
2016	5989	790	2829	105	1081	2918	13712
2017	6282	844	2870	136	1091	2925	14148
2018	6580	876	2913	182	1110	2926	14587
2019	6401	945	3513	38	1601	2523	15021
(C) PSC Regime							
2013	516	212	589	3	88	27	1435
2014	633	240	636	6	148	27	1690
2015	696	267	675	24	225	37	1924
2016	732	284	712	30	266	37	2061
2017	739	292	738	37	266	37	2109
2018	762	306	759	45	266	38	2176
2019	848	339	773	47	303	50	2360
Total (A+B+C)							
2013	6281	1040	3793	183	1243	3967	16507
2014	6602	1091	3865	192	1306	4096	17152
2015	6844	1131	3933	181	1370	4306	17765
2016	7099	1181	3990	213	1475	4313	18271
2017	7407	1243	4044	191	1405	4521	18811
2018	7736	1285	4209	263	1420	4443	19356
2019	7632	1379	4825	101	1936	4134	20007

Note: Figures not strictly comparable with earlier issues of publication prior to 2015-16 due to change in nomenclature, rationalisation and classification of reporting.

#: As on 1st April of each year

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

II.4: State-wise Geological Surveys Achievements upto 31.03.2019

(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
Orissa	-	-	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 31.03.2019

Area/ State	ONGC (Nomination)		OIL (Nomination)		PSC 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	10278	0	0	1794	1752	40959	12031
Arunachal Pradesh	0	0	3393	268	52	114	3445	382
Assam[1]	31535	4467	24508	7904	3327	2022	59370	14393
Bihar[2]	6566	0	0	0	2423	947	8989	947
Chhattisgarh	202	0	0	0	0	0	202	0
Gujarat	104712	11202	0	0	7729	7734	112442	18936
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	942	0	0	2694	304	12715	1246
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
Orissa	313	0	4278	0	470	0	5061	0
Punjab	4078	0	0	0	0	0	4078	0
Rajasthan	20571	1467	11570	729	17324	17916	49465	20113
Tamil Nadu	41031	8269	0	0	1710	3263	42740	11533
Telangana	0	0	0	0	195	0	195	0
Tripura	6290	1076	0	0	1688	63	7978	1139
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)	**330259**	**38303**	**49970**	**8901**	**49663**	**38531**	**429891**	**85736**
(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	229125	194431	346640	202531
Western offshore	434940	81361	0	0	120171	63720	555110	145082
Total(B)	**552454**	**89461**	**22810**	**332**	**349295**	**258152**	**924560**	**347945**
Total	**882713**	**127765**	**72780**	**9233**	**398958**	**296683**	**1354451**	**433681**

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 31.03.2019

(in Numbers)

Basin	State / Region	Wells	Metreage
		Numbers	('000')
(1)	(2)	(3)	(4)
(A) Onshore		15961	33770
Cambay	Gujarat	8467	14600
Kutch	Gujarat	5	3662
Rajasthan	Rajasthan	1227	2158
Vindhyan	Rajasthan	5	14
	Madhya Pradesh	2	5
	Total WRBC	**9706**	**16789**
	Nagaland	37	131
Upper Assam	Assam	4312	11451
	Meghalaya	3	6
Mahanadi	Odisha	4	11
Fold Belt	Mizoram under ERBC	6	21
	Arunachal Pradesh	58	190
Assam-Arakan	Tripura	267	774
	Total ERBC	**4687**	**12584**
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
Ganga Valley &	Punjab	4	16
Vindhyan/Gondwana/Ganga	Uttar Pradesh	10	35
	Madhya Pradesh	20	57
	Jammu & Kashmir	4	12
	Total NRBC	**54**	**180**
Krishna-Godavari	Andhra Pradesh	687	2055
Pranhita-Godavari	Andhra Pradesh	1	3
Cauvery	Tamil Nadu	748	1925
	Total SRBC	**1436**	**3983**
(B) Offshore		**3991**	**10494**
East Coast(SW+DW)	East Coast including KG, Cauvery	654	2147
West Coast (SW+DW)	West Coast including drilling in	3320	8281
	Orissa, Andaman & Saurashtra	17	66
	Others	0	0
Total (A+B)		**19952**	**44263**

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 31.03.2019

(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
Gujarat	Cambay	23	2	10	35
Assam	A&AA	1	4	-	5
Rajasthan	Jodhpur	-	6	-	6
Andhra Pradesh	K.G. Basin	9	45	8	62
Tamil Nadu	Cauvery	7	9	12	28
Tripura	A&AA	-	10	-	10
Nagaland	A&AA	1	-	1	2
Madhya Pradesh	Vindhyan Basin	-	1	-	1
Total Onshore		**86**	**81**	**64**	**231**
East Coast	Cauvery Offshore	-	1	-	1
East Coast	KG Offshore(Shallow)	4	7	4	15
East Coast	KG Offshore(Deep)	1	4	2	7
West Coast	Cambay	2	-	-	2
West Coast	Mumbai Offshore	27	17	36	80
West Coast	Kutch	-	2	1	3
Total Offshore		**34**	**31**	**43**	**108**
Total (A)		**120**	**112**	**107**	**339**
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 Nagaur	0	0	1	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	16	2	0	18
Tamil Nadu	Cauvery	2	1	0	3
West Bengal*	Raniganj	0	2	0	2
Total Onshore+CBM		**60**	**19**	**1**	**80**
East Coast	Cauvery	1	1	0	2
East Coast	Krishna Godavari	1	7	2	10
West Coast	Mumbai	1	2	1	4
West Coast	Cambay	1	2	2	5
Total Offshore		4	12	5	21
Total (C)		**64**	**31**	**6**	**101**
Grand Total (A+B+C)		**184**	**143**	**132**	**459**

A&AA : Assam & Assam Arakan. *: CBM Fields

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				Operational Block				Area Awarded (Sq. Km)
		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)
NELP-I	48	7	16	1	24	2	1	0	3	231527
NELP-II	25	8	8	7	23	0	1	1	2	267883
NELP-III	27	9	6	8	23	0	1	3	4	204608.5
NELP-IV	24	10	0	10	20	0	0	4	4	192810
NELP-V	20	6	2	12	20	0	1	3	4	115180
NELP-VI	55	21	6	25	52	0	3	6	9	306369
NELP-VII	57	11	7	23	41	0	3	8	11	112984.68
NELP-VIII	70	8	11	13	32	0	2	4	6	52573
NELP-IX	34	1	3	15	19	0	1	9	10	26428
Total NELP	**360**	**81**	**59**	**114**	**254**	**2**	**13**	**38**	**53**	**1510363**
OALP-I	55	1	8	46	55	1	8	46	55	59282
OALP-II	14	1	5	8	14	1	5	8	14	29233
OALP-III	23	1	3	14	18	1	3	14	18	29765
Total OALP	**92**	**3**	**16**	**68**	**87**	**3**	**16**	**68**	**87**	**118280**
DSF-I	46	0	7	23	30	0	7	23	30	776.8
DSF-II	25	0	14	9	23	0	14	9	23	2999.7
Total DSF	**71**	**0**	**21**	**32**	**53**	**0**	**21**	**32**	**53**	**3776.4**

Source: DGH

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

Area/State	Reserves of Crude Oil (MMT)								Reserves of Natural Gas (BCM)							
	2013	2014	2015	2016	2017	2018	2019	% of Total (2019)	2013	2014	2015	2016	2017	2018	2019	% of Total (2019)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Western Offshore	265.33	255.70	255.27	247.13	239.20	236.25	235.27	38.01	319.42	319.72	325.01	293.96	302.35	312.52	323.19	23.41
Eastern Offshore	16.79	34.75	34.19	36.39	40.67	40.42	42.34	6.84	416.98	449.47	467.65	451.46	507.76	510.83	565.15	40.93
A. Total Offshore	**282.12**	**290.45**	**289.46**	**283.53**	**279.86**	**276.67**	**277.60**	**44.85**	**736.40**	**769.20**	**792.66**	**745.41**	**810.10**	**823.35**	**888.34**	**64.34**
Arunachal Pradesh	3.37	2.95	1.64	1.73	1.52	1.74	9.74	1.57	1.96	0.81	0.79	0.95	0.72	1.26	1.64	0.12
Andhra Pradesh	6.80	10.73	10.94	10.90	8.15	7.94	3.36	0.54	42.25	42.32	41.79	42.03	48.31	59.89	63.57	4.60
Nagaland	2.38	2.38	2.38	2.38	2.38	2.38	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.01
Jharkhand (CBM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.91	28.91	29.01	28.23	8.11	8.11	8.10	0.59
West Bengal(CBM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.71	39.55	39.33	66.24	66.45	65.92	32.91	2.38
Madhya Pradesh(CBM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.14	32.13	32.13	32.12	32.11	31.91	31.55	2.29
Tamil Nadu	8.52	8.43	8.47	8.99	9.00	9.16	9.21	1.49	37.66	36.74	35.36	31.68	31.98	39.11	38.00	2.75
Tripura	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.01	30.61	30.27	30.74	28.28	36.10	35.20	23.24	1.68
Assam	168.18	169.25	165.91	160.78	159.95	160.34	158.62	25.63	140.68	140.04	149.38	153.76	158.57	161.65	170.71	12.36
Rajasthan	60.19	44.99	37.32	31.72	24.55	17.99	40.71	6.58	13.77	13.97	36.93	35.66	34.86	54.85	63.03	4.57
Gujarat	119.93	118.09	119.41	121.16	118.61	118.20	119.63	19.33	67.48	65.07	63.79	63.06	62.28	58.23	59.45	4.31
B. Total Onshore	**369.44**	**356.89**	**346.13**	**337.75**	**324.23**	**317.82**	**341.33**	**55.15**	**435.26**	**429.90**	**459.33**	**482.09**	**479.59**	**516.22**	**492.30**	**35.66**
Total Reserves (A+B)	**651.55**	**647.34**	**635.59**	**621.28**	**604.10**	**594.49**	**618.94**	**100.00**	**1171.66**	**1199.10**	**1251.99**	**1227.50**	**1289.70**	**1339.57**	**1380.64**	**100.00**

Notes:
1. Proved and indicated Balance Recoverable Reserves as on 1st April.
2. Western offshore includes Gujarat offshore
3. Total may not tally due to rounding off
4. ONGC has adopted PRMS format as on 01.04.2019. Total Onshore and Total gas reserves includes CBM reserves in Nomination CBM blocks (Un-conventional)

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

Figure II.4: Crude Oil Reserves as % of total (as on 01.04.2019)

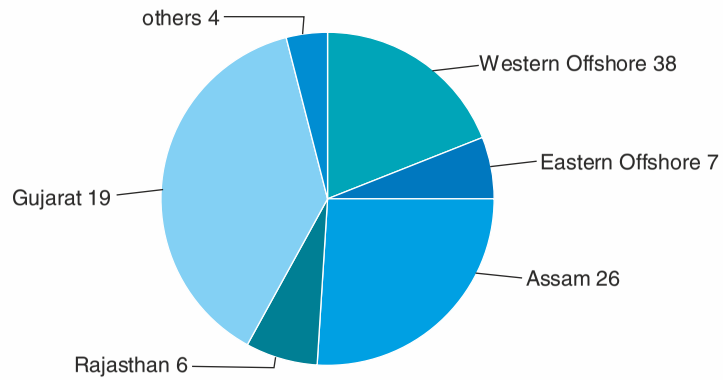
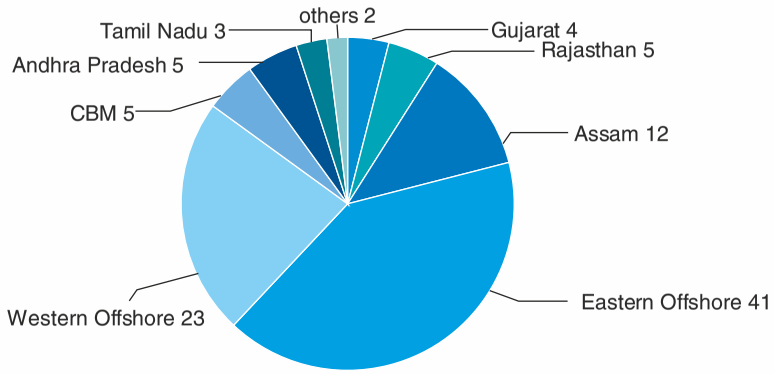


Figure II.5: Natural Gas Reserves as % of total (as on 01.04.2019)

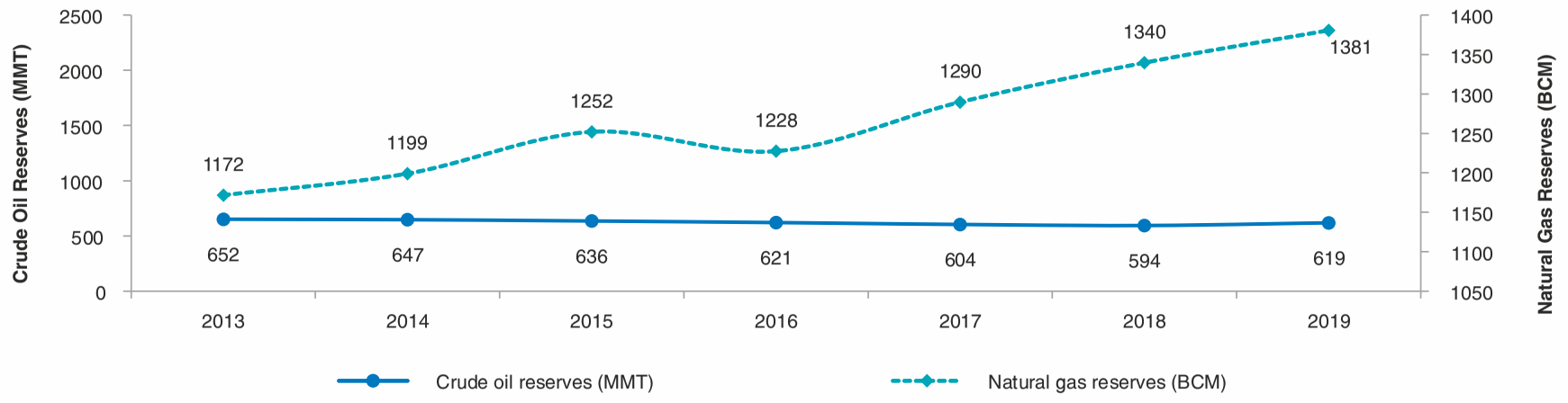


II.10: Company-wise Balance Recoverable Reserves of Crude Oil & Natural Gas

Area/State	Reserves of Crude Oil (MMT)							Reserves of Natural Gas (BCM)						
	2013	2014	2015	2016	2017	2018	2019	2013	2014	2015	2016	2017	2018	2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Onshore														
ONGC(Nomination)	215.02	212.08	212.40	209.78	208.98	206.36	207.99	209.04	205.71	201.75	190.86	195.42	212.19	212.28
OIL (Nomination)	84.04	86.04	83.23	80.74	78.71	78.59	76.05	109.57	109.18	114.52	119.46	123.65	124.99	127.07
PSC Regime	70.38	58.77	50.50	47.22	36.54	32.87	57.31	116.65	115.01	143.06	171.77	160.52	179.04	152.95
A. Total Onshore	**369.44**	**356.89**	**346.13**	**337.75**	**324.23**	**317.82**	**341.34**	**435.26**	**429.90**	**459.33**	**482.09**	**479.59**	**516.22**	**492.30**
Offshore														
ONGC (Nomination)	248.40	239.83	241.56	234.85	228.30	225.08	223.52	325.77	330.23	338.93	327.28	338.12	348.22	348.25
PSC Regime	33.72	50.62	47.90	48.68	51.56	51.59	54.08	410.63	438.97	453.73	418.13	471.98	475.13	540.09
B. Total Offshore	**282.12**	**290.45**	**289.46**	**283.53**	**279.86**	**276.67**	**277.60**	**736.40**	**769.20**	**792.66**	**745.41**	**810.10**	**823.35**	**888.34**
Grand Total (A+B) of which	**651.55**	**647.34**	**635.59**	**621.28**	**604.10**	**594.49**	**618.95**	**1171.66**	**1199.10**	**1251.99**	**1227.50**	**1289.70**	**1339.57**	**1380.64**
ONGC(Nomination)	463.42	451.91	453.96	444.63	437.28	431.44	431.51	534.81	535.94	540.68	518.14	533.54	560.41	560.53
OIL (Nomination)	84.04	86.04	83.23	80.74	78.71	78.59	76.05	109.57	109.18	114.52	119.46	123.65	124.99	127.07
PSC Regime	104.09	109.39	98.40	95.90	88.11	84.46	111.39	527.28	553.98	596.79	589.91	632.50	654.18	693.05

Notes:
1. Proved and indicated Balance Recoverable Reserves as on 1st April.
2. Total may not tally due to rounding off
3. ONGC has adopted PRMS format as on 01.04.2019. Total Onshore and Total gas reserves includes CBM reserves in Nomination CBM blocks (Un-conventional)
Source: Oil & Natural Gas Corporation Ltd., Oil India Ltd. and DGH

Figure II.6: Balance Recoverable Reserves of Crude Oil & Natural Gas



II.11: Company-wise Production of Oil & Gas

Years	Crude Oil Production (in Million Metric Tonne)			Natural Gas Production (in Billion Cubic Metre)		
	Oil Production (Nomination Blcok)	Oil Production with JVs in PSC Regime	Total Oil Production (Nomination +JV Share)	Gas Production (Nomination Blcok)	Gas Production with JVs in PSC Regime	Total Gas Production (Nomination +JV Share)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Oil & Natural Gas Corporation Ltd.						
2012-13	22.561	0.002	22.562	23.549	0.000	23.549
2013-14	22.246	0.001	22.247	23.284	0.000	23.284
2014-15	22.263	0.001	22.264	22.023	0.000	22.023
2015-16	22.360	0.008	22.368	21.177	0.000	21.177
2016-17	22.218	0.031	22.249	22.088	0.000	22.088
2017-18	22.249	0.056	22.305	23.429	0.054	23.484
2018-19	21.042	0.069	21.111	24.675	0.073	24.747
Oil India Ltd.						
2012-13	3.661	0.039	3.700	2.639	0.000	2.639
2013-14	3.466	0.036	3.502	2.626	0.000	2.626
2014-15	3.412	0.028	3.440	2.722	0.000	2.722
2015-16	3.226	0.021	3.247	2.838	0.000	2.838
2016-17	3.258	0.019	3.277	2.937	0.000	2.937
2017-18	3.376	0.017	3.393	2.881	0.023	2.905
2018-19	3.293	0.014	3.307	2.722	0.143	2.865
Production by JV/Pvt under PSC Regime						
2012-13	-	11.640	11.640	-	14.491	14.491
2013-14	-	12.076	12.076	-	9.497	9.497
2014-15	-	11.785	11.785	-	8.912	8.912
2015-16	-	11.356	11.356	-	8.235	8.235
2016-17	-	10.532	10.532	-	6.872	6.872
2017-18	-	10.059	10.059	-	6.338	6.338
2018-19	-	9.868	9.868	-	5.477	5.477

Note:

1. Oil Production include Condensate production.
2. Proved and indicated Balance Recoverable Reserves as on 1st April.

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

II.12: Production of Crude Oil & Condensate and Natural Gas

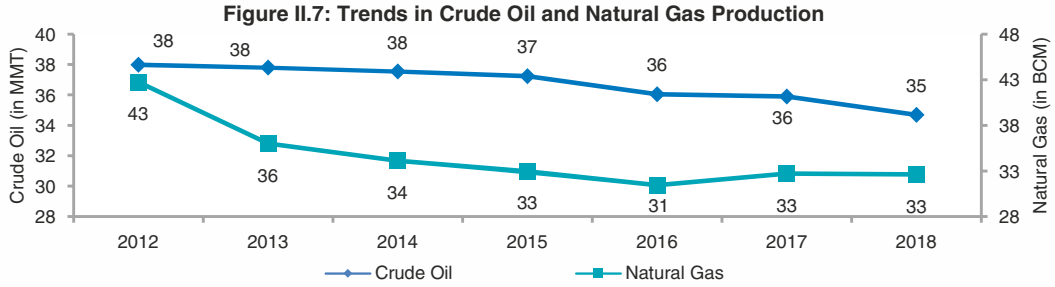
(Calendar Year-wise)

State/Region	2012	2013	2014	2015	2016	2017	2018 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Crude Oil Production (TMT)							
(a) Onshore							
Andhra Pradesh	295	301	258	295	273	322	299
Arunachal Pradesh	118	116	84	57	58	52	43
Assam	4948	4869	4492	4239	4153	4340	4326
Gujarat	5414	5230	4750	4444	4589	4596	4621
Rajasthan	8228	8513	8996	8578	8166	7729	7646
Tamil Nadu	243	225	237	255	269	341	375
Total (a) of which	**19245**	**19255**	**18816**	**17868**	**17508**	**17380**	**17311**
OIL	3757	3644	3359	3284	3206	3376	3344
ONGC	7014	6860	6243	5804	5913	6016	6053
PSC Regime	8475	8751	9214	8779	8389	7988	7915
(b) Offshore							
ONGC	13622	13731	14488	15286	14901	14997	13757
PSC Regime	2885	2809	2582	2597	2183	1926	1900
Total (b)	**16507**	**16541**	**17070**	**17883**	**17085**	**16922**	**15658**
Total Oil Production (a+b)	**35753**	**35795**	**35887**	**35751**	**34592**	**34302**	**32969**
(c). Condensate							
Assam	^	^	^	^	^	1	26
Gujarat	^	^	1	^	^	^	^
Rajasthan	9	36	63	96	122	147	186
Offshore	2220	1978	1591	1388	1327	1447	1506
Total (c) of which	**2230**	**2015**	**1654**	**1485**	**1450**	**1596**	**1718**
ONGC	2086	1908	1520	1329	1298	1426	1498
PSC Regime	144	107	134	155	152	170	220
Total Oil & Condensate (a+b+c)	**37982**	**37810**	**37541**	**37235**	**36042**	**35898**	**34687**
2. Natural Gas Production (MMSCM)							
(a) Onshore							
Andhra Pradesh	1298	1190	673	593	811	921	1090
Arunachal Pradesh	40	42	34	31	27	28	31
Assam	2916	2896	2934	2966	3113	3219	3263
Gujarat	2120	1745	1538	1481	1529	1669	1424
Jharkhand (CBM)	3	3	3	2	3	4	3
Madhya Pradesh (CBM)	3	5	4	1	5	126	345
Rajasthan	655	879	1128	1329	1313	1373	1472
Tamil Nadu	1212	1283	1255	1046	962	1163	1213
Tripura	633	716	1113	1293	1402	1455	1507
West Bengal (CBM)	97	137	203	354	516	554	380
Total (a) of which	**8977**	**8896**	**8885**	**9095**	**9681**	**10512**	**10729**
OIL	2631	2650	2682	2784	2929	2922	2745
ONGC	5579	5282	4942	4732	5039	5616	5635
PSC Regime (Onshore+CBM)	767	964	1262	1579	1712	1974	2348
(b) Offshore:							
ONGC (Mumbai High)	18170	18019	17466	16966	16286	17702	18559
PSC Regime	15594	9082	7756	6896	5471	4484	3324
Total (b)	**33764**	**27101**	**25222**	**23862**	**21757**	**22186**	**21883**
Grand Total (a+b)	**42742**	**35997**	**34106**	**32957**	**31437**	**32699**	**32612**

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

Figure II.7: Trends in Crude Oil and Natural Gas Production



II.13: Production of Crude Oil and Condensate

(Financial Year-wise)

(Figures in TMT)

State/Region	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Crude Oil Production							
(a) Onshore							
Andhra Pradesh	295	297	254	295	276	322	296
Arunachal Pradesh	121	111	76	57	55	50	43
Assam	4863	4710	4466	4185	4203	4342	4275
Gujarat	5331	5061	4653	4459	4605	4591	4626
Rajasthan	8583	9131	8783	8490	8049	7720	7464
Tamil Nadu	238	226	240	255	284	345	395
Total (a)	**19431**	**19536**	**18472**	**17741**	**17472**	**17369**	**17099**
of which							
OIL	3661	3466	3412	3226	3258	3376	3293
ONGC	6944	6705	6069	5817	5934	6010	6074
PSC Regime	8826	9365	8991	8698	8280	7984	7732
(b) Offshore							
ONGC	13541	13735	14758	15264	14921	14785	13484
PSC Regime	2689	2595	2661	2495	2108	1890	1892
Total (b)	**16230**	**16330**	**17419**	**17759**	**17029**	**16676**	**15376**
Total Oil Production (a+b)	**35661**	**35865**	**35891**	**35500**	**34501**	**34045**	**32474**
2. Condensate							
Assam	^	^	^	^	^	3	34
Gujarat	^	^	1	^	^	^	^
Rajasthan	10	49	65	111	115	167	202
Offshore	2191	1874	1505	1330	1392	1469	1492
Total Condensate	**2201**	**1923**	**1570**	**1442**	**1508**	**1639**	**1729**
of which							
ONGC	2076	1806	1437	1279	1363	1454	1485
PSC Regime	125	117	133	163	144	185	244
Total Oil & Condensate (1+2)	**37862**	**37788**	**37461**	**36942**	**36009**	**35684**	**34203**
of which							
ONGC-Nomination	22561	22246	22264	22360	22218	22249	21042
OIL-Nomination	3661	3466	3412	3226	3258	3376	3293
PSC Regime	11640	12076	11785	11356	10532	10059	9868

Note: Total may not tally due to rounding off ^: less than 0.5 P: Provisional

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

Figure II.8: Crude Oil and Condensate Production

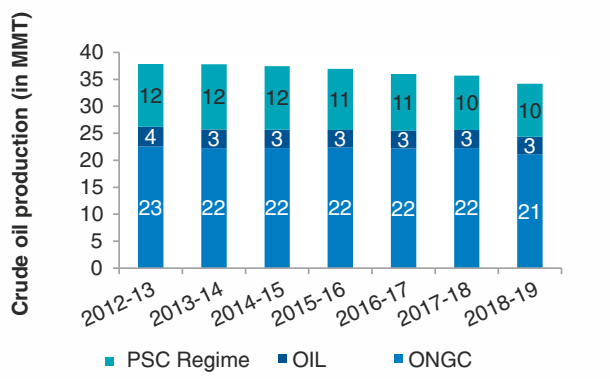
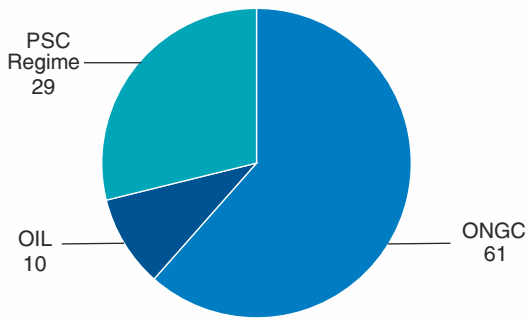


Figure II.9: Nomination (ONGC, OIL) vs. PSC Regime: Share in Crude Oil and Condensate Production during 2018-19 (%)



II.14: Production of Natural Gas

(Financial Year-wise)

(Figures in MMSCM)

State/Region	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(a) Onshore:							
Andhra Pradesh	1249	1171	541	619	868	959	1081
Arunachal Pradesh	41	41	34	30	28	30	28
Assam	2910	2868	2958	3025	3128	3219	3289
Gujarat	2032	1657	1527	1490	1580	1607	1402
Rajasthan	685	982	1178	1338	1277	1442	1483
Tamil Nadu	1206	1304	1192	1011	983	1207	1208
Tripura	647	822	1140	1332	1430	1440	1554
Jharkhand (CBM)	3	3	2	2	3	4	4
Madhya Pradesh (CBM)	3	6	2	1	6	200	357
West Bengal (CBM)	101	156	224	389	555	531	350
Total (a)	**8877**	**9012**	**8797**	**9237**	**9858**	**10639**	**10756**
of which							
OIL	2639	2626	2722	2838	2937	2881	2722
ONGC	5447	5316	4752	4770	5205	5638	5633
PSC Regime (Onshore+CBM)	791	1069	1323	1629	1717	2119	2401
(b) Offshore:							
ONGC	18102	17968	17272	16406	16883	17791	19042
PSC Regime	13700	8428	7589	6605	5155	4219	3075
Total (b)	**31802**	**26395**	**24861**	**23012**	**22038**	**22011**	**22117**
Grand Total (a+b)	**40679**	**35407**	**33657**	**32249**	**31897**	**32649**	**32873**
of which							
Total ONGC (Nomination)	23549	23284	22023	21177	22088	23429	24675
Total OIL (Nomination)	2639	2626	2722	2838	2937	2881	2722
PSC+CBM Regime	14491	9497	8912	8235	6872	6338	5477

Note: Total may not tally due to rounding off
P: Provisional
CBM: Coal Bed Methane

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

Figure II.10: Natural Gas Production

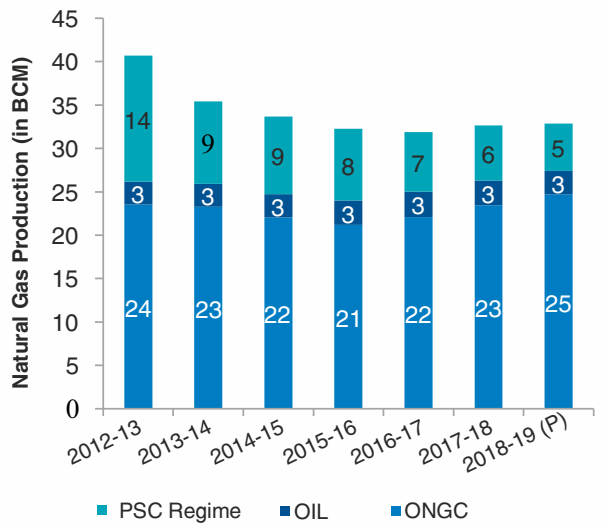
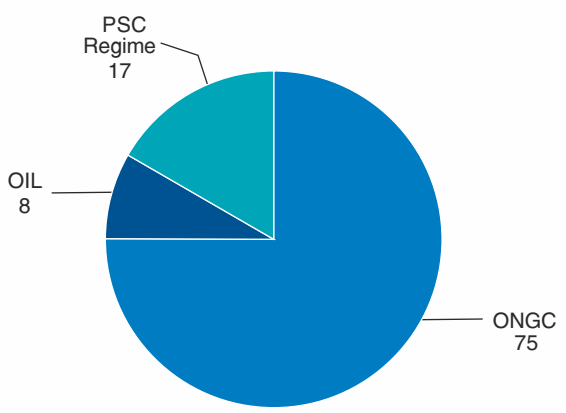


Figure II.11: Nomination (ONGC, OIL) vs. PSC Regime: Share in Natural Gas Production during 2018-19 (%)



II.15: Field-wise Production of Crude Oil and Natural Gas

AREA	STATE	ASSET	Oil Production (TMT)		Gas Production (MMSCM)	
			2017-18	2018-19(P)	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Oil and Natural Gas Corporation						
	Mumbai Offshore (Off the coast of Maharashtra) and Eastern offshore	Mumbai High	9643.95	8670.77	5330.53	5526.60
		Heera & Neelam	2420.57	2220.30	1054.83	921.99
		Bassein & Satellite	2712.57	2573.98	10857.58	11556.45
		Condensate receipt	1454.09	1485.08	-	-
		Eastern offshore	8.34	18.46	548.22	1036.74
	Total Offshore		**16239.53**	**14968.60**	**17791.16**	**19041.78**
Onshore	Gujarat	Ahmedabad	1285.91	1340.61	145.04	154.45
		Mehsana	2049.15	2059.29	212.33	214.57
		Ankleshwar	917.18	903.00	1163.74	954.85
		Cambay	199.38	189.38	10.47	8.53
		Total Gujarat	**4451.62**	**4492.28**	**1531.57**	**1332.40**
	Assam	Assam	974.57	993.12	507.97	482.63
	Tamilnadu	Cauvery	261.86	303.19	1193.67	1182.49
	Andhra Pradesh	Rajahmundry	321.55	284.93	959.16	1076.72
	Tripura	Tripura	-	-	1440.37	1554.30
	Rajasthan	Jodhpur	-	-	5.56	4.31
	Total Onshore		**6009.59**	**6073.51**	**5638.30**	**5632.86**
Total ONGC			**22249.12**	**21042.11**	**23429.46**	**24674.65**
Oil India Limited						
Onshore	Assam	Greater Naharkatia Field	197.42	195.43	312.84	255.97
		Greater Jorajan Field	131.49	127.07	472.89	396.45
		Moran Field	91.74	103.59	53.30	36.96
		Greater Shalmari Field	153.46	165.02	40.86	48.36
		Greater Hapjan Field	1325.99	1244.63	324.89	348.45
		Greater Chandmari Field	658.92	667.49	535.84	587.53
		Tengakhat Field	73.40	75.38	26.47	22.73
		Bhogpara Field	138.46	120.49	18.60	19.61
		Greater Kathaloni Field	149.55	135.92	29.65	27.96
		Greater Dikom Field	125.97	117.26	175.93	154.49
		Western Satellite Field	61.20	57.69	18.52	51.59
		Eastern Satellite Field	21.80	23.00	42.84	10.57
		Central Small Field	232.34	242.48	605.45	520.89
		Digboi	5.62	6.13	0.44	0.39
		Total Assam	**3367.34**	**3281.56**	**2658.53**	**2481.93**
	Arunachal Pradesh	Kumchai Field	7.36	8.60	11.57	12.24
	Rajasthan	Dandewala			201.78	208.43
		Bagitibba			9.62	19.31
		Tanot			0.00	0.00
		Baghewala (Heavy Oil)	1.58	2.98		
		Total Rajasthan	**1.58**	**2.98**	**211.41**	**227.74**
Total OIL (Onshore)			**3376.28**	**3293.14**	**2881.50**	**2721.91**

Contd…

II.15: Field-wise Production of Crude Oil and Natural Gas

AREA	STATE	ASSET	Oil Production (TMT)		Gas Production (MMSCM)	
			2017-18	2018-19(P)	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Private/JVs						
Onshore	Andhra Pradesh	KG-ONN-2003/1	0.00	11.20	0.00	4.58
	Arunachal Pradesh	KHARSANG	42.91	34.11	17.95	15.57
	Assam	AAP-ON-94/1	3.09	34.45	52.53	324.50
	Gujarat	CB-ON/3	2.24	2.24	0.00	0.00
		CB-ON/2	7.52	4.43	10.04	9.50
		CB-ONN-2000/1	30.10	23.68	1.34	0.98
		CB-ONN-2002/3	3.12	2.84	0.31	0.98
		CB-ONN-2003/2	3.08	2.99	0.11	0.10
		UNAWA	0.00	0.00	0.00	0.00
		SANGANPUR	0.01	0.00	0.01	0.00
		ALLORA	0.71	0.00	0.00	0.00
		DHOLASAN	0.17	0.68	0.00	0.00
		KANAWARA	2.44	2.06	9.18	9.78
		NORTH KATHANA	0.25	0.21	0.00	0.00
		ASJOL	0.47	0.64	0.00	0.00
		CB-ON/7	4.65	4.07	0.35	0.30
		N.BALOL	0.00	0.00	4.20	4.29
		DHOLKA	38.32	40.33	12.71	14.07
		WAVEL	3.62	3.97	0.01	0.00
		HAZIRA	4.21	3.34	26.09	16.91
		BHANDUT	0.00	0.00	0.17	0.00
		CAMBAY	0.36	0.25	1.22	0.97
		CB-ONN-2001/1	1.11	1.48	0.00	0.00
		CB-ONN-2002/1	0.00	0.00	0.00	0.00
		CB-ONN-2004/1	0.98	1.27	0.00	0.00
		CB-ONN-2004/2	4.54	6.64	0.00	0.00
		BAKROL	18.18	16.04	7.21	7.94
		INDRORA	2.36	1.88	0.14	0.12
		KARJISAN	1.14	2.31	1.89	3.63
		LOHAR	6.13	5.43	0.11	0.12
		BAOLA	2.57	3.65	0.00	0.00
		CB-ONN-2005/9	0.00	2.06	0.00	0.11
		MODHERA	1.08	1.00	0.00	0.00
		Total Gujarat	139.35	133.46	75.09	69.82
	Rajasthan	RJ-ON-90/1	7881.44	7661.84	813.36	985.39
		RJ-ON/6	3.91	1.97	411.61	265.81
		Total Rajasthan	7885.34	7663.81	1224.97	1251.20
	Tamil Nadu	CY-ONN-2002/2	83.14	92.06	13.55	25.36
	Total Onshore		**8153.85**	**7969.09**	**1384.08**	**1691.03**

Contd…

II.15: Field-wise Production of Crude Oil and Natural Gas

AREA	STATE	ASSET	Oil Production (TMT)		Gas Production (MMSCM)	
			2017-18	2018-19(P)	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CBM	Jharkhand	JHARIA	-	-	3.96	3.58
		SOHAGPUR EAST	-	-	0.00	0.01
	Madhya Pradesh	SOHAGPUR WEST	-	-	199.77	356.65
		Total M.P.	-	-	199.77	356.66
	West Bengal	RANIGANJ EAST	-	-	328.45	197.66
		RANIGANJ WEST	-	-	202.62	152.56
		Total West Bengal	-	-	531.07	350.22
	TOTAL CBM		-	-	734.80	710.46
Offshore	Eastern Offshore	RAVVA	717.46	599.45	214.06	220.72
		KG-OSN-2001/3	4.35	2.21	108.53	84.05
		PY-1	4.22	1.72	23.54	87.98
		KG-DWN-98/3	92.74	32.51	1922.40	1029.44
		Total Eastern Off.	818.77	635.88	2268.52	1422.19
	Gujarat Offshore	CB-OS/2	399.12	735.61	97.69	122.23
	Western Offshore	PANNA-MUKTA	687.20	527.44	1853.25	1530.91
	Total Offshore		**1905.09**	**1898.93**	**4219.46**	**3075.32**
Total Pvt/JVs			**10058.93**	**9868.03**	**6338.34**	**5476.82**
Total Production			**35684.33**	**34203.27**	**32649.30**	**32873.37**

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

(Figures in MMSCM)

State / Utilisation	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andhra Pradesh							
Gross Production	1248.55	1171.34	540.59	619.36	867.78	959.16	1081.31
Flared	2.97	3.65	21.83	50.81	34.26	16.04	37.09
Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Availability	1245.59	1167.69	518.76	568.55	833.52	943.13	1044.22
Internal Use/Consumption	28.19	30.61	15.64	19.78	31.47	31.91	25.27
Net Production (Sales)	1217.40	1137.09	503.12	548.77	802.05	911.21	1018.95
% Flared to GP	0.24	0.31	4.04	8.20	3.95	1.67	3.43
Arunachal Pradesh							
Gross Production	41.07	41.39	33.53	29.56	27.54	29.51	27.81
Flared	26.91	22.86	14.10	13.06	12.26	14.35	14.60
Losses	5.70	10.08	10.87	8.54	7.36	7.31	5.14
Net Availability	8.46	8.45	8.56	7.95	7.92	7.86	8.07
Internal Use/Consumption	8.46	8.45	8.56	7.95	7.92	7.86	8.07
Net Production (Sales)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% Flared to GP	65.53	55.23	42.05	44.20	44.51	48.62	52.51
Assam							
Gross Production (GP)	2909.77	2868.03	2958.24	3024.78	3127.88	3219.02	3289.06
Flared	193.89	172.62	180.37	171.72	192.10	185.75	192.48
Losses	2.81	2.65	3.86	3.63	2.21	5.07	11.53
Net Availability	2713.07	2692.76	2774.01	2849.43	2933.57	3028.21	3085.05
Internal Use/Consumption	573.95	564.79	581.73	569.29	584.30	617.58	610.06
Net Production (Sales)	2139.12	2127.97	2192.28	2280.14	2349.27	2410.63	2474.99
% Flared to GP	6.66	6.02	6.10	5.68	6.14	5.77	5.85
Gujarat							
Gross Production	2032.09	1656.94	1526.83	1490.08	1580.27	1606.66	1402.22
Flared	38.59	72.36	121.88	86.61	62.87	50.81	53.52
Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Availability	1993.50	1584.58	1404.95	1403.47	1517.40	1555.86	1348.71
Internal Use/Consumption	570.54	475.60	428.65	459.06	470.31	422.56	382.98
Net Production (Sales)	1422.96	1108.98	976.30	944.41	1047.09	1133.30	965.73
% Flared to GP	1.90	4.37	7.98	5.81	3.98	3.16	3.82
Rajasthan							
Gross Production	685.42	982.20	1177.77	1338.01	1277.34	1441.93	1483.25
Flared	51.75	38.40	38.69	59.58	43.91	36.98	52.96
Losses	0.00	23.90	59.36	88.37	43.20	66.69	52.35
Net Availability	633.67	919.90	1079.73	1190.07	1190.23	1338.27	1377.94
Internal Use/Consumption	360.54	445.74	508.66	533.43	568.92	595.16	597.46
Net Production (Sales)	273.13	474.16	571.06	656.63	621.31	743.10	780.48
% Flared to GP	7.55	3.91	3.28	4.45	3.44	2.56	3.57
Tamil Nadu							
Gross Production	1206.04	1304.02	1191.57	1010.87	983.17	1207.22	1207.85
Flared	6.89	5.74	17.02	21.68	17.76	21.32	40.17
Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Contd…

II.16: State-wise Gross & Net Production of Natural Gas in India

(Figures in MMSCM)

State / Utilisation	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Net Availability	1199.15	1298.28	1174.55	989.19	965.41	1185.90	1167.68
Internal Use/Consumption	1.39	1.40	1.38	1.12	4.53	7.11	6.87
Net Production (Sales)	1197.75	1296.88	1173.16	988.07	960.88	1178.79	1160.81
% Flared to GP	0.57	0.44	1.43	2.14	1.81	1.77	3.33
Tripura							
Gross Production	646.74	822.23	1140.04	1331.96	1429.91	1440.37	1554.30
Flared	0.16	6.46	0.17	0.46	0.21	0.26	0.27
Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Availability	646.57	815.77	1139.88	1331.51	1429.70	1440.12	1554.04
Internal Use/Consumption	2.53	2.44	2.36	2.37	2.48	2.90	2.93
Net Production (Sales)	644.05	813.33	1137.52	1329.14	1427.22	1437.22	1551.11
% Flared to GP	0.03	0.79	0.01	0.03	0.01	0.02	0.02
Jharkhand (CBM)							
Gross Production	2.95	3.38	2.48	2.04	3.08	3.96	3.58
Flared	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Availability	2.95	3.38	2.48	2.04	3.08	3.96	3.55
Internal Use/Consumption	0.00	0.00	0.02	0.16	0.49	0.50	0.56
Net Production (Sales)	2.95	3.38	2.46	1.88	2.59	3.47	3.00
% Flared to GP	0.00	0.00	0.00	0.00	0.00	0.00	0.73
Madhya Pradesh (CBM)							
Gross Production	3.44	5.65	2.08	1.41	6.44	199.77	356.66
Flared	2.30	4.09	1.29	0.31	0.91	0.83	0.67
Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Availability	1.14	1.57	0.79	1.09	5.53	198.95	356.00
Internal Use/Consumption	1.14	1.57	0.79	1.07	4.65	14.82	22.83
Net Production (Sales)	0.00	0.00	0.00	0.03	0.87	184.13	333.17
% Flared to GP	66.89	72.29	62.22	22.21	14.19	0.41	0.19
West Bengal (CBM)							
Gross Production	100.85	156.49	223.68	389.42	555.07	531.07	350.22
Flared	4.86	15.54	20.32	128.91	240.66	173.01	35.66
Losses	0.00	0.01	0.00	0.00	0.00	0.00	7.62
Net Availability	95.99	140.94	203.36	260.51	314.41	358.06	306.95
Internal Use/Consumption	12.30	21.42	33.73	41.48	50.36	62.06	56.62
Net Production (Sales)	83.68	119.52	169.63	219.04	264.04	296.00	250.33
% Flared to GP	4.82	9.93	9.09	33.10	43.36	32.58	10.18
A. Total Onshore							
Gross Production	8876.91	9011.68	8796.80	9237.48	9858.47	10638.69	10756.27
Flared	328.32	341.72	415.66	533.14	604.94	499.34	427.44
Losses	8.51	36.64	74.09	100.54	52.77	79.06	76.63
Net Availability	8540.08	8633.32	8307.05	8603.80	9200.77	10060.29	10252.20
Internal Use/Consumption	1559.04	1552.01	1581.51	1635.70	1725.44	1762.45	1713.64
Net Production (Sales)	6981.04	7081.30	6725.54	6968.10	7475.33	8297.84	8538.56
% Flared to GP	3.70	3.79	4.73	5.77	6.14	4.69	3.97

II.16: State-wise Gross & Net Production of Natural Gas in India

(Figures in MMSCM)

State / Utilisation	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
B. Offshore							
Gross Production	31802.35	26395.20	24860.64	23011.74	22038.23	22010.62	22117.10
Flared	574.75	427.52	451.35	474.33	371.09	324.51	299.11
Losses	17.84	30.22	27.15	16.63	18.98	15.19	16.34
Net Availability	31209.76	25937.46	24382.14	22520.78	21648.16	21670.92	21801.65
Internal Use/Consumption	3842.60	4034.82	4327.36	4192.28	4131.61	4045.36	4325.83
Net Production (Sales)	27367.16	21902.64	20054.79	18328.50	17516.54	17625.55	17475.82
% Flared to GP	1.81	1.62	1.82	2.06	1.68	1.47	1.35
Total (A+B)							
Gross Production	40679.26	35406.88	33657.44	32249.22	31896.70	32649.31	32873.37
Flared	903.06	769.24	867.01	1007.47	976.03	823.85	726.55
Losses	26.36	66.87	101.23	117.17	71.75	94.26	92.97
Net Availability	39749.84	34570.78	32689.20	31124.58	30848.92	31731.21	32053.85
Internal Use/Consumption	5401.64	5586.84	5908.86	5827.99	5857.05	5807.81	6039.46
Net Production (Sales)	34348.20	28983.94	26780.33	25296.59	24991.87	25923.39	26014.39
% Flared to GP	2.22	2.17	2.58	3.12	3.06	2.52	2.21

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.17: Sector-wise Sales/Consumption of Natural Gas

(Figures in MMSCM)

Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)	% Share of Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) Energy Purpose								
Power	16078	11284	10720	10889	11616	12028	12005	22.3
Industrial	269	156	395	401	688	873	944	1.8
Manufacturing	0	105	138	144	105	126	142	0.3
City or Local Natural Gas Distribution Network incl. Road Transport	5780	5904	5416	5464	7350	8585	9206	17.1
Tea Plantation	182	196	180	0	0	189	192	0.4
Internal Consumption for Pipeline System	387	372	351	410	471	496	541	1.0
Refinery	3891	3968	4575	5077	5374	6533	7047	13.1
Miscellaneous	7976	7479	5941	4298	3929	3226	3393	6.3
Total (a)	**34562**	**29464**	**27716**	**26683**	**29535**	**32057**	**33470**	**62.2**
(b) Non-Energy Purpose								
Fertilizer Industry	14733	15869	15190	16135	15429	14676	14987	27.8
Petrochemical	2486	2405	2890	3733	4170	4024	3386	6.3
Sponge Iron	1106	274	154	544	885	1278	1124	2.1
LPG Shrinkage	1027	982	1005	754	759	798	874	1.6
Total (b)	**19352**	**19530**	**19239**	**21166**	**21243**	**20776**	**20370**	**37.8**
Total Sectoral Sales (a+b)	**53915**	**48994**	**46955**	**47849**	**50778**	**52832**	**53840**	**100**
Total Consumption **	**57367**	**52375**	**51300**	**52517**	**55697**	**59170**	**60798**	**-**
Total Consumtion in MMSCMD	**157.17**	**143.49**	**140.55**	**143.49**	**152.59**	**162.11**	**166.57**	**-**

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 .

2. Sectoral Sales/consumption of natural gas includes RLNG.

3. Total may not tally due to rounding off.

Source: PPAC

Figure II.12: Trends of Natural Gas Production & Consumption

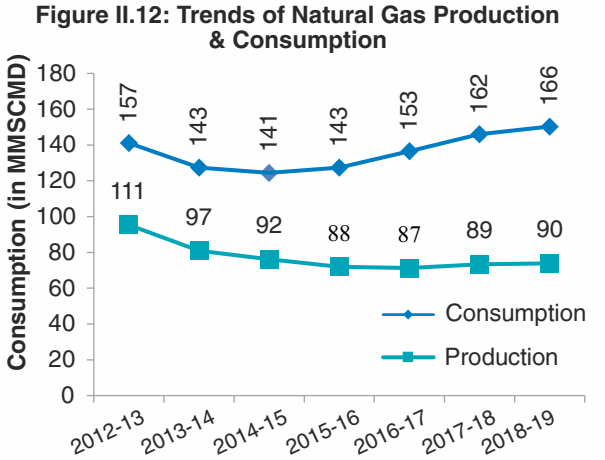
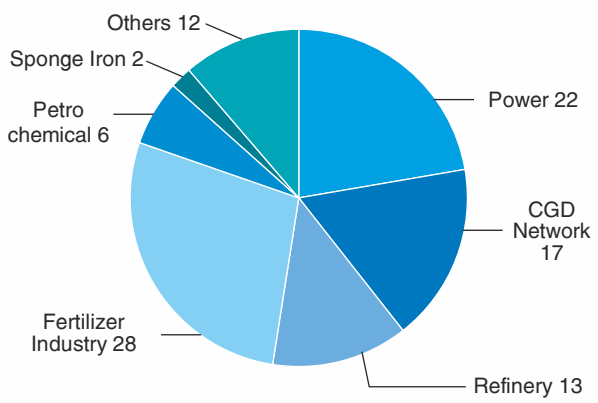


Figure II.13: Sector-wise Consumption of Natural Gas during 2018-19 (%)



II.18: Domestic and Overseas Production of Oil & Gas

Entity/Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Domestic Production of Oil & Gas							
1. Domestic Production of Crude Oil & Condensate (MMT)							
ONGC (Nomination)	22.561	22.246	22.264	22.360	22.218	22.249	21.042
OIL (Nomination)	3.661	3.466	3.412	3.226	3.258	3.376	3.293
PSC Regime	11.640	12.076	11.785	11.356	10.532	10.059	9.868
Total Production of Oil & Condensate	**37.862**	**37.788**	**37.461**	**36.942**	**36.009**	**35.684**	**34.203**
2. Domestic Production of Natural Gas (BCM)							
ONGC (Nomination)	23.549	23.284	22.023	21.177	22.088	23.429	24.675
OIL (Nomination)	2.639	2.626	2.722	2.838	2.937	2.881	2.722
PSC Regime	14.491	9.497	8.912	8.235	6.872	6.338	5.477
Total Production of Gas	**40.679**	**35.407**	**33.657**	**32.249**	**31.897**	**32.649**	**32.873**
Total Domestic O & OEG Production (MMTOE)	**78.541**	**73.195**	**71.118**	**69.191**	**67.906**	**68.334**	**67.077**
Overseas Production of Oil & Gas							
3. Overseas Production of Crude Oil & Condensate (MMT)							
1. ONGC Videsh Ltd. (OVL)	4.341	5.486	5.533	5.510	8.434	9.353	10.097
2. Bharat PetroResources Ltd. (BPRL)	-	-	-	-	0.792	1.533	2.148
3. Indian Oil Corporation Ltd. (IOCL)	0.009	0.045	0.075	0.091	0.884	1.657	3.243
4. GAIL (India) Ltd. (GAIL)	0.039	0.079	0.091	0.090	0.053	0.056	0.061
5. OIL (Oil India Ltd.)	0.000	0.045	0.106	0.103	0.907	1.633	1.693
6. HPCL-PPCL (Prize Petroleum Co. Ltd.)	-	-	0.002	0.008	0.007	0.008	0.007
Total-Oil Production	**4.389**	**5.655**	**5.808**	**5.801**	**11.077**	**14.240**	**17.249**
4. Overseas Production of Natural Gas (BCM)							
1. ONGC Videsh Ltd. (OVL)	2.919	2.871	3.341	3.406	4.369	4.811	4.736
2. Bharat PetroResources Ltd. (BPRL)	-	-	-	-	0.350	0.648	0.680
3. Indian Oil Corporation Ltd. (IOCL)	0.058	0.279	0.474	0.553	0.936	1.151	1.159
4. GAIL (India) Ltd. (GAIL)	0.022	0.133	0.372	0.484	0.452	0.438	0.370
5. OIL (Oil India Ltd.)	0.000	0.003	0.003	0.007	0.353	0.712	0.699
6. HPCL-PPCL (Prize Petroleum Co. Ltd.)	-	-	0.016	0.058	0.055	0.052	0.048
Total Gas Production	**2.998**	**3.286**	**4.205**	**4.509**	**6.515**	**7.811**	**7.691**
Total Overseas Oil & OEG Production (in MMTOE)	**7.387**	**8.941**	**10.013**	**10.310**	**17.592**	**22.051**	**24.940**
Overseas production as (%) percentage of domestic production	9.4	12.2	14.1	14.9	25.9	32.3	37.2

Note: Total may not tally due to rounding off 1 BCM of Natural Gas =1 MMToE; P: Provisional.

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

CHAPTER - III

REFINING, TRANSPORTATION & MARKETING

CHAPTER HIGHLIGHTS

- Petroleum Refining Capacity in India reached to 249.366 MMTPA as on 31.03.2019 from 247.566 MMTPA as on 31.03.2018. Capacity of BORL-Bina increased from 6 MMTPA to 7.8 MMTPA. Share of Public, JV and Private sector refineries stood at 57%, 7.7% and 35.3% respectively in refinery capacity as on 31.03.2019.
- Indian Oil Corporation Limited (IOCL) having 9 refineries has the largest share of all refineries at 27.8% (69.2 MMTPA) of total refining capacity as on 31.03.2019.
- Crude oil processed increased by 2.1% to reach 257205 TMT in year 2018-19 over 2017-18 (251935 TMT). Production of Petroleum Products at 262361 TMT increased by 3.1% in 2018-19 over 2017-18 (254405 TMT).
- Total length of Crude Oil pipelines is 10419 KMs as on 31.03.2019.
- Total length of Natural Gas pipeline 16368 KMs as on 31.03.2019.
- Product Pipeline registered a growth of 4.9% to reach 17451 KMs as on 31.03.2018 as against 16632 KMs as on 31.03.2018.
- Total PDS SKO Kerosene allocated to States is at 4432994 KL in 2018-19 against which quantity uplifted was 4152117 KL (93.7%). Maximum SKO (around 20%) was allocated to Uttar Pradesh at 873517 KL.
- In line with Pradhan Mantri Ujjwala Yojana (PMUY), which envisages to provide clean fuel to 8 crore Below Poverty Line (BPL) families by 2020. More than 7.19 crore LPG connections were been released under PMUY scheme as on 31.03.2019.
- LPG active domestic consumers of CPSE OMCs increased by 18.3% to 26.54 crore as on 31.03.2019 as compared to 31.03.2018 (22.43 crore).
- As of 31.03.2019, there are 64625 Retail Outlets (ROs) in India registering a 3.3% increase in 2018-19 as compared to 2017-18.
- With strong emphasis on clean energy, Compressed Natural Gas (CNG) Sales has increased by 16.6% from 2638 TMT in 2017-18 to 3076 TMT in 2018-19.
- To meet the increasing demand of CNG, number of CNG stations has shown a sharp increase of over 21.5% from 1424 on 31.03.2018 to 1730 as on 31.03.2019.
- 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 four (4) LNG terminals which have regasification capacity of about 26.3 MMTPA as on 31.03.2019.

III.1: Petroleum Refining Capacity in India

(Figures in MMTPA)

Sl. No.	Refinery Location & Year of Commissioning	Capacity as on 1st April						
		2013	2014	2015	2016	2017	2018	2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	**Public Sector**	**120.066**	**120.066**	**120.066**	**135.066**	**138.966**	**142.066**	**142.066**
	Indian Oil Corporation Ltd. (IOCL)	**54.200**	**54.200**	**54.200**	**69.200**	**69.200**	**69.200**	**69.200**
1	Digboi, Assam - 1901	0.650	0.650	0.650	0.650	0.650	0.650	0.650
2	Guwahati, Assam - 1962	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3	Barauni, Bihar - 1964	6.000	6.000	6.000	6.000	6.000	6.000	6.000
4	Koyali, Gujarat - 1965	13.700	13.700	13.700	13.700	13.700	13.700	13.700
5	Haldia, West Bengal - 1975	7.500	7.500	7.500	7.500	7.500	7.500	7.500
6	Mathura, Uttar Pradesh - 1982	8.000	8.000	8.000	8.000	8.000	8.000	8.000
7	Panipat, Haryana - 1998	15.000	15.000	15.000	15.000	15.000	15.000	15.000
8	Bongaigaon, Assam - 1974	2.350	2.350	2.350	2.350	2.350	2.350	2.350
9	Paradip, Odisha-2016	-	-	-	15.000	15.000	15.000	15.000
	Bharat Petroleum Corporation Ltd. (BPCL)	**21.500**	**21.500**	**21.500**	**21.500**	**24.400**	**27.500**	**27.500**
10	Mumbai, Maharashtra - 1955	12.000	12.000	12.000	12.000	12.000	12.000	12.000
11	Kochi, Kerala - 1963	9.500	9.500	9.500	9.500	12.400	15.500	15.500
	Hindustan Petroleum Corporation Ltd. (HPCL)	**14.800**	**14.800**	**14.800**	**14.800**	**15.800**	**15.800**	**15.800**
12	Mumbai, Maharashtra - 1954	6.500	6.500	6.500	6.500	7.500	7.500	7.500
13	Visakh, Andhra Pradesh - 1957	8.300	8.300	8.300	8.300	8.300	8.300	8.300
	Chennai Petroleum Corporation Ltd. (CPCL)	**11.500**	**11.500**	**11.500**	**11.500**	**11.500**	**11.500**	**11.500**
14	Manali, Tamil Nadu - 1965	10.500	10.500	10.500	10.500	10.500	10.500	10.500
15	Narimanam, Tamil Nadu - 1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Numaligarh Refinery Ltd. (NRL)	**3.000**	**3.000**	**3.000**	**3.000**	**3.000**	**3.000**	**3.000**
16	Numaligarh, Assam-1999	3.000	3.000	3.000	3.000	3.000	3.000	3.000
	Oil & Natural Gas Corporation Ltd. (ONGC)	**0.066**	**0.066**	**0.066**	**0.066**	**0.066**	**0.066**	**0.066**
17	Tatipaka, Andhra Pradesh - 2001	0.066	0.066	0.066	0.066	0.066	0.066	0.066
	Mangalore Refinery & Petrochemical Ltd. (MRPL)	**15.000**	**15.000**	**15.000**	**15.000**	**15.000**	**15.000**	**15.000**
18	Mangalore, Karnataka- 1996	15.000	15.000	15.000	15.000	15.000	15.000	15.000
B	**Private Sector**	**80.000**	**80.000**	**80.000**	**80.000**	**80.000**	**88.200**	**88.200**
	Reliance Industries Ltd. (RIL)	**60.000**	**60.000**	**60.000**	**60.000**	**60.000**	**68.200**	**68.200**
19	Jamnagar, Gujarat - 1999	33.000	33.000	33.000	33.000	33.000	33.000	33.000
20	Jamnagar (SEZ), Gujarat - 2008	27.000	27.000	27.000	27.000	27.000	35.200	35.200
	Nyara Energy Ltd. (NEL)	**20.000**	**20.000**	**20.000**	**20.000**	**20.000**	**20.000**	**20.000**
21	Vadinar, Gujarat - 2006	20.000	20.000	20.000	20.000	20.000	20.000	20.000
C	**Joint Venture (JV)**	**15.000**	**15.000**	**15.000**	**15.000**	**15.000**	**17.300**	**19.100**
	Bharat Oman Refinery Ltd. (BORL)	**6.000**	**6.000**	**6.000**	**6.000**	**6.000**	**6.000**	**7.800**
22	Bina, Madhya Pradesh - 2011	6.000	6.000	6.000	6.000	6.000	6.000	7.800
	HPCL Mittal Energy Ltd. (HMEL)	**9.000**	**9.000**	**9.000**	**9.000**	**9.000**	**11.300**	**11.300**
23	Bathinda, Punjab - 2012	9.000	9.000	9.000	9.000	9.000	11.300	11.300
	Total Refinery Capacity	**215.066**	**215.066**	**215.066**	**230.066**	**233.966**	**247.566**	**249.366**

Source: Oil Companies

Figure III.1: Trends in Refining Capacity in India

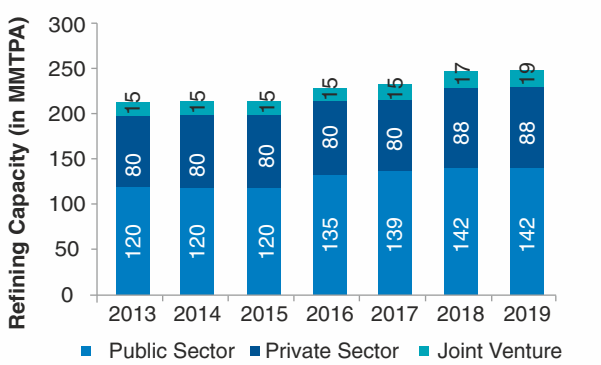
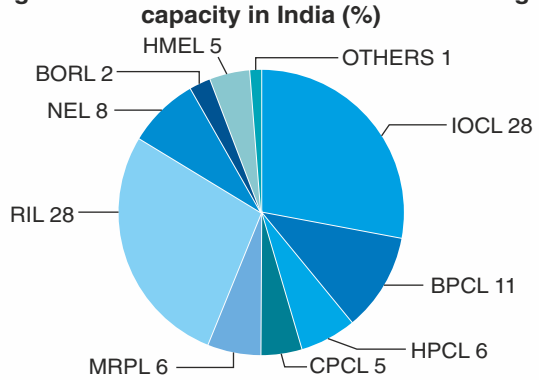


Figure III.2: Distribution of Petroleum refining capacity in India (%)



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

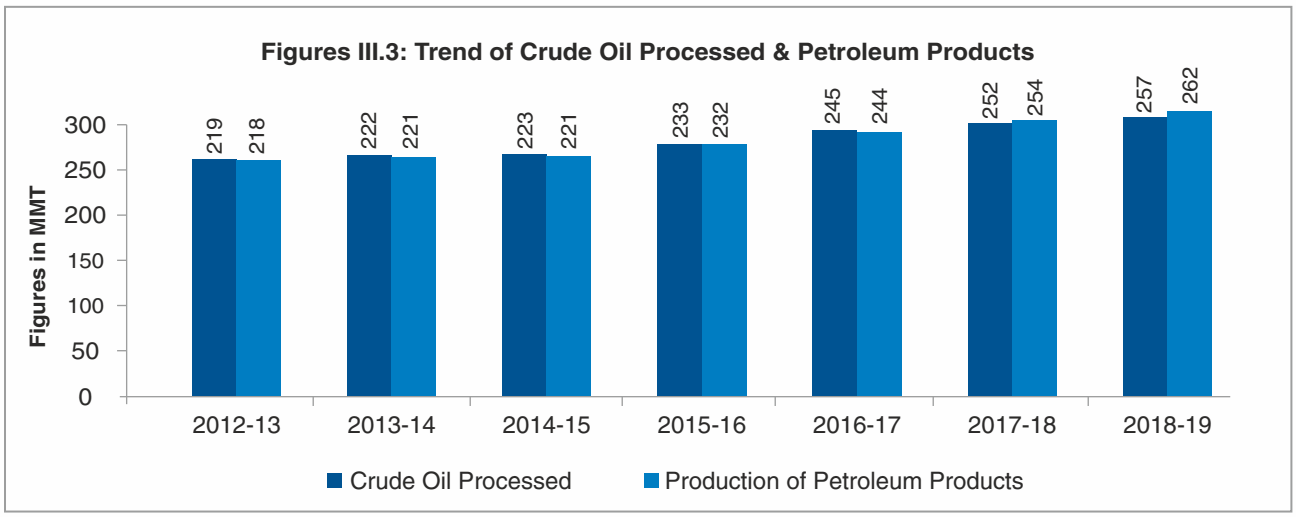
(Figures in TMT)

Year	Crude Oil Processed				Production of Petroleum Products					
	Refinery			Total	Refinery				Fractionators	Grand Total
	CPSEs	Pvt.	JVs		CPSEs	Pvt.	JVs	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(Calendar Years)										
2012	119763	87363	8035	215160	111558	90034	7191	208783	4566	213349
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 (P)	**150312**	**88675**	**17665**	**256652**	**142944**	**97819**	**16535**	**257298**	**4860**	**262159**
(Financial Years)										
2012-13	120303	88273	10636	219212	112329	91197	9692	213219	4518	217736
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 (P)	**150976**	**88041**	**18189**	**257205**	**143247**	**97273**	**16910**	**257430**	**4931**	**262361**

Note: 1. Crude throughput in terms of crude oil processed
2. Total may not tally due to rounding-off

P: Provisional

Source: Oil Companies



III.3: Refinery-wise Crude Oil Processed

(Figures in TMT)

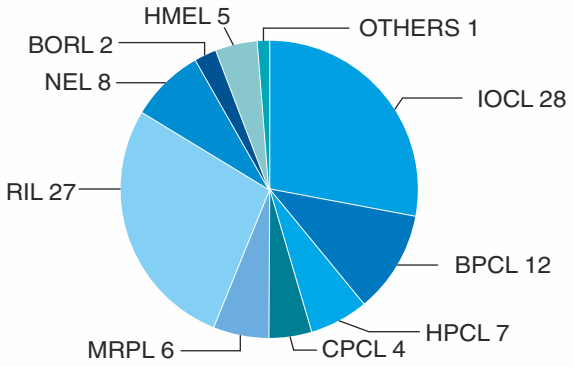
Refinery	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% variation in 2018-19 over 2017-18
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) PUBLIC SECTOR	**120303**	**119547**	**121183**	**127087**	**137388**	**145234**	**150976**	**4.0**
IOCL, Guwahati	956	1019	1006	904	864	1024	863	-15.7
IOCL, Barauni	6344	6478	5944	6545	6526	5819	6661	14.5
IOCL, Koyali	13155	12960	13285	13820	13994	13811	13505	-2.2
IOCL, Haldia	7490	7952	7650	7776	7689	7655	7965	4.0
IOCL, Mathura	8561	6641	8515	8860	9230	9240	9737	5.4
IOCL, Digboi	660	651	591	562	533	666	676	1.5
IOCL, Panipat	15126	15098	14191	15282	15638	15654	15281	-2.4
IOCL, Bongaigaon	2356	2328	2403	2442	2486	2402	2513	4.6
IOCL, Paradip	-	-	-	1817	8230	12730	14616	14.8
Total IOCL	**54649**	**53126**	**53586**	**58007**	**65191**	**69001**	**71816**	**4.1**
BPCL, Mumbai	13077	12684	12821	13371	13541	14054	14773	5.1
BPCL, Kochi	10105	10285	10356	10712	11820	14095	16051	13.9
Total BPCL	**23183**	**22969**	**23177**	**24083**	**25362**	**28149**	**30823**	**9.5**
HPCL, Mumbai	7748	7785	7408	8013	8510	8641	8671	0.3
HPCL, Vishakhapatnam	8028	7776	8770	9220	9335	9635	9773	1.4
Total HPCL	**15777**	**15561**	**16179**	**17234**	**17846**	**18276**	**18444**	**0.9**
CPCL(MRL), Manali	9105	10065	10251	9100	9725	10289	10271	-0.2
CPCL(MRL), Narimanam	640	559	531	544	531	500	423	-15.4
Total CPCL	**9745**	**10624**	**10782**	**9644**	**10256**	**10789**	**10695**	**-0.9**
NRL, Numaligarh	2478	2613	2777	2520	2683	2809	2900	3.2
MRPL, Mangalore	14415	14589	14632	15532	15965	16130	16231	0.6
ONGC, Tatipaka	57	65	51	67	86	80	66	-16.9
(b) PRIVATE SECTOR	**88273**	**88229**	**88533**	**88662**	**91093**	**91163**	**88041**	**-3.4**
RIL, Jamnagar	32613	30307	30867	32428	32823	33153	31752	-4.2
RIL, SEZ-Jamnagar	35892	37720	37174	37133	37351	37317	37393	0.2
Total RIL	**68504**	**68027**	**68042**	**69561**	**70174**	**70470**	**69145**	**-1.9**
NEL, Vadinar	19769	20202	20491	19101	20919	20693	18896	-8.7
(c) JOINT VENTURE	**10636**	**14721**	**13526**	**17116**	**16882**	**15538**	**18189**	**17.1**
BORL, Bina	5732	5450	6209	6402	6360	6708	5716	-14.8
HMEL, Bathinda	4904	9271	7318	10713	10521	8830	12473	41.3
Grand Total	**219212**	**222497**	**223242**	**232865**	**245362**	**251935**	**257205**	**2.1**

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

2. Crude throughput in terms of crude oil processed.

Source: Oil Companies

Figure III.4: Company-wise Crude Oil Processed during 2018-19 (%)



III.4: Refinery-wise Production of Petroleum Products

(Figures in TMT)

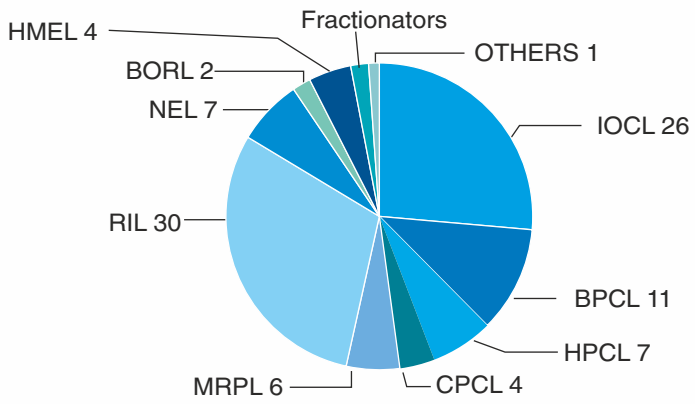
Refinery	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% variation in 2018-19 over 2017-18
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(a) PUBLIC SECTOR	**112329**	**112738**	**114462**	**120227**	**129244**	**137835**	**143247**	**3.9**
IOCL, Guwahati	881	1078	1067	1103	1121	1142	1030	-9.8
IOCL, Barauni	5732	5948	5412	6079	5881	5507	6276	14.0
IOCL, Koyali	12480	12300	12492	13246	13106	13271	12908	-2.7
IOCL, Haldia	6793	7233	7008	7133	6982	7167	7450	4.0
IOCL, Mathura	8281	6370	8243	8640	8916	9151	9560	4.5
IOCL, Digboi	652	650	591	541	542	665	676	1.5
IOCL, Panipat	14112	14795	14110	15501	15833	15889	15777	-0.7
IOCL, Bongaigoan	2116	2121	2186	2253	2273	2241	2337	4.3
IOCL, Paradip1	-	-	-	1107	6920	11447	13230	15.6
Total IOCL	**51048**	**50494**	**51110**	**55602**	**61573**	**66480**	**69244**	**4.2**
BPCL, Mumbai	12458	12365	12346	12802	13013	13638	14193	4.1
BPCL, Kochi	9385	9674	9803	10164	11194	13307	15149	13.8
Total BPCL	**21843**	**22039**	**22149**	**22965**	**24206**	**26945**	**29342**	**8.9**
HPCL, Mumbai	7388	7213	7030	7468	7952	8126	8202	0.9
HPCL, Vishakhapatnam	7452	7246	8241	8558	8653	8901	9095	2.2
Total HPCL	14840	14459	15271	16026	16605	17027	17297	1.6
CPCL(MRL), Manali	8140	9169	9421	8330	8963	9331	9254	-0.8
CPCL(MRL), Narimanam	635	558	539	550	532	502	425	-15.3
Total CPCL	**8775**	**9728**	**9959**	**8881**	**9496**	**9833**	**9679**	**-1.6**
NRL, Numaligarh	2373	2557	2754	2521	2653	2823	2882	2.1
MRPL, Mangalore	13394	13397	13169	14166	14629	14650	14741	0.6
ONGC, Tatipaka	56	64	50	66	82	75	63	-16.7
(b) PRIVATE SECTOR	**91197**	**90101**	**89997**	**91734**	**94285**	**97498**	**97273**	**-0.2**
RIL, Jamnagar	32755	30815	30864	32331	32927	33561	33334	-0.7
RIL, SEZ-Jamnagar	39399	39799	39329	41089	41261	44178	45761	3.6
Total RIL	**72154**	**70613**	**70192**	**73419**	**74188**	**77739**	**79095**	**1.7**
NEL, Vadinar	19043	19487	19804	18315	20096	19758	18178	-8.0
(c) JOINT VENTURE	**9692**	**13617**	**12682**	**15945**	**15728**	**14464**	**16910**	**16.9**
BORL, Bina	5209	4994	5782	5916	5767	6094	5113	-16.1
HMEL, Bathinda	4483	8623	6900	10029	9961	8370	11797	40.9
(d) FRACTIONATORS	4518	4300	3994	4016	4294	4608	4931	7.0
Grand Total	**217736**	**220756**	**221136**	**231923**	**243551**	**254405**	**262361**	**3.1**

Note: Total may not tally due to rounding off

P: Provisional

Source: Oil Companies

Figure III.5: Company-wise Production of Petroleum Products during 2018-19 (%)



III.5: Refinery-wise and Product-wise Production of Petroleum Products during 2018-19(P)

(Figures in TMT)

Refinery/Plant	LPG	Motor Spirit	Naphtha	ATF	SKO	Diesel	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	39	234	21	57	76	551	0	0	0	52	0	1030	112	863
IOC, Barauni	402	1072	508	0	641	3402	0	21	0	182	49	6276	616	6661
IOC, Koyali	469	2147	594	542	416	6698	465	587	0	715	276	12908	1279	13505
IOC, Haldia	265	720	576	577	667	2871	981	556	174	0	64	7450	673	7965
IOC, Mathura	474	1568	378	770	286	3828	961	992	0	0	303	9560	670	9737
IOC, Digboi	18	124	4	0	1	384	47	0	0	43	54	676	75	676
IOC, Panipat	792	1732	1683	1324	315	7477	254	432	0	874	895	15777	1370	15281
IOCL,Bongaigoan, Assam	68	278	151	40	68	1580	15	0	0	129	7	2337	210	2513
IOCL, Paradip, Odisha	1025	3021	50	665	165	6165	0	0	0	1187	951	13230	1431	14616
BPCL, Mumbai	436	2699	537	954	161	6865	1375	618	159	0	389	14193	589	14773
BPCL, Kochi	1051	2666	754	768	122	7876	19	296	0	983	615	15149	1272	16051
HPCL, Mumbai	479	1564	431	504	158	3077	718	600	473	0	198	8202	614	8671
HPCL, Vishakhapatnam	417	1761	295	137	163	4439	1049	667	0	0	166	9095	717	9773
CPCL(MRL), Manali	311	997	617	749	141	4680	439	509	143	347	319	9254	1063	10271
CPCL(MRL), Narimanam	15	0	139	0	29	164	0	0	0	0	79	425	23	423
NRL, Numaligarh	57	527	10	67	62	2010	0	0	0	105	44	2882	182	2900
MRPL, Mangalore	970	1279	1600	1517	61	6309	738	142	0	922	1203	14741	1690	16231
ONGC, Tatipaka	0	0	22	0	4	14	0	0	0	0	22	63	3	66
RIL, Jamnagar	419	1590	6364	2692	0	8383	1628	0	0	2556	9701	33334	2784	31752
RIL, SEZ-Jamnagar	1075	8018	2940	2480	0	16385	555	0	0	3278	11030	45761	3616	37393
NEL, Vadinar	870	3071	670	758	55	9647	354	144	0	2041	569	18178	1149	18896
BORL,Bina	158	917	9	559	199	2915	0	0	0	254	102	5113	584	5716
HMEL,Bathinda	890	2055	184	302	216	5478	0	239	0	1008	1425	11797	731	12473
Total Refinery	10700	38039	18536	15461	4005	111201	9598	5803	949	14676	28461	257430	21454	257205
Fractionators	2086	0	1250	18	66	36	0	0	0	0	1476	4931	0	0
Grand Total	**12786**	**38039**	**19786**	**15479**	**4072**	**111236**	**9598**	**5803**	**949**	**14676**	**29937**	**262361**	**21454**	**257205**

Note: Others include VGO, Benzene, MTO, CBFS, Sulphur, LSHS, Waxes, MTBE & Reformate, etc.

P: Provisional

Source: Oil Companies

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

(Figures in TMT)

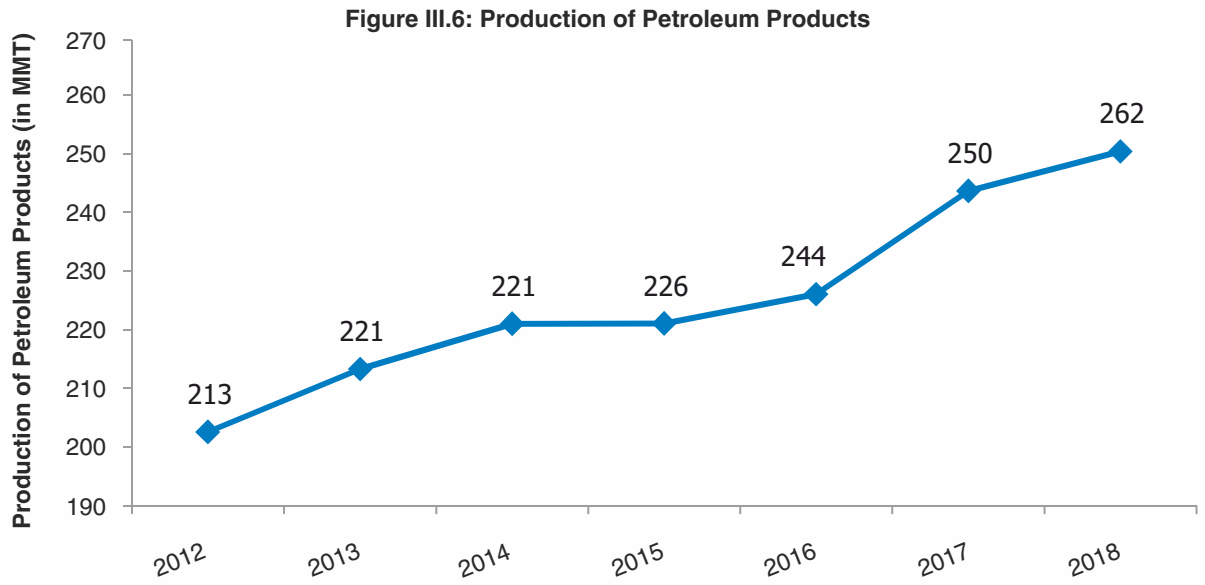
Refinery	Year							% variation in 2018 over 2017
	2012	2013	2014	2015	2016	2017	2018 (P)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
LPG	9709	9853	9953	10301	11285	12094	12751	5.4
Motor Spirit	29549	30263	31800	34056	36421	37567	38057	1.3
Naphtha	18648	18779	17821	17300	19699	20064	20080	0.1
Kerosene	8115	7461	7604	7433	6547	4635	4180	-9.8
ATF	9538	11208	10926	11084	13929	14211	15506	9.1
HSD	89283	93022	94693	96391	102718	105975	110272	4.1
LDO	428	427	351	410	527	592	711	19.9
Total Fuel Oils	15832	13787	12307	10278	10275	9439	9535	1.0
of which								
a) Furnace Oil	14266	13156	11745	9855	10025	9172	8971	-2.2
b) LSHS/HHS/RFO	1566	631	562	423	250	267	564	111.2
Lube Oils	954	915	878	1073	1060	994	1008	1.4
Bitumen	4555	4876	4756	4769	5394	5076	5735	13.0
Petroleum Coke	9990	11892	10060	9800	13952	14483	14998	3.6
Paraffin Wax	54	52	54	57	81	101	92	-8.1
Others	16694	18470	19855	23123	21751	25188	29235	16.1
Total Production of Petroleum Products	**213349**	**221006**	**221059**	**226073**	**243640**	**250418**	**262159**	**4.7**
of which								
Refineries	**208783**	**216610**	**216958**	**222137**	**239457**	**245879**	**257298**	**4.6**
Fractionators	**4566**	**4396**	**4101**	**3936**	**4183**	**4539**	**4860**	**7.1**

Note: 1. Others include VGO, Benzene, MTO, CBFS, Sulphur, Waxes, MTBE & Reformate, etc. P: Provisional

2. Total may not tally due to rounding off.

Source: Oil Companies

Figure III.6: Production of Petroleum Products



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

(Figures in TMT)

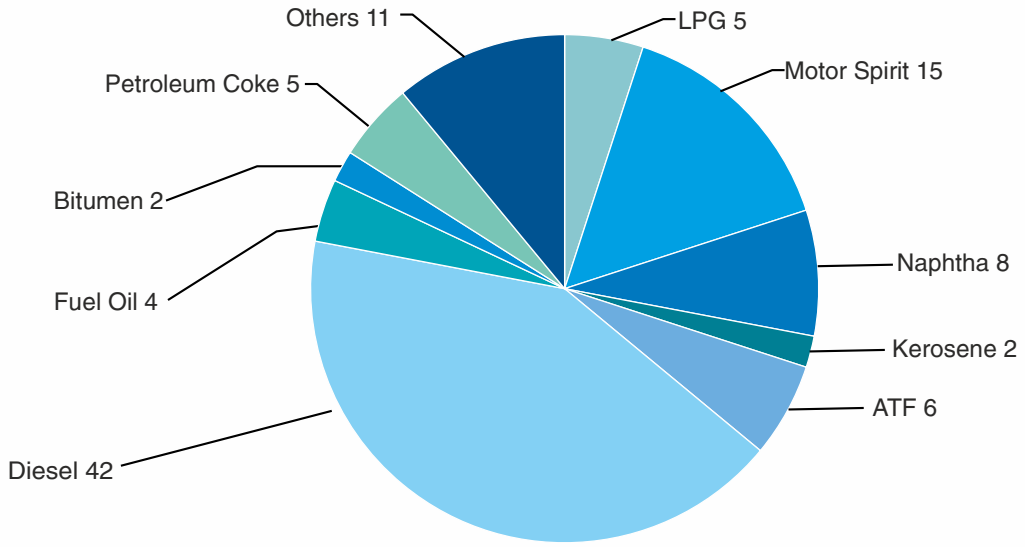
Refinery	Year							% variation in 2018-19 over 2017-18
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
LPG	9825	10030	9840	10568	11326	12380	12786	3.3
Motor Spirit	30118	30275	32325	35321	36593	37784	38039	0.7
Naphtha	19018	18505	17391	17861	19946	20006	19786	-1.1
Kerosene	7971	7418	7559	7503	6041	4408	4072	-7.6
ATF	10088	11220	11103	11789	13831	14594	15479	6.1
HSD	91103	93759	94428	98588	102484	107904	110535	2.4
LDO	400	423	358	429	629	562	702	24.9
Total Fuel Oils	15054	13405	11919	9727	9962	9486	10032	5.8
of which								
a) Furnace Oil	13690	12920	11248	9468	9694	9019	9598	6.4
b) LSHS/HHS/RFO	1364	485	671	259	268	468	434	-7.1
Lube Oils	896	941	946	1037	1029	1036	949	-8.4
Bitumen	4670	4785	4632	5157	5185	5277	5803	10.0
Petroleum Coke	10943	12068	12448	13322	13936	14754	14676	-0.5
Paraffin Wax	52	55	51	65	85	104	90	-13.4
Others	17598	17871	18137	20557	22504	26111	29413	12.6
Total Production of Petroleum Products	**217736**	**220756**	**221136**	**231923**	**243551**	**254405**	**262361**	**3.1**
of which								
Refineries	**213219**	**216456**	**217141**	**227907**	**239256**	**249797**	**257430**	**3.1**
Fractionators	**4518**	**4300**	**3994**	**4016**	**4294**	**4608**	**4931**	**7.0**

Note: 1. Others include VGO, Benzene, MTO, CBFS, Sulphur, LSHS, Waxes, MTBE & Reformate, etc. P: Provisional

2. Total may not tally due to rounding off.

Source: Oil Companies

Figure III.7: Distribution of Petroleum Products Produced during 2018-19 (%)



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

(Figures in $/bbl)

Refinery	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PSUs Refineries							
IOCL, Guwahati**	9.52	6.38	8.68	15.88	22.14	21.88	16.14
IOCL, Barauni	2.40	6.68	-1.20	2.93	6.52	6.60	3.98
IOCL, Koyali	4.61	4.52	4.79	6.80	7.55	9.44	4.90
IOCL, Haldia	0.85	2.84	-1.51	3.96	6.80	6.86	5.37
IOCL, Mathura	0.55	2.10	-2.19	3.30	7.01	7.09	4.61
IOCL, Digboi**	20.81	15.41	13.73	16.17	24.49	24.86	22.75
IOCL, Panipat	3.34	3.62	-1.97	4.15	7.95	7.74	4.81
IOCL, Bongaigaon**	5.26	6.71	-0.26	11.09	20.15	20.62	17.00
IOCL, Paradip	-	-	-	-0.65	4.22	7.02	4.47
Total IOCL	**3.16**	**4.24**	**0.27**	**5.06**	**7.77**	**8.49**	**5.46**
BPCL, Mumbai	4.67	3.95	3.97	6.37	5.36	7.26	4.92
BPCL, Kochi	5.36	4.80	3.17	6.87	5.16	6.44	4.27
Total BPCL	**4.97**	**4.33**	**3.62**	**6.59**	**5.26**	**6.85**	**4.58**
HPCL, Mumbai	2.08	5.38	4.88	8.09	6.95	8.35	5.79
HPCL, Vishakhapatnam	2.08	1.50	1.12	5.46	5.51	6.55	4.31
Total HPCL	**2.08**	**3.43**	**2.84**	**6.68**	**6.20**	**7.40**	**5.01**
CPCL	0.99	4.08	1.97	5.27	6.05	6.42	3.68
NRL, Numaligarh**	10.52	12.09	16.67	23.68	28.56	31.92	28.11
MRPL, Mangalore	2.45	2.67	-0.64	5.20	7.75	7.54	4.06
Private Refineries							
RIL	9.20	8.10	8.60	10.80	11.00	11.60	9.20
NEL, Vadinar	7.96	7.98	8.37	10.81	9.14	8.95	6.97
Joint Venture Refineries							
BORL, Bina	7.00	7.70	6.10	11.70	11.80	11.70	9.80
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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PSUs Refineries							
IOCL, Guwahati	65.0	58.6	109.4	121.9	113.8	108.0	112.3
IOCL, Barauni	58.1	60.5	84.4	81.0	80.7	77.7	77.9
IOCL, Koyali	58.0	59.4	76.1	75.8	75.2	72.4	75.3
IOCL, Haldia	54.9	52.7	79.0	79.8	83.0	80.8	76.6
IOCL, Mathura	59.0	60.5	78.2	73.4	72.2	68.3	63.9
IOCL, Digboi	65.0	61.5	94.0	112.4	114.3	105.5	101.8
IOCL, Panipat	50.6	49.9	71.7	70.1	64.9	63.2	64.1
IOCL, Bongaigaon	65.0	72.9	98.7	91.3	90.2	91.7	88.6
IOCL, Paradip	-	-	-	-	117.8	72.8	66.8
Total IOCL	**56.5**	**56.4**	**78.2**	**76.6**	**81.8**	**72.6**	**71.0**
BPCL, Mumbai	65.5	66.6	77.3	74.7	70.6	66.7	64.7
BPCL, Kochi	79.4	77.4	78.5	77.6	85.8	79.2	71.6
Total BPCL	**71.3**	**71.1**	**77.8**	**75.9**	**77.1**	**73.2**	**68.8**
HPCL, Mumbai	82.6	75.4	94.6	89.3	85.7	84.4	82.8
HPCL, Vishakhapatnam	85.0	83.6	83.5	80.7	78.1	77.3	77.3
Total HPCL	**83.7**	**79.0**	**88.9**	**84.8**	**81.9**	**80.8**	**80.0**
CPCL(MRL), Manali	67.9	64.0	92.9	95.8	92.5	88.6	83.0
CPCL(MRL), Narimanam	102.3	123.2	118.6	113.1	117.8	123.7	118.1
Total CPCL	**68.8**	**65.3**	**93.6**	**96.4**	**93.2**	**89.4**	**84.2**
NRL, Numaligarh	53.3	53.5	71.4	71.1	72.3	64.7	65.9
MRPL, Mangalore	61.0	60.9	86.3	80.3	79.6	77.1	74.2
Private Refineries							
RIL, Jamnagar	54.7	56.5	51.6	52.6	51.3	50.0	49.0
RIL, SEZ-Jamnagar	53.0	51.4	49.0	49.3	49.0	48.6	48.2
Total RIL	**53.7**	**53.5**	**50.2**	**50.8**	**50.0**	**49.2**	**48.6**
NEL, Vadinar	61.5	59.4	63.8	62.7	58.6	58.9	61.1
Joint Venture Refineries							
BORL, Bina	-	-	86.2	84.2	68.4	66.9	69.2
HMEL, Bathinda	-	67.1	66.0	62.0	62.5	61.1	59.2
Grand Total	**58.8**	**58.6**	**66.3**	**65.5**	**65.9**	**63.3**	**62.6**

Note: New MBN from 2014-15 onwards

P: Provisional

Source: Centre for High Technology

III.10: Distillate yield of PSU Refineries

(Distillate %)

Refinery	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IOCL, Guwahati	79.71	83.06	81.09	80.81	83.50	82.70	81.00
IOCL, Barauni	86.10	87.93	87.30	88.69	85.30	89.00	87.90
IOCL, Koyali	77.97	78.40	80.15	83.10	81.00	82.50	81.00
IOCL, Haldia	69.30	68.50	69.05	69.57	66.70	66.90	69.90
IOCL, Mathura	73.27	68.89	71.92	74.70	73.60	75.40	76.10
IOCL, Digboi	73.67	73.51	74.82	69.69	75.30	77.90	75.80
IOCL, Panipat	82.70	81.97	82.45	83.80	84.10	84.90	82.80
IOCL, Bongaigaon	82.31	85.90	83.98	84.46	83.80	84.30	84.80
IOCL, Paradip	-	-	-	-	75.30	79.40	80.80
Total IOCL	**78.50**	**78.30**	**78.78**	**80.60**	**78.81**	**80.36**	**80.36**
BPCL, Mumbai	80.50	81.00	81.76	84.29	86.15	84.30	82.20
BPCL, Kochi	78.90	81.90	84.67	85.70	85.17	83.90	82.50
Total BPCL	**79.80**	**81.40**	**83.06**	**84.92**	**85.69**	**84.10**	**82.36**
HPCL, Mumbai	74.60	72.60	75.90	76.00	77.60	77.40	77.60
HPCL, Vishakhapatnam	72.10	75.70	78.76	75.70	74.00	74.50	74.50
Total HPCL	**73.30**	**74.30**	**77.40**	**75.80**	**75.70**	**75.90**	**76.00**
CPCL(MRL), Manali	68.00	72.10	71.50	71.36	71.60	72.30	75.30
CPCL(MRL), Narimanam	87.50	85.10	71.59	79.27	78.20	79.10	77.30
Total CPCL	**69.28**	**72.83**	**71.50**	**71.77**	**71.92**	**72.62**	**75.38**
NRL, Numaligarh	91.10	92.20	90.69	89.90	90.52	86.68	87.10
MRPL, Mangalore	76.50	74.60	72.31	76.90	77.30	76.50	76.80
Grand Total (PSUs)	**77.30**	**77.70**	**78.30**	**79.90**	**79.30**	**79.70**	**79.70**

P:Provisional

Source: Centre for High Technology

III.11: LNG Terminals Operational as on 31.03.2019

Terminal	Promoters	Capacity (MMTPA)	Capacity Utilization (%)		
(1)	(2)	(3)	2016-17	2017-18	2018-19(P)
Operational					
Dahej (Gujarat)	Petronet LNG Ltd. (PLL)	15 MMTPA	105.3	105.3	106.5
Hazira (Gujarat)	Hazira LNG Pvt. Ltd. (HLPL)	5 MMTPA	69.6	58.9	79.9
Dabhol (Maharashtra)	Ratnagiri Gas and Power Pvt. Ltd. (RGPPL- JV of GAIL & NTPC)	1.69 MMTPA*	57.1	64.9	24.4
Kochi (Kerala)	Petronet LNG Ltd. (PLL)	5 MMTPA	5.5	12.2	9.3

*:To increase to 5 MMTPA with breakwater

P:Provisional

Source: Petroleum Planning & Analysis Cell.

III.12: Existing Major Crude Oil Pipelines in India

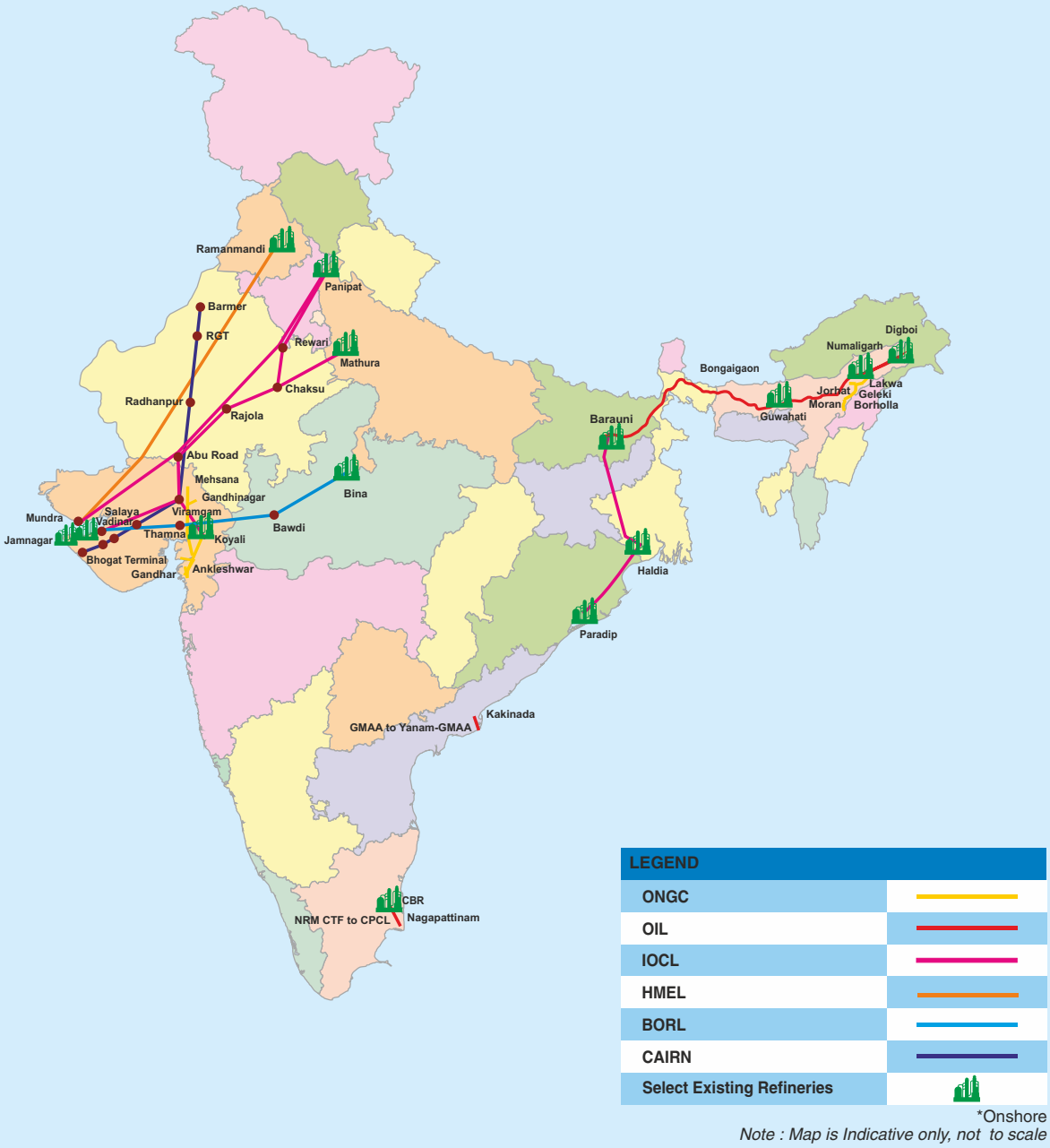
Type of Pipeline/Owner/Name of Pipeline	Capacity (TMT)*		Length (KMs)*		Throughout (TMT)		Utilisation (%)
	2018	2019	2018	2019	2017-18	2018-19 (P)	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Onshore							
IOCL	**48600**	**48600**	**5195**	**5195**	**51077**	**51331**	**105.6**
Salaya Mathura Pipeline	25000	25000	2646	2646	26203	26360	105.4
Mundra Panipat Pipeline	8400	8400	1194	1194	8437	7800	92.9
Paradip Haldia Barauni Pipeline	15200	15200	1355	1355	16437	17171	113.0
ONGC	**30397**	**27097**	**782**	**796**	**9709**	**9697**	**31.9**
CTF Kalol to CTF Nawagam - New	3140	3140	63	63	959	986	31.4
Nawagam-Koyali (18" Old)[1]	5400	-	78	-	1790	-	-
Nawagam-Koyali (18" New)	5400	5400	80	80	376	2898	53.7
Nawagam-Koyali (14" Old)	3300	3300	78	78	1325	563	17.1
Mehsana-Nawagam trunk line - New	2265	2265	77	77	2061	2025	89.4
CTF, Ankleshwar to Koyali pipeline	2199	2199	95	95	920	908	41.3
CTF, Ankleshwar to CPF, Gandhar	394	394	44	44	0	0	0.0
CPF, Gandhar to Saraswani 'T' point	1805	1805	57	57	686	761	42.1
Akholjuni- Koyali oil pipe line	481	481	66	66	193	180	37.4
Lakwa-Moran oil line (New)	1500	1500	15	15	107	353	23.6
Lakwa-Moran oil line (Old)	1500	1500	18	18	305	24	1.6
Geleki-Jorhat oil line (old)	1500	1500	49	49	417	334	22.3
Geleki-Jorhat oil line (new)	0	1500	-	48	-	62	-
Borholla- Jorhat (old)	600	600	43	43	154	145	24.2
Borholla- Jorhat (New)	0	600	-	43	-	51	-
NRM (Narimanam) to CPCL	740	740	5	5	339	387	52.4
KSP-WGGS to TPK Refinery	83	83	14	14	31	3	3.7
GMAA EPT	90	90	4	4	46	16	18.3
OIL: Duliajan-Digboi-Barauni-Bongaigaon Pipeline	8450	8950	1193	1193	6645	6563	77.7
HMEL: Mundra - Bhatinda Pipeline	11250	11250	1017	1017	8876	12434	110.5
BORL: Vadinar - Bina Pipeline	6000	6000	937	937	6714	5756	95.9
Cairn	10710	10710	688	688	9933	9511	88.8
Mangala- Bhogat Pipeline	8710	8710	660	660	7808	7648	87.8
Bhogat- Marine	2000	2000	28	28	2125	1863	93.2
Total Onshore Crude Pipeline	**115407**	**112607**	**9812**	**9825**	**92955**	**95292**	**82.6**
Offshore							
ONGC	**45134**	**45134**	**488**	**488**	**13085**	**11707**	**25.9**
Mumbai High - Uran Trunk Pipeline	15634	15634	204	204	10021	8817	56.4
Heera-Uran Trunk Pipeline	11500	11500	81	81	3064	2890	25.1
Bombay-Uran Trunk 30" Pipeline	18000	18000	203	203	0	0	0.0
IOCL	**-**	**-**	**106**	**106**	**-**	**-**	**-**
Salaya Mathura Pipeline	-	-	14	14	-	-	-
Paradip Haldia Barauni Pipeline	-	-	92	92	-	-	-
Total Offshore Crude Pipeline	**45134**	**45134**	**594**	**594**	**13085**	**11707**	**25.9**
Total Crude pipeline	**160541**	**157741**	**10406**	**10419**	**106040**	**106999**	**66.6**

Note: *: as on 31st March P:Provisional

1. Nawagam-Koyali old line used upto Jan'18. Nawagam-Akhdol , 42 km section decommissioned and Akhdol-Koyali section not in use from Feb'18.

Source: Oil Companies

Map III.1: Crude Oil Pipelines*(as on 31.03.2019)



*Onshore

Note : Map is Indicative only, not to scale

III.13: Existing Major Gas Pipelines in India

Type of Pipeline/Owner/Name of Pipeline	Capacity (MMSCMD)*		Length (KMs)*		Throughout (MMSCMD)		Utilisation (%)
	2018	2019	2018	2019	2017-18	2018-19 (P)	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Onshore							
GAIL[1]	**194**	**194**	**11410**	**11410**	**105**	**105**	**54.2**
HVJ-GREP-DVPL	53	53	4554	4554	30	28	53.3
DVPL-GREP Upgradation (DVPL-II & VDPL)	54	54	1385	1385	36	39	71.6
Chhainsa-Jhajjar-Hissar P/L	5	5	310	310	1	1	20.6
Dadri Bawana Nangal	31	31	852	852	5	6	20.6
Dahej-Panvel-Dhabol	20	20	928	928	14	14	70.6
Kochi-Koottanad-Bangalore-Mangalore (Phase-1)	6	6	48	48	2	2	28.5
Dhabol Bangalore	16	16	1116	1116	1	1	7.8
Gujarat	9	9	685	685	4	4	45.4
Rajasthan Regional (Jaisalmer)	2	2	151	151	1	1	48.1
Cauvery Basin	9	9	306	306	3	3	38.9
K G Basin	16	16	884	884	5	5	32.4
Assam (Lakwa)	-	-	-	-	-	-	-
Tripura (Agartala)	2	2	60	60	1	1	56.1
Mumbai Regional	7	7	131	131	6	6	90.6
IOCL	**9**	**10**	**140**	**161**	**5**	**5**	**54.4**
Dadri Panipat R LNG Pipeline	9	9	140	140	5	5	54.4
ETBPNMT R LNG Pipeline[2]	-	1	-	21	-	0.01	-
GSPL- Network	**43**	**43**	**2618**	**2692**	**32**	**35**	**80.4**
DNPL: Duliajan to Numaligarh	1	1	192	192	1	1	64.2
AGCL: Duliajan to Numaligarh[3]	2	2	105	105	1	1	47.2
RIL	75	71	1784	1784	19	20	27.3
East-West Pipeline	71	67	1480	1480	17	19	27.4
Shahdol-Phulpur Pipeline	4	4	304	304	0	1	25.6
Total Onshore Gas Pipeline	**324**	**321**	**16249**	**16344**	**156**	**167**	**51.5**
Offshore							
ONGC	6	6	24	24	4	4	63.2
20" Uran Trombay Gas Line	6	6	24	24	4	4	63.2
Total Gas Pipeline	**330**	**327**	**16273**	**16368**	**159**	**171**	**51.7**

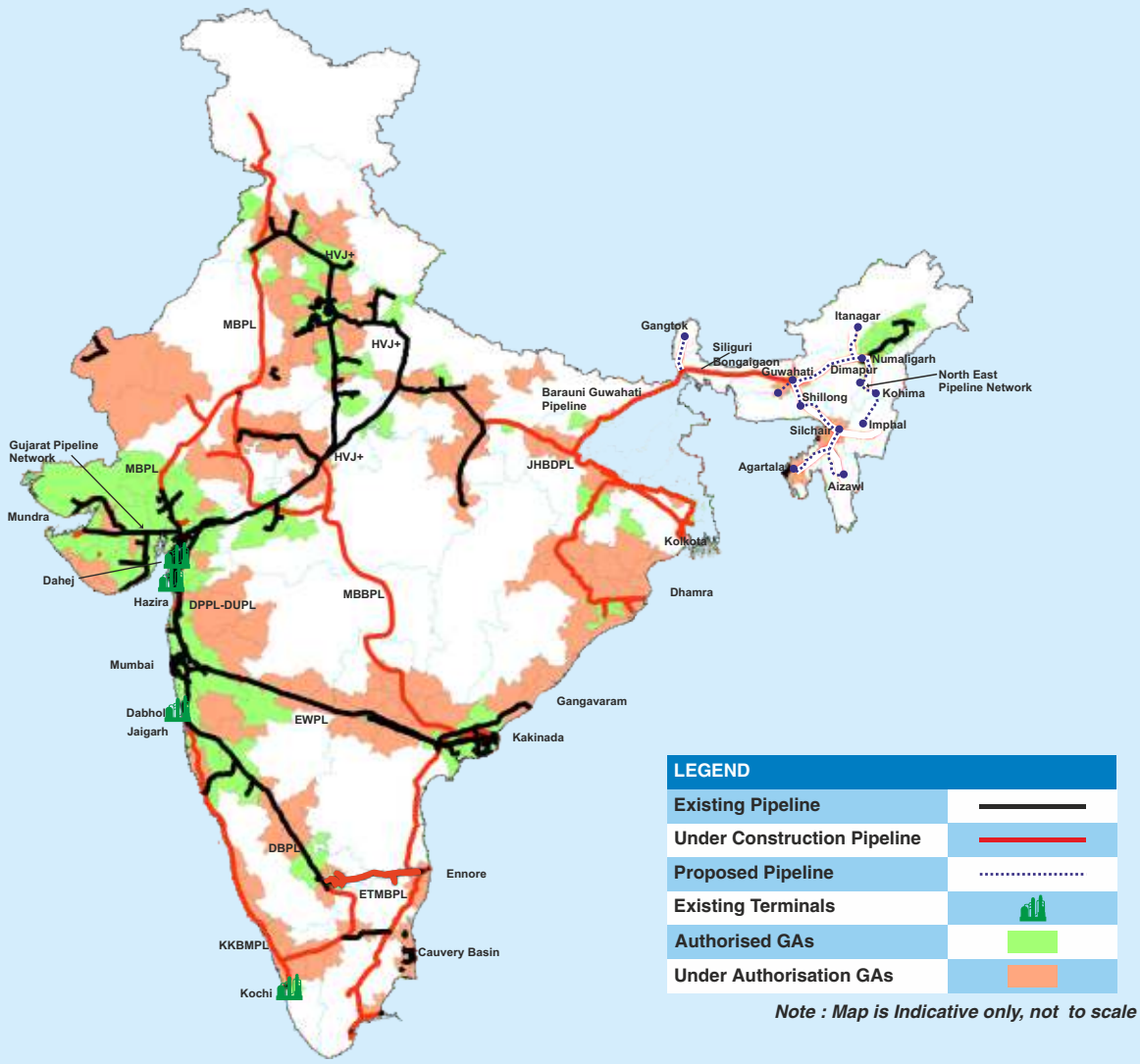
Note: *: as on 31st March P:Provisional

1. 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.
2. Capacity of ETBPNMTPL is 12.19 MMSCMD. Pro-rated capacity provided based on date of commissioning.
3. Excluded 514 KM CGD pipeline of AGCL.

Source: Oil Companies

CHAPTER I
CHAPTER II
CHAPTER III
CHAPTER IV
CHAPTER V
CHAPTER VI
CHAPTER VII
CHAPTER VIII
CHAPTER IX
CHAPTER X
CHAPTER XI
APPENDIX

Map III.2 : Terminals, NG Pipelines and Geographical Areas (as on 31.03.2019)



Note : Map is Indicative only, not to scale

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

Type of Pipeline/Owner/Name of Pipeline	Capacity (TMT)*		Length (KMs)*		Throughout (TMT)		Utilisation (%)
	2018	2019	2018	2019	2017-18	2018-19 (P)	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
LPG Pipelines							
BPCL: Mumbai Uran LPG Pipeline	**800**	**800**	**28**	**28**	**337**	**362**	**45.3**
IOCL	**1203**	**1970**	**431**	**953**	**649**	**1100**	**91.4**
Panipat - Jalandhar LPG Pipeline	700	700	274	280	599	618	88.3
Paradip Haldia Durgapur LPG Pipeline[2]	503	1270	157	673	50	482	38.0
HPCL: Mangalore-Hassan-Mysore-Solure	**1940**	**1940**	**356**	**356**	**783**	**961**	**49.5**
GAIL	**3830**	**3830**	**2032**	**2032**	**3713**	**3974**	**103.8**
Jamnagar-Loni LPG Pipeline	2500	2500	1414	1414	2673	2851	114.0
Vizag-Secunderabad LPG Pipeline	1330	1330	618	618	1040	1123	84.4
Total LPG Pipeline	**7773**	**8540**	**2847**	**3369**	**5482**	**6397**	**82.3**
Products Pipelines							
IOCL	**44390**	**43590**	**7519**	**7816**	**33949**	**36096**	**81.3**
Koyali Ahmedabad Pipeline	1100	1100	79	79	153	169	15.4
Koyali Sanganer Pipeline	4600	4600	1300	1644	4351	4405	95.8
Koyali Ratlam Pipeline	2000	2000	265	265	1452	1487	74.4
Koyali Dahej Pipeline	2600	2600	197	197	938	1058	40.7
Barauni Kanpur Pipeline	3500	3500	856	857	2257	2769	79.1
Haldia Mourigram Rajbandh Pipeline	1350	1350	277	277	1824	2049	151.8
Haldia Barauni Pipeline	1250	1250	526	526	1485	1673	133.8
Guwahati Siliguri Pipeline	1400	1400	435	435	1832	1818	129.9
Panipat Bhatinda Pipeline	1500	1500	219	219	1546	1488	99.2
Panipat Rewari Pipeline	2100	2100	155	155	1690	1582	75.3
Panipat Ambala Jalandhar Pipeline	3500	3500	434	434	3060	3172	90.6
Panipat Delhi Pipeline	3000	3000	189	189	1100	1311	37.5
Panipat Bijwasan ATF Pipeline			111	111			
Mathura Delhi Pipeline	3700	3700	147	147	2763	2984	80.6
Mathura Tundla Pipeline	1200	1200	56	56	426	424	44.8
Mathura Bharatpur Pipeline			21	21	165	113	
Chennai Trichy Madurai Pipeline	2300	2300	683	683	2841	2959	128.7
Chennai Banglore Pipeline	2450	2450	290	290	1715	1845	75.3
Chennai Meenambakkam ATF Pipeline	180	180	95	95	230	279	155.0
Digboi Tinsukia Pipeline	1000	0	75	0	528	107	10.7
Devangonthi Devanhalli Pipeline	660	660	36	36	424	503	76.2
Paradip Raipur Ranchi Pipeline	5000	5000	1073	1073	3169	3839	76.8
Kolkata ATF Pipeline[2]	-	200	-	27	-	62	-
BPCL	**15440**	**15440**	**1920**	**1920**	**12557**	**12774**	**82.7**
Mumbai Manmad Manglya Piyala Bijwasan(MS/SKO/HSD)	6000	6000	1389.0	1389.0	7015	7557	125.9
Bina Kota (MS/SKO/HSD)	4400	4400	259.0	259.0	3388	3047	69.3

Contd...

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

Type of Pipeline/Owner/Name of Pipeline	Capacity (TMT)*		Length (KMs)*		Throughout (TMT)		Utilisation (%)
	2018	2019	2018	2019	2017-18	2018-19 (P)	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bina Kota (MS/SKO/HSD)	4400	4400	259.0	259.0	3388	3047	69.3
Mumbai Refinery - Santacruz Airport (ATF)	1440	1440	15.0	15.0	933	908	63.0
Kochi Refinery - Kochi Airport (ATF)	600	600	34.0	34.0	380	525	87.5
Kota Jobner (MS/SKO/HSD)	1700	1700	211.0	211.0	579	592	34.8
Mumbai LOBS	1300	1300	12.0	12.0	262	146	11.2
HPCL[1]	**26480**	**27230**	**3379**	**3379**	**24041**	**24892**	**94.0**
Mumbai - Pune - Solapur Pipeline (MPSPL)	4300	4300	508.0	508.0	4655	4268	99.3
Visakh - Vijaywada - Secunderabad Pipeline	5380	5380	572.0	572.0	5752	5916	110.0
Mundra - Delhi Pipeline (MDPL)	5000	5000	1054.0	1054.0	5943	7002	140.0
Ramanmandi - Bahadurgarh Pipeline (RBPL)	4710	4710	243.0	243.0	4340	6128	130.1
Ramanmandi - Bhatinda Pipeline (RBhPL)	2100	2100	30.0	30.0	852	1013	48.3
Black Oil Pipeline Mumbai Refinery to Vashi terminal	1500	1500	21.5	21.5	325	443	29.5
Bahadurgarh - Tikrikalan Pipeline (BTPL)	750	750	14.0	14.0	528	435	57.9
Awa - Salawas Pipeline (ASPL)	2340	2340	93.0	93.0	722	737	31.5
Rewari - Kanpur Pipeline (RKPL)	7980	7980	443.0	443.0	2672	3922	49.1
Mangalore Hassan Bengaluru Pipeline	2140	2140	364.0	364.0	3500	3362	157.1
Mumbai Refinery to Mazagaon terminal - Lube Oil Pipeline (LOPL)	1000	1000	17.1	17.1	463	486	48.6
Mumbai Refinery to Mumbai Airport (ATF Pipeline)	1100	1100	20	20	463	478	43.4
OIL: Numaligarh - Siliguri Pipeline	1721	1721	654	654	1872	1777	103.2
PCCK: Cochin - Coimbatore - Karur Pipeline	3300	3300	293	293	2651	279	8.5
Total Products Pipeline	**92431**	**92381**	**13785**	**14082**	**75533**	**76296**	**82.5**
Grand Total Pipelines (including LPG)	**100204**	**100921**	**16632**	**17451**	**81015**	**82693**	**82.5**

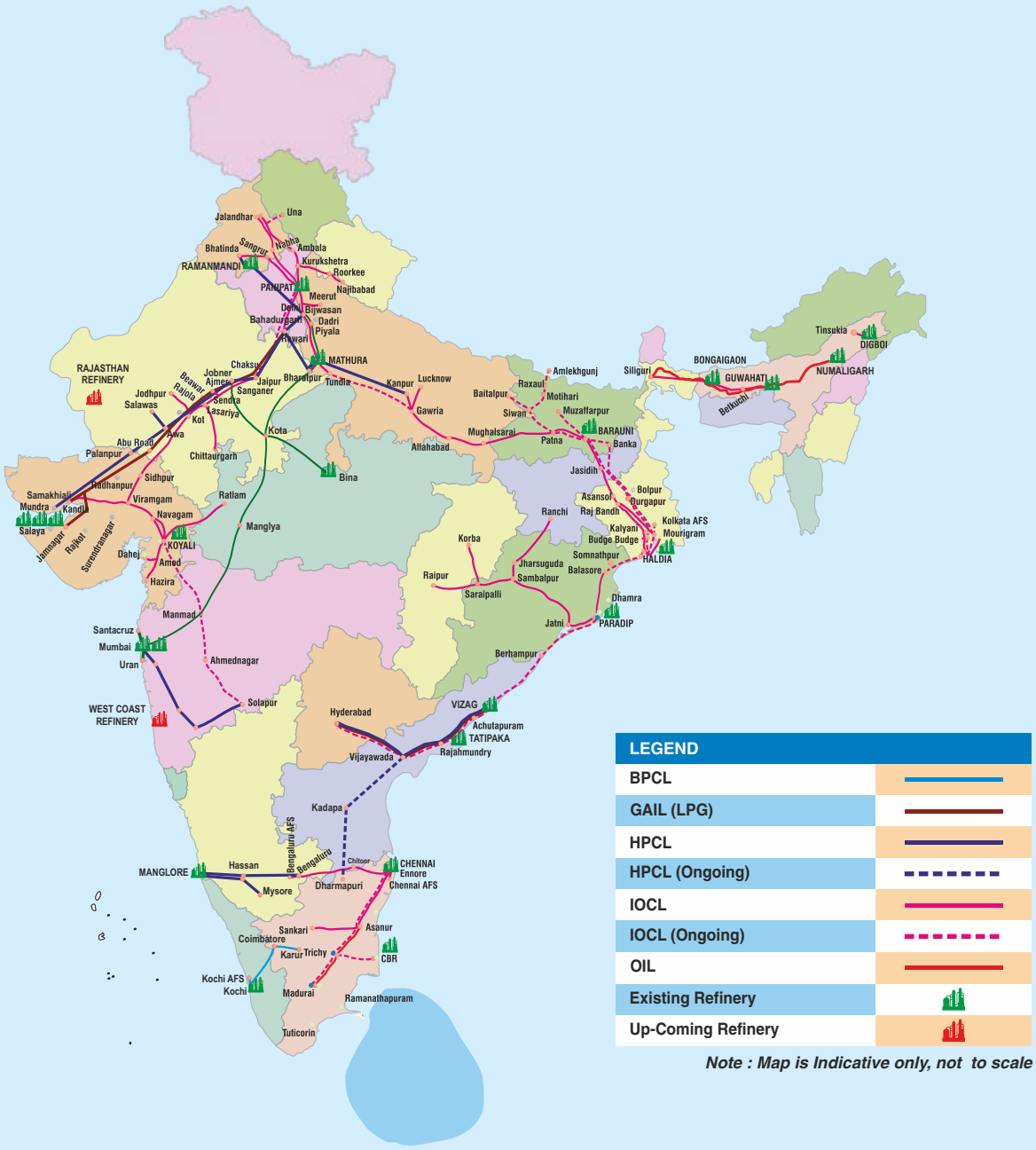
Note: *: as on 31st March

1. Capacity of Branch Pipelines (BTPL, ASPL & RKPL) not included in total capacity as of 31.03.2019. Thruput of Branchline (BTPL, ASPL & RKPL) and and reverse pumping in MDPL from Bahadurgarh to Rewari not included in total thruput, as same is considered in (MDPL & RBPL) thruput. BTPL converted to branchline after commissioning of direct pumping facilities from RBPL in Mar'18. However, Capacity & Thruput of BTPL is considered in the total for 2017-18. BOPL converted for white oil movement in Jun'17. However, Capacity & Thruput of BOPL not included in total thruput of 2017-18, as same is considered in MPSPL thruput. Total thruput of 2017-18 does not include thruput of ASPL, RKPL, BOPL and reverse pumping (2455 TMT) in MDPL from Bahadurgarh to Rewari. Total thruput of 2018-19 does not include thruput of BTPL, ASPL, RKPL and reverse pumping (4204 TMT) in MDPL from Bahadurgarh to Rewari.

2. Capacity of Paradip Haldia Durgapur Pipeline is 1.270 MMTPA and Kolkata ATF is 0.2 MMTPA. Pro-rated capacity provided based on date of commissioning.

Source: Oil companies

Map III.3: Refineries and Petroleum Product Pipelines (as on 31.03.2019)



Note : Map is Indicative only, not to scale

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

	2013	2014	2015	2016	2017	2018	2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Coastal Trade (Oil Tankers)							
1. Product Carriers							
No. of tankers	13	14	14	14	15	16	16
DWT ('000' tonnes)	43	44	44	44	46	47	46
2. Crude Oil Carriers							
No. of tankers	1	2	3	4	4	4	4
DWT ('000' tonnes)	41	41	358	403	403	403	403
3. Offshore Supply Vessels							
No. of tankers	106	108	102	106	106	101	101
DWT ('000' tonnes)	113	115	110	114	119	114	117
4. Specialized vessels for offshore							
No. of tankers	38	38	36	36	36	37	37
DWT ('000' tonnes)	50	50	49	49	49	49	49
Total (1+2+3+4)							
No. of tankers	158	162	155	160	161	158	158
DWT ('000' tonnes)	247	250	560	609	617	613	615
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	59	64	60	63	65	71	69
DWT ('000' tonnes)	5661	5786	5608	5858	6231	7246	7005
7. Product Carriers							
No. of tankers	49	47	47	50	53	56	63
DWT ('000' tonnes)	3266	3273	3313	3440	3555	3660	3939
8. LPG Carriers							
No. of tankers	9	9	8	11	14	19	19
DWT ('000' tonnes)	273	273	223	303	451	696	808
Total Overseas (5+6+7+8)							
No. of tankers	118	121	116	125	133	147	152
DWT ('000' tonnes)	9246	9377	9190	9646	10283	11648	11798
Total Oil Tankers (A+B)							
No. of tankers	**276**	**283**	**271**	**285**	**294**	**305**	**310**
DWT ('000' tonnes)	**9494**	**9627**	**9750**	**10256**	**10899**	**12260**	**12413**

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 31.03.2019)

(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
	Total	**44475**	**45975**
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
	Total	**219482**	**402727**
Specialized Vessels for Offshore Services			
1	Dolphin Offshore Shipping Ltd.	405	436
2	Hind Offshore Pvt. Ltd.	3114	1480
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
	Total	**87105**	**48884**

Cont'd…

III.16: Indian Tonnage (as on 31.03.2019) (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.	2101	1204
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.	6908	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.	4337	4759
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
	Total	**136624**	**117248**

Cont'd…

III.16: Indian Tonnage (as on 31.03.2019) (Cont'd)

(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.	443540	802369
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	**3857101**	**7005467**
Oil Tankers (Product Carriers)			
1	Arya Tankers Pvt. Ltd.	22848	35437
2	ASM Shipping	18101	30990
3	Castle Ships Pvt.Ltd.	33762	53018
4	Doehle Danautic (I) Pvt. Ltd.	28226	45999
5	Great Eastern Shipping Co. Ltd.	658588	1148952
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	387744	675026
10	Pratibha Shipping Ltd.	45172	76881
11	Sanmar Shipping Ltd.	197228	334513
12	SCI Forbes Ltd.	34500	52489
13	Seven Islands Shipping Ltd.	112614	184195
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
	Total	**2325913**	**3939082**
LPG Carriers			
1	BW Global United LPG India Pvt. Ltd.	93662	109290
2	Global United Shipping India Pvt. Ltd.	126524	151270
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	**683004**	**808180**

Source: Directorate General of Shipping, Mumbai.

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	2012-13	39.88	6.90	17.30
	2013-14	41.38	6.82	16.48
	2014-15	46.29	6.15	13.29
	2015-16	50.19	7.74	15.42
	2016-17	50.95	7.69	15.10
	2017-18	57.89	8.92	15.41
	2018-19	**63.71**	**9.51**	**14.93**
Mumbai	2012-13	58.04	34.78	59.92
	2013-14	59.18	35.98	60.80
	2014-15	61.66	36.28	58.84
	2015-16	61.11	36.27	59.35
	2016-17	63.05	36.65	58.13
	2017-18	62.83	37.68	59.97
	2018-19	**60.59**	**37.30**	**61.56**
Chennai	2012-13	53.40	13.42	25.13
	2013-14	51.11	12.78	25.00
	2014-15	52.54	12.74	24.25
	2015-16	50.06	11.89	23.75
	2016-17	50.21	12.22	24.33
	2017-18	51.88	13.50	26.03
	2018-19	**53.01**	**13.30**	**25.09**
Cochin	2012-13	19.85	13.90	70.03
	2013-14	20.89	14.32	68.55
	2014-15	21.60	14.02	64.91
	2015-16	22.10	13.78	62.35
	2016-17	25.01	16.22	64.87
	2017-18	29.14	19.57	67.16
	2018-19	**32.02**	**21.91**	**68.43**
Deendayal (Kandla)	2012-13	93.62	54.36	58.06
	2013-14	87.01	53.14	61.07
	2014-15	92.50	55.59	60.10
	2015-16	100.05	55.59	55.56
	2016-17	105.44	60.34	57.23
	2017-18	110.10	62.20	56.49
	2018-19	**115.40**	**59.31**	**51.40**
Visakhapatnam	2012-13	58.96	15.02	25.47
	2013-14	58.50	14.01	23.95
	2014-15	58.00	14.64	25.24
	2015-16	57.03	16.94	29.70
	2016-17	61.02	16.60	27.21
	2017-18	63.54	16.05	25.26
	2018-19	**65.30**	**16.32**	**24.99**
Mormugao	2012-13	17.74	0.82	4.62
	2013-14	11.74	0.53	4.51
	2014-15	14.71	0.57	3.87
	2015-16	20.78	0.56	2.69
	2016-17	33.18	0.63	1.89
	2017-18	26.90	0.63	2.34
	2018-19	**17.68**	**0.60**	**3.39**

Cont'd...

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)
J.N.P.T.	2012-13	64.50	4.29	6.65
	2013-14	62.33	4.41	7.08
	2014-15	63.80	4.03	6.32
	2015-16	64.03	4.09	6.39
	2016-17	62.15	4.49	7.22
	2017-18	66.00	4.64	7.03
	2018-19	**70.71**	**4.79**	**6.77**
Paradip	2012-13	56.55	16.47	29.12
	2013-14	68.00	17.70	26.03
	2014-15	71.01	17.98	25.32
	2015-16	76.39	20.57	26.93
	2016-17	88.96	27.70	31.13
	2017-18	102.01	33.78	33.11
	2018-19	**109.28**	**38.12**	**34.88**
Tuticorin (VOC Prot)	2012-13	28.26	0.79	2.80
	2013-14	28.64	0.48	1.68
	2014-15	32.41	0.61	1.88
	2015-16	36.85	0.69	1.87
	2016-17	38.46	0.67	1.73
	2017-18	36.58	0.64	1.75
	2018-19	**34.34**	**0.59**	**1.72**
New Mangalore	2012-13	37.04	24.30	65.60
	2013-14	39.36	24.65	62.63
	2014-15	36.57	22.97	62.81
	2015-16	35.68	23.93	67.07
	2016-17	39.95	25.10	62.85
	2017-18	42.06	24.72	58.77
	2018-19	**42.51**	**25.85**	**60.81**
Ennore	2012-13	17.89	1.12	6.26
	2013-14	27.34	2.34	8.56
	2014-15	30.25	3.19	10.55
	2015-16	32.20	3.88	12.05
	2016-17	30.02	4.06	13.52
	2017-18	30.45	4.34	14.25
	2018-19	**34.50**	**4.74**	**13.74**
Grand Total	2012-13	545.73	186.17	34.11
	2013-14	555.48	187.16	33.69
	2014-15	581.34	188.77	32.47
	2015-16	606.47	195.93	32.31
	2016-17	648.40	212.37	32.75
	2017-18	679.37	226.66	33.36
	2018-19	**699.05**	**232.34**	**33.24**

Source : Ministry of Shipping.

III.18: Movement of POL Traffic on Railways

Year	Tonnes Originating (TMT)	Earnings (in ₹ crore)	Average Lead (Kms)	Earnings (Paise/Tonnes/Kms)	Average Freight (₹/Tonne)
(1)	(2)	3)	(4)	(5)	(6)
2012-13	40607	4717.86	692	168.01	1161.83
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(P)	**43490**	**5773.17**	**642**	**206.63**	**1327.47**

Source : Ministry of Railways
P: Provisional

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

(in ₹/Tonne)

Effective Dates	Distance in Kilometres							
	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**

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: Total Retail Outlets in India

(in Number)

Year	Unit	IOCL	HPCL	BPCL	Others	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31.03.2013	Nos.	22372	12173	11637	2487	48669
	%	46.0	25.0	23.9	5.1	100
31.03.2014	Nos.	23993	12869	12123	2883	51868
	%	46.3	24.8	23.4	5.6	100
31.03.2015	Nos.	24405	13233	12809	2972	53419
	%	45.7	24.8	24.0	5.6	100
31.03.2016	Nos.	25363	13802	13439	3586	56190
	%	45.1	24.6	23.9	6.4	100
31.03.2017	Nos.	26212	14412	13983	4988	59595
	%	44.0	24.2	23.5	8.4	100
31.03.2018	Nos.	27089	15062	14447	5987	62585
	%	43.3	24.1	23.1	9.6	100
31.03.2019	Nos.	27702	15440	14802	6680	64624
	%	42.9	23.9	22.9	10.2	100

Note: Others Includes 7 outlets of MRPL and 6673 Pvt. Retail Outlets (RIL-1400; NEL-5128 & SHELL-145)

Source: Oil Companies

Figure III.8: Retail Outlets in India during 2013 to 2019

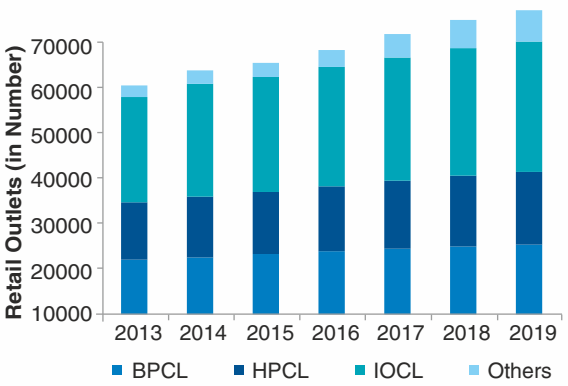
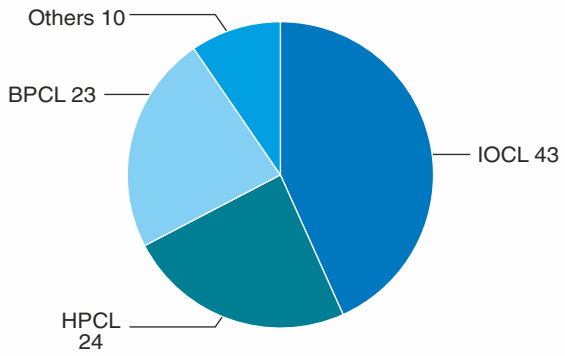


Figure III.9: Distribution of retail outlets across oil companies (%) (as on 31.03.2019)



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

(in Number)

State / UT	As on 31.03.2019					Total as on 31.03.2018
	IOCL	HPCL	BPCL	Total CPSEs	Total Outlets[2]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Chandigarh	21	11	10	42	42	41
Delhi	189	98	107	394	398	397
Haryana	1482	772	446	2700	2942	2862
Himachal Pradesh	232	125	71	428	441	432
Jammu & Kashmir	230	136	141	507	507	503
Punjab	1723	897	625	3245	3444	3427
Rajasthan	1839	1087	906	3832	4674	4476
Uttar Pradesh	3826	1706	1489	7021	7776	7473
Uttarakhand	265	178	121	564	598	590
Sub Total North	**9807**	**5010**	**3916**	**18733**	**20822**	**20201**
Arunachal Pradesh	62	0	16	78	94	85
Assam	539	105	157	801	894	871
Manipur	79	0	22	101	105	97
Meghalaya	120	30	46	196	209	203
Mizoram	33	3	6	42	43	41
Nagaland	52	3	12	67	79	73
Sikkim	20	7	23	50	51	51
Tripura	66	0	3	69	71	71
Sub Total North-East	**971**	**148**	**285**	**1404**	**1546**	**1492**
Andaman & Nicobar	14	0	0	14	14	14
Bihar	1539	544	683	2766	2859	2695
Jharkhand	507	290	338	1135	1219	1207
Orissa	793	330	443	1566	1700	1681
West Bengal	1151	495	615	2261	2354	2333
Sub Total East	**4004**	**1659**	**2079**	**7742**	**8146**	**7930**
Chhattisgarh	543	387	309	1239	1277	1249
Dadra & Nagar Haveli	11	11	4	26	31	31
Daman & Diu	11	11	7	29	32	32
Goa	31	37	50	118	118	116
Gujarat	1328	840	866	3034	4168	4025
Madhya Pradesh	1489	923	1006	3418	3820	3711
Maharashtra	2015	1736	1833	5584	6181	5970
Sub Total West	5428	3945	4075	13448	15627	15134
Andhra Pradesh	1281	1009	777	3067	3439	3336
Karnataka1	1952	974	1046	3979	4376	4214
Kerala	908	609	493	2010	2130	2100
Lakshadweep	0	0	0	0	0	0
Puducherry	80	39	34	153	164	164
Tamil Nadu	2222	1282	1454	4958	5626	5388
Telangana	1049	765	643	2457	2748	2626
Sub Total South	**7492**	**4678**	**4447**	**16624**	**18483**	**17828**
All India	**27702**	**15440**	**14802**	**57951**	**64624**	**62585**

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

2. Includes Pvt. Retail Outlets (RIL-1400; NEL-5128 & SHELL-145)

Source: Oil Companies

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

(in Number)

State / UT	As on 31.03.2019				Total as on 31.03.2018
	IOCL	HPCL	BPCL	Total	
(1)	(2)	(3)	(4)	(5)	(6)
Chandigarh	184757	54584	35165	274506	272930
Delhi	2954126	774904	1213322	4942352	4824565
Haryana	2867114	1555642	2191525	6614281	5952169
Himachal Pradesh	1315037	231171	180541	1726749	1527088
Jammu & Kashmir	708375	1881580	393706	2983661	2266050
Punjab	4393399	1798011	2115947	8307357	7353947
Rajasthan	6535123	4615952	4295447	15446522	12285550
Uttar Pradesh	19888761	7597804	10111393	37597958	30212427
Uttarakhand	1757200	243766	520845	2521811	2239506
Sub Total North	**40603892**	**18753414**	**21057891**	**80415197**	**66934232**
Arunachal Pradesh	241160	0	5984	247144	212424
Assam	5066466	427203	886581	6380250	4626873
Manipur	501099	0	2878	503977	400301
Meghalaya	284250	392	13655	298297	189129
Mizoram	283205	0	0	283205	249976
Nagaland	235468	608	10521	246597	196934
Sikkim	136345	184	0	136529	122969
Tripura	698279	0	0	698279	505271
Sub Total North East	**7446272**	**428387**	**919619**	**8794278**	**6503877**
Andaman & Nicobar	95216	0	0	95216	77818
Bihar	7938206	4626517	3840831	16405554	12958952
Jharkhand	2930168	1369158	873002	5172328	3365159
Orissa	3100132	2859763	2017493	7977388	5928365
West Bengal	12022127	4702332	4214616	20939075	17627457
Sub Total East	**26085849**	**13557770**	**10945942**	**50589561**	**39957751**
Chhattisgarh	2453203	1532826	801139	4787168	4017727
Dadra & Nagar Haveli	0	87563	0	87563	82199
Daman & Diu	0	36568	24579	61147	58630
Goa	13119	313035	155648	481802	469977
Gujarat	4957727	2406802	2695002	10059531	8587610
Madhya Pradesh	6726074	3905244	3483051	14114369	10792567
Maharashtra	4076920	11400375	11451133	26928428	24102724
Sub Total West	**18227043**	**19682413**	**18610552**	**56520008**	**48111434**
Andhra Pradesh	4694360	6278902	2427676	13400938	13164722
Karnataka	6494081	5229609	3689102	15412792	13080566
Kerala	4356469	1693328	2558805	8608602	8287720
Lakshadweep	7691	0	0	7691	5390
Puducherry	143072	132067	94344	369483	355032
Tamil Nadu	11700754	3697134	5293561	20691449	18428977
Telangana	4224839	3792122	2538265	10555226	9436266
Sub Total South	**31621266**	**20823162**	**16601753**	**69046181**	**62758673**
All India	**123984322**	**73245146**	**68135757**	**265365225**	**224265967**

Source: Central Public Sector Enterprises

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

(in Number)

State / UT	As on 31.03.2019				Total as on 31.03.2018
	IOCL	HPCL	BPCL	Total	
(1)	(2)	(3)	(4)	(5)	(6)
Chandigarh	18	5	4	27	27
Delhi	196	48	79	323	321
Haryana	292	135	187	614	540
Himachal Pradesh	143	30	23	196	168
Jammu & Kashmir	137	106	39	282	253
Punjab	469	173	209	851	808
Rajasthan	633	370	330	1333	1099
Uttar Pradesh	2166	853	1033	4052	3395
Uttarakhand	213	34	59	306	268
Sub Total North	**4267**	**1754**	**1963**	**7984**	**6879**
Arunachal Pradesh	79	0	4	83	66
Assam	396	42	84	522	468
Manipur	95	0	4	99	84
Meghalaya	50	4	8	62	51
Mizoram	58	0	0	58	54
Nagaland	66	4	8	78	61
Sikkim	19	1	2	22	16
Tripura	73	0	0	73	63
Sub Total North East	**836**	**51**	**110**	**997**	**863**
Andaman & Nicobar	9	0	0	9	5
Bihar	900	449	450	1799	1109
Jharkhand	269	126	96	491	401
Odisha	414	284	214	912	753
West Bengal	714	298	261	1273	1077
Sub Total East	**2306**	**1157**	**1021**	**4484**	**3345**
Chhattisgarh	259	155	109	523	443
Dadra & Nagar Haveli	0	3	0	3	3
Daman & Diu	0	2	1	3	3
Goa	5	32	17	54	52
Gujarat	488	199	214	901	774
Madhya Pradesh	745	362	343	1450	1268
Maharashtra	552	798	784	2134	1827
Sub Total West	**2049**	**1551**	**1468**	**5068**	**4370**
Andhra Pradesh	419	356	240	1015	940
Karnataka	529	340	302	1171	1043
Kerala	333	140	186	659	610
Lakshadweep	1	0	0	1	1
Puducherry	12	8	7	27	27
Tamil Nadu	868	289	410	1567	1353
Telangana	344	220	200	764	715
Sub Total South	**2506**	**1353**	**1345**	**5204**	**4689**
Grand Total	**11964**	**5866**	**5907**	**23737**	**20146**

Source: Central Public Sector Enterprises

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

(in Number)

State / UT	As on 31.03.2019				Total as on 31.03.2018
	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	407	138	150	695	696
Uttarakhand	46	12	15	73	73
Sub Total North	**914**	**402**	**281**	**1597**	**1598**
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	372
Jharkhand	57	13	17	87	87
Orissa	105	47	25	177	177
West Bengal	314	89	55	458	458
Sub Total East	**761**	**186**	**148**	**1095**	**1096**
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	476
Madhya Pradesh	163	63	58	284	284
Maharashtra	301	260	206	767	767
Sub Total West	**806**	**496**	**359**	**1661**	**1664**
Andhra Pradesh	190	176	47	413	413
Karnataka	171	94	50	315	318
Kerala	135	72	30	237	237
Lakshadweep	0	0	0	0	0
Puducherry	3	5	0	8	8
Tamil Nadu	268	139	59	466	466
Telangana	90	68	25	183	183
Sub Total South	**857**	**554**	**211**	**1622**	**1625**
Grand Total	**3889**	**1638**	**1001**	**6528**	**6536**

Source: Central Public Sector Enterprises

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

(Figures in KL)

State	PDS SKO allocation				Uplifitment			
	2015-16	2016-17	2017-18	2018-19	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Chandigarh*	2325	0	0	0	663	0	0	0
Delhi*	0	0	0	0	0	0	0	0
Haryana*	68750	66252	0	0	54929	35927	0	0
Himachal Pradesh	18789	18120	14496	14496	18747	17950	14400	14301
Jammu and Kashmir	63175	73056	58476	58476	62313	67873	57557	53923
Punjab*	66444	74334	0	0	64783	62296	0	0
Rajasthan	385354	371400	259968	137992	374739	355770	110452	69288
Uttar Pradesh	1212140	1168212	911208	887856	1211419	1167555	901307	873517
Uttarakhand	27390	31692	25344	25344	27252	31156	13286	10011
Sub Total North	**1844367**	**1803066**	**1269492**	**1124164**	**1814845**	**1738527**	**1097002**	**1021040**
Arunachal Pradesh	8031	9288	7920	7920	8015	9150	7723	7158
Assam	250095	289248	245856	245856	249832	287814	245038	242578
Manipur	18201	21060	17904	17904	18148	15235	18196	17680
Meghalaya	19788	22884	19440	19440	19751	22694	19356	19272
Mizoram	5192	6012	4800	4800	5164	6013	4800	4800
Nagaland	13037	15084	12177	10272	13037	9007	9480	9792
Sikkim	4445	4296	3456	3456	4445	4299	3450	3432
Tripura	29883	34560	29376	29376	29883	34522	29392	29300
Sub Total North-East	**348672**	**402432**	**340929**	**339024**	**348275**	**388734**	**337435**	**334012**
Andaman & Nicobar Islands	4492	5160	4128	4128	4478	4868	4014	3786
Bihar	620003	710736	495432	332592	618441	705334	490280	329588
Jharkhand	204336	219696	186768	186768	202694	219002	176263	150272
Odisha	303287	292296	248448	248448	299674	282962	244343	247739
West Bengal	734111	788868	704016	704016	733172	788263	653631	699313
Sub Total East	**1866229**	**2016756**	**1638792**	**1475952**	**1858458**	**2000429**	**1568531**	**1430698**
Chhattisgarh	134064	135384	115056	115056	123846	121671	92679	91542
Dadra & Nagar Haveli*	1429	1656	288	0	1429	1658	288	0
Daman and Diu*	644	756	132	0	644	480	0	0
Goa	3997	4620	2259	2112	3922	2630	1428	1416
Gujarat	511546	493008	344520	249718	511308	492702	338163	248657
Madhya Pradesh	459007	442368	345048	336192	451478	427252	336902	325926
Maharashtra	487359	563640	384696	286680	477820	517933	377758	241914
Sub Total West	**1598045**	**1641432**	**1191999**	**989758**	**1570448**	**1564326**	**1147218**	**909455**
Andhra Pradesh*	207530	225696	56424	0	180581	191547	26574	0
Karnataka	396756	287532	156000	156000	376843	260254	126539	112452
Kerala	91658	88344	58728	55632	91629	88345	58727	55620
Lakshadweep[1]	766	936	768	768	766	935	768	768
Puducherry*	3315	3840	800	0	3269	3828	660	0
Tamil Nadu	265933	307560	204528	193776	265932	307572	204915	193775
Telangana	135782	155436	103368	97920	132345	133932	100793	94297
Sub Total South	**1101740**	**1069344**	**580616**	**504096**	**1051365**	**986413**	**518976**	**456912**
Total	**6759054**	**6933030**	**5021828**	**4432994**	**6643391**	**6678429**	**4669162**	**4152117**

Note: * 3 States/ 5 UTs have become PDS kerosene free.
P: Provisional
1. PDS SKO allocation for Lakshadweep is made on yearly basis in the 1st Quarter of the year.
Source: Distribution Section, MoPNG

III.26: State-wise PMUY connections issued as on 01.04.2019

(in Number)

State / UT	2016-17	2017-18	2018-19	Under PMUY as on 01.04.2019
(1)	(2)	(3)	(4)	(5)
Chandigarh	0	0	88	88
Delhi	516	161	73120	73797
Haryana	278751	78361	323344	680456
Himachal Pradesh	1601	28140	83177	112918
Jammu & Kashmir	265787	107133	680098	1053018
Punjab	245008	137343	826611	1208962
Rajasthan	1722694	902940	3069891	5695525
Uttar Pradesh	5531159	954957	6476981	12963097
Uttarakhand	113866	23574	215481	352921
Sub Total North	**8159382**	**2232609**	**11748791**	**22140782**
Arunachal Pradesh	0	6362	32953	39315
Assam	2	1128137	1707801	2835940
Manipur	25	32592	97760	130377
Meghalaya	0	36844	103467	140311
Mizoram	0	902	24879	25781
Nagaland	0	9225	40177	49402
Sikkim	0	687	7111	7798
Tripura	0	46379	192014	238393
Sub Total North East	**27**	**1261128**	**2206162**	**3467317**
Andaman & Nicobar	1189	522	6178	7889
Bihar	2476953	2436197	2981636	7894786
Jharkhand	536912	666631	1701032	2904575
Orissa	1011955	1288380	1925954	4226289
West Bengal	2520479	2536306	3005534	8062319
Sub Total East	**6547488**	**6928036**	**9620334**	**23095858**
Chhattisgarh	1105441	846679	740584	2692704
Dadra & Nagar Haveli	3211	8226	2671	14108
Daman & Diu	73	130	219	422
Goa	954	30	88	1072
Gujarat	752354	516660	1252052	2521066
Madhya Pradesh	2239821	1075351	3130613	6445785
Maharashtra	858808	1018570	2186426	4063804
Sub Total West	**4960662**	**3465646**	**7312653**	**15738961**
Andhra Pradesh	63428	16616	262554	342598
Karnataka	15840	893174	1913808	2822822
Kerala	11241	27152	171530	209923
Lakshadweep	0	134	156	290
Puducherry	760	1861	10753	13374
Tamil Nadu	272749	745302	2123792	3141843
Telangana	41	0	923800	923841
Sub Total South	**364059**	**1684239**	**5406393**	**7454691**
All India	**20031618**	**15571658**	**36294333**	**71897609**

Source: PPAC

III.27: CNG activities in India as on 31.03.2019

State	Company	No. of Companies	No. of CNG Stations	No. of CNG Vehicles	CNG Sales (TMT)					
		As on 31.03.2019			2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Andhra Pradesh / Telangana	Bhagyanagar Gas Ltd, Godavari Gas Pvt.Ltd., Megha Engineering & Infrastructures Ltd.	3	89	44774	24.60	25.80	27.45	28.53	31.65	30.94
Bihar	GAIL (India) Ltd.	1	2	0	-	-	-	-	-	-
Chandigarh	Indian Oil-Adani Gas Pvt. Ltd.	1	5	7500	-	-	-	0.00	5.19	14.65
Daman and Diu	Indian Oil-Adani Gas Pvt. Ltd.	1	3	1000					0.92	1.70
Delhi/NCR	Indraprastha Gas Ltd .	1	482	1065603	697.60	717.10	738.30	803.84	1016.14	1143.96
Gujarat & Dadra Nagar Haveli	Sabarmati Gas Ltd, Gujarat Gas Ltd, Adani Gas Ltd, Vadodara Gas Ltd, Hindustan Petroleum Corporation Ltd, Charotar Gas Sahakari Mandal Ltd, IRM Energy Ltd.	7	548	925286	463.50	475.90	503.05	546.31	612.01	662.41
Haryana	Haryana City Gas Distribution Ltd, Adani Gas Limited, GAIL Gas Ltd., Indraprastha Gas Ltd., Indian Oil-Adani Gas Pvt. Ltd.	5	66	159783	78.20	72.30	74.59	109.00	144.32	178.61
Karnataka	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	2	13	1093	-	-	-	0.01	0.03	0.27
Kerala	Indian Oil-Adani Gas Pvt. Ltd.	1	4	900					0.00	1.39
Madhya Pradesh	Aavantika Gas Ltd, GAIL Gas Ltd	2	43	35996	15.90	16.60	19.19	21.59	24.77	30.64
Maharashtra	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, Gujarat Gas Limited, Mahesh Gas Ltd, Unison Enviro Private Limited	5	313	922439	476.00	531.40	565.01	592.59	630.17	701.81
Odisha	GAIL (India) Ltd.	1	6	2640	-	-	-	-	0.06	1.14
Punjab	IRM Energy Pvt. Ltd., GSPL	2	6	2202	-	-	-	-	-	1.27
Rajasthan	Rajasthan State Gas Limited	1	5	8438	1.60	2.60	3.68	4.27	4.87	7.40
Tripura	Tripura Natural Gas Co. Ltd	1	9	11688	6.80	9.50	11.19	12.30	13.29	14.65
Uttar Pradesh	GAIL Gas Ltd, Sanwariya Gas Ltd, Green Gas Ltd, Central U.P. Gas Ltd, Siti Energy Ltd, Adani Gas Ltd, Indian Oil-Adani Gas Pvt. Ltd., Torrent Gas Pvt Ltd., GAIL (India) Ltd.	9	128	154091	162.60	184.80	211.61	245.42	152.80	282.26
Uttarakhand	Indian Oil-Adani Gas Pvt. Ltd.	1	1	100	-	-	-	-	-	0.12
West Bengal	Great Eastern Energy Corporation Ltd.	1	7	3756	1.15	1.24	1.36	1.64	2.02	2.50
	Total		**1730**	**3347289**	**1927.95**	**2037.24**	**2155.43**	**2365.50**	**2638.23**	**3075.73**

Note:

1. Some entities are operating in more than one State. Hence , their number is taken once only.
2. The No. of CNG vehicles for GGL and VGL are based on average no. of vehicles filled at company's CNG stations per day.
3. Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

III.28: PNG Status as on 31.03.2019

(Figures in Numbers)

State	GA/Cities Covered	CGD Company/Companies	Domestic connections	Commercial connections	Industrial connections
(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	Vijaywada, Kakinada,West /East Godavari , Krishna District excl. area already authorized	Bhagyanagar Gas Ltd, Godavari Gas Pvt.Ltd., Megha Engineering & Infrastructures Ltd.	29435	120	4
Assam	Upper Assam GA	Assam Gas Co. Ltd	32469	1074	402
Chandigarh	Chandigarh GA	Indian Oil-Adani Gas Pvt. Ltd.	9598	0	1
Daman and Diu	Daman	Indian Oil-Adani Gas Pvt. Ltd.	506	22	9
Delhi / NCR	NCT of Delhi (Including Noida & Ghaziabad)	Indraprastha Gas Ltd .	1092223	2561	1751
Gujarat and Dadra & Nagar Haveli	Ahmadabad City & Daskroi area excl. already authorized area, Vadodara rural, Anand area incl. Kanjari and Vadtal villages GA, Surat-Bharuch-Ankleswar GA, Nadiad GA, Navsari GA, Rajkot GA, Surendranagar GA, Hazira GA, Valsad GA, Jamnagar GA, Bhavnagar GA, Kutch (West) GA, Amreli District GA, Dahej Vagra Taluka GA, Dahod District GA, Panchmahal District GA, Anand (excluding area authorised) district GA, Ahmadabad district GA, Banaskantha / Palanpur district, Gandhinagar, Mehsana & Sabarkantha GA, Patan district GA, Vadodara District, Dadra & Nagar Haveli GA	Sabarmati Gas Ltd, Gujarat Gas Ltd, Adani Gas Ltd, Vadodara Gas Ltd, Hindustan Petroleum Corporation Ltd, Charotar Gas Sahakari Mandal Ltd, IRM Energy Ltd.	2041557	18719	4897
Haryana	Faridabad district, Sonipat district, Gurugram district, Panipat district, Gurugram district, Rewari district, Nuh and Palwal districts	Haryana City Gas Distribution Ltd, Adani Gas Limited, GAIL Gas Ltd., Indraprastha Gas Ltd. , Indian Oil-Adani Gas Pvt. Ltd.	98893	281	486
Karnataka	Bengaluru rural and urban districts GA, Tumkur district GA, Belgaum district GA, Dharwad district	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	16860	124	75
Kerala	Ernakulum district	Indian Oil-Adani Gas Pvt. Ltd.	1032	10	1
Madhya Pradesh	Dewas, Gwalior GA, Indore GA including Ujjain city	Aavantika Gas Ltd, GAIL Gas Ltd	56110	133	189
Maharashtra	Pune City including Pimpri Chinchwad along with adjoining contiguous areas of Hinjewadi, Chakan & Talegaon GA, Mumbai, Greater Mumbai, Thane Urban, Mira Bhayender, Navi Mumbai, Ambernath, Bhiwandi, Kalyan, Dombivli, Badlapur, Ulhasnagar, Panvel, Kharghar & Taloja, Raigarh District GA excl area already authorized, Palghar district and Thane rural GA, Pune excluding areas already authorized, Ratnagiri	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, Gujarat Gas Limited, Mahesh Gas Ltd, Unison Enviro Private Limited	1452902	4064	260
Odisha	Khorda district GA, Cuttack district GA	GAIL (India) Ltd.	225	0	0
Punjab	Fatehgarh Sahib district	IRM Energy Pvt. Ltd., GSPL	400	1	11
Rajasthan	Kota, Neemrana & Kukas	Rajasthan State Gas Limited	2160	12	14
Telangana	Hyderabad	Bhagyanagar Gas Ltd.	10579	12	17
Tripura	Agartala	Tripura Natural Gas Co. Ltd	39743	415	49
Uttar Pradesh	Meerut, Mathura, Agra, Kanpur GA, Bareilly GA, Lucknow district, Moradabad GA, Firozabad Geographical Area (TTZ), Khurja GA, Allahabad GA, Varanasi district	GAIL Gas Ltd, Sanwariya Gas Ltd, Green Gas Ltd, Central U.P. Gas Ltd, Siti Energy Ltd, Adani Gas Ltd, Indian Oil-Adani Gas Pvt. Ltd.,Torrent Gas Pvt Ltd., GAIL (India) Ltd.	157503	495	651
Uttarakhand	Udham Singh Nagar district, Haridwar district GA	Indian Oil-Adani Gas Pvt. Ltd.	993	3	6
Total			**5043188**	**28046**	**8823**

Source: Petroleum Planning & Analysis Cell

III.29: Introduction to Green Fuels in India

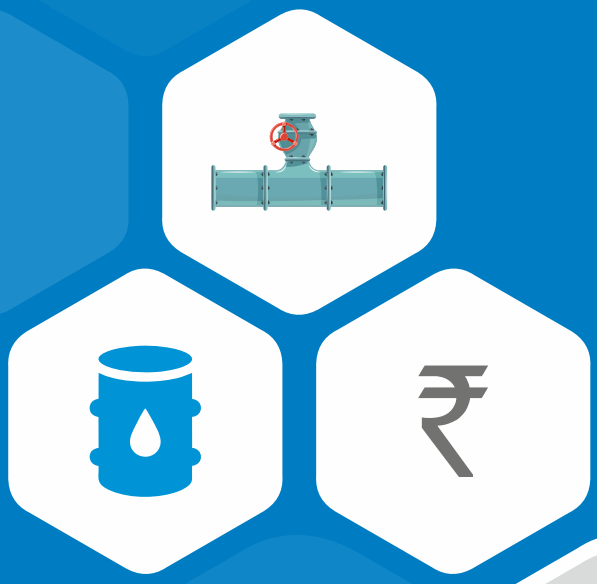
ProductEffective Date		Areas Covered
(1)	(2)	(3)
Bio Diesel	01.01.2006	Bio Diesel purchase policy announced: 20 purchase centres have been nominated: For Andhra Pradesh, Jharkhand & Odisha – Ghatkesar; Chhattisgarh – Mandirhasaud; Delhi – Biijwasan; Gujarat – Kandla; Haryana – Rewari; Karnataka – Devangunthi & Mangalore; Madhya Pradesh – Mangliagaon; Maharashtra – Manmad, Borkhedi, Loni & Vashi; Punjab – Bhatinda; Rajasthan – Sanganer & Salawas; Tamil Nadu–Korruupet, Narimanam & Karur; Uttar Pradesh & Uttarakhand–Panki & Amousi
	16.01.2015	Direct sale of bio-diesel by private manufacturers/authorised dealers and JVs of OMCs to all consumers
	10.08.2015	Direct sale of Bio-Diesel (B100) by private manufactures to bulk consumers
	16.05.2018	National policy on Biofuels -2018 approved by the Cabinet.
Ethanol Blended Petrol (EBP)	20.09.2006*	20 States: A.P., Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, H.P., Jharkhand, Karnataka, Kerala, M.P., Maharashtra, Orissa, Punjab, Rajasthan, T.N., Uttarakhand, U.P & West Bengal and 4 UTs: Chandigarh, Daman & Diu, Dadar & Nagar Haveli & Pondicherry.
	02.01.2013	As per MoPNG Gazette Notification No. G.S.R. 4(E). dated 02.01.2013, Oil Marketing Companies shall sell Ethanol-blended–petrol with percentage of Ethanol up to ten per cent and as per the Bureau of Indian Standard Specification to achieve five per cent Ethanol blending across the country as a whole.
	10.12.2014	Delivered price of Ethanol increased from 48.50 to 49.50 per litre
	13.10.2016	For EBP Programme Ethanol price fixed at 39 per litre.
	01.12.2018**	The ex-mill price of ethanol derived out of B heavy molasses / partial sugarcane juice raised to 52.43 from 47.13 per litre. The ex-mill price of ethanol derived from 100% sugarcane juice fixed at 59.13 per litre as against of prevailing price of 47.13 per litre, for those mills who will divert 100% sugarcane juice for production of ethanol, thereby not producing any sugar. The ex-mill price of ethanol derived out of C heavy molasses raised to 43.70 per litre from 40.85 per litre.
MS(BS-IV) & HSD (BS IV)	01.04.2010	Delhi & NCR, Mumbai, Kolkata, Chennai, Bengaluru, Hyderabad, Kanpur, Agra, Pune, Surat, Ahmadabad, Lucknow, Sholapur
	01.01.2012	Puducherry, Mathura
	01.02.2012	Jamnagar, Vapi
	01.03.2012	Ankleshwar, Hissar , Bharatpur
	01.07.2012	Silvasa, Daman, Diu
	01.10.2012	Aligarh, Rae Bareilly, Unnao
	01.03.2013	Valsad, Karnal, Kurukshetra , Yamuna Nagar
	01.07.2013	Nizamabad, Medak, Mehboobnagar
	01.01.2014	Mahabaleshwar, Ahmednagar, Hindaun, Dholpur, Kosi Kalan, Vrindavan
	15.3.2015	Lonawala, Palgarh, Dahanu, Talasari, Boisar, Panchgani, Mahad, Nagothana, Indapur, Vizag, Kochi, Thiruvananthapuram, Kavaratti, Nagr, Dig, Nadbai, Bhiwani, Jind, Mahendragarh, Hansi, Charki Dadri, Narnaul, Kiruli and Fatehpur Sikri
	1.4.2015	"The whole of Northern India covering Jammu & Kashmir, (except Leh/Kargil and 7 districts of J&K), Punjab, Haryana, Himachal Pradesh, Uttarakhand, Chandigarh, Delhi and the bordering districts in Rajasthan and Western Uttar Pradesh. The relevant districts of Rajasthan are Bharatpur, Alwar, Hanumangarh and Sriganganagar. The districts of West Uttar Pradesh covered are Saharanpur, Muzaffarnagar, Baghpat, Meerut, Bijnor, Ghaziabad, Gautam Buddh Nagar, Bulandshar, Jyotiba Phule Nagar, Rampur, Moradabad, Aligarh, Budaun, Bareilly, Mathura, Mahamaya Nagar, Etah, Agra, Ferozabad, Etawah and Mainpuri."
	15.4.2015	7 additional districts of Uttar Pradesh (Pilibhit, Shamli, Sambhal, Farrukhabad, Kannauj, Auraiya and Kasganj)
	1.5.2015	7 districts of J&K (Pulwama, Baramullah, Badgam, Srinagar, Kudwara, Bandipora and Ganderbal)
	1.9.2015	2 additional districts of J&K (Leh and Kargil)
	1.4.2016	All of Goa, Kerala, Karnataka, Telangana, Odisha, and the Union Territories of Daman & Diu, Dadra-Nagar-Haveli and Andaman & Nicobar Islands.
	1.4.2016	Certain districts of Maharashtra (Mumbai, Thane, Pune and Palghar districts), Gujarat (Surat, Valsad, Dangs, Tapi and Navsari districts) and highway corridor connecting Northern India and Western ports.
	1.4.2017	Entire country is covered with BS-IV auto fuels
MS (BS-VI) & HSD (BS-VI)	1.4.2018	Supply of BS-VI in NCT of Delhi commenced w.e.f. 01.04.2018, followed by major parts of NCR from 1st April, 2019. The 7 districts of Haryana in NCR has already been covered from 1st Oct,2019 leaving 6 districts of Haryana in NCR , which would be convert along with nationwide supply of BS-VI quality fuels by 1st April, 2020.

Note: * :Vide Notification No. GSR-580(E) dated 20.09.2006, MoPNG decided to introduce Ethanol Blended Petrol(EBP) in 20 States and 4 UTs subject to commercial viability.

**: CCEA approved on 12.10.2018 for B heavy molasses & 100% sugarcane juice and 27.06.2018 for C heavy molasses for the period 01.12.2018 to 30.11.2019.

Source: MoPNG & Petroleum Planning & Analysis Cell.

CHAPTER - IV



PRICES

CHAPTER HIGHLIGHTS

- Wholesale Price Index (WPI) inflation for all commodities stood at 4.3% in 2018-19 as compared to 3.0% in 2017-18. Increase in crude oil, Natural Gas and petroleum products WPI stood at 29.7%, 18.6% and 17.2% respectively as comparable last year (2017-18).
- Inflation was observed in LPG (12%), Petrol (10.1%), Naphtha (24.3%), Kerosene (34.5%), Aviation Turbine Fuel (30.6%), High Speed Diesel Oil (15%), Furnace Oil (37.6%), Lube Oil (9.5%), Bitumen (20.1%) and Petroleum Coke (27.7%) in 2018-19 vis-a-vis 2017-18.
- During 2018-19, the international crude oil price (Indian basket) dipped to 72.53 US $/bbl in August, 2018 and started increasing thereafter and reached at 80.08 US $/bbl in October, 2018. However, the average price was US $69.88/bbl during 2018-19.
- Share of petroleum sector in total subsidies has increased from 8.3% [₹ 24,833 crore (RE)] in 2018-19 to 11.1% [₹ 37,478 crore (BE)] in 2019-20.
- Subsidy & under recovery of CPSEs on PDS SKO increased by 26.8% from ₹ 4785 crore in 2017-18 to ₹ 6067 crore in 2018-19 whereas Subsidy & under recovery of CPSEs on Domestic LPG increased by 58.6% from ₹ 23,464 crore in 2017-18 to ₹ 37,222 crore in 2018-19.

IV.1: Wholesale Price Indices of Selected Petroleum Products

Base Year 2011-12=100

Items	Weight(%)	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Natural Gas	**0.46423**	**113.8**	**126.8**	**138.5**	**142.6**	**112.3**	**106.4**	**126.2**
Crude Petroleum	**1.94537**	**108.4**	**117.1**	**95.2**	**60.9**	**63.8**	**65.0**	**84.3**
LPG	0.64481	107.8	118.6	103.5	76.7	72.0	82.2	92.1
Petrol	1.60470	114.9	124.6	108.6	75.7	72.4	80.3	88.4
Naphtha	0.86678	109.8	119.4	103.0	66.9	66.5	74.5	92.6
Kerosene	0.18685	107.1	109.3	103.5	88.4	94.3	117.8	152.4
Aviation Turbine Fuel	0.31991	112.6	119.7	105.1	69.5	69.3	78.7	102.8
High Speed Diesel Oil	3.09548	111.6	126.3	114.8	73.4	74.4	84.4	97.1
Furnace Oil	0.66576	107.7	111.5	93.6	54.3	58.1	68.8	94.7
Lube Oil	0.29199	109.6	114.2	118.8	120.8	116.8	114.0	124.8
Bitumen	0.22677	101.3	112.1	106.1	77.1	68.0	71.3	85.6
Petroleum Coke	0.04663	99.4	92.8	94.3	78.3	93.0	117.2	149.7
Total Crude Petroleum & Natural Gas	2.4096	109.4	119.0	103.5	76.6	73.1	73.0	92.4
Total Petroleum Products (Mineral Oils)	**7.94968**	**110.9**	**121.6**	**108.7**	**73.9**	**73.3**	**82.5**	**96.7**
All commodities	**100**	**106.9**	**112.5**	**113.9**	**109.7**	**111.6**	**114.9**	**119.8**

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)	Price of Natural Gas (USD/ MMBTU)
	Off-shore (Landfall point) and On-shore	For North-East States	ONGC	ONGC (North-East States)	OIL (North-East States)		
	(in ₹/'000' cubic metre)						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
01.04.2013	9067	5440	9067	9067	9067	10000	-
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	-
01.10.2015	10038	6023	10038	10038	10038	10000	-
01.04.2016	8138	4883	8138	8138	8138	10000	3.06
01.10.2016	6621	3973	6621	6621	6621	10000	2.50
01.04.2017	6483	3890	6483	6483	6483	10000	2.48
01.10.2017	7390	4434	7390	7390	7390	10000	2.89
01.04.2018	7895	4737	7895	7895	7895	10000	3.06
01.10.2018	9629	5789	9629	9629	9629	10000	3.36
01.04.2019	**10174**	**6093**	**10174**	**10174**	**10174**	**10000**	**3.69**

Note:

1. 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.
2. 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.
3. The above guidelines shall not be applicable to:

i) 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).

ii) CBM gas, in terms of Government Notification dt. 11.04.17.

Source: ONGC, OIL

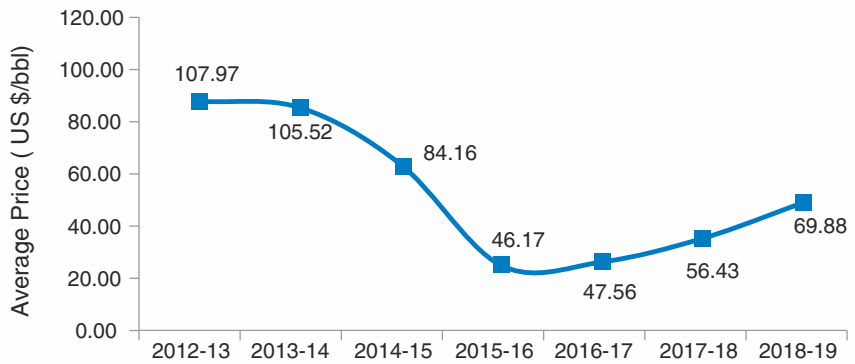
IV.3: Month-wise & Year-wise Average International Crude Oil Prices (Indian Basket)

(in US$/bbl.)

Year/Month	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	% Growth in 2018-19 over 2017-18
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
April	117.97	101.57	105.56	59.07	39.88	52.49	69.22	31.87
May	108.05	101.10	106.85	63.82	45.01	50.57	75.25	48.81
June	94.51	101.11	109.05	61.75	46.96	46.56	73.83	58.58
July	100.34	104.86	106.30	56.30	43.52	47.86	73.47	53.52
August	110.07	108.45	101.89	47.33	44.38	50.63	72.53	43.24
September	111.77	109.47	96.96	46.10	44.48	54.52	77.88	42.84
October	109.79	107.37	86.83	46.68	49.25	56.06	80.08	42.85
November	107.87	106.55	77.58	42.50	44.46	61.32	65.40	6.66
December	107.28	108.72	61.21	35.68	52.74	62.29	57.77	-7.26
January	109.55	105.29	46.59	28.08	54.08	67.06	59.27	-11.62
February	112.68	106.19	56.43	30.53	54.86	63.54	64.53	1.56
March	106.45	105.30	55.18	36.42	51.47	63.80	66.74	4.62
Year Average	**107.97**	**105.52**	**84.16**	**46.17**	**47.56**	**56.43**	**69.88**	**23.84**

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)	LPG ($/MT)
(1)	(2)	(3)	(4)	(5)	(6)
2012-13	107.97	118.98	121.97	123.11	887.08
2013-14	105.52	114.31	119.41	118.80	881.25
2014-15	84.16	95.45	96.64	96.98	681.42
2015-16	46.17	61.72	55.02	55.71	394.08
2016-17	47.56	58.10	56.59	56.81	393.17
2017-18	56.43	67.83	68.19	67.65	485.92
2018-19	69.88	75.58	82.51	82.24	526.00

Notes: FOB: Freight on Board

1. 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.
2. 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
3. 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.
4. FOB prices do 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)
2012-13	Offshore crude	46134	3933	4500	1385
	Onshore crude	43656	6728	4500	2034
	Offshore and Onshore crude	45295	4880	4500	1605
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	5973	1397

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. from the Second Quarter of 2015-16 onwards, no subsidy discount has been extended by ONGC to refineries /OMCs.
2. Basic Price upto 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. Royalty and OID Cess are production levies and are part of cost.
5. NCCD @ ₹ 50/MT is also paid on crude oil & Education Cess @ 3% on OID Cess and NCCD were paid till 2014-15.
6. 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

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

(in US$/bbl.)

Effective	MS	HSD	Effective	Effective		
				14.2 kg	5kg	Additional commission for sale at market determined price
	(₹/Kilolitre)			(₹/Cylinder)		(₹/14.2 KG cyl.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01.07.2011	1499	912	01.07.2011	25.83	13.30	-
27.10.2012	1794	1089	07.10.2012	37.25	18.63	-
21.12.2013	₹ 1390.15/ KL + 0.883% of Product Billable Price	1186	11.12.2013	40.71	20.36	-
1.4.2014	₹ 1390.15/KL+ 0.883% of Product Billable Price	₹ 1186/KL	01.04.2014	40.71	20.36	0.75
23.10.2014	₹ 1499.37/KL+0.887% of Product Billable Price	₹ 1116.09/KL+ 0.29% of Product Billable Price	23.10.2014	44.06	22.03	0.82
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	0.3
			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

Notes:

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 2019 is Rs.328.73/KL for both petrol and diesel.

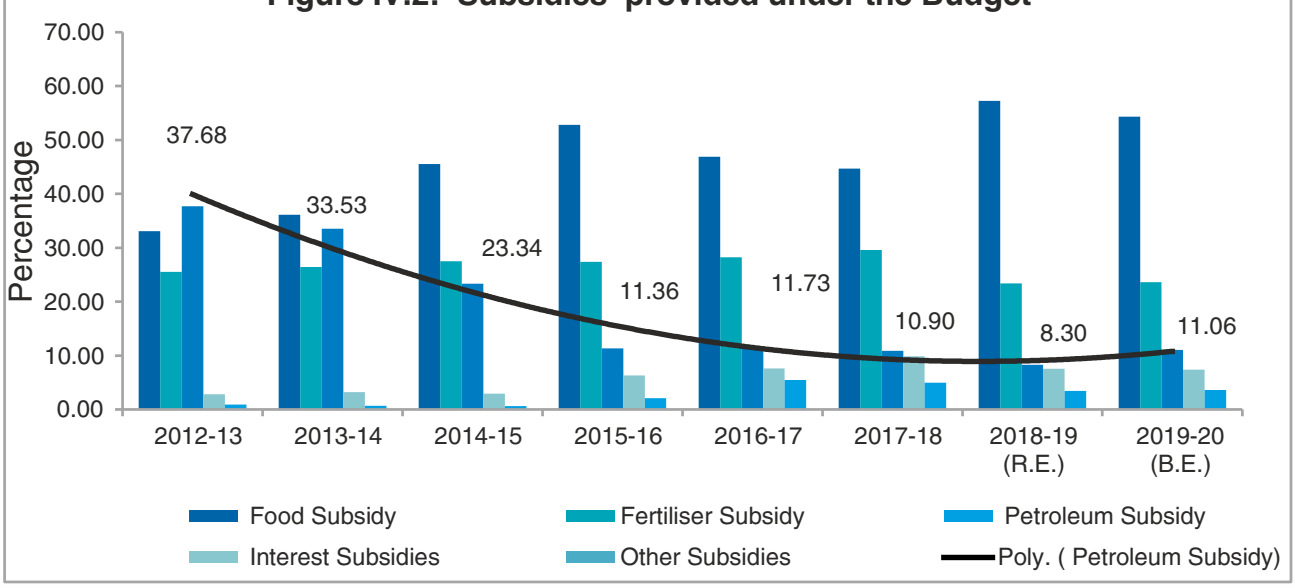
Source: PPAC

IV.7: Subsidies Provided under Budget of Government of India

Sector	Actual 2012-13	Actual 2013-14	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18	B.E. 2018-19	R.E. 2018-19	B.E. 2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(in ₹ crore)									
1. Food Subsidy	**85000**	**92000**	**117671**	**139419**	**110173**	**100282**	**169323**	**171298**	**184220**
2. Fertilisers	**65613**	**67339**	**71076**	**72415**	**66313**	**66468**	**70090**	**70086**	**79996**
(i) Indigenous (Urea) Fertilisers	20000	26500	38200	-	-	-	-	-	-
(ii) Imported (Urea) Fertilisers	15132	11538	12223	-	-	-	-		
(iii) Nutrient Based Subsidy	-	-	-	21938	18843	22244	25090	25090	26367
(iv) Sale of decontrolled fertiliser with concession to Farmers	30480	29301	20653	-	-	-	-	-	-
(v) Urea Subsidy	-	-	-	50478	47470	44223	45000	44995	53629
3. Petroleum Subsidy	**96880**	**85378**	**60269**	**29999**	**27539**	**24460**	**24933**	**24833**	**37478**
(i) LPG Subsidy	-	-	-	-	-	15656	20378	20283	32989
(ii) Kerosene Subsidy	-	-	-	-	-	8804	4555	4550	4489
4. Interest Subsidies	**7270**	**8137**	**7632**	**16730**	**17888**	**22146**	**23061**	**22677**	**25056**
5. Other Subsidies	**2316**	**1778**	**1610**	**5542**	**12896**	**11099**	**8100**	**10328**	**12199**
Total Subsidies	**257079**	**254632**	**258258**	**264106**	**234809**	**224455**	**295507**	**299221**	**338949**
(as % of Total Subsidy)									
1. Food Subsidy	33.06	36.13	45.56	52.79	46.92	44.68	57.30	57.25	54.35
2. Fertiliser Subsidy	25.52	26.45	27.52	27.42	28.24	29.61	23.72	23.42	23.60
3. Petroleum Subsidy	37.68	33.53	23.34	11.36	11.73	10.90	8.44	8.30	11.06
4. Interest Subsidies	2.83	3.20	2.96	6.33	7.62	9.87	7.80	7.58	7.39
5. Other Subsidies	0.90	0.70	0.62	2.10	5.49	4.94	2.74	3.45	3.60

Sources: Expenditure Budget 2019-20 B.E.: Budget Estimate R.E.: Revised Estimate

Figure IV.2: Subsidies provided under the Budget



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

(in ₹ crore)

Years	PDS SKO				Domestic LPG					Total
	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	(Subsidy and Under Recoveries)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2012-13	746	-	29410	30156	2007	-	-	39558	41565	71721
2013-14	681	-	30574	31255	1920	3912	-	46458	52290	83545
2014-15	5	-	24799	24804	18	3971	-	36580	40569	65373
2015-16	-	-	11496	11496	0	22011	-	18	22029	33525
2016-17	860	11	7595	8466	2433	12905	2999	0	18337	26803
2017-18	-	113	4672	4785	-	20905	2559	-	23464	28249
2018-19 (P)	**-**	**117**	**5950**	**6067**	**-**	**31539**	**5683**	**-**	**37222**	**43289**

1: Fiscal Subsidy includes subsidy under 'PDS Kerosene and Domestic LPG Subsidy Scheme, 2002', 'Freight Subsidy (For Far-Flung Areas) Scheme, 2002' on payment basis.

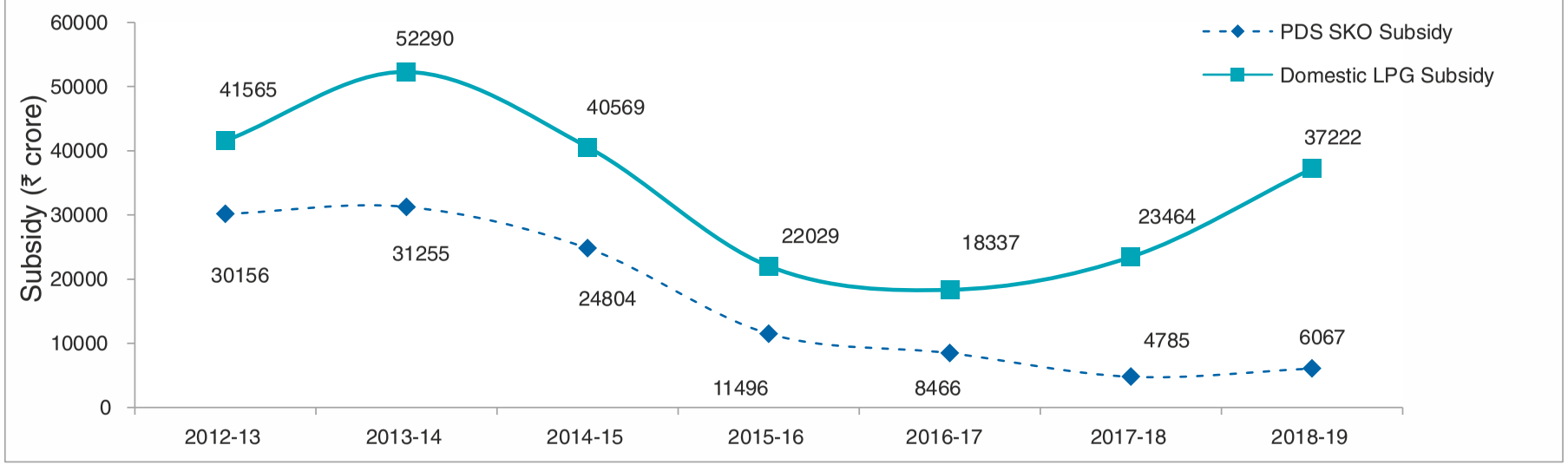
2: DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanism for direct transfer of subsidy paid to States/UTs.

3: DBTL subsidy includes one time incentive/project management expenditure.

4: PMUY subsidy includes project management expenditure & information, education and communication expenditure.

Source: Budget Documents and Petroleum Planning & Analysis Cell

Figure IV.3: Subsidy by Government & Oil Companies on PDS SKO & Domestic LPG



IV.9: Price Build-up of Selected Petroleum Products in Major Cities (As on 01.04.2019)

Elements/State	Delhi	Mumbai	Kolkata	Chennai
(1)	(2)	(3)	(4)	(5)
Liquefied Petroleum Gas (Domestic) (₹/14.2 Kg Cyl)				
Market Determined Price (as per PAHAL Scheme)	622.25	595.42	647.02	636.75
Add : GST (including GST on Distributor Commission)	33.66	32.32	34.90	34.38
Add : Distributor Commission	50.89	50.89	50.89	50.89
Retail Selling Price	706.80	678.63	732.81	722.02
Retail Selling Price (Rounded)	706.50	678.50	732.50	722.00
"Less: Cash Compensation to Consumer under DBTL "	210.64	184.93	233.50	238.26
Effective Cost to Consumer after Subsidy	**495.86**	**493.57**	**499.00**	**483.74**
Superior Kerosene Oil (₹/Kl)				
Ex-Storage Price	Kerosene free state	26,802.00	26,802.00	26,802.00
State Specific Cost		-	-	-
Siding Charge		-	19.37	-
Ass. Value		26,802.00	26,821.37	26,802.00
Excise Duty Rate %		-	-	-
Excise Duty Amount		-	-	-
Other State Levies				(14,531.00)
Sub Total		26,802.00	26,821.37	12,271.00
GST %		5.00	5.00	5.00
Sales/GST Tax Amount		1,340.10	1,341.07	613.55
Surcharge On Sales Tax%		-	-	-
Surcharge On Sales Amt		-	-	-
Sub Total		28,142.10	28,162.44	12,884.55
Cess/Toll Charges/Tot Rate		-	-	-
Cess/Toll Charges/Tot amt		-	-	-
Less State Govt Subsidy		-	-	-
Ex-Mi/ Depot Price/KL-Oil Co.		28,142.10	28,162.44	12,884.55
Ex-Mi/ Depot Price/KL-St. Govt.		28,142.10	28,162.44	12,884.55
Wholesales Margin		1,341.88	1,008.83	170.00
Wholesalers Extra Ordinary Margin		-	-	-
Transport Charges		405.81	816.60	119.17
Toll		70.00	-	-
Handling Charges		99.00	318.21	-
Rounding Up		6.31	-	-
Vat On Wholesale Margin		96.15	107.18	8.50
Wholesales Price/KL		30,161.25	30,413.26	13,182.22
Retailer Margin		675.00	1,048.30	360.00
Handling Charges		-	829.30	-
Leakage And Other Expenses		-	-	-
Retailer Transportation		-	386.60	38.10
VAT On Retailer Margin		33.75	113.21	19.90
Retail Extraordinary Commission		-	-	-
Rounding Up		-	-	-
Retail Selling Price/KL		30,870.00	32,790.67	13,600.22
RSP/Ltr		**30.87**	**32.79**	**13.60**

Note : Selling price for Superior Kerosene Oil is for Public Distribution System (PDS) declared by respective District/ State Authority.

Contd...

IV.9 Price Build-up of Selected Petroleum Products in Major Cities (Contd...)
(As on 01.04.2019)

Elements/State	Unit	Delhi	Kolkata	Mumbai	Chennai
(1)	(2)	(3)	(4)	(5)	(6)
Motor Spirit (₹/Litre)					
Base Price	₹/Litre	35.44	38.31	35.45	35.46
Freight etc	₹/Litre	0.39	0.68	0.23	0.23
Price Charged to Dealers (excluding Excise Duty and VAT)	₹/Litre	35.83	38.99	35.68	35.69
Add : Excise Duty	₹/Litre	17.98	17.98	17.98	17.98
Add : Dealer Commission (Average)	₹/Litre	3.56	3.58	3.61	3.59
Add : VAT (including VAT on Dealer Commission)	₹/Litre	15.49	14.33	21.16	18.36
Retail Selling Price - (Rounded)	**₹/Litre**	**72.86**	**74.88**	**78.43**	**75.62**
High Speed Diesel Oil (₹/Litre)					
Base Price	₹/Litre	39.68	41.55	39.68	39.74
Freight etc	₹/Litre	0.36	0.66	0.19	0.19
Price Charged to Dealers (excluding Excise Duty and VAT)	₹/Litre	40.04	42.21	39.87	39.93
Add : Excise Duty	₹/Litre	13.83	13.83	13.83	13.83
Add : Dealer Commission (Average)	₹/Litre	2.49	2.50	2.50	2.50
Add : VAT (including VAT on Dealer Commission)	₹/Litre	9.73	9.29	12.97	13.52
Retail Selling Price - (Rounded)	**₹/Litre**	**66.09**	**67.83**	**69.17**	**69.78**

Source:IOCL

IV.10: Trends in Retail Selling Prices of Selected Petroleum Products in Metropolitan Cities in India

Price as on	Delhi	Mumbai	Kolkata	Chennai
(1)	(2)	(3)	(4)	(5)
Motor Spirit (₹/Litre)				
01.04.2013	68.30	75.20	75.78	71.42
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**
High Speed Diesel Oil (₹/Litre)				
01.04.2013	48.63	54.87	52.85	51.77
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**
Superior Kerosene Oil (₹/Litre)				
01.04.2013	14.96	14.71	14.84	13.69
01.04.2014	14.96	15.25	15.25	13.70
01.04.2015	14.96	15.24	16.08	13.69
01.04.2016	14.96	15.42	16.00	13.70
01.04.2017	-	19.03	20.19	13.60
01.04.2018	-	23.96	26.30	13.60
01.04.2019	**-**	**30.87**	**32.79**	**13.60**
Liquefied Petroleum Gas (₹/14.2 Kg Cylinder)				
01.04.2013	410.50	437.50	412.50	398.00
01.04.2014	414.00	451.50	416.00	401.00
01.04.2015	417.82	458.07	419.82	405.32
01.04.2016	419.13	455.99	421.13	406.63
01.04.2017	440.90	476.50	442.90	428.40
01.04.2018	491.35	489.04	494.33	479.44
01.04.2019	**706.50**	**678.50**	**732.50**	**722.00**

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

CHAPTER - V

CONSUMPTION

CHAPTER HIGHLIGHTS

- Total consumption of petroleum products in the country during 2018-19 was 213.22 million metric tonnes (MMT) which marked a growth of 3.4% over the consumption of 206.17 MMT during 2017-18.
- During 2018-19, Diesel (HSD+LDO) accounted for the highest consumption share (39.46%) followed by Petrol/Motor Spirit (13.3%), LPG (11.7%), Petroleum Coke (10.0%), Naphtha (6.6%) and ATF (3.9%).
- The share of public and private sector consumption in 2018-19 stood at 77.9% and 22.1% respectively.
- Highest consumption of LPG in 2018-19 was in domestic distribution sector (87.2%), naphtha in petrochemical sector (75.0%), kerosene mainly in domestic PDS (93.4%) and Petrol in reseller/retail sector (99.5%) and HSD in reseller/retail sector (85.8%).
- Highest market share in 2018-19 was captured by IOCL (39.0%) followed by BPCL (19.4%) and HPCL (17.7%). Market share of private companies stood at 22.1%.

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

(Figures in TMT)

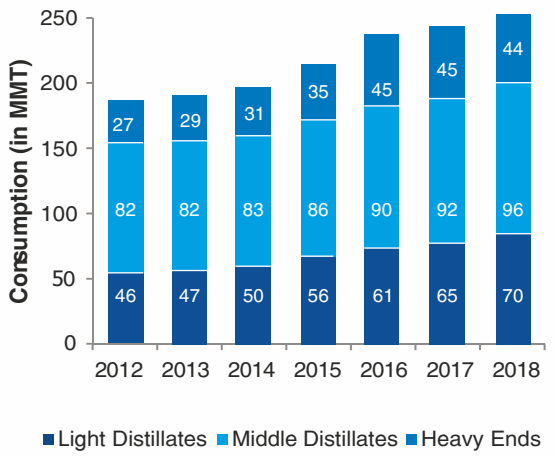
Products	2012	2013	2014	2015	2016	2017	2018 (P)	% to Total	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Light Distillates	**45581**	**47059**	**49735**	**55996**	**61182**	**64570**	**70447**	**33.5**	**9.1**
LPG	15645	15855	17671	19040	21231	22942	24207	11.5	5.5
Motor Spirit	15535	16891	18384	21089	23660	25393	27665	13.2	8.9
Naphtha	11898	11433	10965	12910	13493	12538	14146	6.7	12.8
Others	2504	2879	2716	2958	2798	3697	4429	2.1	19.8
Middle Distillates	**82461**	**82125**	**82550**	**86399**	**90166**	**91766**	**95626**	**45.5**	**4.2**
SKO	7655	7249	7127	6887	5931	4086	3541	1.7	-13.3
ATF	5318	5449	5678	6095	6805	7447	8220	3.9	10.4
HSDO	68623	68641	69021	72665	76740	79298	82801	39.4	4.4
LDO	392	384	354	403	458	476	580	0.3	21.7
Others	473	401	370	349	233	458	483	0.2	5.4
Heavy Ends	**27187**	**28604**	**31025**	**35094**	**45050**	**45443**	**44254**	**21.0**	**-2.6**
Furnace Oil	6548	5853	5464	6031	7382	6646	6244	3.0	-6.0
LSHS	1541	582	415	196	113	64	339	0.2	426.5
Lubes/Greases	3087	3180	3421	3366	3664	3569	3802	1.8	6.5
Bitumen/Asphalt	4585	4986	5128	5570	6108	5839	6541	3.1	12.0
Petroleum Coke	9127	11285	13842	17006	24414	25784	21164	10.1	-17.9
Wax	219	180	168	166	174	192	259	0.1	34.6
Others	2080	2538	2587	2759	3195	3349	5905	2.8	76.3
Total Consumption	**155229**	**157788**	**163310**	**177489**	**196398**	**201778**	**210326**	**100.0**	**4.2**
Refinery Boiler Fuel and Losses (RBF)	18168	17557	17536	18349	20197	20910	21359	-	3.53
Grand Total	**173397**	**175345**	**180846**	**195838**	**216595**	**222689**	**231686**	**-**	**2.81**

Note: P:Provisional

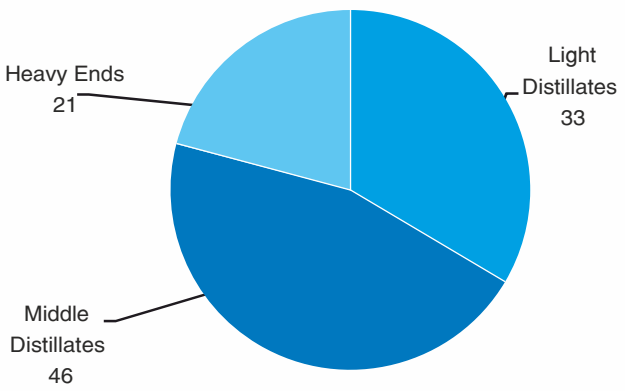
1. Consumption includes sales by oil companies, own consumption & direct private imports.
2. Growth rate in 2018 over 2017.
3. Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

Figure V.1: Consumption of Petroleum Products



Figures V.2: Share of broad categories of Petroleum Products in total consumption during 2018 (%)



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

(Figures in TMT)

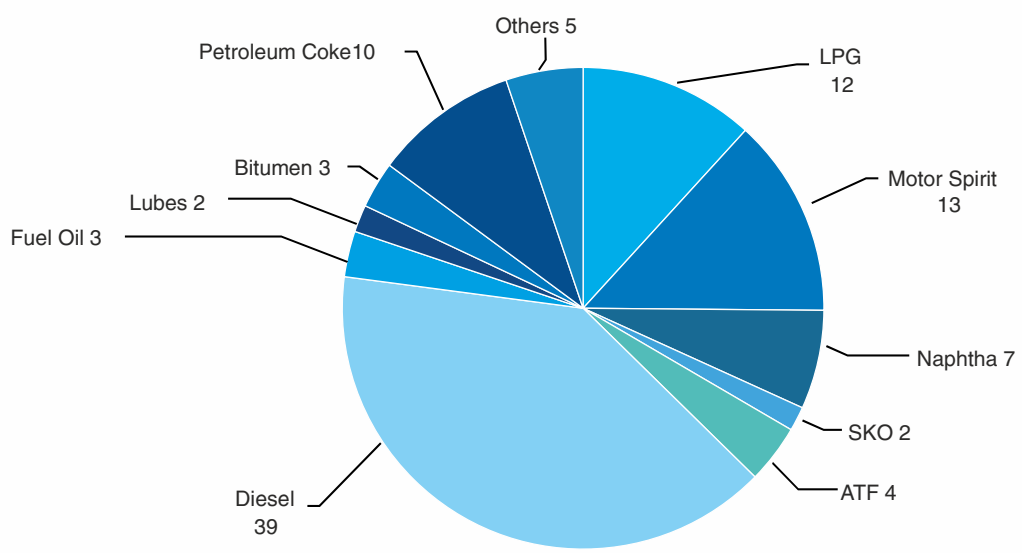
Products	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% to Total	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Light Distillates	**46273**	**47578**	**50944**	**57743**	**61441**	**66053**	**72109**	**33.8**	**9.2**
LPG	15601	16294	18000	19623	21608	23342	24907	11.7	6.7
Motor Spirit	15744	17128	19075	21847	23765	26174	28284	13.3	8.1
Naphtha	12289	11305	11082	13271	13241	12889	14131	6.6	9.6
Others	2639	2851	2787	3002	2827	3648	4787	2.2	31.2
Middle Distillates	**82700**	**81830**	**82933**	**88517**	**89042**	**93551**	**96379**	**45.2**	**3.0**
SKO	7502	7165	7087	6826	5397	3845	3459	1.6	-10.0
ATF	5271	5505	5723	6262	6998	7633	8300	3.9	8.7
HSDO	69080	68364	69416	74647	76027	81073	83528	39.2	3.0
LDO	399	386	365	407	449	524	598	0.3	14.2
Others	450	411	342	375	172	476	493	0.2	3.6
Heavy Ends	**28084**	**28999**	**31643**	**38414**	**44114**	**46562**	**44728**	**21.0**	**-3.9**
Furnace Oil (FO)	6290	5787	5584	6482	7046	6605	6195	2.9	-6.2
LSHS	1366	449	377	150	104	116	369	0.2	217.4
Fuel Oil (FO+LSHS)	7656	6236	5961	6632	7150	6721	6564	3.1	-2.3
Lubes/Greases	3196	3305	3310	3571	3470	3884	3668	1.7	-5.6
Bitumen	4676	5007	5073	5938	5936	6086	6708	3.1	10.2
Petroleum Coke	10135	11756	14557	19297	23964	25657	21346	10.0	-16.8
Waxes	194	177	156	173	182	199	286	0.1	43.4
Others	2226	2519	2586	2802	3411	4015	6157	2.9	53.3
Total Consumption	**157057**	**158407**	**165520**	**184674**	**194597**	**206166**	**213216**	**100.0**	**3.4**
Refinery fuel and losses (RBF)	18347	17868	17669	18773	20070	21164	21454	-	1.4
Grand Total	**175404**	**176274**	**183189**	**203447**	**214667**	**227330**	**234670**	**-**	**3.2**

Note: P:Provisional

1. Consumption includes sales by oil companies, own consumption & direct private imports.
2. Growth rate in 2018-19 over 2017-18.
3. Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

Figure V.3: Share of different Petroleum Products in total consumption during 2018-19 (%)



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

(Figures in TMT)

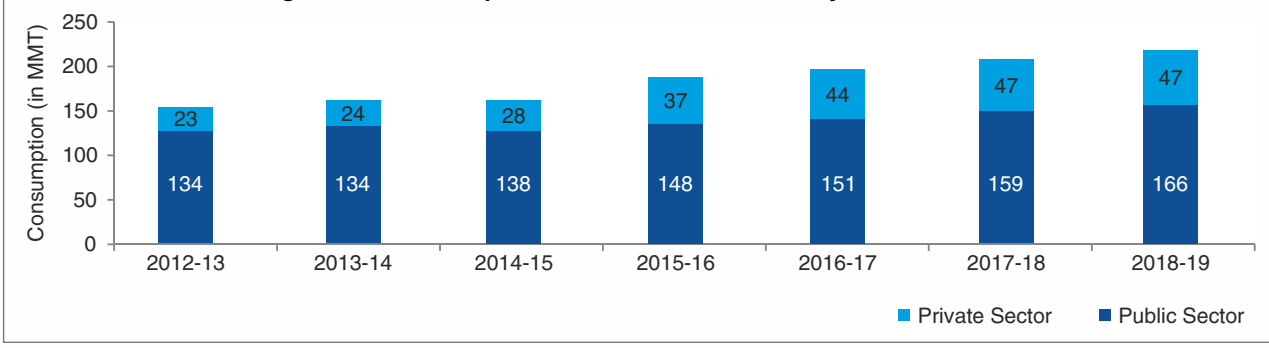
Products	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% to Total	% Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. PUBLIC SECTOR									
LPG	15202	15925	17571	19134	21179	22977	24591	11.5	7.0
Motor Spirit	15458	16727	18588	21079	22518	24329	25959	12.2	6.7
Naphtha	5197	5414	4814	4790	4905	5207	5583	2.6	7.2
SKO	7502	7165	7087	6826	5397	3845	3459	1.6	-10.0
ATF	5089	5304	5319	5629	6186	6988	7683	3.6	9.9
HSDO	69025	68200	68701	72092	71450	74382	75775	35.5	1.9
LDO	399	386	365	407	449	519	577	0.3	11.1
Furnace Oil	5250	4720	4790	5514	5905	5566	5278	2.5	-5.2
LSHS	1366	449	377	150	104	99	318	0.1	221.5
Lubes/Greases	1222	1218	1162	1312	1339	1345	1313	0.6	-2.4
Bitumen/Asphalt	4372	4500	4366	4819	4721	4883	5683	2.7	16.4
Petroleum Coke	1807	2133	2391	3483	3952	5176	5770	2.7	11.5
Paraffin Wax	54	53	56	58	90	95	92	0.0	-3.3
Others	2156	2083	2029	2241	2708	3326	4097	1.9	23.2
Total (A)	**134098**	**134277**	**137616**	**147535**	**150904**	**158739**	**166178**	**77.9**	**4.7**
B. PRIVATE SECTOR									
LPG	398	369	429	489	429	364	316	0.1	-13.3
Motor Spirit	286	401	487	768	1247	1846	2326	1.1	26.0
Naphtha	7092	5891	6268	8481	8335	7681	8548	4.0	11.3
ATF	182	201	404	632	812	645	617	0.3	-4.3
HSDO	55	164	715	2555	4577	6692	7753	3.6	15.9
Furnace Oil	1041	1067	794	968	1142	1056	968	0.5	-8.3
Lubes/Greases	1974	2087	2148	2259	2131	2539	2355	1.1	-7.2
Bitumen/Asphalt	304	506	707	1118	1214	1202	1024	0.5	-14.8
Petroleum Coke	8328	9622	12167	15815	20012	20480	15576	7.3	-23.9
Paraffin Wax	140	124	99	115	171	104	194	0.1	86.0
Others	3159	3697	3685	3938	3624	4817	7361	3.5	52.8
Total (B)	**22959**	**24130**	**27904**	**37139**	**43693**	**47427**	**47038**	**22.1**	**-0.8**
TOTAL (A+B)	**157057**	**158407**	**165520**	**184674**	**194597**	**206166**	**213216**	**100.0**	**3.4**

Note: P:Provisional na: not available

1. Consumption includes sales by oil companies, own consumption & direct private imports.
2. Growth rate in 2018-19 over 2017-18.
3. Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

Figure V.4: Consumption of Petroleum Products by Public & Private



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

(Figures in TMT)

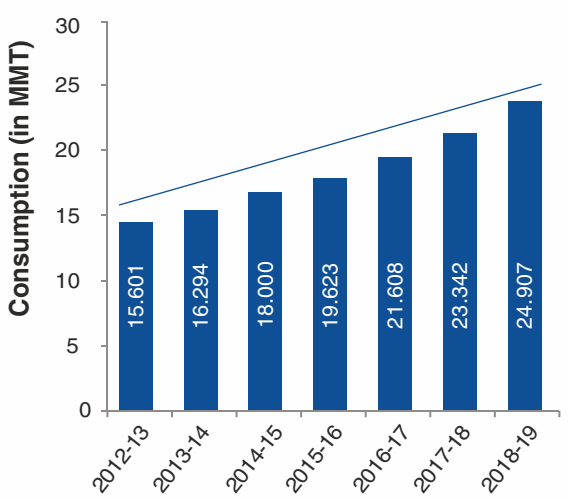
	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	**Domestic Distribution**	**13568.0**	**14411.6**	**16040.4**	**17181.7**	**18871.4**	**20351.8**	**21728.0**	**87.2**
2	**Non-Domestic/ Industry/ Commercial**	**1167.6**	**1073.6**	**1051.0**	**1464.4**	**1775.9**	**2085.8**	**2364.4**	**9.5**
3	**Transport**	**214.8**	**195.0**	**164.6**	**171.8**	**168.1**	**185.1**	**181.1**	**0.7**
(i)	Auto LPG	214.0	194.3	163.8	170.9	167.3	184.4	180.3	0.7
(ii)	Railways	0.8	0.7	0.8	0.9	0.8	0.7	0.8	0.0
4	**Power Generation**	**0.0**	**2.6**	**3.1**	**2.7**	**2.2**	**1.3**	**1.8**	**0.0**
5	**Agriculture Sector**	**3.7**	**4.0**	**6.1**	**7.1**	**7.8**	**7.5**	**22.0**	**0.1**
6	**Mining**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.3**	**0.0**
7	**Manufacturing (Bulk LPG)**	**144.8**	**134.7**	**207.9**	**201.7**	**220.0**	**204.6**	**204.2**	**0.8**
(i)	Chemicals	11.3	5.4	35.0	5.2	12.4	6.0	24.2	0.1
(ii)	Engineering	2.0	1.5	1.8	2.1	2.5	2.6	3.0	0.0
(iii)	Electronics	10.4	7.1	4.8	3.9	4.5	3.9	5.5	0.0
(iv)	Mechanical	18.6	14.9	13.9	12.4	13.2	13.9	18.6	0.1
(v)	Metallurgical	77.9	84.5	125.3	134.1	138.9	131.6	94.0	0.4
(vi)	Textiles	2.1	2.9	2.2	2.5	2.3	2.1	2.3	0.0
(vii)	Other Consumer/ Industrial Goods	22.5	18.5	24.8	41.5	46.3	44.4	56.7	0.2
8	**Resellers/Retail**	**58.6**	**57.8**	**45.2**	**44.9**	**67.0**	**74.3**	**0.0**	**0.0**
9	**Miscellaneous (Bulk)**	**44.8**	**45.9**	**52.7**	**59.9**	**66.6**	**67.1**	**88.9**	**0.4**
	Total Sales	**15143.6**	**15867.4**	**17525.7**	**19089.3**	**21178.9**	**22977.4**	**24590.8**	**98.7**
10	**Pvt Imports**	**398.5**	**368.5**	**429.2**	**489.0**	**429.3**	**364.5**	**316.0**	**1.3**
	Total Consumption	**15600.7**	**16293.6**	**18000.1**	**19623.2**	**21608.2**	**23341.8**	**24906.8**	**100.0**

*: Included in Miscellaneous : Provisional

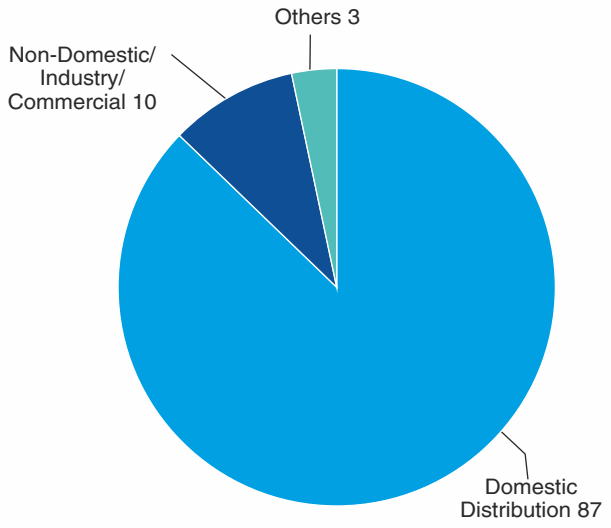
Note: Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

Figure V.5: Trends of LPG Consumption



Figures V.6: Sector-wise Consumption of LPG during 2018-19 (%)



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

(Figures in TMT)

	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Fertilizers	898.0	515.9	301.5	315.9	349.3	367.7	351.6	2.5
2	Petrochemicals	9412.2	9463.9	9530.1	10350.2	10350.9	10010.9	10601.6	75.0
3	Power	342.0	215.1	199.2	50.3	60.2	66.5	5.3	0.0
4	Steel Plants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Others	203.1	240.3	207.5	37.1	57.6	404.9	1445.3	10.2
	Total Sales	**10855.2**	**10435.2**	**10238.3**	**10753.5**	**10818.0**	**10850.1**	**12403.8**	**87.8**
6	Pvt Imports	1434.2	870.0	843.7	2517.4	2422.8	2038.5	1727.5	12.2
	Total Consumption	**12289.4**	**11305.2**	**11082.0**	**13270.8**	**13240.8**	**12888.6**	**14131.2**	**100.0**

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

Figure V.7: Trends of Naphtha Consumption

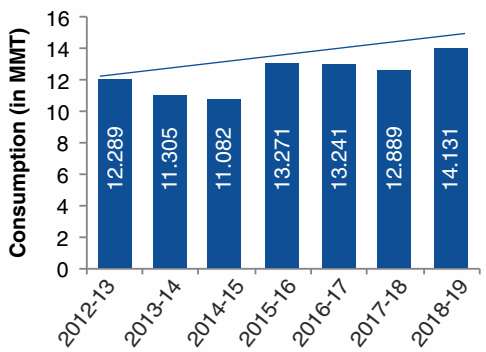
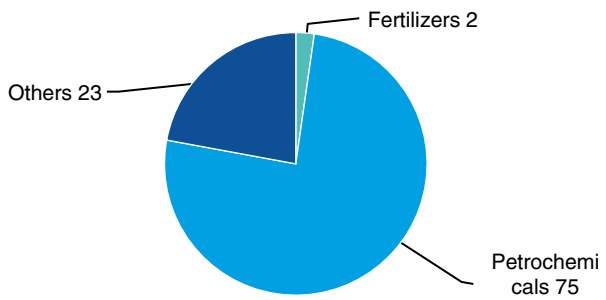


Figure V.8: Sector-wise Consumption of Naphtha during 2018-19 (%)



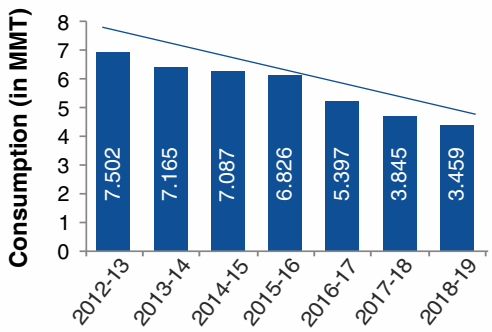
V.6: Sector-wise Consumption (end use) of Kerosene

(Figures in TMT)

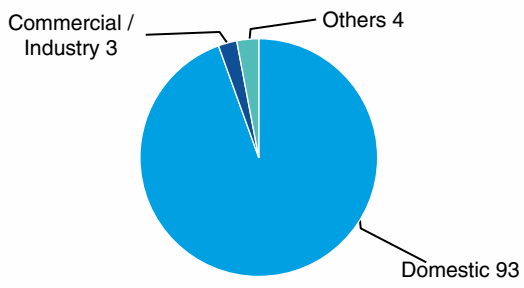
	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Domestic	7349.0	7008.9	6917.3	6648.9	5204.1	3633.6	3231.2	93.4
2	Commercial/Industry	37.2	107.3	60.1	63.9	77.1	97.0	97.3	2.8
3	Others	115.3	48.6	109.3	113.4	115.6	114.5	131.0	3.8
	Grand Total	**7501.5**	**7164.8**	**7086.7**	**6826.3**	**5396.8**	**3845.1**	**3459.5**	**100.0**

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

Figure V.9: Trends of SKO Consumption



V.10: Sector-wise Consumption of SKO during 2018-19 (%)



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

(Figures in TMT)

	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Retail/Resellers	15619.3	17016.8	18960.6	21727.5	23642.0	26050.2	28156.2	99.5
2	Others	124.6	111.5	114.8	119.1	123.0	124.2	128.2	0.5
	Grand Total	**15743.9**	**17128.3**	**19075.4**	**21846.6**	**23764.9**	**26174.5**	**28284.4**	**100.0**

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

Source: Petroleum Planning & Analysis Cell.

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

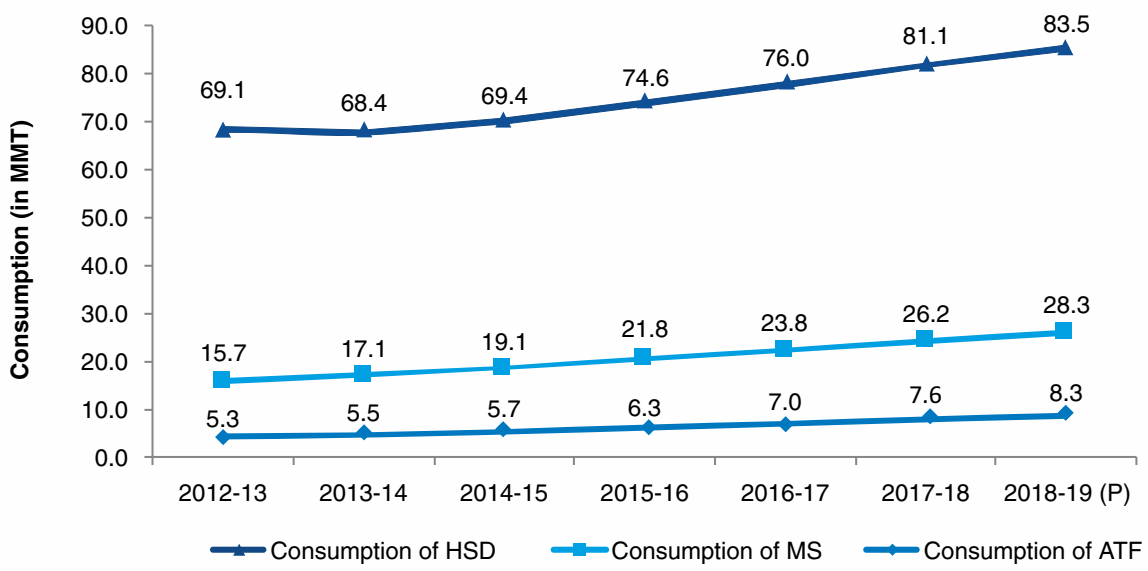
(Figures in TMT)

	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Foreign airlines	1201.0	1168.2	1167.4	1211.1	1433.5	1524.5	1815.8	21.9
2	Indian airliance	3445.9	3513.9	3658.6	3988.8	4158.0	4528.2	6214.2	74.9
3	Others	623.5	822.5	757.2	787.1	1068.5	1279.9	11.3	0.1
	Total Sales	**5270.4**	**5504.6**	**5583.3**	**5987.0**	**6660.0**	**7332.6**	**8041.3**	**96.9**
4	Pvt Imports	0.0	0.0	139.6	274.7	337.5	300.1	258.8	3.1
	Total Consumption	**5270.4**	**5504.6**	**5722.9**	**6261.7**	**6997.5**	**7632.7**	**8300.1**	**100.0**

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

Source: Petroleum Planning & Analysis Cell.

Figures V.11 Trends of MS, HSD & ATF



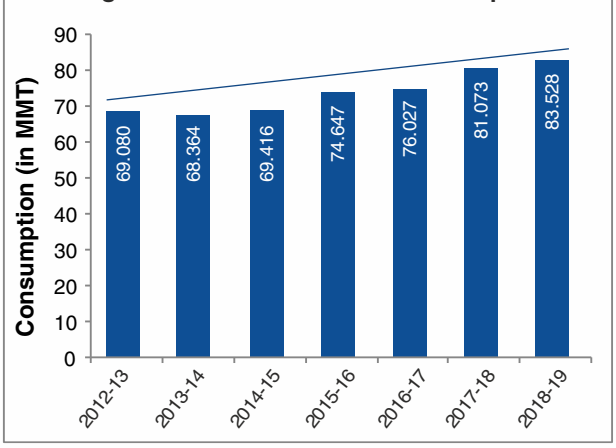
V.9: Sector-wise Consumption (end use) of High Speed Diesel (HSD) Oil

(Figures in TMT)

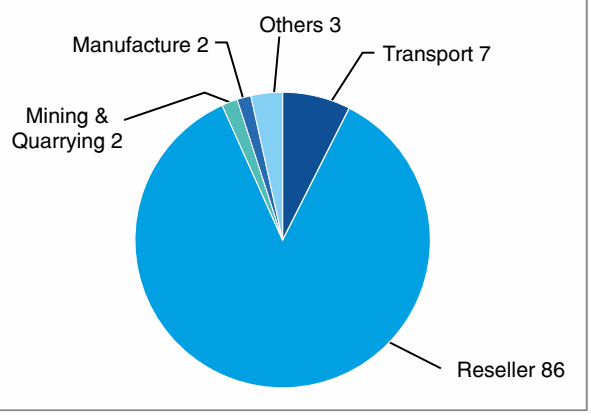
Sector		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Transport	5159.9	3203.1	4617.4	5764.6	5657.6	5999.1	6209.5	7.4
(i)	Road Transport	2207.2	205.9	1580.0	2671.3	2709.0	2731.1	2727.4	3.3
(ii)	Aviation	1.4	1.2	1.2	1.3	2.2	2.9	3.2	0.0
(iii)	Shipping	413.1	365.2	343.5	366.2	295.8	629.4	763.3	0.9
(iv)	Railways	2538.3	2630.8	2692.7	2725.8	2650.6	2635.7	2715.6	3.3
2	Agriculture	617.3	429.2	574.9	629.8	607.1	618.0	638.7	0.8
3	**Power Generation**	**214.3**	**204.4**	**197.2**	**223.9**	**208.2**	**222.8**	**222.4**	**0.3**
4	**Mining & Quarrying**	**1073.3**	**873.1**	**998.2**	**1183.7**	**1224.0**	**1255.1**	**1465.0**	**1.8**
5	**Manufacture Industry**	**1627.6**	**686.9**	**793.8**	**1095.6**	**1032.7**	**1154.8**	**1263.7**	**1.5**
(i)	**Iron & Steel (Metallurgy)**	**263.0**	**153.8**	**162.1**	**170.4**	**159.0**	**152.9**	**148.2**	**0.2**
(ii)	Textile	241.8	46.3	58.8	46.0	35.3	31.6	25.2	0.0
(iii)	Cement	213.0	124.7	148.7	203.6	158.7	185.4	254.8	0.3
(iv)	Ceramic & Glass	62.1	5.5	8.1	8.5	7.7	7.7	7.7	0.0
(v)	Chemicals & Allied	183.2	103.4	103.3	109.5	110.2	122.4	119.5	0.1
(vi)	Aluminium	26.4	28.2	19.2	17.8	24.3	16.5	15.5	0.0
(vii)	Civil Engineering	316.1	68.3	135.6	298.6	317.2	416.3	480.4	0.6
(viii)	Elec./Electronics	54.2	26.5	18.4	24.1	14.9	13.4	15.0	0.0
(ix)	Mechanical	137.6	70.1	77.9	137.4	143.7	138.2	135.0	0.2
(x)	Fertilizers	8.6	14.8	5.9	6.6	5.6	5.1	5.2	0.0
(xi)	Other Consumer/ Industrial Goods	121.7	45.3	55.8	73.0	56.1	65.2	57.2	0.1
6	**Resellers/Retail**	**58021.3**	**61464.8**	**60402.9**	**63771.9**	**65089.4**	**69846.4**	**71697.2**	**85.8**
7	**Miscellaneous**	**2319.6**	**1425.7**	**1748.4**	**1922.1**	**2161.3**	**1887.0**	**1938.2**	**2.3**
	Total	**69033.4**	**68287.3**	**69332.8**	**74591.7**	**75980.3**	**80983.2**	**83434.7**	**99.9**
8	**Pvt Imports**	**46.7**	**76.6**	**83.4**	**55.4**	**46.3**	**90.2**	**93.5**	**0.1**
	Total Consumption	**69080.0**	**68363.9**	**69416.2**	**74647.1**	**76026.6**	**81073.4**	**83528.1**	**100.0**

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

Figure V.12: Trends of HSD Consumption



V.13: Sector-wise Consumption of HSD during 2018-19 (%)



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

(Figures in TMT)

	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	**Transport**	**3.1**	**3.8**	**5.0**	**3.7**	**7.2**	**7.2**	**10.0**	**1.7**
(i)	Road Transport	0.0	0.7	2.2	0.2	0.0	2.6	4.5	0.7
(ii)	Shipping	2.2	2.4	2.1	2.9	6.7	4.1	5.0	0.8
(iii)	Railways	0.9	0.8	0.6	0.6	0.6	0.5	0.5	0.1
2	**Agriculture**	**1.3**	**1.3**	**1.1**	**1.3**	**2.0**	**9.3**	**15.6**	**2.6**
3	**Power Generation**	**142.4**	**131.8**	**132.2**	**154.2**	**174.3**	**142.9**	**276.5**	**46.2**
4	**Mining & Quarrying**	**2.4**	**3.4**	**3.8**	**2.2**	**2.3**	**6.1**	**22.4**	**3.7**
5	**Manufacture Industry**	**74.0**	**63.7**	**54.6**	**60.7**	**59.5**	**148.8**	**174.8**	**29.2**
(i)	Civil Engineering	2.8	4.2	4.6	10.3	20.2	33.2	41.9	7.0
(ii)	Metallurgical	46.7	40.7	30.1	26.8	19.3	54.7	67.7	11.3
(iii)	Textile & Fibre	0.9	1.5	1.1	1.1	1.4	2.1	2.4	0.4
(iv)	Cement	1.2	0.0	1.2	1.2	1.7	8.0	4.8	0.8
(v)	Ceramic & Glass	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.1
(vi)	Chemicals & Allied	10.9	10.9	9.0	12.0	8.9	10.8	17.4	2.9
(vii)	Aluminium	3.0	3.8	6.9	3.3	3.9	31.7	28.4	4.7
(viii)	Elec./Electronics	0.1	0.1	0.0	0.2	0.1	0.7	1.0	0.2
(ix)	Mechanical	7.0	1.3	0.7	4.1	2.1	2.9	6.1	1.0
(x)	Other Consumer/ Industrial Goods	1.3	1.1	1.0	1.6	1.8	4.3	4.6	0.8
6	**Resellers**	**0.8**	**0.7**	**3.8**	**1.1**	**1.0**	**2.6**	**33.3**	**5.6**
7	**Miscellaneous**	**174.6**	**181.6**	**164.8**	**183.8**	**202.5**	**206.9**	**65.3**	**10.9**
	Total Sales	**398.5**	**386.3**	**365.3**	**407.1**	**449.0**	**523.8**	**598.0**	**100.0**
	Total Consumption	**398.5**	**386.3**	**365.3**	**407.1**	**449.0**	**523.8**	**598.0**	**100.0**

*: Included in Miscellaneous

P : Provisional

Note: Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

Figure V.14: Trends LDO consumption

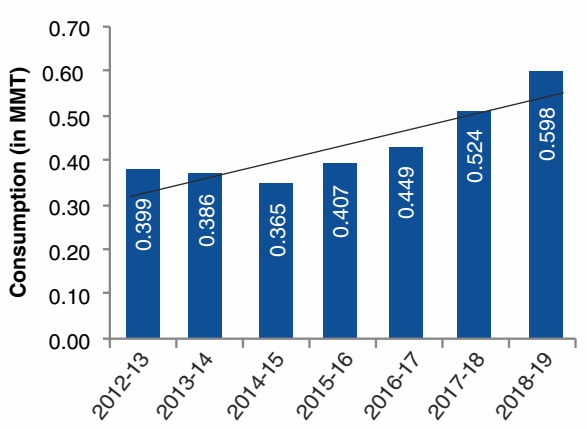
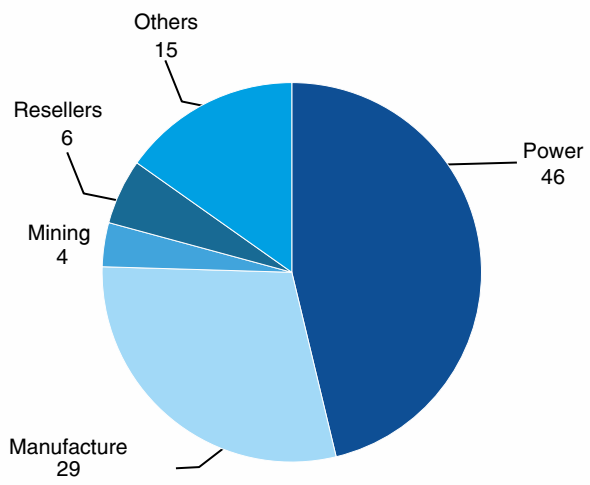


Figure V.15: Sector-wise consumption of LDO during 2018-19 (%)



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

(Figures in TMT)

	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	**Transport**	**276.66**	**315.34**	**346.45**	**379.50**	**444.12**	**600.81**	**786.26**	**12.69**
(i)	Road Transport	1.35	6.15	10.17	44.97	36.94	20.19	109.95	1.77
(ii)	Shipping	272.70	306.74	334.48	332.63	407.17	580.62	676.25	10.92
(iii)	Railways	2.60	2.45	1.80	1.90	0.02	0.00	0.06	0.00
2	**Agriculture**	**79.16**	**74.53**	**55.62**	**56.62**	**51.41**	**49.83**	**78.46**	**1.27**
3	**Power Generation**	**586.79**	**535.68**	**445.77**	**430.36**	**360.95**	**313.83**	**338.84**	**5.47**
4	**Mining & Quarrying**	**12.45**	**38.48**	**45.10**	**52.66**	**71.45**	**67.90**	**54.27**	**0.88**
5	**Manufacturing Industry**	**2018.99**	**1833.32**	**1748.42**	**2136.47**	**2491.75**	**2345.88**	**2577.39**	**41.61**
(i)	Civil Engineering	59.03	55.87	32.78	47.85	49.63	43.01	52.06	0.84
(ii)	Metallurgical	602.91	549.88	611.38	763.95	981.72	930.59	885.16	14.29
(iii)	Textile & Fibre	37.99	57.75	69.87	68.36	74.12	45.68	48.57	0.78
(iv)	Cement	27.78	13.08	12.73	14.66	11.99	13.66	20.33	0.33
(v)	Ceramic & Glass	145.67	123.25	87.91	142.72	171.04	134.18	202.46	3.27
(vi)	Chemicals & Allied	221.83	201.29	165.86	193.13	238.88	242.67	295.19	4.77
(vii)	Aluminium	233.09	231.61	232.26	218.48	258.28	238.30	386.41	6.24
(viii)	Electrical	30.35	7.30	1.65	1.32	1.62	2.39	3.26	0.05
(ix)	Mechanical	21.95	15.24	10.92	16.35	16.63	13.65	27.47	0.44
(x)	Fertilizers	475.21	408.08	393.28	476.45	487.71	518.42	460.44	7.43
(xi)	Other Consumer/ Industrial Goods)	163.17	169.99	129.78	193.19	200.11	163.34	196.03	3.16
6	**Resellers**	**351.28**	**309.09**	**196.87**	**270.18**	**357.27**	**321.23**	**298.41**	**4.82**
7	**Miscellaneous**	**2356.88**	**1984.69**	**2175.37**	**2564.00**	**2485.35**	**2233.50**	**1449.48**	**23.40**
	Total Sales	**5682.21**	**5091.14**	**5013.60**	**5889.81**	**6262.30**	**5933.00**	**5583.11**	**90.13**
8	**Pvt Imports**	**608.29**	**695.81**	**570.04**	**592.12**	**783.88**	**671.70**	**611.42**	**9.87**
	Total Consumption	**6290.50**	**5786.95**	**5583.64**	**6481.93**	**7046.18**	**6604.70**	**6194.53**	**100.00**

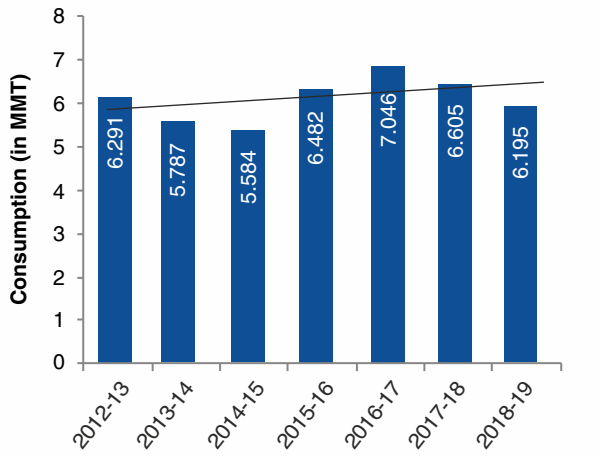
*: Includes in Miscellaneous

P: Provisional

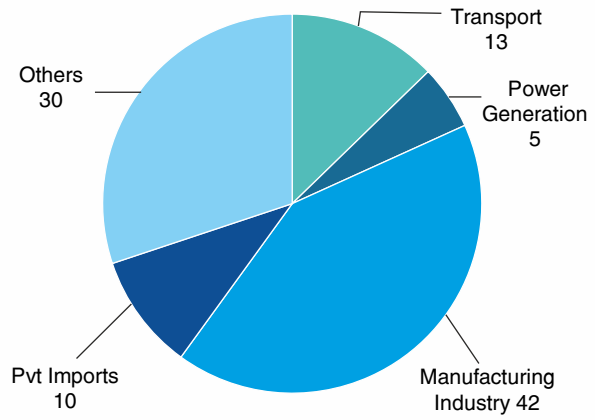
Note: Total may not tally due to rounding off.

Source: Petroleum Planning & Analysis Cell.

Figure V.16: Trends Furnace Oil Consumption



FigureV.17: Sector-wise consumption of Furnace Oil during 2018-19 (%)



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

(Figures in TMT)

	Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)	% Share of Total Cons.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	**Agriculture**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.2**	**7.9**	**2.1**
2	**Power Generation**	**439.0**	**328.1**	**226.2**	**50.7**	**16.4**	**0.0**	**9.3**	**2.5**
3	**Mining**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.3**	**0.0**	**0.0**
4	**Manufacturing Industry**	**778.0**	**76.3**	**103.6**	**70.4**	**50.9**	**53.8**	**175.1**	**47.5**
(i)	Civil Engineering	0.3	0.0	0.0	0.0	0.0	1.1	3.1	0.8
(ii)	Metallurgical	9.9	0.7	0.0	0.0	0.0	2.4	60.3	16.3
(iii)	Iron & Steel	52.2	58.1	55.3	46.3	45.9	37.9	71.9	19.5
(iv)	Textile & Fibre	0.3	0.0	0.0	0.0	0.0	0.3	2.7	0.7
(v)	Cement	0.6	0.0	0.0	0.2	0.0	0.4	0.9	0.2
(vi)	Chemicals & Allied	6.0	2.8	46.6	20.7	3.7	5.7	13.6	3.7
(vii)	Electrical	20.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0
(viii)	Mechanical	1.6	0.0	0.0	0.0	0.0	0.1	0.5	0.1
(ix)	Fertilizers	684.9	14.7	1.6	3.3	1.3	0.5	0.5	0.1
(x)	Other Consumer/ Industrial Goods)	1.7	0.0	0.0	0.0	0.0	5.3	21.5	5.8
5	**Miscellaneous**	**149.0**	**44.3**	**47.5**	**29.2**	**36.9**	**46.3**	**128.7**	**34.9**
6	**Resellers**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**14.7**	**48.0**	**13.0**
	Total Sales	**1366.0**	**448.7**	**377.3**	**150.4**	**104.2**	**116.3**	**369.0**	**100.0**
7	**Pvt Imports**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Total Consumption	**1366.0**	**448.7**	**377.3**	**150.4**	**104.2**	**116.3**	**369.0**	**100.0**

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

Source: Petroleum Planning & Analysis Cell.

Figure V.18: Trends LSHS consumption

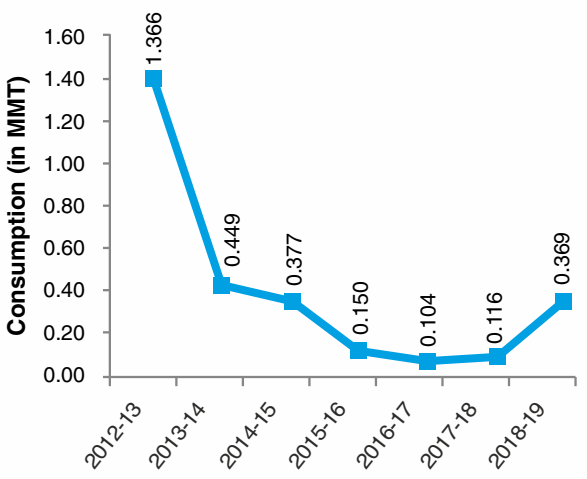
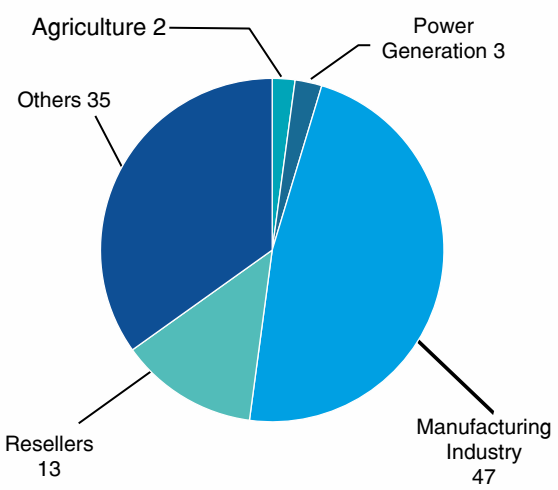


Figure V.19: Sector-wise consumption of LSHS during 2018-19 (%)



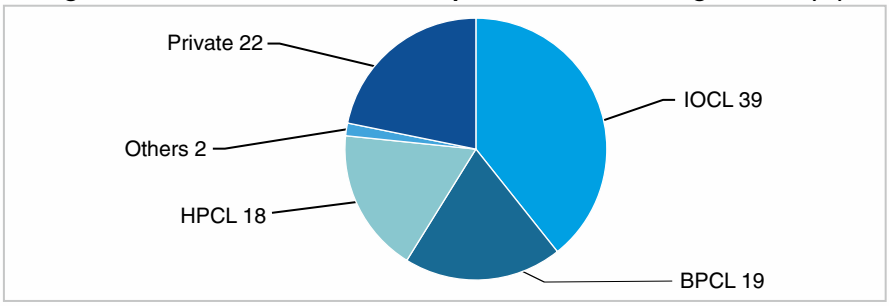
V.13: Consumption of Petroleum Products and Market Share of Oil Companies in India

(Figures in TMT)

Year	Consumption	IOCL	BPCL	HPCL	Others	Private	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2012-13	in TMT	71249	32232	28862	1755	22959	157057
	in %	45.4	20.5	18.4	1.1	14.6	100.0
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 (P)	in TMT	83184	41338	37678	3978	47038	213216
	in %	39.0	19.4	17.7	1.9	22.1	100.0

Note: P: Provisional
1. Others 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.

Figure V.12: Market share of oil companies in India during 2018-19 (%)



V.14: Deliveries made to International/Coastal Bunkers

(in '000'Tonnes)

Items	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
INTERNATIONAL BUNKERS							
F.O	691.1	304.9	398.9	436.8	523.5	368.2	469.5
H.S.D	25.0	28.5	32.4	35.0	39.9	30.1	37.4
L.D.O	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	**716.1**	**333.4**	**431.3**	**471.8**	**563.4**	**398.3**	**506.9**
COASTAL BUNKERS							
F.O	165.9	201.9	202.4	232.8	232.1	312.1	371.3
H.S.D	10.4	778.1	763.3	727.8	673.0	588.7	652.1
L.D.O	1.8	2.3	1.9	2.6	6.9	4.6	5.3
TOTAL	**178.1**	**982.3**	**967.6**	**963.2**	**911.9**	**905.4**	**1028.7**
TOTAL BUNKERS							
F.O	857.0	506.8	601.3	669.6	755.6	680.3	840.8
H.S.D	35.4	806.6	795.7	762.8	712.8	618.8	689.5
L.D.O	1.8	2.3	1.9	2.6	6.9	4.6	5.3
TOTAL	**894.2**	**1315.7**	**1398.9**	**1435.0**	**1475.2**	**1303.6**	**1535.6**

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

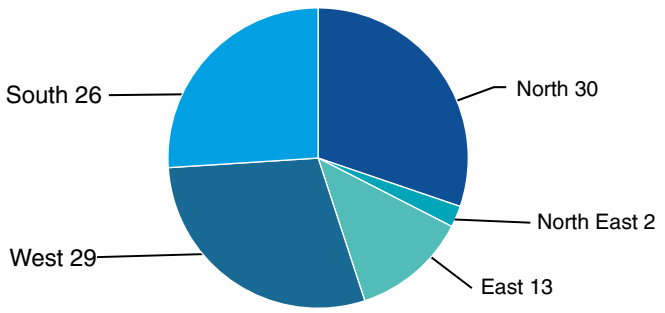
V.15: State-wise Consumption of Major Petroleum Products during 2018-19 (P)

(Figures in TMT)

Region/State	Naphtha	LPG	MS	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														
Jammu & Kashmir	0	205	275	124	50	697	1	2	0.01	9	60	72	8	1503
Punjab	0	938	879	2	165	3217	9	209	4	49	169	1318	104	7063
Rajasthan	2	1293	1551	57	194	5440	62	9	68	53	403	2211	62	11403
Uttar Pradesh	1	3166	3119	686	243	9453	84	7	130	77	854	43	315	18180
Haryana	3444	805	978	3	41	4847	35	0	49	50	146	0	124	10523
Himachal Pradesh	0	165	225	15	8	646	0	48	1	16	71	356	8	1559
Uttarakhand	0	288	309	12	13	762	2	146	9	18	34	121	11	1725
Chandigarh	0	56	123	0	21	192	0	4	0.6	2	7	28	0	435
Delhi	0	825	903	1	2065	1021	2	0	38	17	1	0	17	4890
North Total	**3447**	**7740**	**8362**	**900**	**2800**	**26276**	**196**	**426**	**300**	**290**	**1744**	**4151**	**650**	**57282**
Region: North East														
Arunachal Pradesh	0	22	46	12	2	150	0	0	0	1	16	0	0	248
Assam	205	421	412	190	168	985	5	5	0	22	46	267	19	2744
Manipur	0	36	61	14	9	116	0	0	0	0	4	0	0	241
Meghalaya	0	25	94	15	0	344	0	0	0	1	10	3	0	492
Mizoram	0	25	28	4	2	73	0	0	0	0	7	0	0	139
Nagaland	0	23	37	8	3	77	0	0	0	1	6	0	0	154
Tripura	0	49	54	23	9	94	0	0	0	1	5	0	0	235
Sikkim	0	16	20	10	0	78	0	1	0.0	0	2	0	0	126
North East Total	**205**	**616**	**751**	**276**	**193**	**1916**	**5**	**6**	**0**	**26**	**96**	**270**	**19**	**4379**
Region: East														
Bihar	0	1235	793	257	38	2442	24	27	0.00	14	218	189	6	5242
Odisha	0	549	776	193	102	2613	48	856	0	24	90	408	271	5930
West Bengal	947	1690	904	547	323	3449	43	426	0	69	229	54	108	8789
Jharkhand	1	341	487	117	49	1901	19	141	0	33	213	96	11	3409
Andaman & Nicobar	0	11	18	3	25	149	0	0	0	1	5	0	0	212
East Total	**948**	**3825**	**2978**	**1116**	**538**	**10554**	**135**	**1451**	**0**	**142**	**753**	**746**	**396**	**23582**
Region: West														
Goa	0	70	184	1	154	316	1	44	0.00	5	16	4	4	798
Gujarat	6107	1105	1976	197	275	5430	34	685	1	97	525	1481	3303	21216
Madhya Pradesh	0	995	1372	254	65	3797	34	121	0	45	309	869	144	8006
Maharashtra	363	2990	3358	200	1639	9292	78	815	4	285	712	187	1094	21017
Chhattisgarh	0	273	560	71	43	1699	42	200	0	20	245	927	30	4110
Dadra & Nagar Haveli	0	18	22	0	0	182	0	84	0	81	7	0	3	398
Daman & Diu	0	11	21	0	1	110	0	31	0	43	1	0	3	221
West Total	**6470**	**5462**	**7492**	**724**	**2177**	**20825**	**190**	**1980**	**4**	**575**	**1815**	**3469**	**4582**	**55766**
Region: South														
Andhra Pradesh	25	1150	1162	2	80	3947	22	283	60	31	250	588	222	7820
Kerala	0	989	1463	70	475	2576	2	259	1	44	245	15	200	6339
Tamilnadu	179	2114	2602	196	614	6354	14	655	2	111	494	825	260	14421
Karnataka	146	1687	2143	100	632	6905	17	354	0	52	229	834	107	13206
Telangana	0	963	1199	74	531	3753	16	129	1	41	203	45	45	7000
Lakshadweep	0	0	0	1	0	14	0	0	0	0	0	0	0	15
Puducherry	0	44	133	0	1	314	0	40	1	2	2	0	5	542
South Total	**350**	**6949**	**8701**	**443**	**2332**	**23863**	**72**	**1720**	**65**	**280**	**1422**	**2306**	**839**	**49343**
Total	**11420**	**24591**	**28284**	**3459**	**8041**	**83435**	**598**	**5583**	**369**	**1313**	**5830**	**10942**	**6486**	**190352**
Pvt. Imports	**1727**	**316**	**0**	**0**	**259**	**93**	**0**	**611**		**2355**	**877**	**7926**	**2755**	**16920**
SEZ Data	**984**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**2479**	**2483**	**5945**
Total Consumption	**14131**	**24907**	**28284**	**3459**	**8300**	**83528**	**598**	**6195**	**369**	**3668**	**6708**	**21346**	**11723**	**213216**

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

Figure V.20: Region-wise Consumption of Petroleum Products (excluding private imports) in India during 2018-19 (%)



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

(Figures in Kg)

State/UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andhra Pradesh	129.5	126.3	127.0	125.2	133.3	140.8	158.4
Andaman & Nicobar	360.1	437.6	451.8	473.0	489.5	530.9	558.0
Arunachal Pradesh	114.5	123.8	128.5	144.5	162.7	175.3	179.7
Assam	54.1	60.3	61.1	68.0	71.7	80.8	88.0
Bihar	36.4	38.3	39.6	44.6	45.8	47.9	50.5
Chandigarh	259.1	335.9	384.1	417.4	367.9	404.5	412.6
Chhattisgarh	88.3	94.9	100.1	112.5	113.9	140.4	160.9
Dadra & Nagar Haveli	706.4	870.3	1097.9	1198.5	1278.4	1169.7	1160.5
Daman & Diu	531.8	598.0	647.2	745.5	904.2	969.4	909.7
Delhi	247.1	256.1	269.6	298.3	291.4	298.4	291.9
Goa	659.9	446.5	470.8	500.7	534.8	534.5	547.1
Gujarat	285.3	282.0	291.9	314.3	314.5	316.9	351.4
Haryana	380.6	393.2	417.5	424.9	422.9	432.9	415.0
Himachal Pradesh	184.6	189.5	181.8	226.0	249.0	230.2	227.4
Jammu and Kashmir	98.2	98.3	95.7	106.9	100.3	115.1	119.7
Jharkhand	73.5	76.0	79.7	84.0	88.6	96.6	103.4
Karnataka	139.1	146.1	156.7	180.8	187.5	205.3	216.0
Kerala	158.4	158.5	161.4	166.3	171.5	184.1	189.9
Lakshadweep	198.1	206.0	228.9	232.7	213.8	225.7	235.0
Madhya Pradesh	80.4	83.6	88.6	96.5	95.9	101.9	110.3
Maharashtra	154.7	149.2	150.6	162.2	172.1	183.5	187.0
Manipur	57.4	60.3	63.7	66.0	59.9	76.2	88.5
Meghalaya	159.3	158.1	142.5	141.3	144.4	163.4	166.0
Mizoram	97.5	94.7	98.5	103.7	107.5	114.1	127.2
Nagaland	59.5	60.8	60.7	64.3	66.8	72.2	77.9
Odisha	81.5	87.6	93.6	106.4	123.4	135.6	141.4
Puducherry	414.6	362.1	369.0	418.5	436.0	445.5	435.6
Punjab	202.4	198.0	206.2	215.2	229.1	245.0	255.0
Rajasthan	147.0	154.9	158.5	163.5	160.1	164.2	166.2
Sikkim	149.9	156.8	152.9	164.9	171.7	192.7	207.1
Tamil Nadu	187.1	174.4	169.3	176.0	184.1	193.2	199.9
Telangana	-	-	136.5	161.7	173.8	186.0	198.4
Tripura	49.5	49.3	51.8	57.8	58.5	64.0	64.0
Uttar Pradesh	61.1	62.6	66.9	75.2	79.8	84.6	91.1
Uttarakhand	120.5	119.6	128.8	150.2	146.9	150.8	170.6
West Bengal	70.5	74.4	70.6	78.7	82.2	90.3	96.2
All India	**122.0**	**122.8**	**126.6**	**136.9**	**141.5**	**149.7**	**157.3**

Note

P : Provisional

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

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

Source: Petroleum Planning and Analysis Cell.

V.17: Per Capita Consumption of Selected Petroleum Products

(Figures in Kg)

Product	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Naphtha	9.0	8.6	8.5	8.9	9.0	9.0	9.4
MS	13.0	14.2	15.8	18.1	19.6	21.6	23.4
SKO	6.2	5.9	5.9	5.6	4.5	3.2	2.9
HSDO	57.0	56.4	57.3	61.6	62.8	66.9	68.9
LDO	0.3	0.3	0.3	0.3	0.4	0.4	0.5
F.O (Regular)	4.7	4.2	4.1	4.9	5.2	4.9	4.6
LSHS/HHS	1.1	0.4	0.3	0.1	0.1	0.1	0.3
All India	**122.0**	**122.8**	**126.6**	**136.9**	**141.5**	**149.7**	**157.3**

Note
1: Population figures have been taken from Census of India, 2011
2:Includes private sales by oil companies and excludes direct private imports.
Source: Petroleum Planning and Analysis Cell.

P : Provisional

V.18: Average Compound Annual Growth Rates (CAGR) of Consumption of Petroleum Products

(in Percentage)

Product	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
LPG	4.4	10.5	9.0	10.1	8.0	6.7
MS	8.8	11.4	14.5	8.8	10.1	8.1
Naphtha	-8.0	-2.0	19.8	-0.2	-2.7	9.6
ATF	4.4	4.0	9.4	11.8	9.1	8.7
SKO	-4.5	-1.1	-3.7	-20.9	-28.8	-10.0
HSD	-1.0	1.5	7.5	1.8	6.6	3.0
LDO	-3.1	-5.4	11.5	10.3	16.7	14.2
Lubes	3.4	0.1	7.9	-2.8	11.9	-5.6
FO/LSHS	-18.6	-4.4	11.3	7.8	-6.0	-2.3
Bitumen	7.1	1.3	17.1	0.0	2.5	10.2
Others	13.2	15.3	25.6	19.1	11.3	-2.7
Total Sales	**0.9**	**4.5**	**11.6**	**5.4**	**5.9**	**3.4**

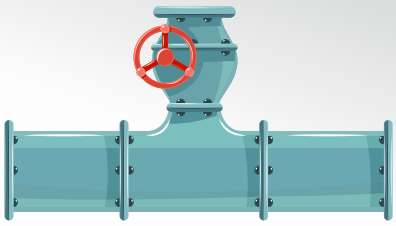
Note : Growth rates are based on consumption including private imports .
Source: Petroleum Planning & Analysis Cell.

P: Provisional

V.19: Major End uses of Petroleum Products

Products	Major End-use
LPG	Domestic and auto fuel. Also for Industrial application where technically essential. Now permitted as auto fuel.
NAPHTHA / NGL	Feedstock/ fuel for Fertilizer Units, feedstock for petro-chemical sector and fuel for Power Plants.
MS (Petrol)	Fuel for passenger cars, taxies, two & three wheelers
ATF	Fuel for aircrafts.
SKO (Kerosene)	Fuel for cooking & lighting.
HSD (Diesel)	Fuel for transport sector (Railways/Road), agriculture (tractors pump sets, threshers, etc.) and captive power generation.
LDO	Fuel for agricultural pump sets, small industrial units, start up fuel for power generation
FO/LSHS	Secondary fuel for thermal power plants, fuel/feedstock for fertiliser plants, industrial units.
BITUMEN	Surfacing of roads.
LUBES PETROLEUM COKE	Lubrication for automotive and industrial applications. Fuel grade Petcoke is used as fuel for cement kilns and electric power plants. Calcined Petcoke is used to manufacture energy as well as in the aluminium, graphite electrode, steel, titanium dioxide and other carbon consuming industries.
OTHER MINOR PRODUCTS (Benzene, Toluene, MTO, LABFS, CBFS, Paraffin Wax, etc.)	Feedstock for value added products.

CHAPTER - VI



TRADE

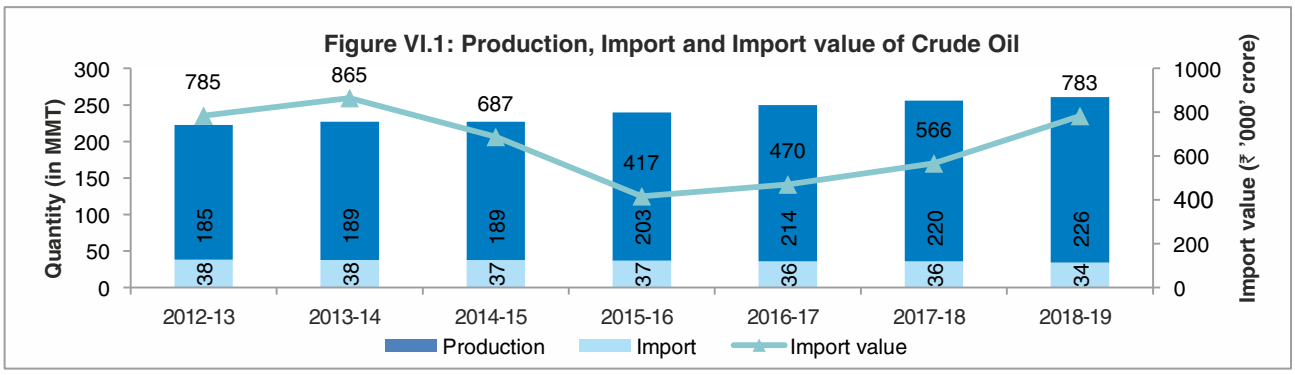
CHAPTER HIGHLIGHTS

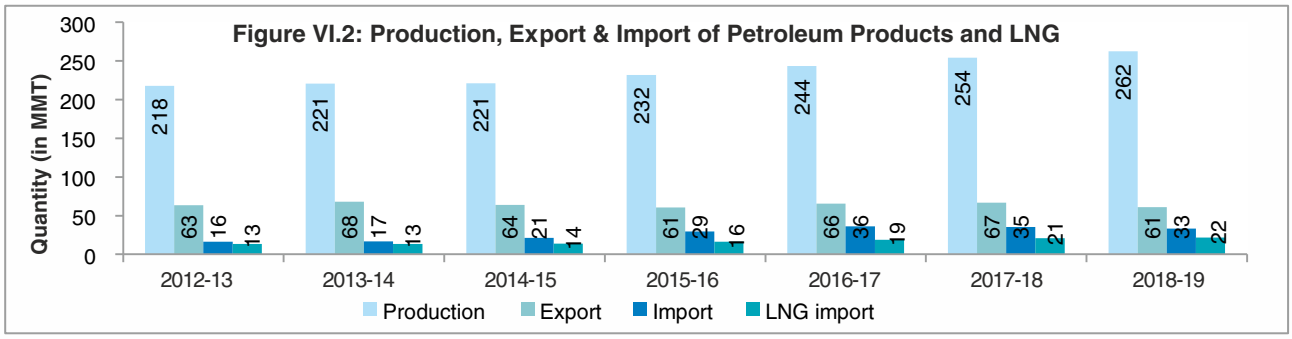
- India's import bill on import of Crude Oil, LNG, and Petroleum Products increased by 37.0% in value terms from ₹ 7,06,946 crore in 2017-18 to ₹ 9,68,715 crore in 2018-19. Increase in import quantity of crude oil, LNG and petroleum products has been around 1.8% from 276.602 MMT in 2017-18 to 281.537 MMT during 2018-19.
- Import of crude oil in the country during 2018-19 was 226.498 MMT which marked a growth of 2.8% over the imports of crude oil of 220.433 MMT during 2017-18. However, the increase was 38.3% in value terms over the same period.
- Availability of Petroleum Products has increased by 5.2% from 223.033 MMT in 2017-18 to 234.614 MMT in 2018-19.
- India's trade deficit was higher by 23.2% at ₹ 12,86,710 crore in 2018-19 from ₹ 10,44,518 crore during 2017-18.
- Self sufficiency of crude oil is 16.2% and self sufficiency of gas is 52.7%. India's O+OEG import dependency is 76.1% during 2018-19.
- FDI inflows in P&NG sector is 0.3% of overall FDI inflows in India.

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								
2012-13	184795	784652	16354	68852	13294	41757	214443	895261
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(P)	226498	783183	33348	113665	21691	71867	281537	968715
Exports								
2012-13	-	-	63408	320090	-	-	63408	320090
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(P)	-	-	61096	267697	-	-	61096	267697
Net Imports								
2012-13	184795	784652	-47054	-251238	13294	41757	151036	575172
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(P)	226498	783183	-27747	-154031	21691	71867	220441	701019

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





VI.2 Availability of Crude Oil and Petroleum Products

Items		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19(P)
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Crude Oil (in TMT)								
Crude Oil	Production	37862	37788	37461	36942	36009	35684	34203
	Imports	184795	189238	189435	202850	213932	220433	226498
	Availability	222657	227027	226896	239792	249941	256117	260701
B. Natural Gas (BCM)								
Natural Gas	Production (Net)	39.75	34.57	32.69	31.12	30.85	31.73	32.05
	Imports	17.61	17.80	18.61	21.39	24.85	27.44	28.74
	Availability	57.36	52.37	51.30	52.51	55.70	59.17	60.79
C. Petroleum Products (in TMT)								
LPG	Production	9825	10030	9840	10568	11326	12380	12786
	Imports	6301	6567	8313	8959	11097	11380	13235
	Export	200	227	254	195	317	359	417
	Availability	15925	16371	17900	19332	22106	23400	25604
Motor Spirit	Production	30118	30275	32325	35321	36593	37784	38039
	Imports	147	235	372	1012	476	174	670
	Export	16657	15247	16048	16817	15417	14036	12885
	Availability	13607	15264	16649	19517	21653	23921	25824
Naphtha	Production	19018	18505	17391	17861	19946	20006	19786
	Imports	1762	1020	1034	2931	2777	2212	2082
	Export	8647	8322	7008	7116	8727	8951	6963
	Availability	12133	11204	11416	13676	13996	13266	14904
Kerosene	Production	7971	7418	7559	7503	6041	4408	4072
	Imports	0	0	30	41	0	0	0
	Export	23	15	15	10	15	17	19
	Availability	7947	7403	7573	7534	6025	4391	4053
ATF	Production	10088	11220	11103	11789	13831	14594	15479
	Imports	0	0	140	286	338	300	259
	Export	4664	5745	5520	5686	7271	7183	7389
	Availability	5425	5475	5723	6388	6898	7712	8348
Diesel (HSD+LDO)	Production	91502	94181	94785	99017	103113	108465	111236
	Imports	528	77	124	177	1008	1361	555
	Export	22473	26499	25566	24037	27453	29735	27931
	Availability	69557	67760	69343	75157	76669	80091	83860
Fuel Oils	Production	15054	13405	11919	9727	9962	9486	10032
	Imports	1038	1331	902	1170	925	1213	1419
	Export	5922	6159	4762	2806	2248	2525	2197
	Availability	10170	8578	8059	8091	8639	8174	9255
Lube Oils	Production	896	941	946	1037	1029	1036	949
	Imports	1977	2090	2148	2264	2131	2539	2457
	Export	59	20	11	17	13	13	8
	Availability	2814	3011	3083	3284	3147	3561	3398
Bitumen	Production	4670	4785	4632	5157	5185	5277	5803
	Imports	102	246	517	879	951	950	877
	Export	87	95	94	101	38	64	23
	Availability	4685	4936	5055	5935	6098	6163	6658
Petroleum Coke	Production	10943	12068	12448	13322	13936	14754	14676
	Imports	3339	3571	6165	10041	14416	12777	7926
	Export	1317	1698	613	840	673	561	1124
	Availability	12965	13941	18000	22524	27679	26970	21478
Others	Production	17650	17927	18188	20622	22589	26215	29503
	Imports	1162	1559	1557	1694	2169	2556	3868
	Export	3358	3837	4041	2914	3344	3387	2140
	Availability	15454	15648	15704	19402	21414	25383	31231
Total (Petroleum Products)	**Production**	**217736**	**220756**	**221136**	**231923**	**243551**	**254405**	**262361**
	Imports	**16354**	**16697**	**21301**	**29456**	**36287**	**35461**	**33348**
	Export	**63408**	**67864**	**63932**	**60539**	**65513**	**66833**	**61096**
	Availability	**170683**	**169589**	**178505**	**200840**	**214325**	**223033**	**234614**

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

Source: Oil Companies & Petroleum Planning & Analysis Cell.

VI.3: Import / Export of Crude Oil and Petroleum Products (Calendar Year-wise)

ITEM	2013			2014			2015			2016			2017			2018 (P)		
	Qty.	Value		Qty.	Value		Qty.	Value		Qty.	Value		Qty.	Value		Qty.	Value	
	TMT	₹ Crore	USD Million	TMT	₹ Crore	USD Million	TMT	₹ Crore	USD Million	TMT	₹ Crore	USD Million	TMT	₹ Crore	Million USD	TMT	₹ Crore	Million USD
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Imports																		
Crude Oil Import	**189351**	**846591**	**144359**	**188772**	**798637**	**130998**	**196490**	**446469**	**69658**	**215376**	**415672**	**61889**	**216445**	**528350**	**81347**	**226626**	**775927**	**112966**
Product Import																		
LPG	6016	32802	5522	8050	41177	6774	8901	27110	4203	10197	26139	3870	11888	40241	6155	12138	46783	6788
Petrol	235	1481	248	328	2115	346	984	4157	643	549	1854	274	174	581	91	355	1797	256
Naphtha	1177	6789	1138	623	3665	597	2797	9624	1492	2926	8243	1218	1832	6414	977	2567	11486	1704
Aviation Turbine Fuel	0	0	0	90	513	83	273	919	142	333	1010	149	288	1089	166	317	1675	244
Kerosene	0	0	0	30	172	29	41	158	25	0	0	0	0	0	0	0	0	0
Diesel	81	453	76	108	637	103	72	406	63	975	2685	399	1441	4491	690	324	1482	219
Lubes	1927	11664	1965	2329	14514	2362	2086	9480	1465	2257	8601	1270	2233	10185	1554	2786	15128	2221
Fuel Oil	1332	5622	936	1049	4546	759	948	2422	377	1150	1980	293	957	2325	356	1601	5359	796
Bitumen	171	528	91	433	1506	243	856	1979	307	887	1443	213	911	1725	263	882	2121	315
Petcoke	3339	3719	623	5493	5217	845	8307	5497	851	14710	7220	1066	13731	10811	1652	7017	9365	1387
Others[1]	1487	6590	1110	1599	6989	1133	1705	5167	800	2033	4810	712	2268	6609	1011	3614	14153	2062
Product Import	**15765**	**69648**	**11708**	**20131**	**81050**	**13274**	**26971**	**66918**	**10368**	**36016**	**63984**	**9465**	**35722**	**84472**	**12914**	**31600**	**109349**	**15992**
Total Import	**205116**	**916239**	**156067**	**208903**	**879687**	**144272**	**223461**	**513387**	**80026**	**251392**	**479657**	**71354**	**252167**	**612823**	**94261**	**258226**	**885276**	**128958**
Product Export																		
LPG	213	1393	236	239	1640	266	217	918	144	291	1023	151	348	1430	218	396	1919	280
MS/ Petrol	15874	95263	16317	15942	91334	14994	15893	59681	9300	16150	51224	7625	14262	53591	8226	13287	62539	9150
Naphtha/ NGL	8496	45965	7811	7397	38299	6267	6708	20160	3140	8417	21683	3220	8907	27885	4280	7916	32561	4770
Aviation Turbine Fuel	5716	32482	5524	5300	28108	4600	5253	16792	2621	7489	20813	3096	6968	23209	3564	7527	34316	5016
SKO/ Kerosene	16	98	17	14	90	15	12	50	8	15	48	7	17	65	10	18	95	14
HSD/ Diesel	25997	142665	24102	25756	130712	21417	23160	71693	11189	27892	73678	10963	28868	92690	14248	28509	124329	18095
LDO	22	102	16	14	63	10	0	0	0	20	52	8	149	384	57	99	364	50
LOBS/ Lube Oil	19	150	24	12	93	18	19	130	21	13	110	16	13	111	17	8	104	15
Fuel Oil/LSHS	6281	22573	3806	5187	17378	2832	3154	5592	874	2439	3786	560	2363	4757	732	2259	6565	943
Bitumen	108	363	61	74	216	35	107	206	31	57	52	9	61	109	17	23	75	11
Petcoke/CBFS	2111	4892	814	642	1824	298	669	599	93	608	830	124	692	688	106	924	2509	359
Others[2]	3842	18367	3122	3761	17977	2950	3419	10056	1575	2551	6631	986	3954	10396	1586	2486	8695	1276
Total Product Export	**68696**	**364314**	**61851**	**64337**	**327734**	**53703**	**58611**	**185878**	**28995**	**65942**	**179930**	**26765**	**66603**	**215316**	**33061**	**63454**	**274070**	**39979**
Net Import	**136419**	**551925**	**94216**	**144566**	**551953**	**90569**	**164850**	**327509**	**51031**	**185451**	**299727**	**44589**	**185565**	**397507**	**61200**	**194772**	**611206**	**88979**

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

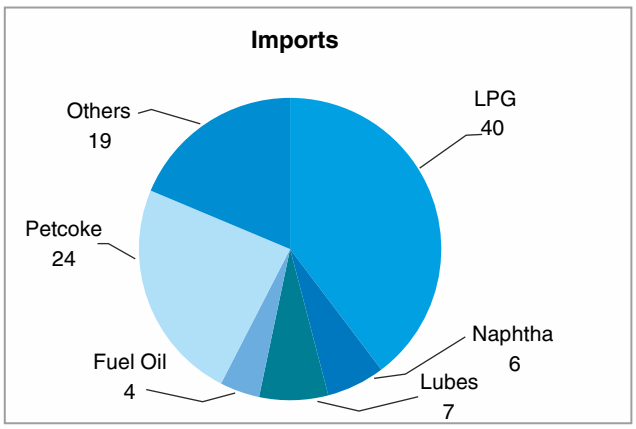
VI.4 Import / Export of Crude Oil and Petroleum Products

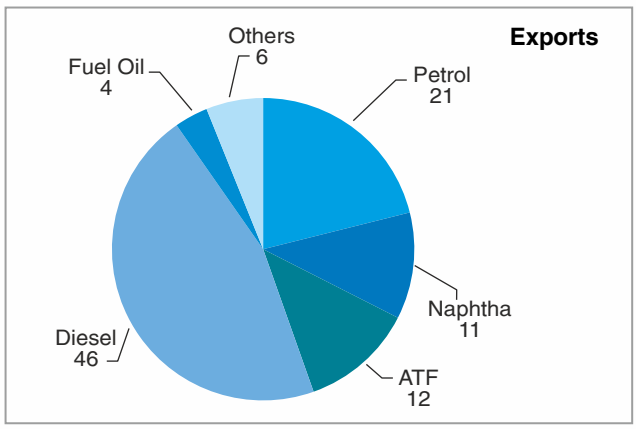
(Figures in TMT)

Import/Export	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crude Oil Import	**184795**	**189238**	**189435**	**202850**	**213932**	**220433**	**226498**
Product Import							
LPG	6301	6567	8313	8959	11097	11380	13235
Petrol	147	235	372	1012	476	174	670
Naphtha	1762	1020	1034	2931	2777	2212	2082
Aviation Turbine Fuel (ATF)	0	0	140	286	338	300	259
Kerosene	0	0	30	41	0	0	0
Diesel	528	77	124	177	1008	1361	555
Lubes	1977	2090	2148	2264	2131	2539	2457
Fuel Oil	1038	1331	902	1170	925	1213	1419
Bitumen	102	246	517	879	951	950	877
Petcoke	3339	3571	6165	10041	14416	12777	7926
Others[1]	1162	1559	1557	1694	2169	2556	3868
Total Product Import	**16354**	**16697**	**21301**	**29456**	**36287**	**35461**	**33348**
Total Import	**201149**	**205935**	**210736**	**232306**	**250219**	**255894**	**259846**
Product Export							
LPG	200	227	254	195	317	359	417
Petrol	16657	15247	16048	16817	15417	14036	12885
Naphtha	8647	8322	7008	7116	8727	8951	6963
Aviation Turbine Fuel (ATF)	4664	5745	5520	5686	7271	7183	7389
Kerosene	23	15	15	10	15	17	19
Diesel	22473	26499	25566	24037	27453	29735	27931
Lubes	59	20	11	17	13	13	8
Fuel Oil	5922	6159	4762	2806	2248	2525	2197
Bitumen	87	95	94	101	38	64	23
Petcoke/CBFS	1317	1698	613	840	673	561	1124
Others[2]	3358	3837	4041	2914	3344	3387	2140
Total Export	**63408**	**67864**	**63932**	**60539**	**65513**	**66833**	**61096**
Net Import	**137742**	**138071**	**146804**	**171768**	**184706**	**189061**	**198750**
Net Product Export	**47054**	**51167**	**42631**	**31083**	**29226**	**31372**	**27747**

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

Figure VI.3: Import & Export of Five Major Petroleum Products during 2018-19 (%)





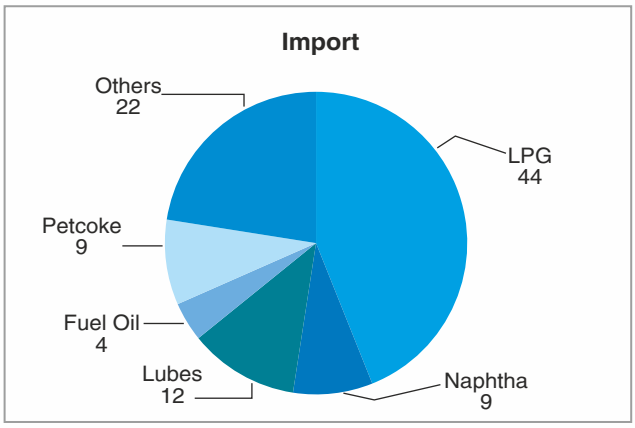
VI.5: Import / Export of Crude Oil and Petroleum Products

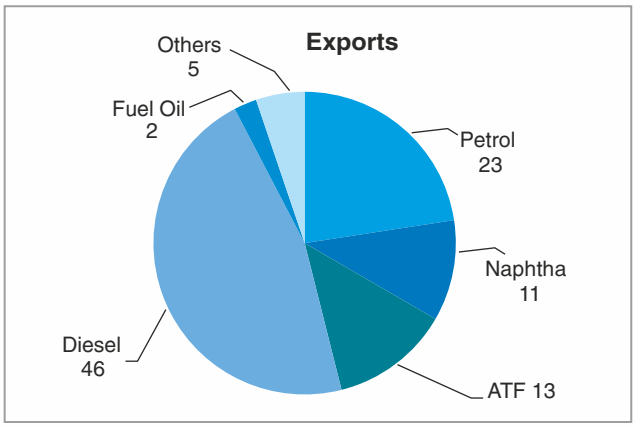
(Figures in ₹ Crore)

Import/Export	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crude Oil Import	**784652**	**864875**	**687416**	**416579**	**470159**	**566450**	**783183**
Product Import							
LPG	31674	37213	36571	25778	32124	37875	49939
Petrol	891	1481	2301	4207	1617	581	3104
Naphtha	9272	6044	4592	9581	8374	8161	9665
Aviation Turbine Fuel (ATF)	0	0	706	889	1109	1159	1392
Kerosene	0	0	172	158	0	0	0
Diesel	2771	452	670	605	2959	4269	2486
Lubes	11339	12985	12702	9478	8625	12075	13349
Fuel Oil	4218	5759	3659	2380	1848	3231	4782
Bitumen	272	801	1623	1832	1638	1902	2149
Petcoke	3414	4082	5383	5633	7929	11100	10350
Others[1]	5001	7080	6266	4821	5342	8020	16448
Total Product Import	**68852**	**75896**	**74644**	**65361**	**71566**	**88374**	**113665**
Total Import	**853504**	**940771**	**762060**	**481940**	**541725**	**654824**	**896848**
Product Export							
LPG	1294	1589	1455	785	1168	1501	1976
Petrol	95346	92977	81971	59575	52920	54580	60419
Naphtha	43533	46059	31619	20057	24616	29075	28893
Aviation Turbine Fuel (ATF)	25223	33246	25413	16007	22294	25348	34030
Kerosene	140	98	81	35	54	68	98
Diesel	115595	148273	115177	66492	80256	99492	123882
Lubes	381	138	100	127	104	118	106
Fuel Oil	20415	22407	14251	4471	3930	5291	6537
Bitumen	281	321	245	176	37	119	72
Petcoke/CBFS	2636	3980	1806	750	804	687	3255
Others[2]	15244	19189	16462	8304	8710	9110	8429
Total Export	**320090**	**368279**	**288580**	**176780**	**194893**	**225388**	**267697**
Net Import	**533415**	**572492**	**473481**	**305160**	**346832**	**429436**	**629152**
Net Product Export	**251238**	**292383**	**213936**	**111419**	**123327**	**137014**	**154031**

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

Figure VI.4: Value of Major Import & Export of Petroleum Products during 2018-19 (%)





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

(Value in Million US$)

Import/Export	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crude Oil Import	**144293**	**142962**	**112744**	**63972**	**70196**	**87803**	**111915**
Product Import							
LPG	5803	6144	5955	3922	4775	5849	7178
Petrol	160	248	375	648	239	91	445
Naphtha	1691	982	744	1463	1240	1261	1391
Aviation Turbine Fuel(ATF)	0	0	114	135	163	178	200
Kerosene	0	0	29	25	0	0	0
Diesel	507	74	108	92	438	660	360
Lubes	2068	2122	2067	1439	1276	1860	1910
Fuel Oil	778	942	599	363	273	499	696
Bitumen	50	132	262	279	242	293	309
Petcoke	623	664	870	853	1174	1709	1494
Others[1]	911	1158	1015	733	793	1237	2358
Total Product Import	**12590**	**12466**	**12138**	**9952**	**10614**	**13637**	**16341**
Total Import	**156883**	**155427**	**124882**	**73924**	**80810**	**101440**	**128255**
Product Export							
LPG	236	260	236	120	173	231	283
Petrol	17528	15397	13454	9120	7895	8464	8641
Naphtha	7992	7584	5176	3071	3666	4505	4137
Aviation Turbine Fuel(ATF)	4645	5487	4155	2440	3324	3931	4867
Kerosene	25	16	13	5	8	10	14
Diesel	21261	24358	18870	10180	11964	15426	17675
Lubes	65	27	16	20	15	18	15
Fuel Oil	3757	3671	2321	688	583	817	923
Bitumen	52	52	40	27	6	18	10
Petcoke/CBFS	483	645	295	115	121	107	463
Others[2]	2805	3169	2700	1275	1294	1412	1208
Total Export	**58848**	**60664**	**47277**	**27059**	**29049**	**34940**	**38236**
Net Import	**98035**	**94763**	**77605**	**46865**	**51760**	**66500**	**90020**
Net Product Export	**46258**	**48199**	**35139**	**17107**	**18436**	**21303**	**21895**

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

VI.7: Trends in India's overall Trade Balance and Trade Balance with OPEC Countries

(Value in ₹ Crore)

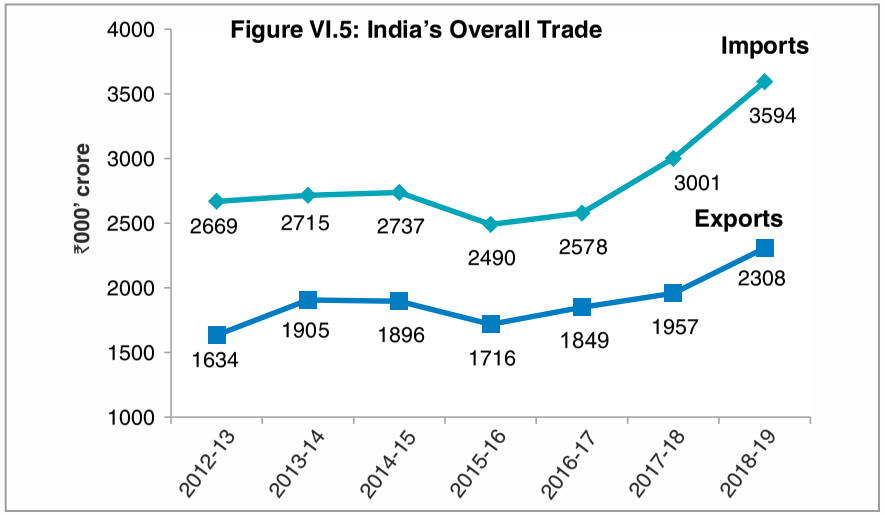
Year	India's Overall Trade					India's Trade with OPEC Countries					% of India's trade with OPEC to India's total trade	
	Exports	Imports	Trade Balance	% variation over preceding year		Exports	Imports	Trade Balance	% variation over preceding year			
				Exports	Imports				Exports	Imports	Exports	Imports
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2012-13	1634319	2669162	-1034843	11.5	13.8	342219	1021645	-679426	23.0	22.8	20.9	38.3
2013-14	1905011	2715434	-810423	16.6	1.7	355400	982126	-626726	3.9	-3.9	18.7	36.2
2014-15	1896348	2737087	-840739	-0.5	0.8	344479	836138	-491660	-3.1	-14.9	18.2	30.5
2015-16	1716384	2490306	-773922	-9.5	-9.0	302488	587977	-285489	-12.2	-29.7	17.6	23.6
2016-17	1849434	2577675	-728241	7.8	3.5	303258	617040	-313782	0.3	4.9	16.4	23.9
2017-18	1956515	3001033	-1044518	5.8	16.4	277215	659318	-382103	-8.6	6.9	14.2	22.0
2018-19(P)	**2307663**	**3594373**	**-1286710**	**18.0**	**19.8**	**330675**	**890788**	**-560113**	**19.3**	**35.1**	**14.3**	**24.8**

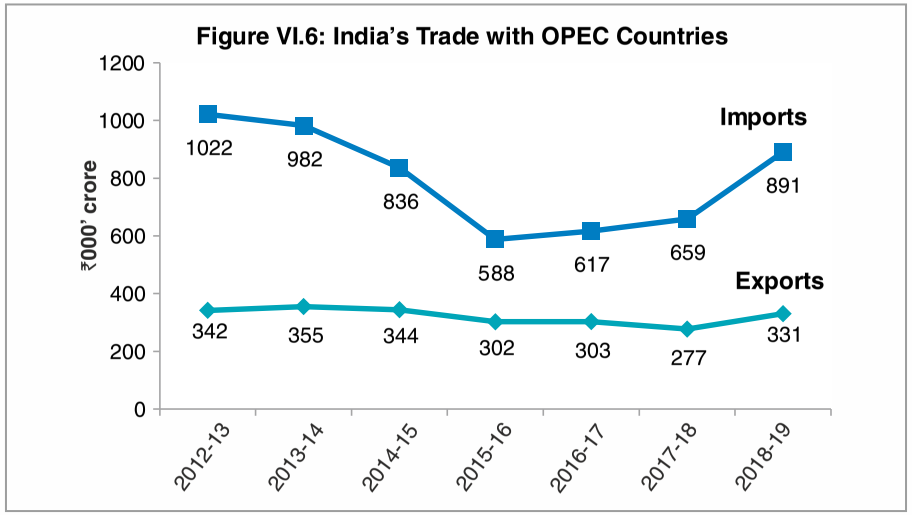
P: Provisional

Note: 1. Currently, OPEC has total 14 Members Countries : Algeria (1969), Angola (2007), Congo (2018), Ecuador (1973), Equtl Guinea ((2017), Gabon(2016), Iran(1960), Iraq(1960), Kuwait(1960), Libya(1962), Nigeria(1971), Qatar(1961), Saudi Arab(1960), UAE(1967), Venezuela(1960). Indonesia (1962) suspended its membership in January 2009, reactivated it again in January 2016, but decided to suspend its membership once more at the 171st Meeting of the OPEC Conference on 30 November 2016. Qater terminated its membership on 01.01.2019

2. The country of destination, as recorded by customs, is used as the partner for the purposes of export/reexports statistics while imports are, by and large, credited to the country of consignment. However, no information on the last known destination for exports and country of origin for imports is compiled.

Source: Ministry of Commerce & Industry





VI.8: Import Dependency

Import/Export	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Import dependence on crude oil (in MMT)							
Total Consumption	157.1	158.4	165.5	184.7	194.6	206.2	213.2
Indigenous crude oil processing	34.2	33.9	34.2	34.1	33.5	32.8	31.7
Products from Indigenous crude	31.9	31.6	32.0	31.8	31.3	30.6	29.6
Products from Fractionators	4.5	4.3	4.0	4.0	4.3	4.6	4.9
Total Indigenous production	36.4	35.9	35.9	35.8	35.6	35.2	34.5
Self Sufficiency (%)	23.2	22.7	21.7	19.4	18.3	17.1	16.2
Import Dependence (%)	**76.8**	**77.3**	**78.3**	**80.6**	**81.7**	**82.9**	**83.8**
Import dependence on natural gas (in BCM)							
Total Consumption	57.2	51.8	51.3	52.5	55.7	59.2	60.8
Indigenous gas production	39.8	34.6	32.7	31.1	30.8	31.7	32.1
Import of LNG	17.4	17.3	18.6	21.4	24.8	27.4	28.7
Self Sufficiency (%)	69.6	66.7	63.7	59.3	55.4	53.6	52.7
Import Dependence (%)	**30.4**	**33.3**	**36.3**	**40.7**	**44.6**	**46.4**	**47.3**
Import dependence on oil and oil equivalent gas (O+OEG)(in MMTOE)							
Total Consumption	225.5	221.6	228.7	250.5	264.3	280.1	289.3
Indigenous O+OEG production	78.8	73.0	71.2	69.6	69.0	69.5	69.1
Self Sufficiency (%)	**34.9**	**33.0**	**31.1**	**27.8**	**26.1**	**24.8**	**23.9**
Import Dependence (%)	**65.1**	**67.0**	**68.9**	**72.2**	**73.9**	**75.2**	**76.1**

Note: P: Provisional

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.

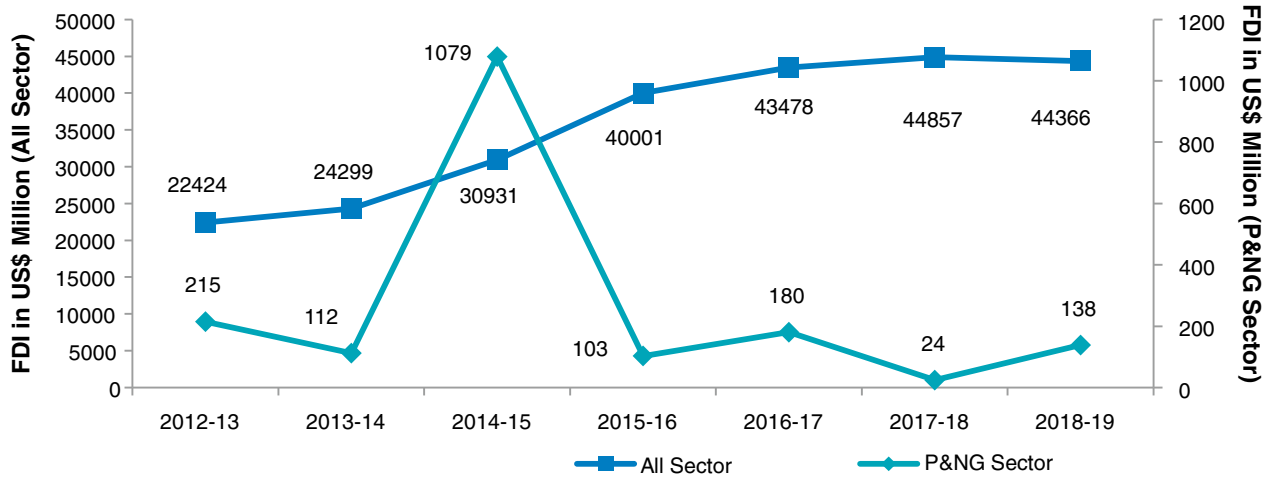
VI.9 Annual Growth of Foreign Direct Investment Equity Inflows

Year	FDI Inflow					% of FDI in P&NG to Total FDI
	P&NG Sector				All Sectors	
	Refinery	Exploration	Others (Fuels)	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(in ₹ Million)						
2012-13	9.17	120.00	11796.49	11925.66	1219067.30	1.0
2013-14	1892.62	0.00	4891.28	6783.90	1475177.76	0.5
2014-15	61188.64	81.26	3686.83	64956.73	1891071.26	3.4
2015-16	851.91	3587.60	2330.86	6770.37	2623215.61	0.3
2016-17	551.11	3825.40	7594.06	11970.57	2916963.33	0.4
2017-18	0.07	958.99	601.87	1560.93	2888885.01	0.1
2018-19(P)	**333.75**	**4954.73**	**4113.82**	**9402.30**	**3098666.69**	**0.3**
(in US $ Million)						
2012-13	0.17	2.21	212.42	214.80	22423.58	1.0
2013-14	32.88	0.00	79.35	112.23	24299.33	0.5
2014-15	1018.56	1.31	59.15	1079.02	30930.50	3.5
2015-16	13.39	54.21	35.42	103.02	40000.98	0.3
2016-17	8.24	57.21	114.95	180.40	43478.27	0.4
2017-18	0.00	14.86	9.32	24.18	44856.75	0.1
2018-19(P)	**4.78**	**73.10**	**60.55**	**138.43**	**44366.03**	**0.3**

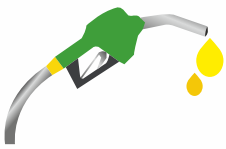
P: Provisional

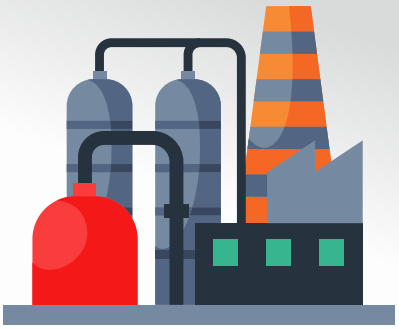
Source: Foreign Direct Investment Cell, Department of Industrial Policy & Promotion

Figure VI.7: Trend of FDI Inflows in India



CHAPTER - VII





TAXES AND DUTIES

CHAPTER HIGHLIGHTS

- Realisation of excise and customs duties from Petroleum sector (Crude oil & Petroleum Products) during 2018-19 was at ₹ 163162 crore which was lower by 23.4% as compared to 2017-18 (₹ 213012 crore). More than half of the excise duty was contributed by high speed diesel oil (61.2%) during 2018-19.
- Royalty (Cash basis) on oil and gas by upstream companies for year 2018-19 at ₹ 19328 crore was 40.3% higher as compared to 2017-18 (₹ 13779).
- Oil Development Cess paid (Cash basis) by upstream companies was higher by 40.2% in 2018-19 (₹18984 crore) as compared to 2017-18 (₹13544 crore).
- Sales Tax payments paid by 16 Major Oil & Gas Companies during the year 2018-19 at ₹ 201265 crore, was 8% higher than the sales tax payment during 2017-18 (₹186394 crore).
- GST payment paid by 16 Major Oil & Gas Companies during the year 2018-19 at ₹10695 crore, was 59.1% higher than the GST payment during July-March, 2017-18 (₹ 6721 crore).

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

(Value in ₹ Crore)

Products	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Excise Duties							
Motor Spirit	25065	23404	29279	52297	67087	66712	52777
Kerosene Oil	323	380	315	272	390	93	0
High Speed Diesel Oil	22865	27321	42592	101178	147915	136455	99852
Light Diesel Oil	324	330	289	261	295	69	0
Furnace Oil	860	828	604	435	476	81	0
Petroleum Gases and Other Gaseous Hydrocarbons	1912	2017	1998	1903	1193	264	44
Aviation Turbine Fuel	1097	1203	1063	1623	1521	1921	2540
All others	11032	11751	10989	9558	8254	3186	2762
Total (A)	**63478**	**67234**	**87130**	**167526**	**227131**	**208781**	**157975**
B. Customs Duties							
Crude Petroleum	333	433	423	455	507	135	0
Petroleum Products	5040	6112	6686	5694	2934	4097	5187
Total (B)	**5373**	**6545**	**7109**	**6149**	**3441**	**4231**	**5187**
Grand Total (A+B)	**68851**	**73780**	**94239**	**173675**	**230573**	**213012**	**163162**

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

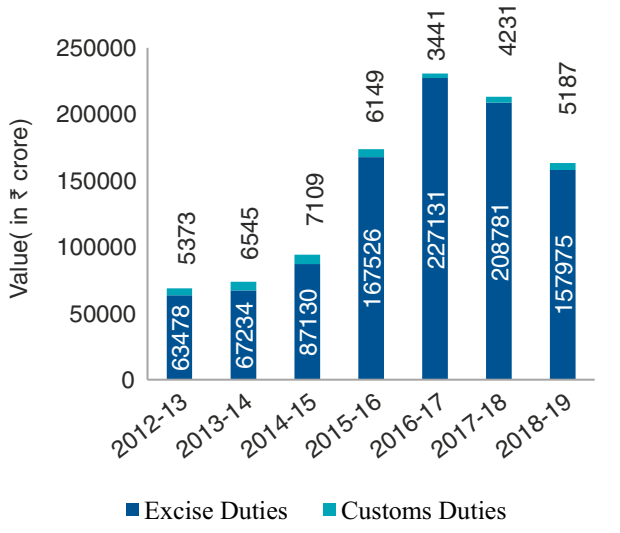
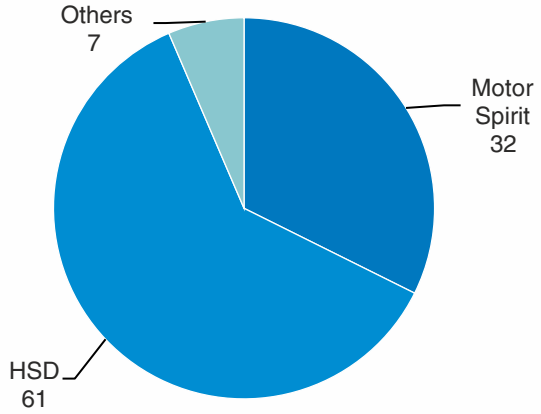


Figure VII.2: Product-wise Distribution of Excise duty during 2018-19 (%)



VII.2: Royalty and Oil Development Cess Paid by Oil Companies on Production of Crude Oil and Natural Gas (Cash Basis)

(in ₹ crore)

Year	Royalty on Crude Oil						Royalty on Natural Gas						Oil Development Cess3
	Western Region	Eastern Region	Southern Region	Central Region	Offshore	Total	Western Region	Eastern Region	Southern Region	Central Region	Offshore	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2012-13	10832	1432	233	0	2571	15068	125	156	183	40	1575	2078	14551
2013-14	12400	1621	210	0	2741	16971	132	174	198	49	1557	2112	14562
2014-15	11997	1219	225	0	3182	16623	164	203	168	70	1334	1938	14590
2015-16	7530	1445	355	0	2115	11446	180	228	172	92	1800	2471	14238
2016-17	5861	2938	304	0	3166	12269	141	165	138	82	1341	1867	12542
2017-18	6663	1709	269	0	3416	12057	164	148	127	101	1182	1722	13544
2018-19 (P)	**9899**	**2315**	**384**	**0**	**4365**	**16964**	**243**	**192**	**182**	**91**	**1656**	**2364**	**18984**

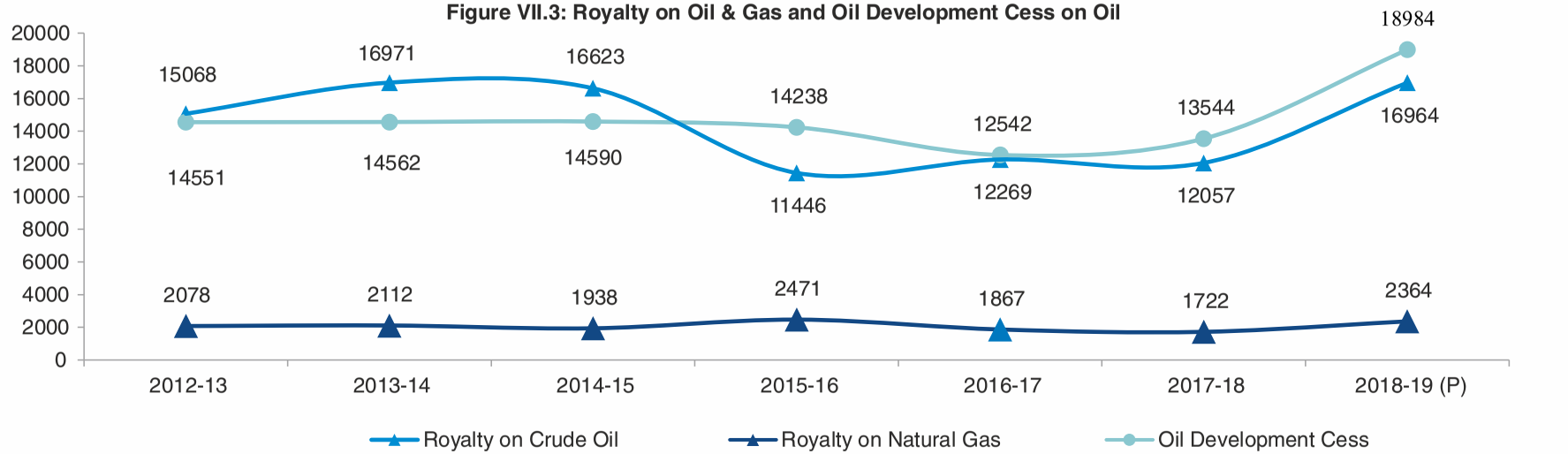
Note:

P: Provisional

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 from CAIRN & RIL and excludes other Pvt. Oil companies.

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

Figure VII.3: Royalty on Oil & Gas and Oil Development Cess on Oil



VII.3: Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Major Petroleum Products (as on 01.04.2019)

(Figures in Percentage)

State/U.T	Crude Oil	Natural Gas	MS (Petrol)
(1)	(2)	(3)	(4)
Andaman & Nicobar Islands	6.0%	10.0%	6.0%
Andhra Pradesh	5.0%	14.5%	31% + ₹ 2/-per litre
Arunachal Pradesh	4.0%	20.0%	16.20% w.e.f 05.10.2018
Assam	5.0%	14.5%	32.66% or ₹ 14.00/Ltr, Whichever is higher. (w.e.f 14.06.2017). Rebate of ₹ 2.5 / Ltr w.e.f 05.10.2018
Bihar	6.0%	20.0%	22.20% w.e.f 05.10.2018 (Surcharge 30% on tax)
Chandigarh	12.5%	5.0%	17.45% +(MST 10 Rs per kl)
Chhattisgarh	5.0%	25.0%	21% + ₹ 2 Per ltr
Delhi	5.0%	0.0%	27.0%
Goa	20.0%	12.5%	"15% (Sold by PSU OMC to Auth RO), others 20%"
Gujarat	4.00%, Add Tax-1.00% on TTO	15.0%	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	13.8%	4.0%	23.1%
Jammu & Kashmir	14.5%	21.0%	MST 24.00%, Rebate ₹ 2.5 per litre, CESS RS 5/- Per ltr
Jharkhand	5.0%	14.0%	22% on the sale price or ₹ 15.00 per litre , which ever is higher + Cess of ₹ 1.00 per Ltr. Rebate Available ₹ 2.50 Ltr. w.e.f 04.10.2018
Karnataka	0.0%	14.5%, PNG IS 5.5%	32.0%
Kerala	5.0%	14.5% w.e.f 18.07.2016	30.08%(w.e.f 01.06.18), Additional Sales Tax ₹ 1/- per litre, SSC 1% on total tax
Madhya Pradesh	5.0%	14.0%	28% + ₹ 1.50 per ltr Additional Tax + Cess 1% over Turnover inc VAT & Addl tax
Maharashtra	5.0%	13.5%	"Within Municipal Limits of Thane, Mumbai, Navi Mumbai, Solapur, Amravati, Nagpur Aurangabad, Nandurbar 26.00% + ₹7.12/ltr, Others 25% + ₹7.12/Ltr
Manipur	5.0%	13.5%	21.2% w.e.f 05.10.2018
Meghalaya	4.0%	14.5%	22%, Surcharge 2% on Tax (15.03.2016), Partial Exemption of ₹ 2.5 per Ltr w.e.f 10.10.18
Mizoram	5.0%	13.5%	20.0%
Nagaland	5.00%, surcharge on tax 5% (16.07.15)	5.00%, surcharge on tax 5% (16.07.15)	"20.38% (w.e.f 06.10.2018), Surcharge on tax 5%. Road Maintenance Cess ₹ 1.50/Ltr(w.e.f 12.12.2018)"
Odisha	5.0%	"15% 5% when used for Industrial Purpose, piped or Domestic use"	26.0%
Puducherry	0.0%	14.5%	21.2%

Contdd...

VII.3: Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Major Petroleum Products (Contd....) (as on 01.04.2019)

(Figures in Percentage)

State/U.T	Crude Oil	Natural Gas	MS (Petrol)
(1)	(2)	(3)	(4)
Punjab	13%, Surcharge on Tax 10%	13%, Surcharge on Tax 10%	20.11%, Surcharge on tax 10.00%, Cess ₹ 2050 per kl
Rajasthan	5.5%	5.5%	26.00%, Cess ₹ 1500/-per KL OMC 5.50%
Sikkim	4.5%	4.5%	25%, Cess ₹ 3000 per Kl, Sikkim Consumer Welfare Fund ₹ 100 per Kl w.e.f. 01.10.2016
Silvasa/Dadra Nagar Haveli	5.0%	12.5%	20.0%
Tamil Nadu	5.0%	5.0%	34.0%
Telangana	5.0%	14.5%	35.2%
Tripura	5.0%	15.5% & 3% Cess on urnover (Taxable Value+ VAT). TCess is w.e.f 29.12.2018	23.00% (w.e.f 29.12.2018) & 3% Cess on Turnover(Taxable Value +VAT) w.e.f. 29.12.2018
Uttar Pradesh	4.0%	W.e.f 14.11.2018- when sold to industrial unit for use in process of chemical fertilizer- 14.5% and for other cases- 10%	"23.78% or ₹ 14.41 per litre whichever is greater w.e.f. 05.10.2018."
Uttarakhand	5.0%	20%	"22.07% or ₹ 14.50 per litre whichever is greater "
West Bengal	5.0%	5.0%	25% or ₹ 13.12/Ltr whichever is higher, Cess ₹ 1000 per Kl, Additional Tax on tax 20%, Rebate Available ₹ 17/Kl. From 12.09.2018 till next 3 Months Exemption ₹ 1000 per KL (Intra State) Extended till 30.06.2019

Source:IOCL

VII.3: Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Major Petroleum Products (Contd....) (as on 01.04.2019)

(Figures in Percentage)

State/U.T	Diesel	ATF Domestic	ATF Bonded
(1)	(5)	(6)	(7)
Andaman & Nicobar Islands	6% (HSD for Ship @8%)	10.0%	NA
Andhra Pradesh	22.25% + ₹ 2/-per litre	1.0%	0.0%
Arunachal Pradesh	8.60%w.e.f 05.10.2018	20.0%	Nil
Assam	23.66% or ₹ 8.75/Ltr, Whichever is higher.(w.e.f.14.06.2017).Rebate of ₹ 2.5/Ltr w.e.f 05.10.2018	23.65%(w.e.f 14.06.2017)	Nil
Bihar	15.00% wef 05.10.2018 (Surcharge 30% on tax)	29.00% {ATF(Sch.Airlines):- 5% (29.07.2011)}	
Chandigarh	9.02% +(MST ₹ 10/- PER KL)	20.00% (MST:- ₹10/- PER KL)	20.00% (MST:- ₹10/- PER KL)
Chhattisgarh	21% + ₹ 1 Per ltr	4.0%	4.0%
Delhi	16.75% plus ₹ 250 per KL Air Ambience Cess	25.0%	0.0%
Goa	"15.00%"	18.0%	18.0%
Gujarat	17%, Cess-4% on Turnover	ATF duty paid:-30% & 5%	38.0%
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%	0.0%
Himachal Pradesh	11.6%	23.1% for defence and scheduled Airlines and 1% for non scheduled airlines	
Jammu & Kashmir	MST 16.00%, Rebate ₹ 2.5 per liter, Cess ₹ 1/- Per ltr	MST 26.25 %	MST 26.25%
Jharkhand	22% on the sale price or ₹ 8.37 per litre , which ever is higher + Cess of ₹ 1.00 per Ltr.Rebate Available ₹ 2.50 Ltr. W.e.f. 04.10.2018	4.00% {ATF(Sch.Airlines):-5.00%}	
Karnataka	21%, 4% for captive power, 1% for foreign going vessel	28.0%	0.0%
Kerala	22.76% (w.e.f 01.06.2018), Additional Sales Additional Sales Tax ₹ 1/- per litre, SSC 1% on total tax	"5%, , cess 1% on tax"	Nil
Madhya Pradesh	18% + Cess 1% over Turnover inc VAT	4% except for Indore & Bhopal. 25% @ Bhopal & Indore	
Maharashtra	"Within Municipal Limits of Thane, Mumbai, Navi Mumbai, Solapur, Amravati, Nagpur, Aurangabad, Nandurbar 24.00%, Othe ₹ 21% *Surchaged has been removed since 06.10.2018"	ATF - duty paid Mumbai Pune:- 25.00%, ATF - duty paid, except Mumbai Pune 5.00%	30.0%
Manipur	10.60%w.e.f 05.10.2018	20.0%	Nil
Meghalaya	13.50 %, Surcharge 2% on Tax. Partial Exemption of ₹ 2.5 per Ltr w.e.f 10.10.18	20.00% + 2% Surcharge	Nil

Contdd...

VII.3: Sales Tax Rates Applicable on Crude Oil, Natural Gas and Select Major Petroleum Products (Contd....) (as on 01.04.2019)

(Figures in Percentage)

State/U.T	Diesel	ATF Domestic	ATF Bonded
(1)	(5)	(6)	(7)
Mizoram	12.0%	20.0%	Nil
Nagaland	10.00%(w.e.f 06.10.2018), Surcharge on tax 5% . Road Maintenance Cess ₹ 1.50/Ltr (w.e.f 12.12.2018)	1%, Surcharge on tax 5%	Nil
Odisha	26.0%	5.0%	0.0%
Puducherry	17.2%	14.5%	5.0%
Punjab	11.8% for Normal and 13% for Branded Fuel. (SURCHARGE ON TAX:-10.00%), CESS - ₹ 1050 PER KL	13% ((4% wef 11.03.2015)for when sold at the Airport in Punjab to Scheduled & Non Scheduled Airlines carrying passenge ₹ ((SURCHARGE ON TAX:-10.00%))	
Rajasthan	18.00%, Cess ₹1750/-per KL OMC 5.50%	"A) 26% , B) 5.50% when airlines maintan 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"	26.0%
Sikkim	"17.5% to othe ₹& 12.5% for retaile ₹ in sikkim , Cess ₹ 2500 per Kl, Sikkim Consumer Welfare Fund ₹ 100 per Kl Effective from 01.10.2016"	1% w.e.f. 06.06.2018	NA
Silvasa/Dadra Nagar Haveli	15.0%	20.0%	20.0%
Tamil Nadu	25.0%	29.0%	5.0%
Telangana	27.0%	1.0%	0.0%
Tripura	15.50% (w.e.f 29.12.2018) & 3% Cess on Turnover (Taxable Value+VAT). w.e.f 29.12.2018.	18%. Changed to 16% w.e.f 19.11.2018	Nil
Uttar Pradesh	"W.e.f 05.10.2018- 14.05% or ₹ 8.43 per litre whichever is greater"	"21%, In case of sale to CIVIL aircrafts at Agra & Varanasi W.e.f 14.11.2018- 4%"	21.0%
Uttar Pradesh	13.53% or ₹ 8.40 per liter whichever is greater	"21%, In case of sale to CIVIL aircrafts at Agra & Varanasi W.e.f 14.11.2018- 4%"	20.0%
West Bengal	"13.53% or ₹ 8.40 per liter whichever is greater"	"25.00% + 20% Add. Tax on tax. For Bagdogra AFS- nil (No tax)"	NA

Source:IOCL

VII.4: GST Rates applicable on Select Petroleum Products (as on 01.04.2019)

(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 (for Bunker Fuel)	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

Source: Indian Oil Corporation Ltd.

VII.5: Central Excise and Customs Tariff (as on 01.04.2019)

(A) Non-GST Petroleum Products

Particulars	CUSTOMS TARIFF			CENTRAL EXCISE		
	Basic Customs Duty	Additional Customs Duty (CVD)	Additional Customs Duty	Basic Excise Duty	Special Additional Excise Duty	Additional Excise Duty (Road and infrastructure Cess)
Crude Oil	NIL + Rs. 50/MT as NCCD	Nil	-	Nil+ Cess @ 20% + Rs.50/ MT as NCCD	-	-
Petrol	2.50%	₹ 2.98/ltr. + ₹ 7.00/ ltr SAD	₹ 8.00/ltr.	₹ 2.98/ltr	₹ 7.00/ltr	Rs.8.00/ltr.
Petrol (branded)	2.50%	₹ 4.16/ltr. + ₹ 7.00/ ltr SAD	₹ 8.00/ltr.	₹ 4.16/ltr	₹ 7.00/ltr	Rs.8.00/ltr.
High Speed Diesel	2.50%	₹ 4.83/ltr+ ₹ 1.00/ ltr	₹ 8.00/ltr.	₹ 4.83/ltr	₹1.00/ltr	Rs.8.00/ltr.
High Speed Diesel (branded)	2.50%	₹ 7.19/ltr+ ₹ 1.00/ ltr	₹ 8.00/ltr.	₹ 7.19/Ltr	₹ 1.00/ltr	Rs.8.00/ltr.
Aviation Turbine Fuel2	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	5.00%	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 (excluding CVD in lieu of IGST).

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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Andhra Pradesh	11282	12604	8777	7806	8908	9694	10784
Arunachal Pradesh	39	54	56	54	62	67	49
Assam	1948	2160	2268	2163	2571	3109	3879
Bihar	2790	2931	2885	3638	4501	5482	6585
Chhattisgarh	1987	2397	2645	2617	3200	3684	3987
Goa	379	388	478	534	650	657	694
Gujarat	13572	14610	15879	14701	15958	15659	16229
Haryana	3964	4591	5112	5977	7000	7655	8286
Himachal Pradesh	182	204	234	263	317	344	364
Jammu & Kashmir	844	941	951	1004	1110	1329	1449
Jharkhand	1478	1825	2076	2476	2967	3225	2797
Karnataka	7215	7800	8668	8652	11103	13307	14417
Kerala	4515	5173	5378	6121	6899	7299	7995
Madhya Pradesh	5417	6232	6832	7631	9160	9380	9486
Maharashtra	17360	19141	19795	19417	23160	25611	27191
Manipur	82	102	116	115	117	162	181
Meghalaya	2	2	2	1	1	0	0
Mizoram	60	44	58	53	48	55	89
Nagaland	60	64	83	80	78	86	97
Odisha	2098	2519	2865	3027	4283	6871	5660
Punjab	3386	3852	4179	4907	5833	6134	6575
Rajasthan	6045	7396	8373	9211	10590	12094	12713
Sikkim	48	66	74	98	105	110	134
Tamilnadu	11379	12297	12316	11004	12563	15507	18141
Telangana	-	-	4527	6391	7552	8777	10037
Tripura	159	160	180	197	168	205	277
Uttar Pradesh	10344	11607	12578	14175	15849	17420	19167
Uttarakhand	825	1049	1157	1221	1414	1322	1595
West Bengal	4818	5510	5563	5870	6426	7042	7866
Andaman & Nicobar islands	0	0	0	41	0	51	92
Chandigarh	71	74	84	75	54	54	62
Dadra Nagar Haveli/ Daman & Diu	84	115	149	152	156	43	1
Delhi	2576	3108	2797	3158	3589	3944	4378
Lakshadweep	0	0	0	0	0	0	0
Puducherry	27	29	22	18	22	15	8
TOTAL	**115036**	**129045**	**137157**	**142848**	**166414**	**186394**	**201265**

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are zero.
P:Provisional

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 (P)
(1)	(2)	(3)
States		
Andhra Pradesh	195	296
Arunachal Pradesh	1	7
Assam	118	562
Bihar	93	165
Chhattisgarh	45	26
Goa	8	7
Gujarat	1791	3105
Haryana	427	722
Himachal Pradesh	29	23
J & K	38	22
Jharkhand	57	14
Karnataka	389	442
Kerala	178	205
Madhya Pradesh	98	136
Maharashtra	1082	1902
Manipur	2	0
Meghalaya	0	0
Mizoram	1	0
Nagaland	1	0
Odisha	59	104
Punjab	190	160
Rajasthan	122	255
Sikkim	3	2
Tamil Nadu	617	801
Telangana	175	160
Tripura	6	20
Uttar Pradesh	424	693
Uttarakhand	39	30
West Bengal	290	578
Union Territories		
Andaman & Nicobar Islands	1	0
Chandigarh	1	0
Dadra Nagar Haveli/ Daman & Diu	88	150
Delhi	128	77
Lakshadweep	0	0
Puducherry	17	21
Other territory (Offshore areas of India beyond 12 Nautical Miles)	8	10
TOTAL	**6721**	**10695**

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

Note:

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.

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

(Value in ₹ Crore)

State & UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sales Tax /VAT on Crude Oil							
Andhra Pradesh	39	38	45	31	25	14	48
Assam	496	479	440	473	462	578	720
Gujarat	276	102	237	418	487	549	748
Maharashtra	888	971	1114	1094	1197	1305	1582
Rajasthan	0.02	0.03	0.02	0.43	0.02	0.05	0.13
Tamil Nadu	52	55	47	31	33	43	75
VAT/Sales Tax	**1752**	**1645**	**1883**	**2046**	**2204**	**2488**	**3172**
Sales Tax /VAT on Natural Gas							
Andhra Pradesh	203	214	107	139	137	191	348
Arunachal Pradesh	0	0.39	0	0	0	0	0
Assam	137	156	195	246	189	178	238
Gujarat	1715	2084	2271	2131	1678	2084	2572
Haryana	126	127	144	104	93	114	147
Himachal Pradesh	0	0	14	0.37	0.40	0.38	1
J & K	0	0	68	0	0	0	0
Jharkhand	0.33	1	0.31	0.24	0.34	0.44	0.34
Kerala	0	11	0.17	0	11	148	8
Madhya Pradesh	220	229	201	195	133	121	162
Maharashtra	672	896	974	866	806	672	584
Odisha	0	0	0	0	0	0	0.29
Punjab	21	145	127	64	13	2	6
Rajasthan	95	94	116	126	123	147	233
Tamil Nadu	51	62	67	58	36	43	52
Telangana	0	0	3	5	5	5	5
Tripura	41	44	53	59	42	44	66
Uttar Pradesh	1245	1256	1379	1304	948	1263	1842
Uttarakhand	2	5	8	10	4	6	10
West Bengal	0.14	0.16	0.19	0.18	0.23	0.20	0.04
Chandigarh	0	0	60.12	0.00	0.04	0.03	0.14
Dadra Nagar Haveli	0	0	0	0	0	0	0.05
Daman & Diu	0	0	0	0	0	0.02	0.02
Delhi	11	17	19	16	12	11	12
VAT/Sales Tax	**4540**	**5344**	**5806**	**5325**	**4229**	**5030**	**6287**

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are zero. P: Provisional

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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
States							
Andhra Pradesh	3022	3371	2310	2196	2794	2827	3097
Arunachal Pradesh	9	11	10	18	9	23	15
Assam	254	285	304	489	610	797	973
Bihar	602	738	768	997	1146	1476	2006
Chhattisgarh	526	619	672	696	833	904	1033
Goa	7	1	36	150	158	201	223
Gujarat	1276	1369	1541	1382	1717	1703	1784
Haryana	1062	1145	1211	1420	1559	1747	1997
Himachal Pradesh	57	65	74	84	99	119	133
J & K	247	274	286	334	381	474	536
Jharkhand	358	413	449	640	752	805	858
Karnataka	2221	2571	2718	2842	3669	4443	4965
Kerala	1619	1855	1986	2493	2821	2998	3497
Madhya Pradesh	1253	1437	1603	1954	2360	2442	2714
Maharashtra	4763	5168	5445	5911	7302	9937	10249
Manipur	23	28	31	49	56	83	89
Meghalaya	0	0	0	0	0	0	0
Mizoram	9	11	11	25	22	26	37
Nagaland	12	13	19	36	38	45	48
Odisha	508	571	694	824	1019	1246	1447
Punjab	1309	1267	1426	1329	1462	1670	1886
Rajasthan	1571	1840	2062	2323	2563	2854	3066
Sikkim	14	18	22	26	28	31	37
Tamil Nadu	3315	3495	3748	3650	4098	5584	6528
Telangana	0	0	1389	2167	2355	2655	3213
Tripura	14	19	22	60	56	67	87
Uttar Pradesh	3037	3559	3846	4684	5390	6000	6354
Uttarakhand	318	378	403	458	526	546	690
West Bengal	981	1183	1196	1374	1514	1788	2010
Union Territories							
Andaman & Nicobar Islands	0	0	0	0	0	6	9
Chandigarh	11	10	17	20	16	20	21
Dadra Nagar Haveli	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	0	0	0
Delhi	1024	1391	1252	1440	1709	1766	1904
Puducherry	4	4	4	3	4	6	5
VAT/Sales Tax	**29426**	**33110**	**35554**	**40073**	**47068**	**55290**	**61514**

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are zero. 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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
States							
Andhra Pradesh	6789	7660	5333	4883	5144	5887	6498
Arunachal Pradesh	13	18	21	33	15	38	31
Assam	470	570	593	749	976	1261	1440
Bihar	1598	1676	1559	1967	2266	2769	3414
Chhattisgarh	1385	1694	1880	1723	1980	2229	2426
Goa	272	286	338	315	392	360	363
Gujarat	2134	2468	2915	2704	3157	3533	3628
Haryana	2286	2778	3115	3835	4497	4999	5463
Himachal Pradesh	64	76	95	125	164	188	206
J & K	332	401	404	436	497	622	670
Jharkhand	969	1290	1452	1462	1617	1763	1711
Karnataka	3507	4205	4757	4782	6186	7719	8218
Kerala	2260	2641	2765	3085	3400	3482	3977
Madhya Pradesh	2560	3131	3468	3687	4369	4278	4188
Maharashtra	7959	8180	9505	8999	10402	11430	12846
Manipur	23	31	36	54	51	70	78
Meghalaya	0	0	0	0	0	0	0
Mizoram	9	9	9	25	24	28	48
Nagaland	13	14	21	35	32	39	45
Odisha	1296	1626	2056	2025	2876	2940	3831
Punjab	1266	1378	1603	1780	2170	2470	2643
Rajasthan	3424	4298	4910	5011	5435	5899	6078
Sikkim	13	23	26	37	44	49	66
Tamil Nadu	6596	6872	7174	6223	6959	8620	10112
Telangana	0	0	2932	3970	4708	5449	6590
Tripura	15	20	25	69	63	74	85
Uttar Pradesh	5830	5870	6353	6907	7812	8651	9230
Uttarakhand	460	595	670	675	740	663	805
West Bengal	2272	2918	2765	3044	3160	3727	4372
Union Territories							
Andaman & Nicobar Islands	0	0	0	0	0	23	66
Chandigarh	2	3	4	10	8	10	12
Dadra Nagar Haveli	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	0	0	0
Delhi	526	768	809	1059	1133	1229	1236
Puducherry	4	5	5	3	3	3	3
VAT/Sales Tax	**54349**	**61505**	**67601**	**69710**	**80280**	**90503**	**100378**

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are zero. P: Provisional

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	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
States							
Andhra Pradesh	156	153	47	4	5	7	9
Arunachal Pradesh	1	1	0	0	0	5	2
Assam	112	144	136	95	122	143	225
Bihar	14	18	19	18	23	34	49
Chhattisgarh	5	6	4	1	4	7	0
Goa	10	49	47	33	51	54	78
Gujarat	128	148	130	79	135	155	237
Haryana	34	47	51	30	38	60	52
Himachal Pradesh	12	13	0	9	8	10	11
J & K	72	81	6	48	49	61	95
Jharkhand	13	5	6	4	6	8	10
Karnataka	354	368	315	207	201	347	388
Kerala	92	111	102	67	104	137	196
Madhya Pradesh	38	30	14	10	9	20	32
Maharashtra	820	857	797	598	610	721	860
Manipur	5	5	5	3	3	5	13
Meghalaya	0	0	0	0	0	0	0
Mizoram	2	0	2	1	1	1	3
Nagaland	2	3	2	3	3	1	0
Odisha	26	18	5	5	11	18	28
Punjab	43	30	0	15	31	36	54
Rajasthan	103	117	98	82	90	102	143
Sikkim	0	0	0	0	0	0	0
Tamil Nadu	278	289	224	133	173	224	342
Telangana	0	0	92	74	89	51	28
Tripura	8	4	4	4	4	7	12
Uttar Pradesh	151	153	131	110	118	156	211
Uttarakhand	2	2	1	2	5	11	17
West Bengal	272	223	156	97	138	180	211
Union Territories	0	0	0	0	0	0	0
Andaman & Nicobar Islands	0	0	0	0	0	11	16
Chandigarh	53	58	0	43	27	24	37
Dadra Nagar Haveli	0	0	0	0	0	0	0
Daman & Diu	1	2	1	1	1	1	2
Delhi	1156	933	776	556	702	860	1199
Puducherry	0	0	0	0	0	0	0
VAT/Sales Tax	**3961**	**3868**	**3170**	**2333**	**2761**	**3456**	**4561**

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are zero.
P: Provisional

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 1,06,733 as on 31.03.2019.
- Exploration & production vertical accounted for the highest manpower deployment (29.1%) followed by marketing (27.8%) and refinery (24.1%) as on 31.03.2019.
- Executive/Managerial categories employed the highest proportion of manpower (56.4%) followed by Workmen (30.2%), Supervisory (8.4%) and Clerical (4.9%) accounted for the balance as on 31.03.2019.
- ONGC and IOCL together accounted for over 60.5% of the total manpower employed in the oil & gas CPSEs as on 31.03.2019.

VIII.1: Sector-wise Manpower Employed in Oil & Gas CPSEs in India

(Figures in Number)

Sector	2013	2014	2015	2016	2017	2018	2019 (P)	% Share of Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Exploration & Production	31701	32388	32850	33455	33150	31823	31019	29.1
Refining	25988	25689	25233	24693	25038	25198	25690	24.1
Marketing	32732	32220	31094	31260	30698	29994	29657	27.8
Pipelines	4438	4985	5087	5384	5689	5869	6101	5.7
Research & Development	1943	2015	2126	2101	1986	1960	1898	1.8
Others	15969	15751	14329	13720	13492	13033	12368	11.6
Grand Total	**112771**	**113048**	**110719**	**110613**	**110053**	**107877**	**106733**	**100**

Note: P:Provisional

1.The figures are as on 31st March of each year.

2. Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower

3. Manpower of Biecco Lawrie is excluded for the year 2019.

Source: Central Public Sector Enterprises

VIII.2: Category-wise Manpower Employed in Oil & Gas CPSEs in India

(Figures in Number)

Category	2013	2014	2015	2016	2017	2018	2019 (P)	% Share of Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Executive/Managerial	59472	60571	59598	59707	59962	59890	60182	56.4
Supervisory	11162	10773	10407	10047	9988	9614	9008	8.4
Clerical	7684	7218	7036	5710	5392	5457	5275	4.9
Workmen	34453	34486	33678	35149	34711	32916	32268	30.2
Grand Total	**112771**	**113048**	**110719**	**110613**	**110053**	**107877**	**106733**	**100**

Note: P:Provisional

1.The figures are as on 31st March of each year.

2. Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower

3. Manpower of Biecco Lawrie is excluded for the year 2019.

Source: Central Public Sector Enterprises

Figure VIII.1: Sector-wise Manpower (in %) as on 31.03.2019

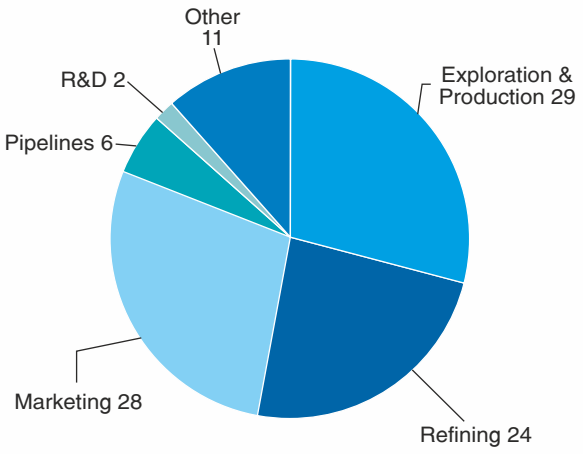
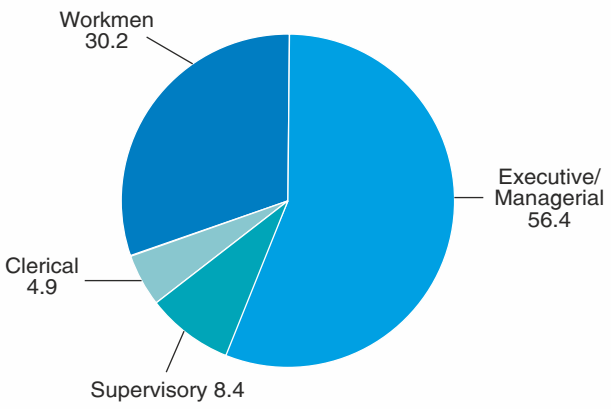


Figure VIII.2: Category-wise Manpower (in %) as on 31.03.2019



VIII.3: Category-wise and Sector-wise Manpower Employed in Selected Sectors of Oil & Gas CPSEs in India

(Figures in Number)

Category	2013	2014	2015	2016	2017	2018	2019 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.Exploration and Production							
1. Executive/Managerial	20991	20940	20785	20258	19394	18574	18128
2. Supervisory	2702	2540	2538	2321	2157	1947	1713
3. Clerical	349	330	475	545	574	550	541
4. Workman	7659	8578	9052	10331	11025	10752	10637
Total	**31701**	**32388**	**32850**	**33455**	**33150**	**31823**	**31019**
2. Refining							
1. Executive/Managerial	9918	10028	10080	10075	10410	10789	11084
2. Supervisory	3596	3491	3371	3144	2958	2809	2699
3. Clerical	1813	1645	1580	700	679	684	684
4. Workman	10661	10525	10202	10774	10991	10916	11223
Total	**25988**	**25689**	**25233**	**24693**	**25038**	**25198**	**25690**
3. Marketing							
1. Executive/Managerial	13993	14762	14642	15202	15805	16162	16730
2. Supervisory	3168	3113	3101	3193	3515	3540	3452
3. Clerical	3720	3521	3334	3233	2870	2625	2461
4. Workman	11851	10824	10017	9632	8508	7667	7014
Total	**32732**	**32220**	**31094**	**31260**	**30698**	**29994**	**29657**
4. Pipelines							
1. Executive/Managerial	-	-	-	3777	4081	4250	4485
2. Supervisory	-	-	-	207	222	265	232
3. Clerical	-	-	-	164	162	345	393
4. Workman	-	-	-	1236	1224	1009	991
Total	**4438**	**4985**	**5087**	**5384**	**5689**	**5869**	**6101**
5. Research & Development							
1. Executive/Managerial	-	-	-	1768	1672	1663	1633
2. Supervisory	-	-	-	101	91	84	67
3. Clerical	-	-	-	33	34	28	26
4. Workman	-	-	-	199	189	185	172
Total	**1943**	**2015**	**2126**	**2101**	**1986**	**1960**	**1898**
6. Others							
1. Executive/Managerial	-	-	-	8627	8600	8452	8122
2. Supervisory	-	-	-	1081	1045	969	845
3. Clerical	-	-	-	1035	1073	1225	1170
4. Workman	-	-	-	2977	2774	2387	2231
Total	**15969**	**15751**	**14329**	**13720**	**13492**	**13033**	**12368**
Grand Total	**112771**	**113048**	**110719**	**110613**	**110053**	**107877**	**106733**

Note: P:Provisional

1.The figures are as on 31st March of each year.

2. Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower

3. Manpower of Biecco Lawrie is excluded for the year 2019.

Source: Central Public Sector Enterprises

VIII.4: Gender-wise & Sector-wise Manpower Employed in Oil & Gas CPSEs as on 31.03.2019

(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	25745	3499	38	0	37	15	0	0	0	0	0	29334
2. Refining	195	0	0	13313	4190	2581	1581	1724	680	0	0	24264
3. Marketing	44	0	571	13920	6052	5540	18	87	77	0	26	26335
4. Pipelines	94	352	1656	3027	245	449	0	0	0	0	0	5823
5. Research & Development	894	42	13	369	80	61	9	4	0	16	47	1535
6. Others	1913	2786	1968	0	197	624	31	0	77	963	2365	10924
Total	**28885**	**6679**	**4246**	**30629**	**10801**	**9270**	**1639**	**1815**	**834**	**979**	**2438**	**98215**
% Male Manpower of Total	**93.0**	**94.1**	**93.7**	**91.4**	**90.6**	**90.5**	**95.0**	**93.4**	**95.3**	**91.6**	**88.1**	**92.0**
Female Employees												
1. Exploration & Production	1597	76	2	0	7	3	0	0	0	0	0	1685
2. Refining	9	0	0	806	235	167	68	120	21	0	0	1426
3. Marketing	4	0	47	1845	847	567	0	8	0	0	4	3322
4. Pipelines	3	19	71	146	3	36	0	0	0	0	0	278
5. Research & Development	241	9	2	72	15	12	6	0	0	1	5	363
6. Others	326	314	162	0	15	184	13	0	20	89	321	1444
Total	**2180**	**418**	**284**	**2869**	**1122**	**969**	**87**	**128**	**41**	**90**	**330**	**8518**
% Female Manpower of Total	**7.0**	**5.9**	**6.3**	**8.6**	**9.4**	**9.5**	**5.0**	**6.6**	**4.7**	**8.4**	**11.9**	**8.0**
Total Employees												
1. Exploration & Production	27342	3575	40	0	44	18	0	0	0	0	0	31019
2. Refining	204	0	0	14119	4425	2748	1649	1844	701	0	0	25690
3. Marketing	48	0	618	15765	6899	6107	18	95	77	0	30	29657
4. Pipelines	97	371	1727	3173	248	485	0	0	0	0	0	6101
5. Research & Development	1135	51	15	441	95	73	15	4	0	17	52	1898
6. Others	2239	3100	2130	0	212	808	44	0	97	1052	2686	12368
Total Manpower	**31065**	**7097**	**4530**	**33498**	**11923**	**10239**	**1726**	**1943**	**875**	**1069**	**2768**	**106733**
% Share of Total Manpower	**29.1**	**6.6**	**4.2**	**31.4**	**11.2**	**9.6**	**1.6**	**1.8**	**0.8**	**1.0**	**2.6**	**100.0**

Notes: Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower P:Provisional *:OVL's Manpower (310 employees) included in ONGC's Others

Source: Central Public Sector Enterprises

VIII.5: Gender-wise & Category-wise Manpower Employed in Oil & Gas CPSEs as on 31.03.2019

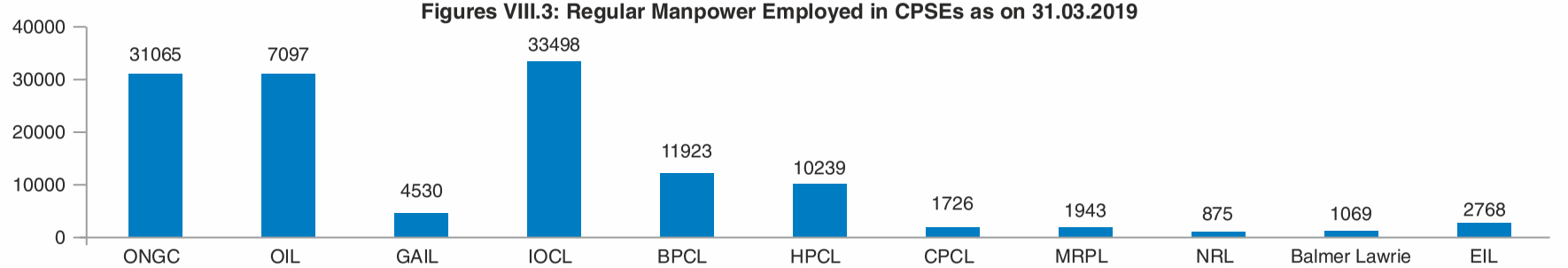
(Figures in Number)

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	18746	1455	3386	15881	5548	5467	201	840	422	418	2289	54653
2. Supervisory	1434	662	212	4763	0	0	600	115	0	188	53	8027
3. Clerical	375	503	596	632	825	914	32	0	31	62	95	4065
4. Workmen	8330	4059	52	9353	4428	2889	806	860	381	311	1	31470
Total	**28885**	**6679**	**4246**	**30629**	**10801**	**9270**	**1639**	**1815**	**834**	**979**	**2438**	**98215**
Female Employees												
1. Executive/Managerial	1513	194	246	1823	624	720	8	33	32	51	285	5529
2. Supervisory	81	46	12	740	0	0	46	0	0	24	32	981
3. Clerical	205	79	24	143	478	231	20	0	7	10	13	1210
4. Workmen	381	99	2	163	20	18	13	95	2	5	0	798
Total	**2180**	**418**	**284**	**2869**	**1122**	**969**	**87**	**128**	**41**	**90**	**330**	**8518**
Total Employees												
1. Executive/Managerial	20259	1649	3632	17704	6172	6187	209	873	454	469	2574	60182
2. Supervisory	1515	708	224	5503	0	0	646	115	0	212	85	9008
3. Clerical	580	582	620	775	1303	1145	52	0	38	72	108	5275
4. Workmen	8711	4158	54	9516	4448	2907	819	955	383	316	1	32268
Total	**31065**	**7097**	**4530**	**33498**	**11923**	**10239**	**1726**	**1943**	**875**	**1069**	**2768**	**106733**

Notes: Figures exclude 'Expatriates/Foreign Experts/on Contract' manpower P:Provisional *:OVL's Manpower (310 employees) included in ONGC's Others

Source: Central Public Sector Enterprises

Figures VIII.3: Regular Manpower Employed in CPSEs as on 31.03.2019



CHAPTER - IX

ENERGY

CHAPTER HIGHLIGHTS

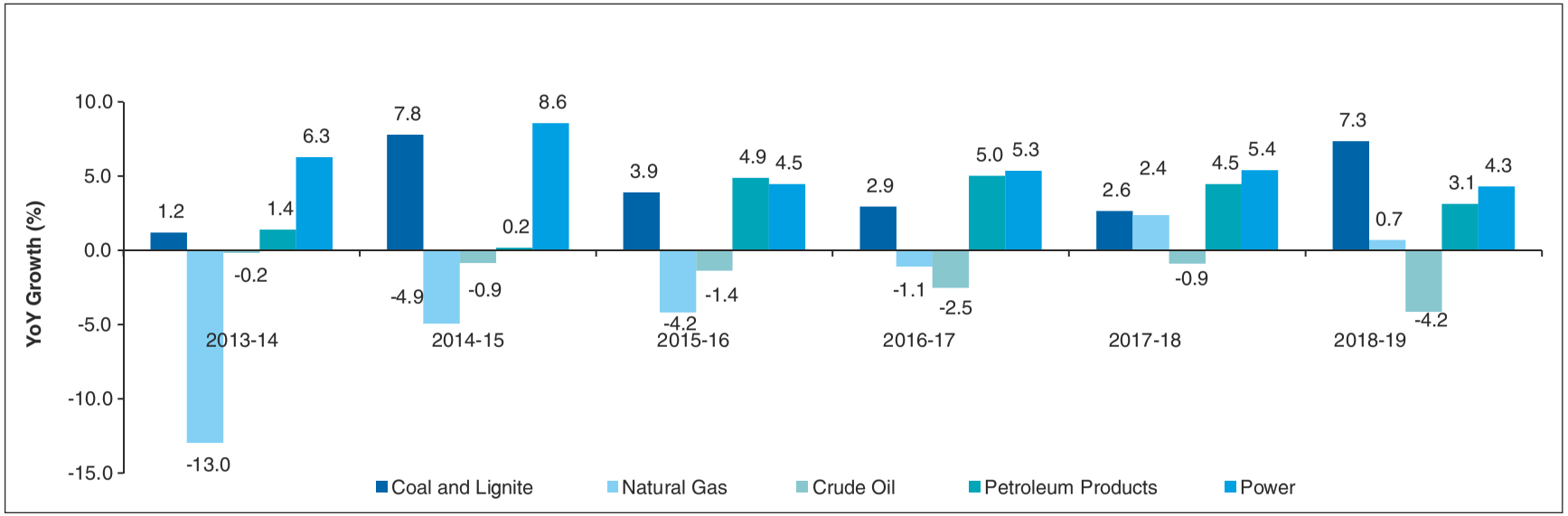
- Coal & Lignite production in the country during the year 2018-19 was 774.64 MMT as compared to 721.66 MMT in 2017-18, registering a growth of 7.3%.
- Gross Electricity Generation which increased from 1.547 Billion GWh in 2018-19 as compared to 1.483 Billion GWh in 2017-18, achieved a growth rate of 4.3%.
- Gross Value Added (at current prices) by petroleum and natural gas in economic activity was ₹ 3,05,914 crore in 2017-18 as compared to ₹ 2,89,763 crore in 2016-17, registering a growth of 5.6%.
- Gross Value Added [at constant prices (2011-12)] by petroleum and natural gas in economic activity was ₹ 3,71,031 crore in 2017-18 as compared to ₹ 3,73,069 crore in 2016-17, registering a negative growth of 0.5%.
- Contribution of petroleum and natural gas in total GVA at current prices showed a decrease from 2.1% in 2016-17 to 2% in 2017-18.
- Contribution of petroleum and natural gas in total GVA at constant prices (2011-12) showed a decrease from 3.3% in 2016-17 to 3.1% in 2017-18.

IX.1: Gross Production of Various Energy Sources in India

Year	Coal & Lignite			Hydro-Carbon			Power					
	Coal	Lignite	Total	Natural Gas	Crude Oil	Petroleum Products	Utilities				Non-Utilities	Gross Electricity Generation
							Thermal	Hydro	Nuclear	RES		
	(Million Tonnes)			(MMSCM)	(TMT)		(GWh)					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2012-13	556.40	46.45	602.85	40679	37862	217736	760454	113720	32866	57449	144010	1108499
2013-14	565.77	44.27	610.04	35407	37788	220756	792477	134848	34228	59615	156843	1178010
2014-15	609.18	48.27	657.45	33657	37461	221136	877941	129244	36102	73563	162057	1278907
2015-16	639.23	43.84	683.07	32249	36942	231923	943013	121377	37414	65781	168372	1335956
2016-17	657.87	45.23	703.10	31897	36009	243551	993516	122378	37916	81548	172046	1407404
2017-18	675.40	46.26	721.66	32649	35684	254405	1037146	126123	38346	101839	179777	1483232
2018-19	730.35	44.29	774.64	32873	34203	262361	1072311	134894	37813	126800	175000	1546817

P: Provisional

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



IX.2: Gross Value Added at Basic Prices by Economic Activity

(Value in ₹ Crore)

Sectors		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (P)	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)
		at Current Prices						at Constant Prices (2011-12)					
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.(a)	Petroleum & Natural Gas	111426	120334	116892	112110	115461	122084	101834	101298	112927	146481	158119	167457
(b)	Manufacture of coke and refined petroleum products	148584	168740	226152	196579	174301	183829	136011	142692	208277	242589	214950	203574
	Total	**260010**	**289074**	**343044**	**308689**	**289763**	**305914**	**237845**	**243990**	**321204**	**389071**	**373069**	**371031**
2.	Railways	72296	78724	92459	100451	106835	116024	69162	73685	80720	85452	82161	88533
3.	Transport by other means	388023	427352	481455	515790	568415	622981	360142	382631	409551	438458	464807	495182
4.	Storage	6165	6026	6407	7021	7377	8377	5715	5209	5529	6245	6062	6661
5.	Communication & Services related to broadcasting	142969	177804	206442	237281	246725	242159	134504	156030	176047	201243	203209	193418
6.	Electricity	168197	204852	220178	268059	271403	322841	148517	152873	163722	170139	185159	196865
7.	Gas	15652	16868	15560	14627	19071	21556	14269	14131	12832	13213	14143	14491
8.	Water Supply	17512	22062	28231	32116	40313	49598	15934	18343	22159	24030	28857	34274
9.	Other Utility Services	13989	16373	18289	20163	22681	29094	12915	14253	15334	16776	18332	22091
10.	GVA at basic prices	9202692	10363153	11504279	12574499	13935917	15482715	8546275	9063649	9712133	10491870	11318972	12104165
11.	Contribution of P& NG in total GVA at basic prices (%)	2.83	2.79	2.98	2.45	2.08	1.98	2.78	2.69	3.31	3.71	3.30	3.07
		Growth Rate (%)											
1.(a)	Petroleum & Natural Gas	17.94	7.99	-2.86	-4.09	2.99	5.74	7.79	-0.53	11.48	29.71	7.95	5.91
(b)	Manufacture of coke and refined petroleum products	89.37	13.57	34.02	-13.08	-11.33	5.47	73.35	4.91	45.96	16.47	-11.39	-5.29
	Total	**50.35**	**11.18**	**18.67**	**-10.01**	**-6.13**	**5.57**	**37.53**	**2.58**	**31.65**	**21.13**	**-4.11**	**-0.55**
2.	Railways	18.23	8.89	17.45	8.64	6.36	8.60	13.10	6.54	9.55	5.86	-3.85	7.76
3.	Transport by other means	15.02	10.14	12.66	7.13	10.20	9.60	6.76	6.24	7.04	7.06	6.01	6.53
4.	Storage	20.69	-2.25	6.32	9.58	5.07	13.56	11.88	-8.85	6.14	12.95	-2.93	9.88
5.	Communication & Services related to broadcasting	13.53	24.37	16.11	14.94	3.98	-1.85	6.81	16.00	12.83	14.31	0.98	-4.82
6.	Electricity	15.84	21.79	7.48	21.75	1.25	18.95	2.29	2.93	7.10	3.92	8.83	6.32
7.	Gas	6.72	7.77	-7.75	-6.00	30.38	13.03	-2.71	-0.97	-9.19	2.97	7.04	2.46
8.	Water Supply	19.04	25.98	27.96	13.76	25.52	23.03	8.32	15.12	20.80	8.44	20.09	18.77
9.	Other Utility Services	15.63	17.04	11.70	10.25	12.49	28.27	6.75	10.36	7.58	9.41	9.28	20.51
10.	GVA at basic prices	13.52	12.61	11.01	9.30	10.83	11.10	5.42	6.05	7.15	8.03	7.88	6.94

P: Provisional,
Source: National Statistical Office, MoSPI

IX.3 Petroleum Energy in India

Products	2012	2013	2014	2015	2016	2017	2018 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Availability							
In Original Units (Million Tonnes)							
Kerosene	8.09	7.45	7.62	7.46	6.53	4.62	4.16
ATF	5.39	5.49	5.72	6.10	6.77	7.53	8.30
Diesel	68.94	67.49	69.38	73.71	76.31	78.99	82.70
Fuel Oils	10.32	8.84	8.17	8.07	8.99	8.03	8.88
Others[1]	45.13	47.84	51.49	56.48	62.21	68.81	70.98
Total	**137.87**	**137.10**	**142.37**	**151.83**	**160.81**	**167.98**	**175.01**
In Million Tonnes of Coal Equivalent Unit[2]							
Kerosene	16.18	14.90	15.24	14.92	13.06	9.24	8.32
ATF	10.78	10.98	11.44	12.20	13.54	15.06	16.60
Diesel	137.88	134.98	138.76	147.42	152.62	157.98	165.40
Fuel Oils	20.64	17.68	16.34	16.14	17.98	16.06	17.76
Others[1]	90.26	95.68	102.98	112.96	124.42	137.62	141.96
Total	**275.74**	**274.22**	**284.76**	**303.64**	**321.62**	**335.96**	**350.04**
In Million Tonnes of Coal Replacement Unit[2]							
Kerosene	64.72	59.60	60.96	59.68	52.24	36.96	33.28
ATF	40.43	41.18	42.90	45.75	50.78	56.48	62.25
Diesel	620.46	607.41	624.42	663.39	686.79	710.91	744.30
Fuel Oils	20.64	17.68	16.34	16.14	17.98	16.06	17.76
Others[1]	126.37	126.37	126.37	126.37	126.37	126.37	126.37
Total	**872.62**	**852.24**	**870.99**	**911.33**	**934.16**	**946.78**	**983.96**
Consumption[3]							
In Original Units (Million Tonnes)							
Kerosene	7.65	7.25	7.13	6.89	5.93	4.09	3.54
ATF	5.32	5.45	5.68	6.10	6.81	7.45	8.21
Diesel	69.02	69.03	69.38	73.07	77.20	79.77	83.38
Fuel Oils	8.09	6.43	5.88	6.23	7.50	6.71	6.52
Others[1]	49.35	50.30	53.59	58.48	65.09	69.25	73.23
Total	**139.42**	**138.46**	**141.65**	**150.75**	**162.52**	**167.26**	**174.88**
In Million Tonnes of Coal Equivalent Unit[2]							
Kerosene	15.31	14.50	14.25	13.77	11.86	8.17	7.08
ATF	10.64	10.90	11.36	12.19	13.61	14.89	16.41
Diesel	138.03	138.05	138.75	146.14	154.39	159.55	166.76
Fuel Oils	16.18	12.87	11.76	12.45	14.99	13.42	13.05
Others[1]	98.69	100.61	107.18	116.96	130.18	138.49	146.46
Total	**278.85**	**276.92**	**283.30**	**301.51**	**325.03**	**334.52**	**349.75**
In Million Tonnes of Coal Replacement Unit[2]							
Kerosene	61.24	58.00	57.01	55.09	47.45	32.69	28.32
ATF	39.88	40.87	42.58	45.71	51.04	55.85	61.54
Diesel	621.14	621.23	624.38	657.61	694.78	717.97	750.41
Fuel Oils	16.18	12.87	11.76	12.45	14.99	13.42	13.05
Others[1]	128.94	128.94	128.94	128.94	128.94	128.94	128.94
Total	**867.38**	**861.90**	**864.68**	**899.81**	**937.19**	**948.87**	**982.26**

Note: P: Provisional

1. Others excludes Naphtha, Lube, Bitumen, Petroleum coke, Paraffin wax & other petroleum products and includes LPG, Gasoline, Refinery Boiler Fuel.
2. Based on conversion factors adopted by FPC, 1974
3. Includes Petroleum Products used for power generation.

Source: Oil Companies

IX.4 Petroleum Energy in India

Products	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(P)	2018-19 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Availability							
In Original Units (Million Tonnes)							
Kerosene	7.74	7.40	7.57	7.53	6.03	4.39	4.05
ATF	5.42	5.48	5.58	6.10	6.90	7.71	8.38
Diesel	69.86	67.79	69.35	75.16	76.82	80.10	83.95
Fuel Oils	10.17	8.58	8.06	8.09	8.64	8.17	9.21
Others[1]	47.88	49.50	52.22	57.62	63.83	68.49	72.84
Total	**141.08**	**138.75**	**142.78**	**154.51**	**162.21**	**168.86**	**178.44**
In Million Tonnes of Coal Equivalent Unit[2]							
Kerosene	15.48	14.80	15.14	15.06	12.06	8.78	8.10
ATF	10.84	10.96	11.16	12.20	13.80	15.42	16.76
Diesel	139.72	135.58	138.70	150.32	153.64	160.20	167.90
Fuel Oils	20.34	17.16	16.12	16.18	17.28	16.34	18.42
Others[1]	95.76	99.00	104.44	115.24	127.66	136.98	145.68
Total	**282.14**	**277.50**	**285.56**	**309.00**	**324.44**	**337.72**	**356.86**
In Million Tonnes of Coal Replacement Unit[2]							
Kerosene	61.92	59.20	60.56	60.24	48.24	35.12	32.40
ATF	40.65	41.10	41.85	45.75	51.75	57.83	62.85
Diesel	628.74	610.11	624.15	676.44	691.38	720.90	755.55
Fuel Oils	20.34	17.16	16.12	16.18	17.28	16.34	18.42
Others[1]	124.74	124.74	124.74	124.74	124.74	124.74	124.74
Total	**876.39**	**852.31**	**867.42**	**923.35**	**933.39**	**954.93**	**993.96**
Consumption[3]							
In Original Units (Million Tonnes)							
Kerosene	7.50	7.16	7.09	6.83	5.40	3.85	3.46
ATF	5.27	5.50	5.72	6.26	7.00	7.63	8.30
Diesel	69.48	68.75	69.78	75.05	76.48	81.60	84.13
Fuel Oils	7.66	6.24	5.96	6.63	7.15	6.72	6.56
Others[1]	49.69	51.29	54.74	60.24	65.44	57.40	74.65
Total	**139.60**	**138.94**	**143.30**	**155.02**	**161.46**	**157.19**	**177.10**
In Million Tonnes of Coal Equivalent Unit[2]							
Kerosene	15.00	14.33	14.17	13.65	10.79	7.69	6.92
ATF	10.54	11.01	11.45	12.52	14.00	15.27	16.60
Diesel	138.96	137.50	139.56	150.11	152.95	163.19	168.25
Fuel Oils	15.31	12.47	11.92	13.26	14.30	13.44	13.13
Others1	99.38	102.58	109.49	120.49	130.89	114.79	149.29
Total	**279.20**	**277.89**	**286.59**	**310.03**	**322.93**	**314.38**	**354.19**
In Million Tonnes of Coal Replacement Unit[2]							
Kerosene	60.01	57.32	56.69	54.61	43.17	30.76	27.68
ATF	39.53	41.28	42.92	46.96	52.48	57.25	62.25
Diesel	625.31	618.75	628.03	675.49	688.28	734.37	757.13
Fuel Oils	15.31	12.47	11.92	13.26	14.30	13.44	13.13
Others[1]	132.95	132.95	132.95	132.95	132.95	132.95	132.95
Total	**873.11**	**862.77**	**872.52**	**923.27**	**931.18**	**968.77**	**993.14**

Note: P: Provisional

1. Others excludes Naphtha, Lube, Bitumen, Petroleum coke, Paraffin wax & other petroleum products and includes LPG, Gasoline, Refinery Boiler Fuel.
2. Based on conversion factors adopted by FPC, 1974
3. Includes Petroleum Products used for power generation.

Source: Oil Companies

CHAPTER - X

CPSEs: KEY FINANCIALS INDICATORS

CHAPTER HIGHLIGHTS

- Total budgeted Internal and Extra Budgetary Resources (IEBR) for CPSE's under the Ministry of Petroleum and Natural gas sector was at ₹ 93639.30 crore in 2019-20, BE is 4.82 % higher than IEBR budgeted for the year 2018-19 (₹ 89335.09 crore).
- The dividend paid (payment-basis) by Oil & gas CPSEs under the Ministry of Petroleum and Natural Gas, to the Central Government of India for the year 2018-19 (₹15,525 crore) is 6.5% higher than the dividend paid in 2017-18 (₹ 14,576 crore).
- Total dividend paid to the total stakeholders by Oil & Gas CPSEs is ₹ 30,323 crore for the year 2018-19. IOCL paid the highest dividend (₹ 9,910 crore) followed by ONGC (₹ 9,595 crore) and BPCL (₹ 3,905 crore) for the year 2018-19.
- Net Profit earned by CPSEs during the year 2018-19 was ₹ 69,714 crore which was higher marginally (0.2%) than 2017-18 (₹ 69,562 crore). ONGC earned highest profit (₹ 26,716 crore) followed by IOCL (₹ 16,894 crore) and BPCL (₹ 7,132 crore).

X.1 Budget Outlay & Actual Expenditure of CPSEs under the Ministry of Petroleum and Natural Gas

(in ₹ crore)

CPSEs	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19		2019-20
	Actual	Actual	Actual	Actual	Actual	BE	Actual	BE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Internal & Extra Budget Resources (I&EBR)								
ONGC	32469.54	29997.46	30110.43	28006.41	72901.58	32077.12	29449.84	32920.85
OVL	35357.00	7171.55	6782.96	17616.99	6797.98	5886.00	5827.13	5161.00
IOCL	16660.61	14313.68	11484.74	20736.93	21457.20	22862.34	28207.77	25083.52
GAIL 2	4069.78	1632.18	1511.75	1814.05	3680.46	4722.00	7142.65	5339.00
HPCL3	2641.87	2669.61	1430.09	5757.26	7209.72	8425.00	12437.87	9500.00
OIL	9350.97	3773.76	3622.25	11083.24	8154.44	4299.99	3180.81	4105.20
BPCL 4	4373.58	6874.75	8287.00	16948.55	8997.76	7400.00	10992.80	7900.00
CPCL	228.60	465.90	1272.00	1269.11	1020.32	1010.00	1313.60	1105.00
MRPL	1448.74	2747.36	1502.03	616.40	1281.31	744.00	1072.32	818.00
NRL 1	372.14	102.77	70.27	503.35	419.93	428.00	464.81	455.00
EIL	0.00	0.00	0.00	0.00	0.00	1355.64	87.00	1211.73
BALMER LAWRIE	119.55	79.79	45.37	73.75	83.18	125.00	132.10	40.00
Total (I&EBR)	**107092.38**	**69828.81**	**66118.89**	**104426.04**	**132003.88**	**89335.09**	**100308.70**	**93639.30**
Gross Budgetary Support Schemes (GBS)								
Rajiv Gandhi Instt. of Petroleum Technology (RGIPT)	0.00	0.00	48.00	100.00	121.75	0.00	0.00	0.00
Strategic Storage Programme for Storage of Crude Oil by ISPRL	0.00	0.00	1153.00	2001.00	1121.28	700.00	608.14	1.00
ISPRL Phase-II (Construction of caverns)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Indian Institute of Petroleum Energy (Petroleum University in Andhra Pradesh	0.00	0.00	0.00	32.00	1.00	0.00	24.00	31.82
Scheme for LPG Connection to Poor Households -PMUY (Ujjwala)	0.00	0.00	0.00	2500.00	2251.81	3200.00	3200.00	2724.00
Establishment of RGIPT Centre, Assam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Establishment of Centre of Excellence for Energy, Bangalore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Total (GBS)	**0.00**	**0.00**	**1201.00**	**4633.00**	**3495.84**	**3901.00**	**3832.14**	**2759.82**

Note: OVL 100% subsidiary of ONGC, CPCL subsidiary of IOCL, MRPL subsidiary of ONGC and NRL is Subsidiary of BPCL.

1. 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.

2. IEBR of GAIL ₹ 5339 crore excludes Budgetary support (VGF) of ₹ 1512 crore proposed for Jagdishpur Haldia-Bokaro Dhamra Pipeline during 2018-19.

3. For HPCL, IEBR of ₹9500 crore includes ₹ 500 crore of HRRL a subsidiary of HPCL for the year 2018-19.

4. For BPCL, BE 2019-20 of ₹ 7900 crore includes CAPEX of ₹ 800 crore of BPRL, a subsidiary of BPCL for the year 2018-19.

Source: Ministry of Petroleum and Natural Gas

X.2: Performance of CPSEs under the Ministry of Petroleum and Natural Gas during 2018-19

Performance Parameters	Unit	ONGC	OVL[1]	IOCL[2]	GAIL	HPCL[3]	OIL[4]	BPCL[5]	CPCL	MRPL	NRL[6]	EIL	Balmer Lawrie[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Authorised Capital	₹ crore	15000	25000	15000	5000	2500	2000	2635	400	3000	1000	400	300
2. Paid up Capital	₹ crore	6290	15000	9414	2255	1524	1084	1967	149	1753	736	316	114
3. Govt. equity in the CPSE	%	64	Nil	52	52	-	62	53	Nil	Nil	Nil	52	Nil
4. Gross Turnover	₹ crore	109655	17577	608379	75127	295713	13735	336384	52177	72315	18511	2444	1857
5. PAT	₹ crore	26716	1682	16894	6026	6029	2590	7132	-213	332	1968	370	189
6. Debt equity ratio	Ratio	0.11	0.87	0.79	0.03	0.97	0.50	0.79	2.01	0.39	0.01	-	0.01
7. Reserves & Surpluses	₹ crore	196702	33754	99476	36807	26651	26661	34771	3161	8974	4815	1960	1186
8. Net worth	₹ crore	202993	48754	92424	39062	28175	22967	36738	3310	10727	5551	2276	1300
9. Dividend Payable (Accrual)	₹ crore	8806	510	8909	1809	2423	1155	4122	Nil	175	1251	253	125
10. Dividend as a %age of Equity	%	140	3	95	80	159	**	11	Nil	10	170	80	110
11. Dividend as a %age of PAT	%	33	30	53	30	40	45	58	Nil	53	64	68	67
12. EPS	₹	21	11	18	27	40	23	36	-14	2	27	6	17
13. Payout Ratio (9/5)	%	33	30	53	30	40	45	58	Nil	53	64	68	67
14. Total outstanding loan	₹ crore	21594	42200	86359	1000	27240	11524	29099	6668	9131	38	-	14

Note:

1. 100% subsidiary of ONGC. Gross Turnover includes gross sales, other operating Income and Share of profit of equity accounted investees, net of tax. Profit & loss for the period attributable to Owners of the Company.
2. Paid up share capital is gross of treasury shares. Debt equity ratio is computed as Total Borrowings divided by Total Equity as appearing in the face of Balance Sheet. Payout ratio including Dividend Distribution Tax is 63.29%.
3. On January 31, 2018, based on the Share Purchase agreement (SPA) entered into between Government of India and Oil and Natural Gas Corporation Limited, 51.11% Equity Shares in the Paid up Capital of Hindustan Petroleum Corporation Limited (HPCL) have been acquired by Oil and Natural Gas Corporation Limited.
4. **: Interim Dividend for FY 2018-19 paid in February, 2019 was 85% of pre buy back share capital of ₹ 1134.90 crore and Final Dividend of FY 2018-19 likely to be paid in August, 2019 is 17.5% on post buy back share capital of ₹ 1084.41 crore. Buy back transaction was completed in March, 2019.
5. Paid up capital has been computed after adjusting treasury shares held by BPCL trust having face value of ₹ 202.37 crore.
6. For FY 2018-19, Interim dividend of ₹ 1029.88 Crs was paid in FY 2018-19 and Final dividend of ₹ 220.69 Crs for the year has been proposed by the Board for approval of the shareholders.
7. There is no direct holding by Govt. of India in BL. Balmer Lawrie Investments Ltd . (BLIL), a Govt. Company holds 61.8% of equity shares in BL. President of India holds 59.67% in BLIL.

Source: Central Public Sector Enterprises

X.3: Dividend Paid (Payment-Basis) by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of Company	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corp. Ltd.	**9411**	**8341**	**7914**	**4919**	**9518**	**7764**	**9595**
on which							
Dividend to Central Government of India	6515	5764	5456	3391	6544	5275	6290
Dividend to other Stakeholder	2896	2577	2458	1528	2974	2489	3305
ONGC Videsh Ltd.	**-**	**-**	**-**	**-**	**-**	**210**	**300**
on which							
Dividend to other Stakeholder1	0	0	0	0	0	210	300
Indian Oil Corp. Ltd.	**1214**	**1505**	**2112**	**2938**	**10804**	**9712**	**9910**
on which							
Dividend to Central Government of India	958	1188	1449	1721	6231	5535	5383
Dividend to State Government	1	2	2	3	12	11	11
Dividend to other Stakeholder	255	316	661	1214	4561	4166	4516
GAIL India Ltd.	**1230**	**1281**	**1129**	**698**	**1459**	**1751**	**1734**
on which							
Dividend to Central Government of India	706	735	633	391	804	942	920
Dividend to other Stakeholder	525	547	495	306	655	809	814
Hindustan Petroleum Corp. Ltd.	**288**	**288**	**525**	**1456**	**3478**	**2321**	**1371**
on which							
Dividend to Central Government of India	147	147	268	744	1778	57	0
Dividend to other Stakeholder2	141	141	257	712	1700	2264	1371
Oil India Ltd.	**1683**	**1683**	**631**	**1082**	**1242**	**1419**	**1078**
on which							
Dividend to Central Government of India	1248	1147	427	732	835	938	685
Dividend to other Stakeholder	435	536	204	350	408	480	393
Bharat Petroleum Corp. Ltd.	**398**	**795**	**1229**	**2784**	**5640**	**3182**	**3905**
on which							
Dividend to Central Government of India	218	437	675	1529	3098	1729	2091
Dividend to State Government	3	7	11	24	49	27	34
Dividend to other Stakeholder	176	352	543	1231	2493	1425	1780
Chennai Petroleum Corp. Ltd.	**30**	**0**	**0**	**0**	**60**	**313**	**275**
on which							
Dividend to Central Government of India	0	0	0	0	0	0	0
Dividend to other Stakeholder	30	0	0	0	60	313	275
Mangalore Refinery & Petrochemicals Ltd.	**175**	**0**	**0**	**0**	**0**	**1052**	**526**
on which							
Dividend to other Stakeholder	175	0	0	0	0	1052	526
Numaligarh Refinery Ltd.	**74**	**74**	**118**	**552**	**993**	**1810**	**1214**
on which							
Dividend to State Government	9	9	15	68	123	223	150
Dividend to other Stakeholder	64	64	103	484	870	1586	1064
Engineers India Ltd.	**236**	**219**	**202**	**135**	**236**	**190**	**300**
on which							
Dividend to Central Government of India	190	163	140	87	136	99	156
Dividend to other Stakeholder	46	56	62	48	100	90	144
Balmer Lawrie Ltd.	**46**	**50**	**51**	**51**	**57**	**80**	**114**
on which							
Dividend to other Stakeholder	46	50	51	51	57	80	114
Total Dividend Paid3	**14784**	**14237**	**13912**	**14614**	**33487**	**29801**	**30323**
on which							
Dividend to Central Government of India	9982	9581	9049	8595	19425	14576	15525
Dividend to State Government	14	18	27	95	183	262	195
Dividend to other Stakeholder	4788	4638	4836	5924	13878	14964	14603
Tax on Dividend	**2367**	**2406**	**2605**	**2891**	**6682**	**5369**	**5783**
Total Dividend Paid incl. Dividend on Tax	**17151**	**16643**	**16517**	**17506**	**40169**	**35170**	**36106**

Note: Total may not tally due to round-off

1.100% subsidiary of ONGC.

2. On January 31, 2018, based on the Share Purchase agreement (SPA) entered into between Government of India and Oil and Natural Gas Corporation Limited, 51.11% Equity Shares in the Paid up Capital of Hindustan Petroleum Corporation Limited (HPCL) have been acquired by Oil and Natural Gas Corporation Limited. Hence Dividend for FY 18-19 is paid/payable to ONGC.

3. Dividend paid excludes Dividend Distribution Tax.

Source: Central Public Sector Enterprises

X.4 Dividend Payable (Accrual-Basis) by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of Company	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corp. Ltd.	8128	8128	8128	7272	7764	8470	8806
ONGC Videsh Ltd.	-	-	-	-	210	300	510
Indian Oil Corp. Ltd.	1505	2112	1602	3399	9226	11169	8909
GAIL India Ltd.	1218	1319	761	698	1535	1619	1809
Hindustan Petroleum Corp. Ltd.	288	525	830	1168	3048	2590	2423
Oil India Ltd.	1803	1292	1202	962	1121	1173	1155
Bharat Petroleum Corp. Ltd.	795	1229	1627	2242	4700	4555	4122
Chennai Petroleum Corp. Ltd.	0	0	0	60	313	275	0
Mangalore Refinery & Petrochemicals Ltd.	0	0	0	0	1052	526	175
Numaligarh Refinery Ltd.	74	118	294	515	1368	1361	1251
Engineers India Ltd.	202	219	168	135	200	253	253
Balmer Lawrie Ltd.	59	60	62	69	97	138	125
Total	**14072**	**15003**	**14675**	**16519**	**30633**	**32429**	**29537**

Note: Total may not tally due to round off

Source: Central Public Sector Enterprises

X.5 Profit Earned After Tax by CPSEs under the Ministry of Petroleum and Natural Gas

(Value in ₹ crore)

Name of CPSEs	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corporation Ltd.	20926	22095	17733	16004	17900	19945	26716
ONGC (Videsh) Ltd.	3929	4445	1904	-3633	757	981	1682
Indian Oil Corporation Ltd.	5005	7019	5273	11242	19106	21346	16894
GAIL (India) Ltd.	4022	4375	3039	2226	3503	4618	6026
Hindustan Petroleum Corporation Ltd.	905	1734	2733	3726	6209	6357	6029
Oil India Ltd.	3589	2981	2510	2302	1549	2668	2590
Bharat Petroleum Corporation Ltd.	2643	4061	5085	7432	8039	7919	7132
Chennai Petroleum Corporation Ltd.	-1767	-304	-39	742	1030	913	-213
Mangalore Refinery & Petrochemicals Ltd.	-757	601	-1712	1148	3644	2224	332
Numaligarh Refineries Ltd.	144	371	718	1210	2101	2045	1968
Engineers India Ltd.	629	480	308	276	325	378	370
Balmer Lawrie Ltd.	163	157	147	164	170	185	189
Biecco Lawrie Ltd.	-12	-14	-14	-17	-13	-18	-
Total	**39419**	**48001**	**37686**	**42823**	**64320**	**69562**	**69714**

Note: Total may not tally due to round off

Source: Central Public Sector Enterprises

X.6 Tax on Dividend Paid by CPSEs under the Ministry of Petroleum and Natural Gas

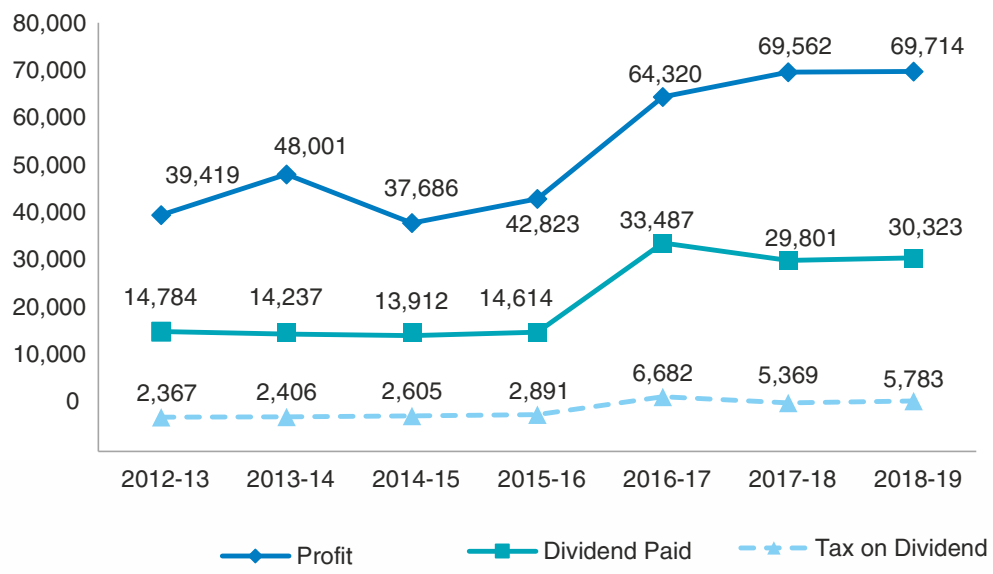
(Value in ₹ crore)

Name of CPSEs	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Oil & Natural Gas Corporation Ltd.	1502	1397	1576	1000	1935	1152	1684
ONGC (Videsh) Ltd.	-	-	-	-	43	62	105
Indian Oil Corporation Ltd.	194	256	359	586	2177	1921	1985
GAIL (India) Ltd.	203	224	154	142	295	353	356
Hindustan Petroleum Corporation Ltd.	47	49	89	296	708	473	282
Oil India Ltd.	273	287	125	220	253	289	222
Bharat Petroleum Corporation Ltd.	57	127	197	497	998	420	648
Chennai Petroleum Corporation Ltd.	5	0	0	0	12	64	57
Mangalore Refinery & Petrochemicals Ltd.	28	0	0	0	0	214	108
Numaligarh Refineries Ltd.	13	20	60	112	202	368	250
Engineers India Ltd.	38	37	37	27	47	37	60
Balmer Lawrie Ltd.	7	9	9	11	12	17	27
Biecco Lawrie Ltd.	0	0	0	0	0	0	-
Total	**2367**	**2406**	**2605**	**2891**	**6682**	**5369**	**5783**

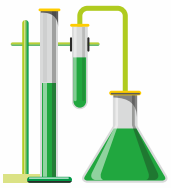
Note: Total may not tally due to round off

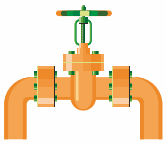
Source: Central Public Sector Enterprises

Figure X.1: Profit, Dividend paid (Cash) and Tax on Dividend paid by Oil CPSEs



CHAPTER - XI





INTERNATIONAL STATISTICS

CHAPTER HIGHLIGHTS

- World's Proven Crude Oil reserves at end of 2018 are 1729.7 Thousand Million Barrels. Middle East with reserves of 836.1 Thousand Million Barrels has the highest share (48.3%), followed by Central & South America (18.8%). Asia Pacific region constitute a mere 2.8% of the total basket.
- World's Proven Natural gas reserves at end of 2018 are 196.9 Trillion cubic metres. Middle East with reserves of 75.5 Trillion cubic metres of Natural Gas has the highest share region wise (38.4%).
- World Production of Crude Oil was 4474.3 Million Tonnes during 2018, which is 2.2% higher than the Crude Oil production in 2017 (4379.9 Million Tonnes).
- United States had the largest share in crude oil production with 669.4 million tonnes (15%) of total world's oil production in 2018, followed by Saudi Arabia (578.3 MMT), Russia (563.3 MMT) respectively.
- United States had the largest share in natural gas production with 715.2 MTOE (21.5%) of total world's gas production in 2018, followed by Russia (575.6 MTOE), Iran (205.9 MTOE) respectively.
- World Consumption of Crude Oil was 4529.3 Million Tonnes during 2018, which is 1.2% higher than the Crude Oil production in 2017 (4477.0 Million Tonnes).
- United States had the largest share in crude oil production with 892.8 million tonnes (19.7%) of total world's oil consumption in 2018, followed by China (628 MMT), India (236.6 MMT) respectively.
- World Natural gas consumption in 2018 was 3309.4 Million Tonnes Oil Equivalent (MTOE) as compared to 3141.9 MTOE in 2017, registering a growth of 5.3%.
- United States had the largest share in natural gas consumption with 702.6 MTOE (21.2%) of total world's gas consumption in 2018, followed by Russia (390.8 MTOE), China (243.3 MTOE) respectively.
- World Oil Refining capacity at end of 2018 was 100048.9 thousand barrels/day registering a growth of over 1.4% over 2017 (98620.8 thousand barrels/day). India with refining capacity of 4971.6 thousand barrels per day had a share of 5% in world refining capacity.
- OPEC Countries (24656.1 thousand barrels per day) are having a share of 52.7 % in world crude oil export (46816 thousand barrels per day) for 2018.
- China is having the largest share (23.6%) in Global Primary energy consumption. India with consumption of 809.2 Million tonnes oil equivalent of primary energy is the third largest consumer of primary energy.

XI.1: World Energy Outlook-2018

Total Primary Energy Consumption (MMToE)		Refining Capacity (Thousand barrels daily)	
World	**13864.9**	**World**	**100048.9**
India (Rank 3)	**809.2**	**India (Rank 4)**	**4971.6**
Top Five Countries		**Top Five Countries**	
China	3273.5	US	18762.0
US	2300.6	China	15655.5
India	809.2	Russian Federation	6596.0
Russian Federation	720.7	India	4971.6
Japan	454.1	South Korea	3345.9
Production - Oil (MMT)		**Consumption- Oil (MMT)**	
World	**4474.3**	**World**	**4529.3**
India (Rank 23)	**39.5**	**India (Rank 3)**	**236.6**
Top Five Countries			
US	669.4	US	892.8
Saudi Arabia	578.3	China	628.0
Russian Federation	563.3	India	236.6
Canada	255.5	Japan	175.5
Iraq	226.1	Saudi Arabia	156.1
Production - Natural Gas (MMToE)		**Consumption- Natural Gas (MMToE)**	
World	**3325.8**	**World**	**3309.4**
India (Rank 28)	**23.6**	**India (Rank 14)**	**49.9**
Top Five Countries			
US	715.2	US	702.6
Russian Federation	575.6	Russian Federation	390.8
Iran	205.9	China	243.3
Canada	158.8	Iran	193.9
Qatar	150.9	Canada	99.5
Crude Oil Imports (Thousand barrels daily)		**Crude Oil Exports (Thousand barrels daily)**	
World	**46815.9**	**World**	**45809.5**
India (Rank 3)	**4543.6**	**India**	**0.0**
Top Five Countries			
China	9261.4	Saudi Arabia	7371.5
United States	7756.9	Russian Federation	5069.1
India	4543.6	Iraq	3862.0
Japan	3055.9	Canada	3150.2
South Korea	3036.5	United Arab Emirates	2296.5
Petroleum Product Imports (Thousand barrels daily)		**Petroleum Product Exports (Thousand barrels daily)**	
World	**29326.6**	**World**	**31186.2**
India	**793.9**	**India (Rank 7)**	**1344.3**
Top Five Countries			
Singapore	2334.9	United States	5583.4
United States	2169.8	Russia	2505.1
Netherlands	1857.4	Netherlands	2296.2
China	1398.7	Saudi Arabia	1971.2
Mexico	1089.0	Singapore	1776.7
Natural Gas Imports (BCM)		**Natural Gas Exports (BCM)**	
World	**1209.6**	**World**	**1275.8**
India (Rank 13)	**30.9**	**India**	**0.0**
Top Five Countries			
Germany	133.8	Russia	251.3
China	123.4	Qatar	143.4
Japan	119.4	Norway	121.0
United States	82.4	United States	102.1
Italy	67.9	Australia	91.6

Note: Detail country-wise XI.4, XI.5, XI.6, XI.7, XI.8, XI.11, XI.12, XI.13, XI.14, XI.15, XI.16 & X.27
Source: BP Statistical Review of World Energy, June 2019 and OPEC Annual Statistical Bulletins, 2019

XI.2: World Proven Oil Reserves

(Figures in Thousand million barrels)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	173.7	173.0	172.2	171.5	170.5	168.9	167.8	9.7
Mexico	11.4	11.1	10.8	8.0	7.2	7.7	7.7	0.4
US	44.2	48.5	55.0	48.0	50.0	61.2	61.2	3.5
Total North America	**229.3**	**232.6**	**237.9**	**227.5**	**227.7**	**237.8**	**236.7**	**13.7**
Argentina	2.4	2.3	2.4	2.4	2.2	2.0	2.0	0.1
Brazil	15.3	15.6	16.2	13.0	12.6	12.8	13.4	0.8
Colombia	2.2	2.4	2.4	2.3	2.0	1.7	1.8	0.1
Ecuador	3.3	3.5	3.0	3.1	3.2	3.0	2.8	0.2
Peru	1.4	1.6	1.4	1.2	1.2	1.0	1.0	0.1
Trinidad & Tobago	0.8	0.8	0.8	0.7	0.2	0.2	0.2	*
Venezuela	297.7	298.4	300.0	300.9	302.3	302.8	303.3	17.5
Other S. & Cent. America	0.5	0.5	0.5	0.5	0.5	0.5	0.5	*
Total S. & Cent. America	**323.7**	**325.1**	**326.8**	**324.1**	**324.2**	**324.0**	**325.1**	**18.8**
Denmark	0.7	0.7	0.6	0.5	0.4	0.4	0.4	*
Italy	0.6	0.6	0.6	0.6	0.5	0.6	0.6	*
Norway	7.5	7.0	6.5	8.0	7.6	7.9	8.6	0.5
Romania	0.6	0.6	0.6	0.6	0.6	0.6	0.6	*
United Kingdom	3.0	3.0	2.8	2.5	2.3	2.5	2.5	0.1
Other Europe	1.8	1.8	1.7	1.7	1.7	1.6	1.6	0.1
Total Europe	**14.2**	**13.7**	**12.9**	**13.9**	**13.2**	**13.7**	**14.3**	**0.8**
Azerbaijan	7.0	7.0	7.0	7.0	7.0	7.0	7.0	0.4
Kazakhstan	30.0	30.0	30.0	30.0	30.0	30.0	30.0	1.7
Russian Federation	105.5	105.0	103.2	102.4	106.2	106.3	106.2	6.1
Turkmenistan	0.6	0.6	0.6	0.6	0.6	0.6	0.6	*
Uzbekistan	0.6	0.6	0.6	0.6	0.6	0.6	0.6	*
Other CIS	0.3	0.3	0.3	0.3	0.3	0.3	0.3	*
Total CIS	**143.9**	**143.5**	**141.6**	**140.8**	**144.6**	**144.7**	**144.7**	**8.4**
Iran	157.3	157.8	157.5	158.4	157.2	155.6	155.6	9.0
Iraq	140.3	144.2	143.1	142.5	148.8	147.2	147.2	8.5
Kuwait	101.5	101.5	101.5	101.5	101.5	101.5	101.5	5.9
Oman	5.5	5.0	5.2	5.3	5.4	5.4	5.4	0.3
Qatar	25.2	25.1	25.7	25.2	25.2	25.2	25.2	1.5
Saudi Arabia	265.9	265.8	266.6	266.5	266.2	296.0	297.7	17.2
Syria	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.1
United Arab Emirates	97.8	97.8	97.8	97.8	97.8	97.8	97.8	5.7
Yemen	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.2
Other Middle East	0.3	0.3	0.2	0.2	0.1	0.1	0.2	*
Total Middle East	**799.3**	**802.9**	**803.1**	**802.9**	**807.7**	**834.3**	**836.1**	**48.3**
Algeria	12.2	12.2	12.2	12.2	12.2	12.2	12.2	0.7
Angola	9.1	9.0	8.4	9.5	9.5	8.4	8.4	0.5
Chad	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.1
Republic of Congo	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.1
Egypt	4.2	3.9	3.7	3.5	3.4	3.3	3.3	0.2
Equatorial Guinea	1.7	1.7	1.1	1.1	1.1	1.1	1.1	0.1

Contd…

XI.2: World Proven Oil Reserves (Contd....)

(Figures in Thousand million barrels)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gabon	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.1
Libya	48.5	48.4	48.4	48.4	48.4	48.4	48.4	2.8
Nigeria	37.1	37.1	37.4	37.1	37.5	37.5	37.5	2.2
South Sudan	3.5	3.5	3.5	3.5	3.5	3.5	3.5	0.2
Sudan	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.1
Tunisia	0.4	0.4	0.4	0.4	0.4	0.4	0.4	*
Other Africa	3.7	3.7	3.8	4.0	4.0	3.9	3.9	0.2
Total Africa	**127.0**	**126.4**	**125.5**	**126.3**	**126.5**	**125.3**	**125.3**	**7.2**
Australia	3.9	4.0	4.0	4.0	4.0	4.0	4.0	0.2
Brunei	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.1
China	24.4	24.7	25.2	25.6	25.7	25.9	25.9	1.5
India	5.7	5.7	5.7	4.8	4.7	4.5	4.5	0.3
Indonesia	3.7	3.7	3.6	3.6	3.3	3.2	3.2	0.2
Malaysia	5.0	4.5	3.8	3.6	3.0	3.0	3.0	0.2
Thailand	0.4	0.5	0.4	0.4	0.3	0.3	0.3	*
Vietnam	4.4	4.4	4.4	4.4	4.4	4.4	4.4	0.3
Other Asia Pacific	1.1	1.3	1.2	1.3	1.2	1.2	1.2	0.1
Total Asia Pacific	**49.9**	**49.8**	**49.5**	**48.8**	**47.7**	**47.7**	**47.6**	**2.8**
Total World	**1687.3**	**1694.1**	**1697.2**	**1684.3**	**1691.6**	**1727.5**	**1729.7**	**100**

Notes: Provisional *: Less than 0.05 na: not available

1.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.

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

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

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

Source: BP Statistical Review of World Energy, June 2019.

Figure XI.1: Trends in World Proven Crude Oil Reserves

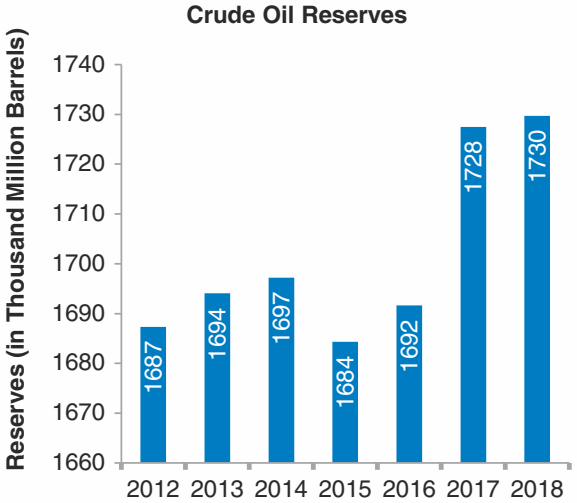
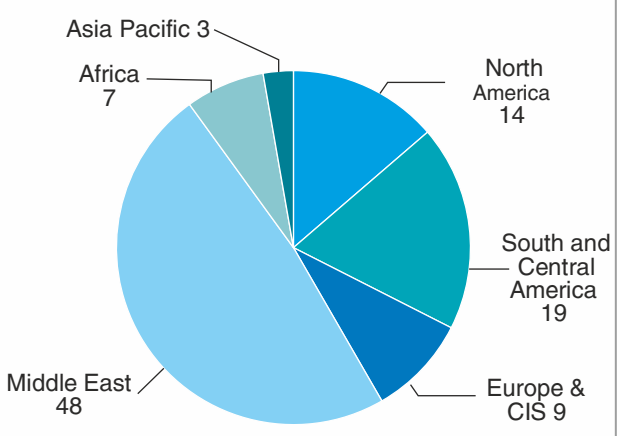


Figure XI.2: Region-wise Distribution of Proven Crude Oil reserves -2018 (%)



XI.3: World Proven Natural Gas Reserves

(Figures in Trillion cubic metres)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	1.9	1.9	1.9	2.1	2.0	2.0	1.9	0.9
Mexico	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1
US	8.4	9.2	10.0	8.3	8.7	11.9	11.9	6.0
Total North America	**10.6**	**11.4**	**12.2**	**10.7**	**10.9**	**14.1**	**13.9**	**7.1**
Argentina	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Bolivia	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Brazil	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.2
Colombia	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Peru	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
Trinidad & Tobago	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Venezuela	6.2	6.2	6.2	6.3	6.4	6.3	6.3	3.2
Other S. & Cent. America	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total S. & Cent. America	**8.3**	**8.2**	**8.2**	**8.3**	**8.3**	**8.2**	**8.2**	**4.2**
Denmark	^	^	^	^	^	^	^	*
Germany	0.1	0.1	^	^	^	^	^	*
Italy	0.1	0.1	0.1	^	^	^	^	*
Netherlands	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.3
Norway	2.1	2.0	1.9	1.8	1.8	1.7	1.6	0.8
Poland	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*
Romania	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ukraine	1.2	1.1	1.1	1.1	1.1	1.0	1.1	0.6
United Kingdom	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Other Europe	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Total Europe	**4.8**	**4.7**	**4.4**	**4.3**	**4.0**	**3.9**	**3.9**	**2.0**
Azerbaijan	1.0	1.0	1.3	1.3	1.3	1.3	2.1	1.1
Kazakhstan	0.9	1.1	1.1	1.1	1.0	1.0	1.0	0.5
Russian Federation	34.6	34.9	35.0	35.0	34.8	38.9	38.9	19.8
Turkmenistan	19.5	19.5	19.5	19.5	19.5	19.5	19.5	9.9
Uzbekistan	1.3	1.2	1.2	1.2	1.2	1.2	1.2	0.6
Other CIS	^	^	^	^	^	^	^	*
Total CIS	**57.4**	**57.8**	**58.2**	**58.1**	**57.9**	**62.0**	**62.8**	**31.9**
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Iran	31.9	32.1	32.1	31.6	31.8	31.9	31.9	16.2
Iraq	3.0	3.0	3.0	3.0	3.6	3.6	3.6	1.8
Israel	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.2
Kuwait	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.9
Oman	0.5	0.7	0.6	0.7	0.7	0.7	0.7	0.3
Qatar	25.8	25.5	25.4	25.1	24.9	24.7	24.7	12.5
Saudi Arabia	7.7	7.8	7.9	8.0	8.0	5.7	5.9	3.0
Syria	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
United Arab Emirates	5.9	5.9	5.9	5.9	5.9	5.9	5.9	3.0
Yemen	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Other Middle East	^	^	^	^	^	^	^	0.0
Total Middle East	**77.4**	**77.7**	**77.6**	**77.0**	**77.6**	**75.3**	**75.5**	**38.4**

Contd…

XI.3: World Proven Natural Gas Reserves (Contd....)

(Figures in Trillion cubic metres)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Algeria	4.3	4.3	4.3	4.3	4.3	4.3	4.3	2.2
Egypt	2.0	1.8	2.1	2.0	2.1	2.1	2.1	1.1
Libya	1.5	1.4	1.4	1.4	1.4	1.4	1.4	0.7
Nigeria	4.9	4.9	5.1	5.0	5.2	5.3	5.3	2.7
Other Africa	1.2	1.1	1.1	1.1	1.2	1.2	1.2	0.6
Total Africa	**13.8**	**13.5**	**14.0**	**13.9**	**14.3**	**14.4**	**14.4**	**7.3**
Australia	2.8	2.8	2.4	2.4	2.4	2.4	2.4	1.2
Bangladesh	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Brunei	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
China	3.1	3.4	3.6	4.7	5.5	6.1	6.1	3.1
India	1.3	1.3	1.4	1.2	1.2	1.2	1.3	0.7
Indonesia	3.0	2.9	2.9	2.8	2.9	2.9	2.8	1.4
Malaysia	2.5	2.7	2.7	2.7	2.4	2.4	2.4	1.2
Myanmar	0.3	0.5	0.5	0.5	1.2	1.2	1.2	0.6
Pakistan	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.2
Papua New Guinea	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1
Thailand	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Vietnam	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3
Other Asia Pacific	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1
Total Asia Pacific	**15.4**	**15.9**	**15.7**	**16.4**	**17.6**	**18.2**	**18.1**	**9.2**
Total World	**187.7**	**189.2**	**190.4**	**188.6**	**190.7**	**196.1**	**196.9**	**100**

Notes: P: Provisional ^: Less than 0.05 *: Less than 0.05%

1. Total proved reserves of natural gas - 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 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.

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

3. As far as possible, the data above represents standard cubic metres (measured at 15ºC and 1013 mbar) and has been standardized using a Gross Calorific Value (GCV) of 40 MJ/m3.

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

Source: BP Statistical Review of World Energy, June 2019.

Figure XI.3: Trends in World Proven Natural Gas Reserves

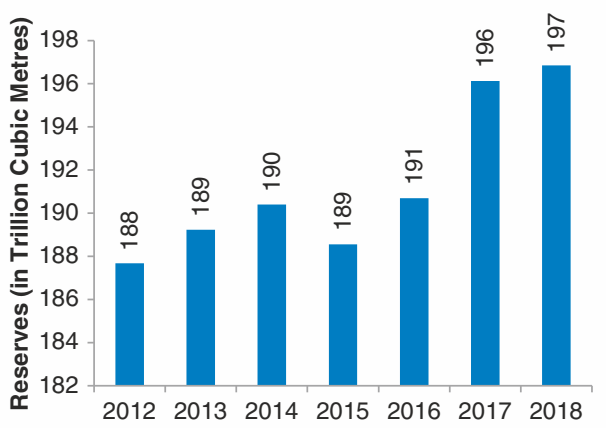
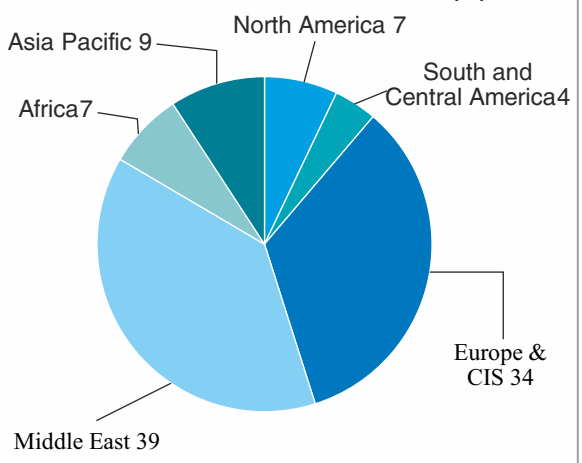


Figure XI.4: Region-wise Distribution of Proven Natural Gas Reserves- 2018 (%)



XI.4: World Crude Oil Production

(Figures in Million Tonnes)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	182.6	195.1	209.4	215.6	218.0	235.4	255.5	5.7
Mexico	143.9	141.8	137.1	127.5	121.4	109.5	102.3	2.3
US	394.2	447.2	523.0	566.6	541.9	573.9	669.4	15.0
Total North America	**720.6**	**784.1**	**869.5**	**909.7**	**881.3**	**918.7**	**1027.1**	**23.0**
Argentina	30.8	30.2	29.8	30.1	28.7	27.3	27.6	0.6
Brazil	111.9	109.7	122.5	132.2	136.2	142.3	140.3	3.1
Colombia	49.9	53.2	52.2	53.0	46.8	45.0	45.6	1.0
Ecuador	27.1	28.2	29.8	29.1	29.5	28.5	27.7	0.6
Peru	6.9	7.3	7.5	6.5	5.8	5.7	6.4	0.1
Trinidad & Tobago	5.2	5.1	5.1	4.8	4.3	4.4	3.9	0.1
Venezuela	139.3	137.8	138.5	135.4	121.0	107.6	77.3	1.7
Other S. & Cent. America	7.4	7.6	7.8	7.3	6.8	6.6	6.2	0.1
Total S. & Cent. America	**378.6**	**379.2**	**393.1**	**398.4**	**379.2**	**367.3**	**335.1**	**7.5**
Denmark	10.0	8.7	8.1	7.7	6.9	6.7	5.7	0.1
Italy	5.4	5.5	5.8	5.5	3.8	4.1	4.7	0.1
Norway	86.9	82.8	84.8	87.5	90.2	88.6	83.1	1.9
Romania	4.0	4.1	4.1	4.0	3.8	3.6	3.6	0.1
United Kingdom	44.7	40.7	40.0	45.4	47.5	46.6	50.8	1.1
Other Europe	16.7	17.1	16.9	16.4	15.6	15.0	15.2	0.3
Total Europe	**167.6**	**158.9**	**159.7**	**166.5**	**167.8**	**164.7**	**162.9**	**3.6**
Azerbaijan	43.7	43.8	42.5	42.0	41.4	39.1	39.2	0.9
Kazakhstan	79.3	82.3	81.1	80.2	78.6	87.0	91.2	2.0
Russian Federation	526.7	532.2	535.1	541.8	555.9	554.3	563.3	12.6
Turkmenistan	11.5	12.4	12.5	12.8	11.9	11.2	10.6	0.2
Uzbekistan	3.2	2.9	2.8	2.7	2.6	2.8	2.9	0.1
Other CIS	1.8	1.8	1.8	1.8	1.8	1.8	1.9	0.0
Total CIS	**666.1**	**675.4**	**675.8**	**681.3**	**692.2**	**696.1**	**709.1**	**15.8**
Iran	180.5	169.7	174.0	180.2	216.3	235.6	220.4	4.9
Iraq	151.3	152.0	158.8	195.6	217.6	222.2	226.1	5.1
Kuwait	153.8	151.2	150.0	148.1	152.5	144.8	146.8	3.3
Oman	45.0	46.1	46.2	48.0	49.3	47.6	47.8	1.1
Qatar	82.2	84.2	83.5	81.2	81.6	78.5	78.5	1.8
Saudi Arabia	549.2	538.4	543.8	568.0	586.7	559.3	578.3	12.9
Syria	8.1	2.7	1.5	1.2	1.1	1.1	1.1	0.0
United Arab Emirates	156.9	163.3	163.4	176.1	182.4	176.2	177.7	4.0
Yemen	8.1	9.0	6.9	2.6	1.6	2.4	2.8	0.1
Other Middle East	9.0	10.3	10.5	10.5	10.6	10.3	10.2	0.2
Total Middle East	**1344.2**	**1326.9**	**1338.7**	**1411.6**	**1499.8**	**1477.9**	**1489.7**	**33.3**

Contd…

XI.4: World Crude Oil Production (Contd....)

(Figures in Million Tonnes)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Algeria	67.2	64.8	68.8	67.2	68.4	66.6	65.3	1.5
Angola	85.3	85.2	83.3	88.2	85.8	81.9	74.6	1.7
Chad	5.3	4.8	4.7	5.8	5.4	5.4	5.3	0.1
Republic of Congo	14.2	12.3	12.9	11.9	11.8	13.8	17.0	0.4
Egypt	34.7	34.4	35.1	35.4	33.8	32.2	32.7	0.7
Equatorial Guinea	15.2	13.2	13.3	12.1	10.4	9.0	8.7	0.2
Gabon	11.1	10.7	10.5	10.7	11.0	10.5	9.7	0.2
Libya	72.6	49.4	24.4	20.5	19.3	43.8	47.5	1.1
Nigeria	116.4	109.5	109.3	105.7	91.3	95.5	98.4	2.2
South Sudan	1.5	4.9	7.7	7.3	5.8	5.5	6.4	0.1
Sudan	5.1	5.8	5.9	5.4	5.1	4.7	4.9	0.1
Tunisia	3.8	3.5	3.3	2.9	2.8	2.2	2.3	0.1
Other Africa	9.8	11.2	11.6	13.7	12.9	15.0	15.7	0.4
Total Africa	**442.2**	**409.5**	**390.6**	**386.8**	**363.9**	**386.0**	**388.7**	**8.7**
Australia	21.4	17.8	19.1	17.0	15.6	14.9	15.2	0.3
Brunei	7.8	6.6	6.2	6.2	5.9	5.5	5.4	0.1
China	207.5	210.0	211.4	214.6	199.7	191.5	189.1	4.2
India	42.5	42.5	41.6	41.2	40.2	40.4	39.5	0.9
Indonesia	44.6	42.7	41.0	40.6	42.8	41.0	39.5	0.9
Malaysia	30.1	28.7	29.8	32.2	32.6	31.5	31.5	0.7
Thailand	17.2	17.0	16.8	17.5	18.0	17.5	17.3	0.4
Vietnam	17.4	17.3	16.2	17.6	16.0	14.3	13.0	0.3
Other Asia Pacific	12.6	12.0	13.7	13.8	13.1	12.5	11.1	0.2
Total Asia Pacific	**401.0**	**394.6**	**395.8**	**400.6**	**383.9**	**369.1**	**361.6**	**8.1**
Total World	**4120.3**	**4128.5**	**4223.2**	**4354.8**	**4368.0**	**4379.9**	**4474.3**	**100.0**

Notes: P: Provisional na: Not available

*: Less than 0.05

1. 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).

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

Source: BP Statistical Review of World Energy, June 2019.

Figure XI.5: Trends in World Crude Oil Production

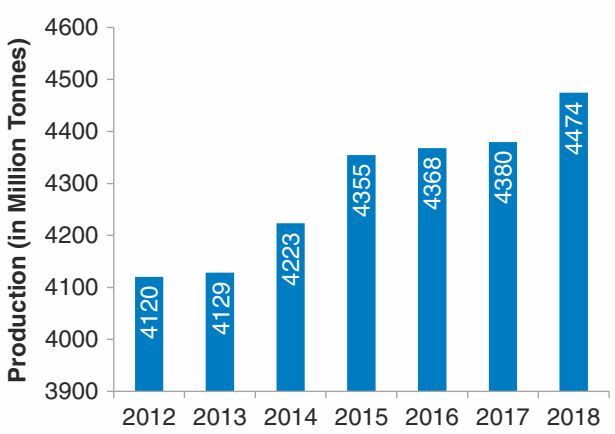
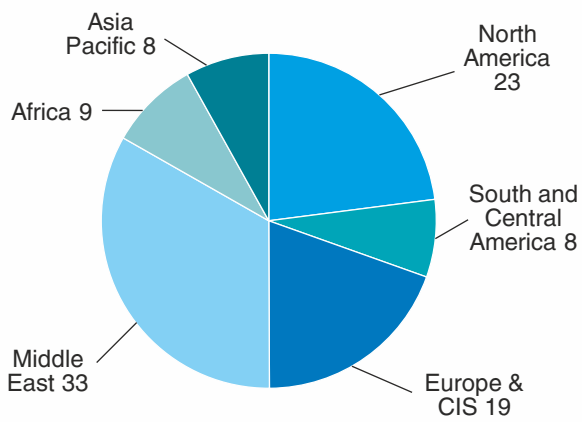


Figure XI.6: Region-wise Distribution of Crude Oil Production during 2018 (%)



XI.5: World Production of Natural Gas

(Figures in Million Tonnes Oil Equivalent)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	129.2	130.6	136.7	138.2	147.7	152.7	158.8	4.8
Mexico	43.7	45.1	44.1	41.2	37.5	32.9	32.1	1.0
US	558.1	563.8	606.0	636.5	625.4	641.2	715.2	21.5
Total North America	**731.1**	**739.6**	**786.8**	**816.0**	**810.7**	**826.8**	**906.2**	**27.2**
Argentina	31.5	29.7	29.7	30.5	32.1	31.9	33.9	1.0
Bolivia	14.7	16.8	17.4	16.8	15.1	14.7	13.7	0.4
Brazil	17.1	18.9	20.1	20.5	20.7	23.4	21.6	0.7
Colombia	9.9	11.4	10.6	10.0	10.3	10.6	11.1	0.3
Peru	10.3	10.7	11.3	10.9	12.1	11.2	11.0	0.3
Trinidad & Tobago	33.1	33.3	32.7	30.9	26.9	27.4	29.2	0.9
Venezuela	27.4	26.3	27.3	31.0	32.0	33.2	28.6	0.9
Other S. & Cent. America	2.6	2.3	2.3	2.5	2.7	2.7	2.8	0.1
Total S. & Cent. America	**146.7**	**149.4**	**151.4**	**153.1**	**151.9**	**155.0**	**151.9**	**4.6**
Denmark	5.2	4.3	4.1	4.1	4.0	4.3	3.7	0.1
Germany	8.1	7.4	6.9	6.5	6.0	5.5	4.8	0.1
Italy	7.0	6.3	5.9	5.5	4.7	4.5	4.5	0.1
Netherlands	58.8	62.3	51.9	39.4	38.1	33.2	27.7	0.8
Norway	97.9	92.8	92.9	99.9	99.6	105.9	103.7	3.1
Poland	3.9	3.8	3.7	3.7	3.6	3.5	3.4	0.1
Romania	8.7	8.6	8.8	8.8	7.8	8.5	8.2	0.2
Ukraine	16.7	17.3	17.4	16.2	16.4	16.7	17.1	0.5
United Kingdom	33.7	31.8	32.2	35.0	35.9	36.0	34.9	1.0
Other Europe	7.7	6.7	6.2	5.9	7.9	8.2	7.5	0.2
Total Europe	**247.7**	**241.3**	**230.0**	**225.0**	**224.0**	**226.3**	**215.5**	**6.5**
Azerbaijan	14.5	15.0	15.8	16.2	15.7	15.3	16.1	0.5
Kazakhstan	17.1	18.4	18.6	18.9	19.7	20.1	21.0	0.6
Russian Federation	517.5	528.4	508.3	502.5	506.7	546.5	575.6	17.3
Turkmenistan	50.7	50.7	54.6	56.6	54.4	50.5	52.9	1.6
Uzbekistan	48.6	48.1	48.4	46.1	45.7	45.9	48.7	1.5
Other CIS	0.3	0.3	0.3	0.3	0.3	0.3	0.3	*
Total CIS	**648.6**	**660.8**	**646.0**	**640.6**	**642.4**	**678.5**	**714.6**	**21.5**
Bahrain	11.2	12.0	12.6	12.7	12.4	12.4	12.8	0.4
Iran	134.9	135.4	150.9	157.8	171.4	189.3	205.9	6.2
Iraq	5.5	6.1	6.5	6.3	8.5	8.7	11.2	0.3
Kuwait	12.7	13.3	12.3	13.8	14.1	14.0	15.0	0.5
Oman	24.4	26.5	25.2	26.4	27.1	27.7	30.9	0.9
Qatar	139.8	144.6	145.8	150.5	149.4	148.2	150.9	4.5
Saudi Arabia	81.1	81.7	83.6	85.3	90.6	93.9	96.4	2.9
Syria	5.2	4.3	4.0	3.5	3.0	2.9	3.1	0.1
United Arab Emirates	45.5	45.8	45.5	50.5	51.9	53.3	55.6	1.7
Yemen	6.5	8.9	8.4	2.5	0.4	0.5	0.5	*
Other Middle East	2.2	5.4	6.3	6.9	7.8	8.2	8.7	0.3
Total Middle East	**469.0**	**484.0**	**501.1**	**516.1**	**536.6**	**559.2**	**590.9**	**17.8**

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XI.5: World Production of Natural Gas (Contd....)

(Figures in Million Tonnes Oil Equivalent)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Algeria	67.4	68.2	68.9	70.0	78.6	79.9	79.4	2.4
Egypt	50.4	46.4	40.4	36.6	34.6	42.0	50.4	1.5
Libya	10.0	10.5	10.2	9.5	8.1	8.2	8.4	0.3
Nigeria	33.7	28.5	34.4	41.3	39.7	41.4	42.3	1.3
Other Africa	16.3	17.0	16.9	17.7	18.6	22.5	22.9	0.7
Total Africa	**177.8**	**170.5**	**170.8**	**175.0**	**179.6**	**194.0**	**203.4**	**6.1**
Australia	51.2	53.1	57.3	65.4	82.9	97.0	111.9	3.4
Bangladesh	18.3	18.9	19.8	22.2	22.7	22.9	23.7	0.7
Brunei	10.5	10.2	10.9	11.4	11.1	11.1	10.8	0.3
China	95.9	104.7	112.8	116.7	118.6	128.3	138.9	4.2
India	32.0	26.7	25.2	24.2	22.9	23.8	23.6	0.7
Indonesia	67.3	66.7	65.7	65.5	64.6	62.7	62.9	1.9
Malaysia	59.5	62.7	61.9	63.5	62.2	64.0	62.3	1.9
Myanmar	10.8	11.1	14.2	16.5	15.7	15.3	15.3	0.5
Pakistan	31.5	30.6	30.1	30.1	29.8	29.8	29.4	0.9
Thailand	36.9	37.2	37.5	35.4	34.7	33.3	32.4	1.0
Vietnam	7.8	8.1	8.5	8.8	8.8	8.2	8.3	0.2
Other Asia Pacific	15.5	16.1	20.3	25.3	26.0	26.0	23.6	0.7
Total Asia Pacific	**437.1**	**446.2**	**464.2**	**485.1**	**500.1**	**522.4**	**543.2**	**16.3**
Total World	**2858.0**	**2891.8**	**2950.2**	**3010.9**	**3045.3**	**3162.3**	**3325.8**	**100.0**

Notes: *: Less than 0.05 P: Provisional

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

2. **: Production includes natural gas produced for Gas-to-Liquids transformation and excludes gas flared or recycled.

Source: BP Statistical Review of World Energy, June 2019.

Figure XI.7: Trends in World Production of Natural Gas

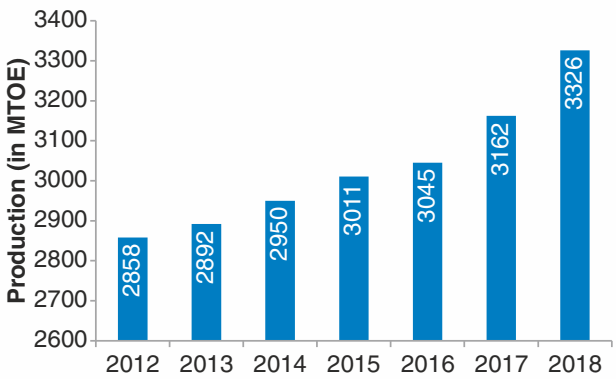
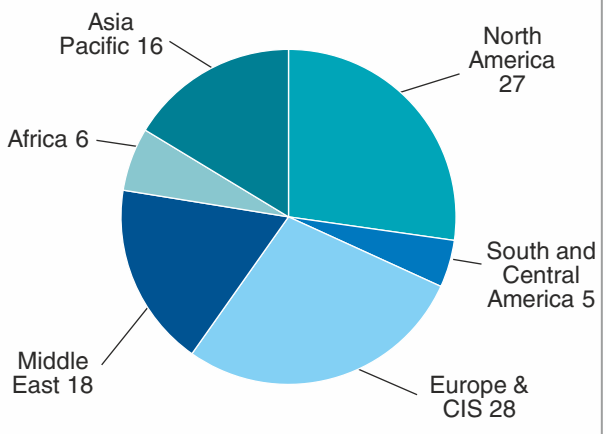


Figure XI.8: Region-wise distribution of Natural Gas Production during 2018 (%)



XI.6: Country-wise World Oil Consumption

(Figures in Million Tonnes)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	103.2	103.4	105.1	102.2	103.8	103.8	105.2	2.3
Mexico	92.9	90.3	85.9	84.9	85.3	81.8	78.8	1.7
US	819.9	835.2	841.2	859.7	868.5	876.6	892.8	19.7
Total North America	**1016.1**	**1028.9**	**1032.2**	**1046.8**	**1057.6**	**1062.1**	**1076.8**	**23.8**
Argentina	29.7	31.9	31.6	32.6	32.0	31.8	29.8	0.7
Brazil	133.3	143.5	149.5	145.6	136.8	140.2	141.3	3.1
Chile	17.5	16.8	16.3	16.5	17.5	17.0	17.4	0.4
Colombia	13.8	13.9	14.7	15.5	16.1	15.8	15.9	0.4
Ecuador	10.9	11.6	12.2	11.8	11.1	10.8	11.7	0.3
Peru	9.7	10.2	10.0	11.1	11.6	11.4	11.8	0.3
Trinidad & Tobago	2.0	2.2	2.0	2.2	2.4	2.1	2.1	0.0
Venezuela	37.2	36.8	33.6	29.6	24.9	21.2	18.7	0.4
Central America	18.2	18.2	18.8	20.3	21.0	21.0	21.3	0.5
Other Caribbean	34.4	32.6	32.6	33.5	34.5	34.8	35.0	0.8
Other South America	9.1	9.1	9.2	9.6	10.1	10.1	10.5	0.2
Total S. & Cent. America	**315.8**	**326.8**	**330.6**	**328.3**	**317.9**	**316.2**	**315.6**	**7.0**
Austria	12.5	12.7	12.4	12.4	12.7	12.9	13.2	0.3
Belgium	30.7	31.4	31.0	31.9	32.7	32.8	33.1	0.7
Bulgaria	4.2	3.9	4.2	4.7	4.8	5.0	5.0	0.1
Croatia	3.2	3.1	3.2	3.3	3.3	3.6	3.6	0.1
Cyprus	2.6	2.3	2.3	2.4	2.6	2.7	2.6	0.1
Czech Republic	9.3	8.9	9.4	9.3	8.6	10.1	10.3	0.2
Denmark	7.8	7.7	7.8	7.8	7.7	7.7	7.7	0.2
Estonia	1.6	1.6	1.5	1.4	1.4	1.5	1.5	0.0
Finland	9.7	10.1	9.8	9.7	10.2	10.0	10.6	0.2
France	80.1	79.1	76.7	76.7	76.3	76.6	76.4	1.7
Germany	111.4	113.4	110.4	110.0	112.3	114.7	109.2	2.4
Greece	15.7	14.9	14.8	15.3	15.3	15.8	15.7	0.3
Hungary	6.6	6.5	7.3	7.6	7.6	8.1	8.6	0.2
Iceland	0.7	0.7	0.8	0.8	0.9	1.0	1.0	0.0
Ireland	6.7	6.7	6.7	7.0	7.3	7.4	7.6	0.2
Italy	66.2	60.2	56.8	59.4	59.8	60.2	59.0	1.3
Latvia	1.6	1.6	1.6	1.7	1.8	1.8	1.6	*
Lithuania	2.7	2.6	2.6	2.8	3.0	3.1	3.2	0.1
Luxembourg	2.8	2.8	2.7	2.7	2.7	2.8	3.0	0.1
Netherlands	43.7	41.4	39.6	38.7	39.9	38.5	39.8	0.9
North Macedonia	0.9	0.9	0.9	1.0	1.1	1.0	1.0	*
Norway	10.2	10.3	9.7	9.9	9.6	9.8	10.1	0.2
Poland	26.6	24.7	24.8	25.8	28.1	30.6	31.7	0.7
Portugal	11.1	11.5	11.3	11.6	11.4	11.7	11.3	0.2
Romania	9.2	8.4	9.0	9.2	9.7	10.2	10.1	0.2
Slovakia	3.6	3.6	3.4	3.7	3.8	4.2	4.1	0.1
Slovenia	2.6	2.5	2.4	2.4	2.5	2.5	2.6	0.1
Spain	65.4	59.8	59.5	61.6	63.7	64.1	65.7	1.5
Sweden	14.7	14.4	14.3	14.3	15.1	15.2	14.6	0.3

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XI.6: Country-wise World Oil Consumption (Contd....)

(Figures in Million Tonnes)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Switzerland	11.2	11.8	10.6	10.7	10.2	10.5	10.1	0.2
Turkey	33.1	36.0	36.6	43.5	47.1	48.8	48.2	1.1
Ukraine	12.5	11.9	10.2	9.0	9.6	9.5	9.2	0.2
United Kingdom	72.0	71.0	71.0	72.5	74.9	75.1	74.2	1.6
Other Europe	15.2	14.9	14.9	15.4	16.5	17.0	16.6	0.4
Total Europe	**708.2**	**693.2**	**680.1**	**696.4**	**714.3**	**726.3**	**722.4**	**15.9**
Azerbaijan	4.2	4.5	4.4	4.5	4.5	4.6	4.5	0.1
Belarus	10.5	7.1	8.1	6.9	6.8	6.6	6.7	0.1
Kazakhstan	11.5	12.1	12.1	13.5	13.9	14.4	15.7	0.3
Russian Federation	144.6	144.3	152.3	144.3	147.8	146.0	146.3	3.2
Turkmenistan	6.0	6.2	6.5	6.5	6.5	6.6	6.8	0.1
Uzbekistan	3.0	2.9	2.7	2.5	2.3	2.7	2.6	0.1
Other CIS	3.4	3.5	3.4	3.5	3.8	3.4	3.5	0.1
Total CIS	**183.2**	**180.6**	**189.5**	**181.8**	**185.6**	**184.3**	**186.0**	**4.1**
Iran	87.4	96.5	90.5	82.2	78.3	80.6	82.1	1.8
Iraq	32.0	34.4	32.8	33.2	37.0	35.4	38.0	0.8
Israel	13.9	10.3	9.7	10.4	10.6	11.3	11.1	0.2
Kuwait	21.6	22.5	19.1	20.1	19.8	19.8	19.3	0.4
Oman	7.2	8.4	8.6	8.6	8.9	8.9	8.8	0.2
Qatar	8.2	9.3	9.8	10.7	11.8	10.8	11.2	0.2
Saudi Arabia	146.1	146.5	161.1	167.5	165.1	162.3	156.1	3.4
United Arab Emirates	35.2	39.0	39.3	42.2	44.8	42.1	43.3	1.0
Other Middle East	31.2	29.9	29.9	27.5	26.2	25.8	26.0	0.6
Total Middle East	**382.9**	**396.6**	**400.9**	**402.2**	**402.5**	**396.9**	**396.0**	**8.7**
Algeria	16.8	17.6	18.3	19.5	18.9	18.6	18.8	0.4
Egypt	35.3	35.7	38.3	39.8	40.8	37.9	35.4	0.8
Morocco	13.2	13.4	12.7	12.3	12.6	13.3	13.0	0.3
South Africa	26.3	26.7	26.5	27.5	26.5	26.5	25.3	0.6
Eastern Africa	21.8	23.0	24.1	26.6	27.2	28.7	29.5	0.7
Middle Africa	10.7	11.7	12.5	12.0	11.9	11.9	12.2	0.3
Western Africa	26.3	27.1	25.6	25.8	27.7	30.9	32.1	0.7
Other Northern Africa	15.8	16.7	17.1	15.2	13.8	14.5	15.1	0.3
Other Southern Africa	2.4	2.5	2.6	2.7	2.8	2.8	2.9	0.1
Total Africa	**168.7**	**174.4**	**177.5**	**181.5**	**182.2**	**185.1**	**184.2**	**4.1**
Australia	47.5	47.8	48.5	46.4	48.0	48.9	51.1	1.1
Bangladesh	5.4	5.3	6.0	6.3	6.9	7.7	8.8	0.2
China	487.6	508.9	529.5	561.8	574.0	597.5	628.0	13.9
China Hong Kong SAR	17.2	17.6	16.6	18.3	18.9	21.4	21.6	0.5
India	174.9	176.7	182.3	197.6	218.6	226.2	236.6	5.2
Indonesia	75.5	76.4	77.6	70.7	73.4	76.0	80.1	1.8
Japan	217.7	207.4	197.0	189.5	183.9	180.7	175.5	3.9
Malaysia	32.8	34.9	34.7	34.4	34.3	33.9	34.8	0.8
New Zealand	7.0	7.1	7.2	7.5	7.6	8.2	8.1	0.2
Pakistan	20.0	21.9	22.6	24.6	27.5	28.3	23.4	0.5
Philippines	14.4	15.1	16.1	18.3	19.6	21.0	21.2	0.5

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XI.6: Country-wise World Oil Consumption (Contd....)

(Figures in Million Tonnes)

Country/ Region	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Singapore	63.4	64.2	65.8	69.5	72.4	74.3	75.2	1.7
South Korea	109.2	108.7	108.4	114.3	123.0	123.3	122.3	2.7
Sri Lanka	4.6	3.9	3.4	4.1	4.9	5.2	5.1	0.1
Taiwan	42.7	43.5	45.0	45.3	46.6	48.2	48.1	1.1
Thailand	52.3	54.6	54.9	57.6	59.8	61.6	63.1	1.4
Vietnam	16.8	18.2	18.7	20.4	21.6	22.7	23.9	0.5
Other Asia Pacific	15.6	17.1	18.3	19.2	20.5	21.0	21.6	0.5
Total Asia Pacific	**1404.7**	**1429.2**	**1452.6**	**1505.7**	**1561.5**	**1606.1**	**1648.4**	**36.4**
Total World	**4179.5**	**4229.7**	**4263.4**	**4342.6**	**4421.6**	**4477.0**	**4529.3**	**100.0**

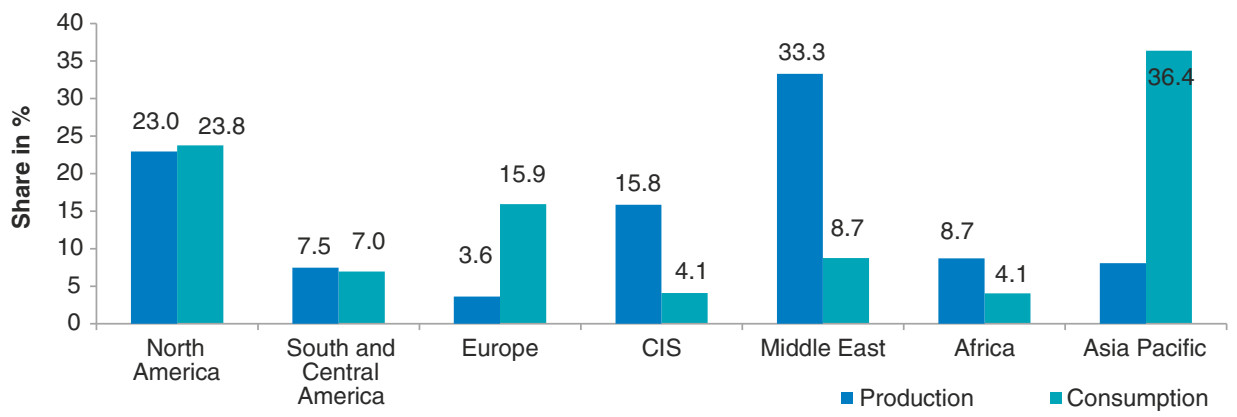
Notes: *: Less than 0.05 P: Provisional

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

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

Source: BP Statistical Review of World Energy, June 2019

Figure XI.9: Region-wise Share in Production and Consumption of Crude Oil during 2018 (%)



XI.7: World Consumption of Natural Gas

(Figures in Million Tonnes Oil Equivalent)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	83.6	89.7	94.2	94.4	91.0	94.3	99.5	3.0
Mexico	63.3	66.9	67.8	69.5	71.4	74.3	77.0	2.3
US	591.7	607.9	621.0	639.4	644.1	635.8	702.6	21.2
Total North America	**738.6**	**764.5**	**783.1**	**803.2**	**806.5**	**804.4**	**879.1**	**26.6**
Argentina	39.3	39.6	39.7	40.1	41.5	41.5	41.9	1.3
Brazil	28.0	33.0	35.0	36.9	31.9	32.4	30.9	0.9
Chile	4.6	4.6	3.8	4.1	5.1	4.8	5.5	0.2
Colombia	8.1	9.0	9.8	9.6	10.1	10.5	11.2	0.3
Ecuador	0.6	0.7	0.8	0.7	0.8	0.7	0.6	*
Peru	5.2	5.1	5.8	6.1	6.5	5.8	6.1	0.2
Trinidad & Tobago	14.7	14.9	14.7	14.6	13.0	13.1	13.2	0.4
Venezuela	29.8	27.8	29.3	31.8	32.3	33.4	28.7	0.9
Other Caribbean	2.8	3.1	3.2	3.2	3.3	3.0	3.5	0.1
Other South America	2.7	2.8	3.0	2.9	3.1	3.3	3.3	0.1
Total S. & Cent. America	**135.6**	**140.6**	**144.8**	**150.2**	**147.5**	**148.4**	**144.8**	**4.4**
Austria	7.4	7.1	6.5	6.9	7.2	7.8	7.5	0.2
Belgium	14.4	14.2	12.4	13.6	13.9	14.1	14.5	0.4
Bulgaria	2.5	2.4	2.4	2.6	2.7	2.8	2.6	0.1
Croatia	2.4	2.3	2.0	2.1	2.2	2.5	2.4	0.1
Czech Republic	6.9	6.9	6.2	6.5	7.0	7.2	6.9	0.2
Denmark	3.5	3.3	2.8	2.8	2.9	2.8	2.7	0.1
Estonia	0.5	0.5	0.4	0.4	0.4	0.4	0.4	*
Finland	2.7	2.6	2.3	2.0	1.7	1.6	1.8	0.1
France	38.2	38.8	32.6	35.0	38.3	38.5	36.7	1.1
Germany	69.7	73.1	63.5	66.2	73.0	77.2	75.9	2.3
Greece	3.6	3.2	2.4	2.6	3.4	4.1	4.1	0.1
Hungary	8.4	7.8	7.0	7.5	8.0	8.5	8.3	0.2
Ireland	4.0	3.8	3.7	3.8	4.2	4.3	4.5	0.1
Italy	61.4	57.4	50.7	55.3	58.1	61.5	59.5	1.8
Latvia	1.2	1.2	1.1	1.1	1.1	1.0	1.2	*
Lithuania	2.7	2.2	2.1	2.1	1.8	1.9	1.9	0.1
Luxembourg	1.1	0.9	0.8	0.8	0.7	0.7	0.7	*
Netherlands	33.8	33.6	29.6	29.3	30.2	31.0	30.7	0.9
North Macedonia	0.1	0.1	0.1	0.1	0.2	0.2	0.2	*
Norway	3.4	3.4	3.7	3.9	3.8	3.9	3.9	0.1
Poland	15.0	15.0	14.6	14.7	15.7	16.5	17.0	0.5
Portugal	3.9	3.7	3.5	4.1	4.4	5.5	5.0	0.2
Romania	10.8	9.8	9.5	8.9	9.0	9.6	9.3	0.3
Slovakia	4.4	4.8	3.8	3.9	3.9	4.1	4.0	0.1
Slovenia	0.7	0.7	0.6	0.7	0.7	0.7	0.7	*
Spain	28.6	26.1	23.7	24.5	25.0	27.3	27.1	0.8
Sweden	0.9	0.9	0.8	0.8	0.8	0.7	0.7	*
Switzerland	2.6	2.8	2.4	2.6	2.7	2.7	2.6	0.1
Turkey	37.2	37.8	40.1	39.5	38.3	44.3	40.7	1.2
Ukraine	44.6	41.0	34.7	27.5	27.0	26.0	26.3	0.8

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XI.7: World Consumption of Natural Gas (Contd....)

(Figures in Million Tonnes Oil Equivalent)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
United Kingdom	66.1	65.6	60.2	61.9	69.8	67.8	67.8	2.0
Other Europe	3.4	3.6	3.5	3.9	4.0	4.6	4.6	0.1
Total Europe	**486.1**	**476.7**	**429.9**	**437.5**	**462.2**	**481.9**	**472.0**	**14.3**
Azerbaijan	8.0	8.1	8.5	9.6	9.4	9.1	9.3	0.3
Belarus	16.7	16.6	16.4	15.4	15.3	15.7	16.6	0.5
Kazakhstan	11.1	11.7	12.9	13.2	13.6	13.7	16.7	0.5
Russian Federation	368.6	365.3	363.0	351.4	361.7	370.7	390.8	11.8
Turkmenistan	19.7	16.6	17.2	21.8	20.7	21.8	24.4	0.7
Uzbekistan	39.8	39.7	41.7	39.8	37.3	37.1	36.6	1.1
Other CIS	4.9	4.1	4.5	4.5	4.4	4.3	4.9	0.1
Total CIS	**468.8**	**462.0**	**464.3**	**455.7**	**462.4**	**472.3**	**499.4**	**15.1**
Iran	131.2	132.3	149.1	158.2	168.8	180.5	193.9	5.9
Iraq	5.5	6.1	6.5	6.3	8.5	11.0	14.7	0.4
Israel	2.1	5.7	6.2	6.9	8.0	8.5	9.0	0.3
Kuwait	15.1	15.3	15.4	17.5	18.2	18.1	18.7	0.6
Oman	16.9	18.6	18.3	19.8	19.6	20.0	21.4	0.6
Qatar	28.9	30.6	33.2	36.5	34.7	37.0	36.0	1.1
Saudi Arabia	81.1	81.7	83.6	85.3	90.6	93.9	96.4	2.9
United Arab Emirates	55.0	55.7	54.5	61.5	62.5	64.0	65.8	2.0
Other Middle East	17.5	18.0	18.0	19.3	19.8	20.1	19.5	0.6
Total Middle East	**353.2**	**364.0**	**384.8**	**411.3**	**430.7**	**453.2**	**475.6**	**14.4**
Algeria	25.7	27.6	31.0	32.6	33.2	33.4	36.7	1.1
Egypt	43.5	42.6	39.7	39.6	42.4	48.1	51.2	1.5
Morocco	1.0	1.0	1.0	1.0	1.0	1.0	0.9	*
South Africa	3.7	3.5	3.7	3.7	3.9	3.8	3.7	0.1
Eastern Africa	0.9	1.0	1.1	1.4	1.7	1.7	1.9	0.1
Middle Africa	3.5	3.1	3.1	3.0	3.8	3.9	3.8	0.1
Western Africa	11.2	10.9	13.7	20.6	21.2	19.8	21.0	0.6
Other Northern Africa	9.4	10.6	9.7	8.3	8.8	9.4	9.8	0.3
Total Africa	**99.0**	**100.3**	**103.1**	**110.1**	**116.1**	**121.0**	**129.0**	**3.9**
Australia	30.4	32.0	34.5	36.2	35.9	35.5	35.6	1.1
Bangladesh	18.3	18.9	19.8	22.2	22.7	22.9	24.4	0.7
China	129.7	147.8	162.0	167.4	180.1	206.7	243.3	7.4
China Hong Kong SAR	2.3	2.1	2.1	2.6	2.7	2.7	2.6	0.1
India	47.9	42.1	41.7	41.1	43.7	46.2	49.9	1.5
Indonesia	36.9	35.6	35.7	35.3	33.6	33.1	33.5	1.0
Japan	105.9	106.2	107.3	102.1	100.1	100.6	99.5	3.0
Malaysia	36.1	38.3	38.4	37.8	36.4	35.9	35.5	1.1
New Zealand	3.8	4.0	4.5	4.1	4.1	4.3	3.7	0.1
Pakistan	31.5	30.6	30.1	31.4	33.2	35.0	37.5	1.1
Philippines	3.1	2.9	3.0	2.9	3.3	3.2	3.5	0.1
Singapore	7.7	8.6	8.9	10.0	10.2	10.6	10.6	0.3
South Korea	45.2	47.3	43.0	39.3	41.0	42.8	48.1	1.5
Taiwan	15.4	15.4	16.2	17.4	18.0	20.0	20.3	0.6
Thailand	41.8	42.0	42.9	43.8	43.5	43.1	42.9	1.3

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XI.7: World Consumption of Natural Gas

(Figures in Million Tonnes Oil Equivalent)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Vietnam	7.8	8.1	8.5	8.8	8.8	8.2	8.3	0.3
Other Asia Pacific	7.3	7.4	8.7	10.3	9.8	9.8	10.3	0.3
Total Asia Pacific	**571.2**	**589.5**	**607.2**	**612.7**	**627.1**	**660.6**	**709.6**	**21.4**
Total World	**2852.6**	**2897.5**	**2917.1**	**2980.6**	**3052.6**	**3141.9**	**3309.4**	**100.0**

Notes: P: Provisional *:Less than 0.05

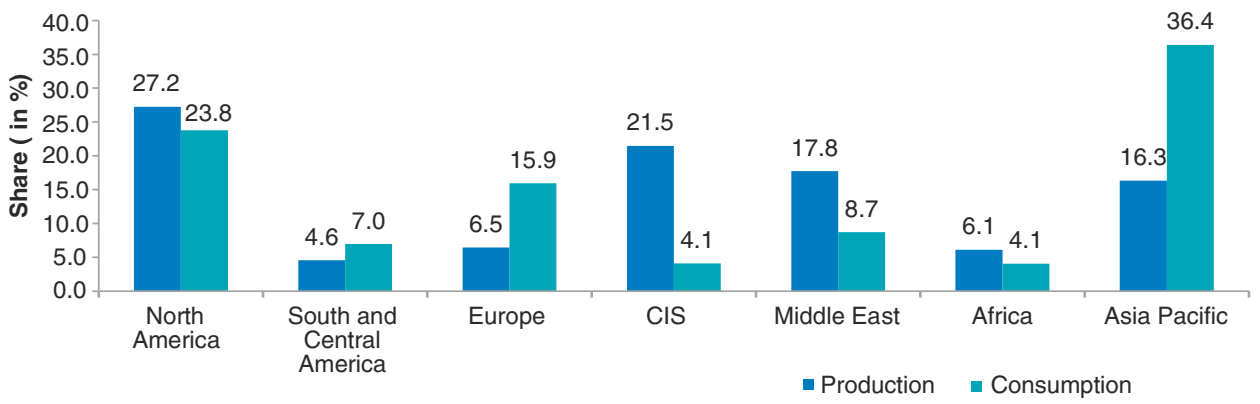
1.The difference between these world consumption figures and the world production statistics is due to variations in stocks at storage facilities and liquefaction plants, together with unavoidable disparities in the definition, measurement or conversion of gas supply and demand data.

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

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

Source: BP Statistical Review of World Energy, June 2019

Figure XI.10: Region-wise Share in Production and Consumption of Natural Gas during 2018 (%)



XI.8: World Oil Refining Capacity

(Figures in Thousand barrels daily)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	2015	1929	1929	1931	1934	1970	2025	2.0
Mexico	1606	1606	1522	1522	1522	1546	1546	1.5
US	17823	17925	17967	18317	18617	18567	18762	18.8
Total North America	**21443**	**21460**	**21418**	**21770**	**22073**	**22082**	**22333**	**22.3**
Argentina	657	657	657	657	657	657	580	0.6
Brazil	2004	2097	2238	2281	2289	2285	2285	2.3
Chile	254	254	258	258	258	258	258	0.3
Colombia	336	336	336	421	421	421	421	0.4
Curacao	320	320	320	320	320	320	320	0.3
Ecuador	175	175	175	175	175	175	175	0.2
Peru	252	253	253	253	253	253	253	0.3
Trinidad & Tobago	165	165	165	165	165	165	-	-
Venezuela	1303	1303	1303	1303	1303	1303	1303	1.3
Other S. & Cent. America	356	361	376	384	384	384	384	0.4
Total S. & Cent. America	5822	5921	6081	6217	6225	6221	5979	6.0
Austria	193	193	193	193	193	193	193	0.2
Belgium	753	776	776	776	776	776	776	0.8
Bulgaria	195	195	195	195	195	195	195	0.2
Czech Republic	175	175	175	175	175	175	175	0.2
Denmark	181	181	180	180	180	181	181	0.2
Finland	261	261	261	261	261	261	261	0.3
France	1513	1375	1375	1375	1245	1245	1245	1.2
Germany	2097	2061	2077	2049	2051	2069	2085	2.1
Greece	498	498	498	528	528	528	528	0.5
Hungary	165	165	165	165	165	165	165	0.2
Ireland	75	75	75	75	75	75	75	0.1
Italy	2098	1861	1900	1900	1900	1900	1900	1.9
Lithuania	241	241	241	241	241	241	241	0.2
Netherlands	1274	1274	1274	1293	1293	1294	1294	1.3
Norway	342	342	342	342	342	342	342	0.3
Poland	582	582	582	581	581	568	581	0.6
Portugal	330	330	330	330	330	330	330	0.3
Romania	214	235	228	239	256	247	254	0.3
Slovakia	122	122	122	122	122	122	122	0.1
Spain	1546	1546	1546	1562	1562	1562	1564	1.6
Sweden	454	454	454	454	454	454	454	0.5
Switzerland	106	140	140	68	68	68	68	0.1
Turkey	596	596	596	596	596	596	818	0.8
Ukraine	258	272	250	250	250	250	250	0.2
United Kingdom	1526	1498	1337	1337	1227	1227	1227	1.2
Other Europe	426	376	376	376	376	358	358	0.4
Total Europe	**16220**	**15824**	**15688**	**15664**	**15443**	**15421**	**15681**	**15.7**
Azerbaijan	205	205	205	205	205	205	120	0.1
Belarus	460	460	460	460	460	490	520	0.5
Kazakhstan	330	350	350	350	350	360	390	0.4

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XI.8: World Oil Refining Capacity (Contd....)

(Figures in Thousand barrels daily)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Russian Federation	5816	6279	6417	6523	6594	6596	6596	6.6
Turkmenistan	251	251	251	271	271	271	271	0.3
Uzbekistan	232	232	232	232	232	232	232	0.2
Other CIS	10	11	28	37	37	37	37	*
Total CIS	**7304**	**7788**	**7943**	**8078**	**8149**	**8191**	**8166**	**8.2**
Bahrain	260	260	260	260	260	260	260	0.3
Iran	1952	1985	1985	1985	1985	2105	2225	2.2
Iraq	971	823	791	763	779	779	859	0.9
Israel	292	294	301	301	301	301	301	0.3
Kuwait	936	936	936	936	936	736	736	0.7
Oman	222	222	222	222	222	304	334	0.3
Qatar	283	283	283	283	429	429	429	0.4
Saudi Arabia	2107	2507	2899	2899	2901	2826	2835	2.8
United Arab Emirates	712	712	728	1149	1149	1229	1229	1.2
Other Middle East	496	382	382	382	382	496	496	0.5
Total Middle East	**8231**	**8404**	**8787**	**9180**	**9344**	**9465**	**9704**	**9.7**
Algeria	652	647	651	651	651	657	657	0.7
Egypt	810	810	810	810	810	810	795	0.8
Morocco	201	201	201	201	201	201	201	0.2
Nigeria	336	336	339	339	339	339	344	0.3
South Africa	520	520	520	520	520	520	520	0.5
Other Africa	910	930	932	932	932	912	917	0.9
Total Africa	**3429**	**3443**	**3453**	**3453**	**3453**	**3439**	**3434**	**3.4**
Australia	663	662	536	443	452	454	454	0.5
Bangladesh	40	43	43	43	43	43	43	*
China	13643	14503	15253	15024	14855	15231	15655	15.6
India	4279	4319	4319	4307	4620	4699	4972	5.0
Indonesia	1099	1099	1099	1111	1111	1111	1116	1.1
Japan	4254	4123	3749	3721	3600	3343	3343	3.3
Malaysia	606	612	612	612	618	625	625	0.6
New Zealand	136	136	136	136	136	136	136	0.1
Pakistan	275	390	390	389	389	401	401	0.4
Philippines	261	270	271	271	271	271	271	0.3
Singapore	1422	1414	1514	1514	1514	1514	1514	1.5
South Korea	2878	2878	3123	3128	3259	3298	3346	3.3
Taiwan	1197	1197	1197	988	988	1083	1083	1.1
Thailand	1230	1237	1252	1252	1235	1235	1235	1.2
Vietnam	159	159	159	159	163	167	367	0.4
Other Asia Pacific	178	184	191	191	191	191	191	0.2
Total Asia Pacific	**32320**	**33225**	**33843**	**33288**	**33443**	**33802**	**34752**	**34.7**
Total World	**94769**	**96065**	**97214**	**97650**	**98129**	**98621**	**100049**	**100.0**

^: Atmospheric distillation capacity at year end on a calendar-day basis.

P: Provisional *: Less than 0.05% n/a: not available.

Source: BP Statistical Review of World Energy, June 2019

XI.9: World Refinery Crude Throughput

(Figures in '1000' barrels/day)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	1753	1769	1559	1640	1595	1756	1656	2.0
Mexico	1199	1223	1155	1064	933	767	609	0.7
US	14997	15306	15844	16183	16185	16581	16962	20.4
Total North America	**17949**	**18298**	**18557**	**18887**	**18713**	**19104**	**19227**	**23.2**
Argentina	530	527	526	536	511	500	470	0.6
Brazil	1889	2035	2085	1972	1812	1741	1733	2.1
Chile	164	174	174	165	163	172	172	0.2
Colombia	305	284	247	244	339	355	382	0.5
Curacao	165	170	189	178	156	84	29	*
Ecuador	152	141	125	121	150	156	159	0.2
Peru	190	186	188	188	194	213	209	0.3
Trinidad & Tobago	107	132	105	125	148	131	99	0.1
Venezuela	936	952	920	863	654	544	306	0.4
Other S. & Cent. America	329	293	282	279	274	235	254	0.3
Total S. & Cent. America	**4767**	**4895**	**4841**	**4670**	**4402**	**4132**	**3813**	**4.6**
Austria	170	174	173	179	164	162	180	0.2
Belgium	634	555	645	644	640	685	663	0.8
Bulgaria	118	113	104	121	125	136	118	0.1
Czech Republic	145	134	151	145	109	158	151	0.2
Denmark	153	144	139	147	140	151	152	0.2
Finland	215	227	225	197	226	226	233	0.3
France	1138	1117	1096	1152	1122	1149	1086	1.3
Germany	1901	1857	1833	1875	1887	1870	1775	2.1
Greece	410	399	416	436	464	483	489	0.6
Hungary	122	120	131	130	133	131	141	0.2
Ireland	61	57	55	68	64	64	61	0.1
Italy	1475	1259	1198	1347	1293	1399	1346	1.6
Lithuania	181	192	160	170	187	197	195	0.2
Netherlands	1110	1065	1090	1157	1172	1180	1192	1.4
Norway	287	292	274	293	230	281	286	0.3
Poland	505	488	486	532	517	508	540	0.7
Portugal	221	239	217	278	279	284	251	0.3
Romania	182	189	194	208	228	225	232	0.3
Slovakia	108	116	105	119	115	112	109	0.1
Spain	1186	1168	1185	1306	1302	1326	1365	1.6
Sweden	417	332	380	401	395	392	406	0.5
Switzerland	68	97	98	56	59	57	61	0.1
Turkey	398	421	406	526	531	542	478	0.6
Ukraine	108	85	69	64	64	77	60	0.1
United Kingdom	1348	1197	1125	1118	1071	1073	1054	1.3
Other Europe	132	136	128	141	147	166	164	0.2
Total Europe	**12793**	**12173**	**12082**	**12810**	**12665**	**13033**	**12786**	**15.4**
Azerbaijan	124	132	135	130	120	118	125	0.2
Belarus	434	425	448	462	372	364	376	0.5
Kazakhstan	331	341	361	342	339	355	374	0.5

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XI.9: World Refinery Crude Throughput (Contd....)

(Figures in '1000' barrels/day)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Russian Federation	5438	5636	5926	5773	5715	5703	5833	7.0
Turkmenistan	156	146	136	127	118	125	117	0.1
Uzbekistan	62	61	50	57	57	58	70	0.1
Other CIS	2	2	4	7	8	9	10	*
Total CIS	**6548**	**6742**	**7060**	**6899**	**6730**	**6732**	**6905**	**8.3**
Bahrain	263	264	257	266	258	262	261	0.3
Iran	1932	1999	1932	1867	1882	1968	2026	2.4
Iraq	579	598	487	409	440	527	596	0.7
Israel	219	221	231	232	219	218	231	0.3
Kuwait	916	873	879	905	841	686	679	0.8
Oman	193	187	180	190	178	232	282	0.3
Qatar	292	270	261	253	280	379	397	0.5
Saudi Arabia	1953	1876	2201	2447	2753	2802	2770	3.3
United Arab Emirates	638	650	643	1098	1077	1008	1044	1.3
Other Middle East	268	238	230	181	144	161	144	0.2
Total Middle East	**7253**	**7176**	**7301**	**7846**	**8072**	**8242**	**8431**	**10.2**
Algeria	478	492	615	591	584	573	598	0.7
Egypt	534	514	530	530	509	508	519	0.6
Morocco	111	111	104	53	-	-	-	-
Nigeria	92	97	64	22	62	81	44	0.1
South Africa	403	413	431	443	464	447	455	0.5
Other Africa	586	594	444	455	460	435	423	0.5
Total Africa	**2205**	**2220**	**2188**	**2093**	**2079**	**2044**	**2039**	**2.5**
Australia	600	588	538	427	433	419	477	0.6
Bangladesh	24	27	24	25	23	28	28	*
China	9199	9599	10155	10684	11084	11656	12441	15.0
India	4302	4462	4475	4561	4930	5010	5154	6.2
Indonesia	820	822	848	836	885	885	916	1.1
Japan	3400	3453	3289	3258	3280	3215	3059	3.7
Malaysia	575	558	553	514	574	599	596	0.7
New Zealand	109	105	101	109	108	108	103	0.1
Pakistan	192	223	232	257	242	261	275	0.3
Philippines	170	158	168	212	216	211	237	0.3
Singapore	1020	936	871	937	973	1068	1047	1.3
South Korea	2582	2484	2516	2784	2928	3061	3030	3.7
Taiwan	897	847	850	838	861	848	889	1.1
Thailand	986	1056	1005	1107	1056	1093	1131	1.4
Vietnam	130	140	121	146	145	144	266	0.3
Other Asia Pacific	89	98	95	87	103	100	101	0.1
Total Asia Pacific	**25094**	**25556**	**25841**	**26783**	**27840**	**28707**	**29751**	**35.9**
Total World	**76609**	**77060**	**77870**	**79989**	**80501**	**81992**	**82953**	**100.0**

Note: P:Provisional *: Less than 0.05% n/a not available.

1.Atmospheric distillation capacity on a calendar-day basis.

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

Source: BP Statistical Review of World Energy, June 2019

XI.10: Export of Crude Oil and Refined Petroleum Products from OPEC

(Figures in '1000' barrels/day)

Country/Year	2012	2013	2014	2015	2016	2017	2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crude Oil							
Algeria	808.6	744.0	622.9	642.2	668.3	632.6	571.0
Angola	1663.3	1669.4	1607.9	1710.9	1670.1	1576.7	1420.6
Congo	252.0	240.7	260.9	227.0	254.3	261.2	307.1
Ecuador	357.7	388.2	422.4	432.9	414.7	385.4	371.2
Equatorial Guinea	-	206.7	196.7	182.4	157.6	128.2	145.1
Gabon	224.0	207.5	207.4	206.4	205.2	188.4	174.1
Iran	2102.0	1215.4	1109.2	1081.1	1921.7	2125.0	1849.6
Iraq	2423.4	2390.4	2515.5	3004.9	3803.5	3802.0	3862.0
Kuwait	2070.0	2058.5	1994.8	1963.8	2128.2	2010.0	2050.0
Libya	962.0	836.0	329.4	288.4	350.1	792.1	998.5
Nigeria	2368.0	2193.0	2120.1	2114.0	1738.0	1811.1	1979.5
Saudi Arabia	7556.8	7570.7	7153.5	7163.3	7463.4	6968.3	7371.5
U.A.E	2445.2	2701.4	2496.7	2441.5	2407.8	2378.7	2296.5
Venezuela	1724.8	1528.0	1964.9	1974.2	1835.0	1596.4	1273.1
Total	**24957.8**	**23949.9**	**23002.3**	**23433.0**	**25017.9**	**24656.1**	**24669.8**
Refined Petroleum Products							
Algeria	449.2	453.0	582.6	605.4	541.1	569.7	532.1
Angola	29.9	32.2	31.0	36.7	54.3	17.2	17.6
Congo	-	-	6.8	5.8	5.7	5.8	5.9
Ecuador	27.4	19.7	7.7	15.6	31.4	42.3	42.2
Equatorial Guinea	-	-	-	-	-	-	-
Gabon	5.0	11.4	10.9	10.7	10.4	12.3	8.9
Iran	456.0	394.0	469.9	514.3	515.0	270.2	272.1
Iraq	2.2	11.5	9.3	13.7	36.8	20.1	45.7
Kuwait	804.2	805.3	751.1	739.4	707.4	640.0	630.4
Libya	53.1	86.3	17.2	21.8	23.1	23.5	25.4
Nigeria	21.4	23.1	49.3	18.0	17.9	19.3	21.3
Saudi Arabia	862.1	794.0	987.8	1154.7	1502.6	1438.2	1971.2
U.A.E	275.8	280.2	255.9	414.8	630.0	653.7	916.0
Venezuela	674.5	713.2	312.4	317.8	262.5	211.7	219.0
Total	**3660.8**	**3623.9**	**3491.9**	**3868.7**	**4338.4**	**3924.0**	**4707.8**

Note:Includes changes in the quantity of oil in transit, movements not otherwise shown, unspecified use, etc.

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

Source: OPEC Annual Statistical Bulletins, 2019

Figure XI.11: Export of Crude Oil and Refining Petroleum Products by OPEC

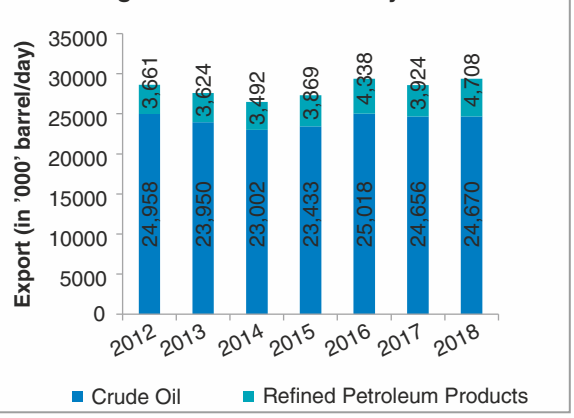
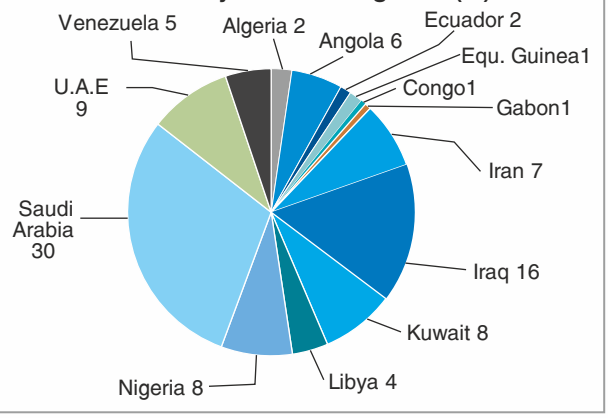


Figure XI.12: Country-wise Export of Crude Oil by OPEC during 2018 (%)



XI.11: World Imports of Crude Oil

(Figures in '1000' barrels/day)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
North America	**9241.1**	**8381.4**	**7907.6**	**7928.5**	**8738.5**	**8773.7**	**8504.2**	**18.2**
Canada	714.1	651.4	563.6	565.5	888.5	807.1	747.3	1.6
United States	8527.0	7730.0	7344.0	7363.0	7850.0	7966.6	7756.9	16.6
Latin America	**998.0**	**1070.6**	**1007.9**	**944.3**	**868.5**	**901.5**	**902.3**	**1.9**
Brazil	311.5	363.5	333.3	251.7	134.3	149.8	185.6	0.4
Chile	174.8	194.8	173.2	162.2	160.8	168.0	163.9	0.4
Cuba	98.3	99.0	101.8	112.9	113.8	114.4	112.4	0.2
Trinidad & Tobago	62.4	70.9	60.9	78.3	101.0	93.7	95.4	0.2
Others	351.0	342.4	338.7	339.2	358.6	375.6	345.0	0.7
Eastern Europe & Eurasia	**1839.5**	**1791.1**	**1740.5**	**1881.2**	**1716.3**	**1804.2**	**1838.6**	**3.9**
Belarus	433.4	454.0	453.8	461.9	365.6	365.3	367.9	0.8
Bulgaria	124.6	113.3	102.4	121.4	124.2	137.4	124.5	0.3
Czech Republic	142.4	132.3	148.7	144.1	107.3	157.7	150.2	0.3
Hungary	109.7	108.7	122.0	125.1	121.0	120.5	134.8	0.3
Poland	496.1	471.4	478.8	534.0	494.5	497.3	542.9	1.2
Romania	103.8	108.7	138.4	135.5	153.2	159.1	165.7	0.4
Others	429.5	402.7	296.4	359.2	350.5	366.9	352.8	0.8
Western Europe	**10417.6**	**9908.6**	**9748.8**	**10434.2**	**10273.0**	**10723.7**	**10320.6**	**22.0**
Belgium	639.5	558.4	650.0	647.9	642.0	688.4	666.3	1.4
France	1142.8	1110.1	1076.7	1145.8	1092.4	1140.7	1061.1	2.3
Germany	1882.9	1828.4	1806.8	1843.1	1837.4	1832.2	1719.8	3.7
Greece	419.3	392.1	420.5	445.7	473.0	478.2	491.1	1.0
Italy	1381.1	1178.7	1085.9	1261.6	1225.5	1340.4	1252.2	2.7
Netherlands	1004.1	952.1	957.2	1056.5	1091.5	1092.9	1100.4	2.4
Spain	1183.0	1168.5	1191.5	1308.0	1292.1	1332.2	1364.5	2.9
Sweden	416.6	338.8	378.0	406.2	396.2	401.0	402.3	0.9
Turkey	392.4	374.8	353.1	505.9	502.4	519.6	422.6	0.9
United Kingdom	1080.5	1017.6	940.2	856.2	797.0	893.8	827.8	1.8
Others	875.4	989.1	888.9	957.3	923.5	1004.3	1012.5	2.2
Middle East	**516.8**	**504.3**	**420.2**	**452.8**	**464.7**	**491.5**	**486.8**	**1.0**
Bahrain	219.9	218.9	211.0	218.2	212.4	222.9	220.2	0.5
Others	296.9	285.4	209.2	234.6	252.3	268.6	266.7	0.6
Africa	**782.8**	**676.8**	**757.5**	**656.1**	**615.4**	**619.2**	**662.0**	**1.4**
Morocco	105.0	113.0	104.9	43.0	-	-	-	-
South Africa	465.2	405.8	458.9	420.5	431.9	436.7	470.9	1.0
Others	212.6	158.0	193.7	192.6	183.5	182.5	191.0	0.4
Asia Pacific	**19249.3**	**19303.2**	**19655.0**	**20549.1**	**22037.3**	**23171.3**	**24101.4**	**51.5**
Australia	498.3	450.7	440.9	318.2	332.7	333.7	360.9	0.8
China	5423.8	5657.7	6177.5	6730.9	7625.4	8425.7	9261.4	19.8
India	3682.2	3792.6	3791.4	3935.5	4308.3	4341.4	4543.6	9.7
Indonesia	329.5	401.7	383.2	374.4	366.1	343.8	350.8	0.7
Japan	3457.5	3408.9	3244.6	3233.5	3157.8	3235.2	3055.9	6.5
Malaysia	245.2	201.3	209.3	179.2	198.0	208.9	210.3	0.4
New Zealand	106.0	104.2	100.2	103.2	107.2	108.0	105.9	0.2
Philippines	185.3	151.8	183.6	188.8	212.0	196.7	229.8	0.5
Singapore	832.2	782.8	786.4	806.3	896.9	981.7	918.7	2.0
South Korea	2555.0	2450.3	2475.7	2781.1	2928.0	3040.6	3036.5	6.5
Thailand	860.3	868.0	805.9	874.0	852.6	906.0	951.1	2.0
Others	1074.0	1033.2	1056.3	1024.0	1052.3	1049.6	1076.4	2.3
Total World	**43045.1**	**41636.0**	**41237.5**	**42846.2**	**44713.7**	**46485.1**	**46815.9**	**100.0**

Note: Data may include re-exports and volumes of natural gas in transit. P: Provisional

Source : OPEC Annual Statistical Bulletins, 2019

XI.12: World Imports of Natural Gas

(Figures in Million Standard Cubic Metres)

Country/Region/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
North America	**118033**	**108349**	**98218**	**96592**	**105812**	**110412**	**103751**	**8.6**
Canada	29180	26699	21890	19627	20679	24260	21330	1.8
United States	88853	81650	76328	76965	85133	86152	82421	6.8
Latin America	**52664**	**55540**	**55893**	**56747**	**55631**	**48598**	**47437**	**3.9**
Argentina	8700	11750	11230	10670	11580	12200	11800	1.0
Brazil	13730	16770	17480	18980	13380	10720	14310	1.2
Chile	3830	3778	3715	3494	4380	4375	4648	0.4
Mexico	21827	18531	19698	20393	23341	18353	13679	1.1
Venezuela	1877	1821	950	400	-	-	-	-
Others	2700	2890	2820	2810	2950	2950	3000	0.2
Eastern Europe & Eurasia	**137130**	**127620**	**112040**	**98820**	**95590**	**107960**	**108157**	**8.9**
Belarus	20252	18570	18420	17300	17200	17600	19886	1.6
Hungary	6060	6130	7100	5510	6250	9500	8791	0.7
Kazakhstan	3930	5280	4840	4700	5230	5600	7437	0.6
Poland	11270	12690	12000	10916	12500	13180	13590	1.1
Russia	33770	28010	24150	18000	15910	18150	19203	1.6
Ukraine	30890	26080	19200	16520	11100	14100	10355	0.9
Others	30958	30860	26330	25874	27400	29830	28895	2.4
Western Europe	**414350**	**432659**	**396839**	**425570**	**451888**	**493806**	**501368**	**41.4**
Austria	7810	6390	7800	6040	7400	8470	8067	0.7
Belgium	28580	31850	29780	34980	39430	42100	39809	3.3
France	44940	47873	45134	44711	46444	48260	49316	4.1
Germany	90530	96200	92550	103040	112200	126540	133822	11.1
Italy	67802	61953	55758	61200	65285	69622	67877	5.6
Netherlands	15390	15560	16470	26060	29470	33360	42362	3.5
Spain	36754	35399	33210	30620	30350	33380	33575	2.8
Turkey	44300	45270	49262	48427	46352	55121	50007	4.1
United Kingdom	49100	48944	43405	45062	48457	47623	48177	4.0
Others	29144	43220	23470	25430	26500	29330	28356	2.3
Middle East	**38596**	**41573**	**35597**	**44488**	**47700**	**44089**	**47748**	**3.9**
Iran, I.R.	6720	5329	4422	9015	9246	4731	6000	0.5
Iraq	-	-	-	-	-	1456	4100	0.3
Jordan	587	1180	300	2373	4449	4499	4550	0.4
Kuwait	688	3517	3025	3852	4311	4781	4418	0.4
Oman	1950	1950	1970	1988	1974	1972	2000	0.2
United Arab Emirates	28201	29047	25800	27100	27479	26030	26050	2.2
Others	450	550	80	160	240	620	630	0.1
Africa	**6580**	**7635**	**8290**	**11980**	**18130**	**17220**	**10734**	**0.9**
Egypt	-	-	-	3610	9750	8040	1200	0.1
Morocco	660	1055	1000	1000	1050	1040	924	0.1
South Africa	3600	3720	3800	3800	3960	4080	4110	0.3
Tunisia	1890	2260	2890	2970	3270	3680	4080	0.3
Others	430	600	600	600	100	380	420	0.0
Asia Pacific	**272823**	**296011**	**304579**	**301451**	**322225**	**352842**	**401169**	**33.2**
Australia	-	6466	6282	7279	6921	6200	6258	0.5
China	39700	51240	57650	59650	72800	92010	123379	10.2
India	17920	17380	18550	18670	26160	26740	30905	2.6
Japan	122243	125098	127521	122534	120073	120501	119372	9.9
Malaysia	2340	3260	4630	3270	2160	2570	2354	0.2
Pakistan	-	-	-	1370	4460	6570	11050	0.9
Singapore	8310	11960	12390	12370	12810	13420	13800	1.1
South Korea	48120	53157	49086	43428	44171	48651	55730	4.6
Thailand	9760	10360	10480	13490	12760	13830	13959	1.2
Others	24430	17090	17990	19390	19910	22350	24362	2.0
Total World	**1040176**	**1061752**	**1003166**	**1023668**	**1078846**	**1157707**	**1209629**	**100.0**

Note: Data may include re-exports and volumes of natural gas in transit. P: Provisional

Source : OPEC Annual Statistical Bulletins, 2019

XI.13: World Imports of Petroleum Products

(Figures in '1000' barrels/day)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
NORTH AMERICA	**2288.1**	**2346.5**	**2138.6**	**2326.7**	**2450.6**	**2445.2**	**2470.7**	**8.4**
Canada	217.1	217.5	241.6	240.7	245.6	270.2	300.8	1.0
United States	2071.0	2129.0	1897.0	2086.0	2205.0	2175.0	2169.8	7.4
LATIN AMERICA	**2340.7**	**2306.4**	**2464.7**	**2688.4**	**2776.8**	**3016.1**	**3293.7**	**11.2**
Brazil	567.8	544.4	610.5	556.1	550.5	697.8	640.2	2.2
Chile	138.0	140.0	134.9	154.0	156.3	160.0	162.4	0.6
Ecuador	117.9	133.2	157.4	151.7	122.6	134.2	193.8	0.7
Mexico	646.8	559.9	616.4	712.1	745.1	847.7	1089.0	3.7
Panama	60.7	58.8	62.3	57.4	66.1	63.3	59.8	0.2
Venezuela	145.0	133.0	158.3	187.1	160.2	164.7	245.1	0.8
Others	664.5	737.1	724.9	870.0	976.0	948.5	903.5	3.1
Eastern Europe and Eurasia	**814.5**	**805.2**	**866.0**	**907.0**	**1040.2**	**1115.9**	**1127.3**	**3.8**
Bulgaria	30.8	31.8	33.5	37.6	39.0	43.3	39.3	0.1
Hungary	104.2	45.2	48.0	57.0	65.5	84.7	83.7	0.3
Poland	175.5	107.7	120.6	127.2	169.7	209.7	202.9	0.7
Ukraine	-	153.3	168.8	163.1	196.2	201.2	213.1	0.7
Others	504.0	467.2	495.2	522.2	569.8	577.0	588.3	2.0
WESTERN EUROPE	**6706.6**	**7039.4**	**7026.2**	**7318.5**	**7698.7**	**7790.1**	**7756.4**	**26.4**
Belgium	389.3	545.8	490.1	546.7	552.9	575.6	621.4	2.1
France	900.1	881.4	897.3	857.0	825.5	861.7	896.1	3.1
Germany	688.6	802.1	791.9	800.1	827.1	880.1	842.5	2.9
Italy	205.7	260.2	252.5	261.9	324.7	346.5	362.9	1.2
Netherlands	1870.9	1843.3	1792.5	1900.5	1931.5	1927.2	1857.4	6.3
Spain	328.5	284.1	330.3	321.7	363.8	400.7	362.1	1.2
Turkey	444.5	461.1	480.2	498.3	522.8	555.7	572.1	2.0
United Kingdom	538.2	595.4	607.8	652.4	734.3	695.1	741.2	2.5
Others	1340.8	1366.0	1383.7	1479.9	1616.1	1547.3	1500.7	5.1
MIDDLE EAST	**1475.1**	**1555.9**	**1665.4**	**1844.2**	**1848.5**	**1929.5**	**2253.8**	**7.7**
Iran	5.9	15.0	39.9	52.5	61.6	96.0	101.0	0.3
Iraq	103.2	84.0	99.0	81.1	91.7	115.6	89.4	0.3
Kuwait	-	-	-	-	-	0.5	30.2	0.1
Qatar	0.0	6.0	5.4	32.8	20.6	20.5	21.5	0.1
Saudi Arabia	319.9	482.0	465.0	588.0	591.1	486.8	898.4	3.1
United Arab Emirates	289.8	292.1	349.8	358.0	340.2	344.4	350.6	1.2
Others	756.3	676.8	706.3	731.8	743.3	865.6	762.7	2.6
AFRICA	**1681.7**	**1591.2**	**1652.7**	**1917.0**	**1927.7**	**1907.9**	**1937.6**	**6.6**
Algeria	93.8	101.6	55.3	83.2	73.3	74.5	17.2	0.1
Angola	92.3	89.2	99.1	134.5	75.8	70.6	99.5	0.3
Congo	-	-	0.8	1.1	1.4	1.6	1.7	0.0
Egypt	239.5	177.6	185.8	367.2	351.3	318.2	283.8	1.0
Equatorial Guinea	-	4.3	7.3	7.6	6.4	6.5	3.9	0.0
Gabon	7.9	5.6	5.6	5.7	6.1	6.2	7.7	0.0
Libya	85.9	127.4	113.9	106.2	107.9	130.9	136.8	0.5
Morocco	160.8	166.3	163.2	161.0	276.9	285.7	294.2	1.0
Nigeria	351.6	331.0	438.7	441.0	423.4	391.7	442.0	1.5
Tunisia	61.0	61.3	67.6	81.3	74.6	82.5	88.7	0.3
Others	588.9	526.9	515.6	528.1	530.7	539.7	562.0	1.9
Asia and Pacific	**8417.1**	**8851.5**	**9111.2**	**9749.1**	**10059.4**	**10746.6**	**10487.1**	**35.8**
Australia	378.5	423.2	429.7	545.5	553.4	608.2	627.6	2.1
China	1017.9	1093.1	957.7	1150.9	1220.3	1368.5	1398.7	4.8
India	405.3	372.3	487.9	636.5	814.1	843.5	793.9	2.7
Indonesia	467.2	461.4	554.6	506.0	498.6	586.1	541.9	1.8
Japan	1089.1	1003.3	992.7	972.9	868.9	923.5	976.0	3.3
Malaysia	381.9	505.4	530.3	569.5	647.8	760.1	751.6	2.6
Singapore	2167.8	2272.7	2354.2	2535.7	2472.6	2621.3	2334.9	8.0
South Korea	852.8	899.4	885.7	844.2	900.6	869.0	934.6	3.2
Others	1656.6	1820.7	1918.4	1988.0	2083.1	2166.5	2127.9	7.3
TOTAL WORLD	**23723.8**	**24496.1**	**24924.8**	**26750.9**	**27801.9**	**28951.3**	**29326.6**	**100.0**

Note: Total May not tally due to rounding off. Data may include re-exports and volumes of oil in transit. P: Provisional

Source : OPEC Annual Statistical Bulletins, 2019

XI.14 World Exports of Crude Oil

(Figures in '1000' barrels/day)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
NORTH AMERICA	**1823.9**	**2192.7**	**2627.0**	**2765.8**	**3332.8**	**4052.1**	**5152.6**	**11.2**
Canada	1756.9	2058.7	2276.2	2301.2	2742.1	2893.8	3150.2	6.9
United States	67.0	134.0	350.8	464.6	590.8	1158.3	2002.4	4.4
LATIN AMERICA	**4578.5**	**4336.3**	**4953.0**	**5210.5**	**5119.4**	**5095.0**	**4747.0**	**10.4**
Brazil	487.7	365.6	517.3	736.0	891.3	1127.4	1147.0	2.5
Columbia	555.0	703.3	722.0	736.1	613.5	652.5	592.0	1.3
Ecuador	357.7	388.2	422.4	432.9	414.7	385.4	371.2	0.8
Mexico	1333.1	1270.7	1219.8	1247.1	1274.3	1264.6	1285.5	2.8
Trinidad and Tobago	30.8	38.2	34.2	29.1	28.3	23.5	20.8	0.0
Venezuela	1724.8	1528.0	1964.9	1974.0	1835.0	1596.4	1273.1	2.8
Others	89.4	42.3	72.5	55.1	62.3	45.2	57.4	0.1
EASTERN EUROPE & EURASIA	**6967.6**	**6780.4**	**6525.4**	**6907.1**	**7089.0**	**7166.0**	**7221.4**	**15.8**
Azerbaijan	698.4	692.1	669.4	663.1	655.1	615.3	601.6	1.3
Kazakhstan	1365.0	1276.9	1250.9	1229.3	1231.5	1370.7	1436.7	3.1
Russia	4757.0	4689.4	4488.4	4897.3	5080.6	5061.5	5069.1	11.1
Others	147.2	122.0	116.7	117.4	121.8	118.5	114.1	0.2
WESTERN EUROPE	**2038.4**	**1968.8**	**1891.9**	**1949.4**	**2095.5**	**2186.7**	**2043.0**	**4.5**
Norway	1303.0	1198.5	1203.2	1234.7	1372.7	1362.1	1254.9	2.7
United Kingdom	576.1	614.4	570.7	594.8	620.3	693.1	708.1	1.5
Others	159.3	155.9	117.9	120.0	102.5	131.5	80.0	0.2
MIDDLE EAST	**17740.5**	**17139.3**	**16792.8**	**17037.3**	**19321.1**	**18756.7**	**18915.0**	**41.3**
Iran	2102.0	1215.4	1109.2	1081.1	1921.7	2125.0	1849.6	4.0
Iraq	2423.4	2390.4	2515.5	3004.9	3803.5	3802.0	3862.0	8.4
Kuwait	2070.0	2058.5	1994.8	1963.8	2128.2	2010.0	2050.0	4.5
Oman	768.3	838.2	804.3	788.0	887.5	803.0	806.0	1.8
Qatar	252.0	240.7	595.5	490.7	503.4	466.0	477.3	1.0
Saudi Arabia	7556.8	7570.7	7153.5	7163.3	7463.4	6968.3	7371.5	16.1
United Arab Emirates	2445.0	2701.4	2496.7	2441.5	2407.8	2378.7	2296.5	5.0
Others	123.0	124.0	123.4	104.0	205.5	203.7	202.0	0.4
AFRICA	**6994.0**	**6975.9**	**6260.9**	**6410.3**	**5999.9**	**6272.5**	**6514.7**	**14.2**
Algeria	808.6	744.0	622.9	642.2	668.3	632.6	571.0	1.2
Angola	1663.3	1669.4	1607.9	1710.9	1670.1	1576.7	1420.6	3.1
Congo	252.0	240.7	260.9	227.0	254.3	261.2	307.1	0.7
Egypt	91.0	96.5	117.1	155.8	164.6	139.3	119.8	0.3
Equatorial Guinea		206.7	196.7	182.4	157.6	128.2	145.1	0.3
Gabon	224.0	207.5	207.4	206.4	205.2	188.4	174.1	0.4
Libya	962.0	836.0	329.4	288.4	350.1	792.1	998.5	2.2
Nigeria	2368.0	2193.0	2120.1	2114.0	1738.0	1811.1	1979.5	4.3
Sudan	60.0	133.0	168.0	166.0	162.4	141.1	164.5	0.4
Others	565.1	649.1	630.5	717.3	629.4	601.8	634.5	1.4
ASIA AND PACIFIC	**1239.1**	**1076.7**	**1150.5**	**1270.7**	**1291.2**	**1308.9**	**1215.8**	**2.7**
Australia	260.9	205.6	244.3	221.8	199.5	179.4	214.4	0.5
Brunei	139.0	114.6	108.0	112.0	104.7	98.0	115.1	0.3
China	48.9	32.0	12.2	57.2	58.3	97.7	49.0	0.1
Indonesia	228.9	228.6	255.9	315.1	334.5	344.2	284.1	0.6
Malaysia	267.8	209.0	229.0	312.0	325.0	339.0	348.0	0.8
Vietnam	185.0	170.3	173.4	143.6	146.3	129.5	88.5	0.2
Others	108.6	116.6	127.7	108.9	122.9	121.1	116.7	0.3
TOTAL WORLD	**41382.0**	**40470.1**	**40201.5**	**41551.1**	**44248.8**	**44837.9**	**45809.6**	**100.0**

Note: P: Provisional

1. Data may include re-exports and volumes of oil in transit.
2. Total may not add up due to rounding off.
3. Figures of World crude oil exports of OPEC and BP Statistical Review may not tally due to difference in coverage and methodology used.

Source: OPEC Annual Statistical Bulletins, 2019

XI.15: World Exports of Petroleum Products

(Figures in '1000' barrels/day)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
NORTH AMERICA	**3605.2**	**3992.2**	**4289.0**	**4756.9**	**5105.9**	**5708.9**	**6026.4**	**19.3**
Canada	468.2	505.2	464.0	483.9	435.9	490.9	442.9	1.4
United States	3137.0	3487.0	3825.0	4273.0	4670.0	5218.0	5583.4	17.9
LATIN AMERICA	**1627.0**	**1669.4**	**1195.1**	**1192.6**	**1227.8**	**1121.6**	**1073.4**	**3.4**
Brazil	163.0	150.6	152.8	124.5	124.4	133.1	170.5	0.5
Ecuador	27.4	19.7	7.7	15.6	31.4	42.3	42.2	0.1
Mexico	143.3	183.0	201.6	195.9	180.3	151.0	139.3	0.4
Trinidad and Tobago	69.9	91.7	69.9	91.5	121.0	118.2	119.4	0.4
Venezuela	674.5	713.2	312.4	317.8	262.5	211.7	219.0	0.7
Others	548.9	511.2	450.7	447.2	508.2	465.2	383.1	1.2
EASTERN EUROPE & EURASIA	**3194.6**	**3664.3**	**3917.6**	**3807.7**	**3633.1**	**3563.9**	**3513.9**	**11.3**
Romania	66.8	67.9	87.1	88.2	96.1	89.2	95.0	0.3
Russia	2259.2	2468.6	2610.7	2725.8	2501.7	2478.6	2505.1	8.0
Others	868.6	1127.8	1219.8	993.7	1035.6	996.1	913.8	2.9
WESTERN EUROPE	**6357.8**	**6355.4**	**6358.5**	**6934.1**	**7085.5**	**7435.6**	**7181.7**	**23.0**
Belgium	390.3	493.7	523.9	531.7	537.8	623.5	621.6	2.0
France	426.2	405.7	411.3	440.3	428.1	434.8	423.9	1.4
Germany	384.0	413.6	433.5	453.4	465.5	483.1	460.0	1.5
Italy	585.8	490.4	417.5	564.8	582.2	634.4	580.4	1.9
Netherlands	2112.7	2079.3	2081.2	2245.3	2303.5	2335.2	2296.2	7.4
Norway	378.0	360.2	372.4	402.2	351.8	433.2	416.1	1.3
Spain	348.7	369.0	384.7	411.5	422.9	470.7	453.0	1.5
Sweden	266.3	191.9	245.9	297.7	320.6	349.6	346.9	1.1
United Kingdom	568.9	553.2	483.8	484.9	523.2	505.5	477.0	1.5
Others	896.9	998.4	1004.3	1102.3	1149.8	1165.6	1106.7	3.5
MIDDLE EAST	**3270.5**	**3118.6**	**3319.6**	**3666.7**	**4247.7**	**3979.1**	**4708.5**	**15.1**
Bahrain	245.9	246.8	248.3	249.3	230.3	240.7	237.9	0.8
Iran	456.0	394.0	469.9	514.3	515.0	270.2	272.1	0.9
Iraq	2.2	11.5	9.3	13.7	36.8	20.1	45.7	0.1
Kuwait	804.2	805.3	751.1	739.4	707.4	640.0	630.4	2.0
Qatar	466.0	511.0	522.1	521.0	568.1	639.4	552.2	1.8
Saudi Arabia	862.0	794.0	987.8	1154.7	1502.6	1438.2	1971.2	6.3
United Arab Emirates	275.8	280.2	255.9	414.8	630.0	653.7	916.0	2.9
Others	158.4	75.8	75.3	59.6	57.6	76.9	83.0	0.3
AFRICA	**774.2**	**840.6**	**923.1**	**915.2**	**862.1**	**834.4**	**818.8**	**2.6**
Algeria	449.2	453.0	582.6	605.4	541.1	569.7	532.1	1.7
Angola	29.9	32.2	31.0	36.7	54.3	17.2	17.6	0.1
Congo	-	-	6.8	5.8	5.7	5.8	5.9	0.0
Egypt	56.5	46.5	45.2	46.5	36.3	33.5	47.6	0.2
Gabon	4.7	11.4	10.9	10.7	10.4	12.3	8.9	0.0
Libya	53.1	86.3	17.2	21.8	23.1	23.5	25.4	0.1
Nigeria	21.4	23.1	49.3	18.0	17.9	19.3	21.3	0.1
Others	159.4	188.1	180.2	170.3	173.1	153.2	160.1	0.5
ASIA AND PACIFIC	**6379.8**	**6810.2**	**6790.9**	**7044.8**	**7756.6**	**8029.8**	**7863.3**	**25.2**
Australia	63.9	57.4	55.8	46.6	51.1	45.9	52.5	0.2
China	569.6	665.8	692.7	836.4	1088.5	1168.8	1267.3	4.1
India	1288.7	1475.1	1374.1	1245.4	1401.7	1411.4	1344.3	4.3
Indonesia	70.5	87.4	88.5	89.1	82.9	80.3	86.8	0.3
Japan	439.5	513.3	509.3	559.5	594.8	575.3	548.1	1.8
Malaysia	401.8	473.8	466.3	440.8	609.3	656.8	674.5	2.2
Singapore	1731.1	1729.8	1761.0	1870.5	1995.0	2088.3	1776.7	5.7
South Korea	1192.6	1161.9	1206.1	1279.5	1312.9	1368.7	1435.2	4.6
Others	622.1	645.7	637.3	676.9	620.6	634.3	677.9	2.2
TOTAL WORLD	**25209.1**	**26450.0**	**26793.8**	**28318.0**	**29919.0**	**30673.2**	**31186.0**	**100.0**

Note: Data may include re-exports and volumes of oil in transit. P: Provisional

Source : OPEC Annual Statistical Bulletins, 2019

XI.16: World Exports of Natural Gas

(Figures in Million Standard Cubic Metres)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
North America	**134129**	**126974**	**120844**	**128755**	**148156**	**174382**	**182341**	**14.3**
Canada	88290	82449	77968	78253	82023	84679	80216	6.3
United States	45839	44525	42876	50502	66133	89703	102125	8.0
Latin America	**39490**	**42227**	**41190**	**39270**	**37600**	**34719**	**40651**	**3.2**
Argentina	100	87	70	80	60	10	10	0.0
Bolivia	14720	17110	17810	18060	17800	16400	17000	1.3
Colombia	1840	2100	950	400	-	-	-	-
Mexico	10	30	40	30	30	19	11	0.0
Peru	-	-	5240	4830	5070	5250	5500	0.4
Trinidad & Tobago	17730	17720	17030	15870	14150	12620	17720	1.4
Others	5090	5180	50	-	490	420	410	0.0
Eastern Europe & Eurasia	**267080**	**285299**	**266810**	**265600**	**275960**	**300362**	**328482**	**25.7**
Azerbaijan	6100	7009	7770	7320	7620	8030	10276	0.8
Kazakhstan	11030	11400	10840	12290	12480	14220	16807	1.3
Russia	203940	210820	193900	197740	208040	228320	251295	19.7
Turkmenistan	35810	41270	45000	40300	37700	38800	39132	3.1
Uzbekistan	10200	13500	8050	7550	10120	9392	9272	0.7
Others	0	1300	1250	400	-	1600	1700	0.1
Western Europe	**218165**	**220809**	**228118**	**236681**	**240957**	**253799**	**261349**	**20.5**
Austria	3629	4034	-	-	-	-	-	-
Belgium	9540	13060	13220	17080	21180	23950	23764	1.9
Denmark	2983	2236	2085	2191	2114	2235	1538	0.1
France	5994	5027	7078	5468	3717	6038	5925	0.5
Germany	12240	13890	20100	26360	27530	35910	44860	3.5
Italy	324	226	237	220	212	271	396	0.0
Netherlands	54510	59500	58661	50962	56597	48017	52427	4.1
Norway	111928	106596	106759	114200	114373	122485	120961	9.5
Spain	4414	5832	8224	5047	3984	2876	3244	0.3
United Kingdom	11971	9754	10844	14243	10300	11347	7610	0.6
Others	632	654	910	910	950	670	624	0.0
Middle East	**155940**	**165361**	**163578**	**163508**	**162641**	**164832**	**176260**	**13.8**
Iran, I.R.	9152	9307	8360	8541	8567	12927	12327	1.0
Oman	10870	11280	10270	10000	10550	11150	13400	1.1
Qatar	115668	122874	122628	129877	130324	128645	143445	11.2
United Arab Emirates	13420	12590	13520	13200	13200	12109	7087	0.6
Yemen	6830	9310	-	-	-	-	-	-
Others	-	-	8800	1890	-	-	-	-
Africa	**104975**	**92147**	**85239**	**83296**	**94204**	**101779**	**95370**	**7.5**
Algeria	54594	46708	44190	43419	53974	53891	51424	4.0
Angola	-	517	-	-	1149	517	541	0.0
Congo	-	-	-	-	-	190	-	-
Egypt	7570	6056	720	-	670	1160	1240	0.1
Equatorial Guinea	4720	5090	4790	4710	4640	4960	5509	0.4
Libya	6225	5513	4962	4664	4664	4470	4251	0.3
Mozambique	3600	3720	-	-	-	-	-	-
Nigeria	28266	24543	26778	26704	25147	32511	28626	2.2
Others	-	-	3800	3800	3960	4080	3780	0.3
Asia Pacific	**110381**	**114264**	**123230**	**137699**	**155353**	**174093**	**191329**	**15.0**
Australia	27410	29550	32390	39499	58683	74803	91582	7.2
Brunei	8880	9240	7820	8520	8450	8920	8817	0.7
Indonesia	32821	31384	31730	30290	30420	29820	35571	2.8
Malaysia	32800	35400	34870	34990	34180	36840	32848	2.6
Myanmar	8470	8690	11700	13910	12800	12150	11950	0.9
Others	-	-	4720	10490	10820	11560	10560	0.8
Total World	**1030160**	**1047081**	**1029009**	**1054809**	**1114871**	**1203966**	**1275782**	**100.0**

Note: Data may include re-exports and volumes of natural gas in transit. P: Provisional

Source: OPEC Annual Statistical Bulletins, 2019

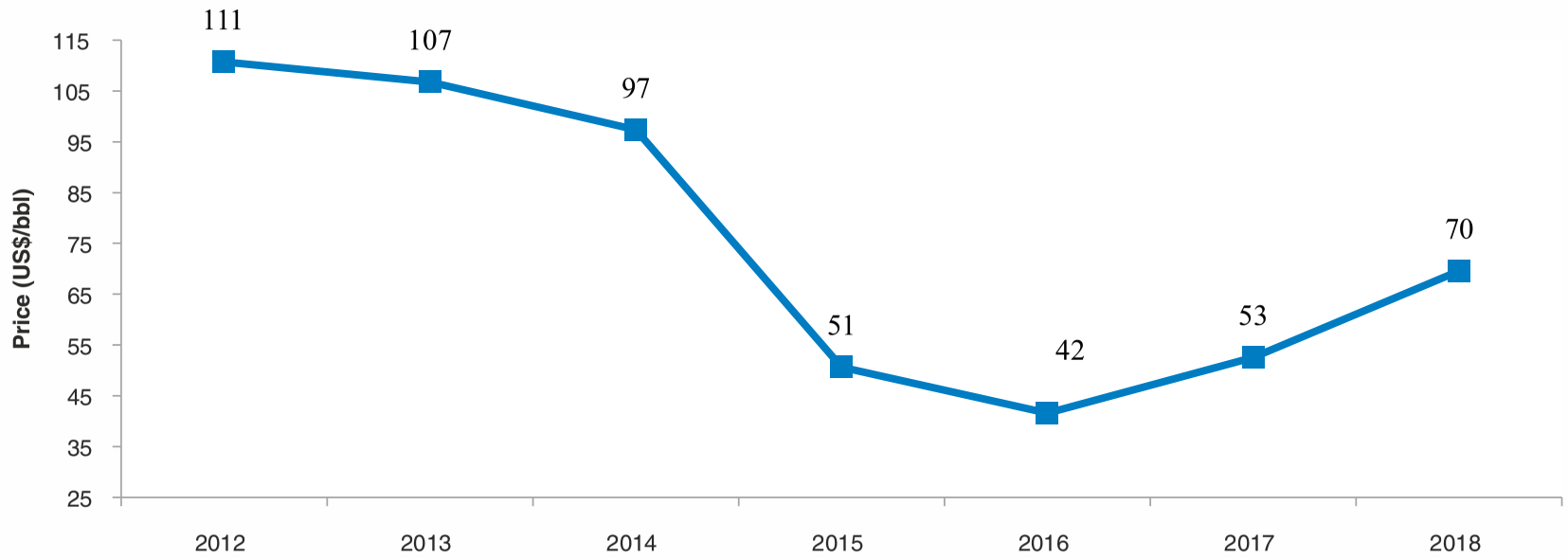
XI.17: Sport Prices of Key OPEC Crude

(Figures in US $/bbl)

Period	Country/Crude Name										
	Kuwait	Libya	Nigeria	Qatar	Saudi Arabia	UAE	Indonesia	Iran	Iraq	Oman	Oman
	Kuwait	Export	Brega Heavy	Forcados	Dukhan	Arab Light	Murban Heavy	Minas Light	Iran	Iran	Basrah
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2012	108.93	111.45	114.21	110.34	108.32	111.76	116.60	109.79	109.06	107.96	109.35
2013	105.04	108.88	111.95	107.05	103.89	108.21	107.41	107.19	105.73	103.60	105.51
2014	95.32	98.79	101.35	98.44	93.68	99.45	98.68	97.26	96.18	94.45	97.04
2015	48.13	52.08	54.41	52.87	47.01	53.87	49.17	51.40	48.80	47.87	51.21
2016	39.30	43.73	43.70	43.69	38.45	44.83	41.11	41.66	39.57	39.53	41.96
2017	51.60	53.62	54.58	54.12	50.96	54.82	48.99	52.36	51.71	51.87	53.32
2018	68.90	70.65	72.56	71.22	68.79	72.20	65.44	69.10	67.97	68.62	70.10

Source : OPEC Annual & Monthly Statistical Bulletins 2019

Figure XI.13: Trends in average international crude oil spot price



XI.18: Crude Oil Spot Prices

(Average Unit Value, FOB, in US $/bbl)

Crude	Country	2012	2013	2014	2015	2016	2017	2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Brent	UK(North Sea)	111.68	108.68	98.94	52.37	43.72	54.16	71.27
WTI	U.S.A	94.12	98.03	93.28	48.71	43.33	50.78	65.20
WTS	U.S.A	88.71	95.41	87.33	48.97	42.49	49.81	57.43
Light Lui.	Louisiana	111.69	107.39	96.90	52.35	45.02	54.01	70.19
Dubai	UAE	109.02	105.44	96.52	50.84	41.46	53.15	69.65
Iran Light	Iran	109.08	107.40	96.87	51.12	41.66	52.36	69.10
Iran Heavy	Iran	108.19	105.63	95.02	49.72	40.02	50.44	66.60
Urals	Russia	110.85	108.39	97.97	51.50	42.11	53.26	70.17
Minas	Indonesia	116.26	110.08	100.30	52.52	41.20	49.07	65.41
Tapis	Malaysia	117.00	115.10	102.83	54.50	45.77	56.37	73.69

Source : Energy Prices and Taxes, First Quarter of 2019, International Energy Agency Publication.

XI.19: Petroleum Products Spot Prices

(Figures in US $/bbl)

Product	2012	2013	2014	2015	2016	2017	2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NW EUROPE							
Gasoline	123.40	117.18	108.61	67.03	54.24	65.80	78.78
Gas Oil	128.03	123.40	112.63	65.48	52.37	64.68	84.28
Jet/Kerosene	129.00	124.12	113.87	65.32	53.00	65.92	86.39
Naphtha	105.37	101.44	93.95	51.79	42.90	54.19	64.48
LSFO	105.12	96.43	86.96	41.01	34.24	48.72	63.23
HSFO	97.65	91.47	81.04	37.85	30.62	45.63	61.13
U.S.A							
Gasoline	131.91	127.42	117.36	77.29	62.75	73.82	85.71
Gas Oil	125.43	120.40	109.09	60.84	49.72	61.62	80.78
Jet/Kerosene	128.22	122.67	113.30	63.86	52.43	65.40	85.12
Naphtha	98.05	94.47	87.61	47.66	41.29	51.03	64.07
HSFO	99.32	92.96	82.82	40.73	32.12	46.03	60.2
SINGAPORE							
Gasoline	123.44	118.98	110.75	69.09	56.20	67.96	80.21
Gas Oil	128.08	123.24	112.53	64.47	52.24	65.65	84.33
Jet/Kerosene	126.81	122.87	112.40	64.69	53.00	65.28	85.05
Naphtha	103.73	101.20	94.43	52.88	42.81	53.99	67.5
LSFO	115.43	106.16	98.55	48.07	39.64	52.48	67.44
HSFO	118.22	111.96	104.93	56.38	na	na	na

na: not available

Source : Energy Prices and Taxes, First Quarter of 2019, International Energy Agency Publication.

XI.20: Spot Prices of Key OPEC Crude Oils

(Figures in US $/bbl)

Year/Month/ Country	Iran	Kuwait	Nigeria Bonny	Saudi Arabia		UA
	Light 33.9	Export 31.4	Light 36.7	Light 34.2	Heavy 28.0	Dubai 32.4
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2012						
January	109.76	112.00	113.08	112.82	111.73	109.86
March	122.83	122.32	127.98	123.43	121.84	122.47
June	93.35	93.32	97.19	94.51	92.67	94.44
September	112.24	110.02	114.06	111.32	109.76	111.22
December	107.61	106.19	111.19	108.35	104.79	106.34
2013						
January	105.33	103.79	115.41	110.64	102.21	107.94
March	105.63	103.08	110.57	107.61	101.63	105.55
June	110.27	106.56	106.12	101.30	104.50	100.32
September	96.41	95.30	114.30	109.48	99.73	108.28
December	61.32	58.25	113.11	108.07	56.65	107.80
2014						
January	105.33	103.79	110.26	105.74	102.21	104.01
March	105.63	103.05	109.50	104.80	101.63	104.32
June	110.27	106.56	114.36	108.61	104.50	108.03
September	96.41	95.30	98.07	97.23	93.73	96.47
December	61.32	58.25	63.81	60.13	56.65	60.25
2015						
January	47.42	42.31	48.51	44.47	40.25	45.57
March	54.79	50.52	56.75	52.20	49.34	54.66
June	62.28	59.29	62.19	60.94	58.01	61.76
September	46.16	43.96	48.01	45.56	43.37	45.38
December	35.98	31.49	38.16	33.70	30.15	34.59
2016						
January	28.34	23.92	30.40	26.35	22.50	26.81
March	36.08	32.99	38.53	34.74	32.76	35.15
June	46.38	44.50	48.48	46.28	43.68	46.25
September	44.23	41.22	47.77	42.70	40.34	43.67
December	51.85	50.93	53.91	51.92	49.70	52.08
2017						
January	52.35	51.48	54.98	52.29	50.56	53.71
February	52.35	52.85	55.24	53.63	51.97	54.41
March	49.13	49.87	51.91	50.68	48.86	51.21
April	50.04	50.81	53.02	51.64	49.97	52.31
May	47.34	48.65	50.77	49.30	47.92	50.47
June	43.85	44.37	46.92	45.21	43.64	46.38
July	47.03	46.19	48.66	47.12	45.76	47.59
August	50.85	48.70	51.69	49.63	48.55	50.24
September	54.45	52.23	56.55	53.29	51.78	53.51
October	56.25	54.50	57.97	55.73	53.99	55.63
November	62.12	59.58	63.29	61.08	59.03	60.81
December	63.37	60.94	64.64	62.50	60.47	61.61

XI.20: Spot Prices of Key OPEC Crude Oils

(Figures in US $/bbl)

Year/Month/ Country	Iran	Kuwait	Nigeria Bonny	Saudi Arabia		UA
	Light 33.9	Export 31.4	Light 36.7	Light 34.2	Heavy 28.0	Dubai 32.4
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2018						
January	68.32	65.74	69.92	67.42	65.24	66.15
February	62.64	62.14	66.02	64.03	61.60	62.69
March	63.44	62.23	67.05	64.40	61.49	62.76
April	68.76	66.99	72.75	68.91	66.47	68.29
May	74.60	72.55	77.73	74.68	72.24	74.20
June	72.56	72.38	74.86	74.26	72.30	73.61
July	72.10	72.33	75.06	74.16	72.50	73.09
August	70.34	71.82	73.29	73.38	72.35	72.47
September	76.40	76.82	79.45	78.16	77.14	77.22
October	78.08	78.56	82.09	80.02	78.47	79.40
November	62.79	65.15	65.90	66.36	65.40	65.79
December	55.96	57.10	57.82	58.24	57.24	57.29

Source: OPEC Bulletins 2018 & 2019

XI.21: Spot Prices of Major Petroleum Products in Key Trading Centres of the World

(Figures in U$/bbl)

Market/Product/Year	2017					2018											
	Jan	Mar	Jun	Sep	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
NAPHTHA																	
North European Market, FOB Rotterdam	55.06	50.70	44.69	55.76	63.79	65.48	61.52	63.29	67.11	73.73	69.92	71.04	70.82	74.71	73.15	55.86	50.95
South European Market, FOB Italy	54.21	49.55	43.57	54.97	62.72	64.29	60.54	62.41	66.59	73.32	69.53	70.74	70.61	74.54	72.58	54.99	49.32
Singapore Cargoes, FOB	55.71	50.82	44.94	55.20	65.21	66.26	61.41	63.08	67.14	74.66	70.89	72.25	71.76	75.39	74.90	57.01	52.13
Middle East Gulf Market, FOB	54.42	49.65	43.92	54.09	63.31	64.91	60.19	61.36	64.95	72.17	68.71	70.27	70.40	74.16	73.48	55.84	49.81
GASOLINE																	
North European Market, FOB Rotterdam, (regular unleaded)	73.82	70.06	69.62	79.57	80.40	85.60	82.80	79.34	90.68	96.58	93.71	93.79	95.01	95.03	91.20	76.78	67.58
South European Market, FOB Italy(premium) 50ppm	66.95	62.59	59.92	71.24	72.85	78.36	74.32	74.83	83.43	88.50	85.99	86.82	88.59	88.22	83.56	68.63	59.95
US East Coast, New York (regular unleaded 87)	67.54	62.83	60.62	77.64	73.63	80.00	76.27	76.67	83.93	89.38	85.29	86.95	87.15	87.45	85.32	68.68	61.24
Singapore Cargoes (Premium Unl. 95), FOB	69.47	64.28	59.78	70.43	75.32	78.61	77.02	77.12	81.50	87.60	83.53	83.11	84.83	89.53	87.64	68.65	60.02
Singapore Cargoes(Premium Unl. 92), FOB	66.77	61.94	57.41	67.55	73.26	76.65	74.15	74.25	78.45	85.29	81.50	81.08	82.44	87.51	85.66	66.92	57.98
JET KERO																	
North European Market, FOB Rotterdam	65.05	62.21	57.81	70.72	77.64	83.10	81.65	82.03	87.45	93.03	89.30	88.79	87.96	92.51	97.45	85.10	74.80
US East Coast, FOB, New York	65.12	62.20	56.52	76.57	81.35	85.59	79.96	79.88	88.20	93.51	89.62	90.39	91.21	94.01	96.22	85.54	79.75
Singapore Cargoes, FOB	65.17	61.93	57.03	68.08	75.45	81.00	80.01	79.00	85.16	89.93	86.91	87.31	87.31	91.75	95.16	82.97	71.17
Middle East Gulf Market, FOB	63.50	60.26	55.62	66.24	73.74	79.55	78.30	77.14	83.40	88.14	85.07	85.44	85.68	89.99	93.20	80.91	68.39
GAS OIL/Diesel																	
North European Market, FOB Rotterdam	65.60	62.29	57.06	71.33	76.56	82.15	77.45	78.64	85.49	91.30	88.75	88.00	88.49	92.86	97.18	86.35	74.59
South European Market, FOB Italy	66.54	63.15	58.01	71.77	77.24	82.91	78.73	79.81	86.62	92.52	89.18	89.12	89.63	93.93	97.91	86.34	74.92
US East Coast, FOB, New York	64.13	60.48	54.86	68.78	77.66	83.24	75.20	75.15	82.00	87.73	85.21	85.04	86.55	91.41	95.12	83.28	76.22
Singapore Cargoes, FOB	65.15	62.94	57.54	68.49	75.27	80.78	77.46	77.75	83.72	89.52	86.87	85.55	87.61	92.76	95.97	81.63	69.03
Middle East Gulf Market, FOB	63.38	61.19	56.05	66.55	73.46	79.71	75.86	75.90	81.77	87.89	84.72	83.95	85.77	91.22	94.46	79.49	66.28
FUEL OIL																	
North European Market (1%s), FOB Rotterdam	50.60	44.86	43.95	49.82	54.46	57.65	55.15	55.15	58.66	65.69	65.94	67.51	65.73	67.75	73.08	62.61	53.08
North European Market (3.5%s), FOB Rotterdam	43.03	39.94	39.68	47.00	51.21	54.41	52.04	52.00	55.61	62.64	62.70	64.45	62.59	64.72	69.67	58.71	48.88
South European Market,(1%s) FOB Italy	52.19	46.24	45.56	49.97	55.51	59.24	56.29	56.38	59.63	66.57	67.38	68.37	66.43	68.74	74.28	64.51	54.58
South European Market,(3.5%s) FOB Italy	45.77	42.34	42.13	48.10	52.65	55.94	53.44	53.47	56.90	63.80	64.27	65.88	63.97	66.11	70.81	60.01	49.67
US East Coast, New York (0.3%S)	59.23	53.62	50.63	58.56	63.83	70.96	68.16	68.49	73.16	78.54	77.31	82.02	80.77	82.60	86.79	80.36	69.75
Singapore Cargoes (380 Cst), FOB	50.47	45.64	44.60	50.55	56.20	58.85	56.56	56.05	59.63	67.07	68.15	69.98	68.57	70.54	76.59	68.25	56.63
Singapore Cargoes (180 Cst), FOB	55.05	50.74	50.17	55.73	62.10	64.40	62.58	61.74	64.41	73.38	74.47	76.38	75.76	77.59	83.63	77.24	64.16
Middle East Gulf Market, (180 Cst), FOB	49.35	44.63	44.21	49.59	55.06	57.70	55.86	55.93	59.98	66.89	67.97	69.16	67.66	69.31	75.12	66.12	54.16

Source : OPEC Monthly Statistical Bulletins, 2018 & 2019

XI.22: World Survey of Selected Petroleum Products Prices in 2018

(Figures in US $/bbl)

Country	US $ Exchange Rate in National Currencies	Automotive Diesel Oil Non-commercial use (US$/Ltr) (using PPPs)	Heavy/High Sulphur Fuel Oil (for Industry) (US$/tonne)	Light Fuel Oil	
				For Household Use	For Industry Use
				(US$/1000 Ltr)	
(1)	(2)	(3)	(4)	(5)	(6)
Australia	1.339	..	..	..	..
Austria	0.847	1.133	x	950.7	738.3
Belgium	0.847	1.467	x	800.2	661.3
Canada	1.296	0.821	451.1	888.1	664.0
Chile	641.900	..	..	1022.1	..
Czech Republic	21.730	1.200	c	897.8	659.7
Denmark	6.314	1.296	..	1572.3	942.3
Estonia	0.847	1.284	..	992.7	827.2
Finland	0.847	1.322	..	1180.1	951.7
France	0.847	1.413	..	1076.3	831.2
Germany	0.847	1.305	..	819.0	652.3
Greece	0.847	1.305	..	1172.2	945.3
Hungary	270.200	1.156	..	x	..
Iceland	108.270	..	..	..	..
Ireland	0.847	1.288	707.8	857.0	755.1
Israel	3.595	c	c	1793.7	c
Italy	0.847	1.440	..	1499.4	1229.0
Japan	110.440	0.974	..	831.7	696.2
Korea	1100.000	..	590.0	856.5	x
Latvia	0.847	1.161	..	906.9	749.5
Lithunia	0.847	1.119	386.8	775.0	640.5
Luxembourg	0.847	1.105	x	759.6	679.3
Mexico	19.178	0.851	284.6	x	463.8
Netherlands	0.847	1.302	x	1290.5	1066.6
New Zealand	1.446	0.733	..	..	597.7
Norway	8.136	1.461	x	1374.7	1099.8
Poland	3.611	1.107	432.3	920.2	755.4
Portugal	0.847	1.437	x	1367.6	..
Slovak Republic	0.847	1.237	x	..	x
Slovenia	0.847	1.237	x	1110.0	909.8
Spain	0.847	1.174	..	895.3	739.9
Sweden	8.690	1.436	x	..	1014.4
Switzerland	0.978	1.643	x	986.4	872.8
Turkey	4.840	1.192	678.3	1091.3	..
U.K	0.750	1.445	x	792.1	..
U.S.A	1.000	0.840	459.4	848.3	537.4

.. : not available x : not applicable c : confidential

Source : Energy Prices and Taxes, First Quarter of 2019, International Energy Agency Publication.

XI.23: Airfield Prices of Jet A-1 Fuel at Major International Airports

(Figures in U.S.C./U.S. GALLON) (as on 1st April)

Countries / Ports	2013	2014	2015	2016	2017	2018	2019
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
France							
Paris	314.42	303.58	183.00	125.31	160.03	206.93	206.91
Germany							
Frankfurt	303.55	298.08	178.60	121.17	157.83	206.85	202.44
Italy							
Rome	na	na	190.71	127.15	162.60	207.92	208.29
Malaysia							
Kualalampur	293.61	290.47	170.00	117.39	151.96	na	na
Singapore							
Paya Lebar/Changi	289.58	285.65	165.17	115.15	147.34	197.17	191.39
U.A.E							
Abu Dhabi	307.63	300.99	178.37	133.35	163.53	209.45	209.00
Dubai	301.75	292.99	170.37	127.15	157.33	206.89	200.45
U.K							
London(Heathrow)	304.94	303.29	183.49	127.39	160.76	204.46	204.79
Kuwait	280.94	274.67	166.90	120.45	152.26	188.50	189.76
New York	303.13	304.34	172.75	117.86	158.27	208.06	202.00
Japan							
Tokyo	314.95	303.54	180.31	126.26	162.11	190.33	218.97
India							
Mumbai	323.15	316.85	207.25	164.18	202.54	227.54	227.06
Delhi	322.80	315.32	205.06	129.84	165.94	211.90	212.57
Madras	324.01	317.61	208.31	142.64	178.95	220.64	212.41

Source : Air India

na : not available

XI.24: Natural Gas Prices for Industry and Household Use

USD/MWh (GCV basis) (using PPPs)

Country/Year	2012	2013	2014	2015	2016	2017	2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FOR INDUSTRIAL USE							
Austria	45.8	46.2	43.3	47.4	44.0	38.6	38.7
Belgium	44.4	47.0	37.2	36.7	30.8	31.2	na
Canada	9.6	11.6	14.4	10.4	14.7	17.8	na
Czech Repubic	71.7	72.4	69.9	64.1	57.8	55.2	56.2
Denmark	39.0	42.6	35.9	34.0	28.0	33.1	na
Estonia	68.1	68.0	67.8	56.4	44.1	50.8	na
Finland	46.1	46.3	44.4	41.0	39.7	46.7	51.9
France	48.2	51.2	48.9	47.0	41.4	43.4	na
Germany	44.1	48.5	43.7	39.5	34.4	32.7	na
Greece	75.9	72.8	69.7	54.5	42.2	na	na
Hungary	85.6	81.6	92.0	72.1	59.2	52.7	61.2
Ireland	43.1	48.0	44.7	40.0	38.1	40.3	45.3
Italy	57.0	57.6	51.8	51.0	46.3	44.0	na
Japan	56.1	66.1	67.7	51.9	37.4	42.9	na
Korea	81.0	83.5	87.3	65.6	55.1	57.0	55.8
Luxembourg	42.5	45.0	38.2	43.3	32.1	29.7	na
Netherlands	36.5	39.4	38.2	35.3	30.4	30.5	na
New Zealand	18.8	20.0	18.6	17.3	14.9	17.1	na
Poland	79.6	75.8	78.2	68.0	52.7	54.5	63.2
Portugal	67.7	71.9	75.2	68.0	53.0	47.3	47.4
Slovak Republic	81.0	75.7	68.6	66.6	63.2	59.8	60.4
Slovenia	82.5	73.9	66.0	57.5	49.3	48.1	51.9
Spain	49.2	51.1	50.6	45.1	36.4	37.1	40.4
Sweden	49.5	48.3	43.2	42.3	36.6	39.3	na
Switzerland	49.6	51.0	52.5	51.2	49.6	50.1	61.2
Turkey	72.3	77.6	76.8	76.4	69.3	58.4	73.4
U.K	34.6	38.5	34.8	31.5	26.4	28.3	33.1
U.S.A	12.8	15.3	18.3	12.9	11.6	13.7	13.8
OECD Total	**31.2**	**34.4**	**34.7**	**28.8**	**24.8**	**25.8**	**na**
FOR HOUSEHOLD USE							
Austria	90.2	93.7	91.4	88.7	85.5	89.2	87.8
Belgium	87.3	83.1	82.8	78.2	69.2	69.7	na
Canada	27.6	28.5	31.5	27.5	28.6	30.4	na
Chile	175.0	158.6	159.5	145.7	149.2	164.2	186.7
Czech Repubic	128.7	128.4	125.8	127.3	122.5	122.1	121.8
Denmark	95.2	99.9	90.8	80.0	75.0	90.0	na
Estonia	98.2	95.7	91.9	77.2	60.9	76.6	na
France	80.8	88.8	94.0	92.6	87.6	89.8	na
Germany	89.3	92.0	92.8	90.8	89.3	88.0	86.9
Greece	156.9	180.8	172.4	166.8	150.6	na	na
Hungary	108.2	102.9	88.1	84.0	81.7	82.3	80.9
Ireland	82.0	90.1	92.8	89.6	89.1	87.2	95.5
Italy	111.3	119.2	116.3	112.0	109.7	110.3	na

Contd…

XI.24: Natural Gas Prices for Industry and Household Use (Contd....)

USD/MWh (GCV basis) (using PPPs)

Country/Year	2012	2013	2014	2015	2016	2017	2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Korea	95.6	99.4	103.9	83.9	74.0	75.9	74.5
Lexembourg	64.0	66.4	58.9	55.1	49.7	47.1	na
Mexico	50.7	55.9	58.5	51.8	53.1	na	na
Netherlands	93.1	97.9	95.6	91.4	92.9	95.5	na
New Zealand	88.9	94.2	92.0	90.0	94.2	87.1	na
Poland	127.9	122.0	129.6	127.4	112.4	109.4	127.1
Portugal	131.4	151.6	179.5	167.4	148.4	135.4	131.8
Slovak Republic	105.5	108.3	109.8	106.4	97.5	93.5	98.4
Slovania	126.3	116.6	112.9	105.4	98.7	93.6	96.3
Spain	114.1	124.7	135.3	133.4	122.3	129.6	129.3
Sweden	122.7	123.3	121.0	121.7	119.4	127.2	na
Switzerland	73.9	76.5	80.4	78.3	78.3	78.3	83.8
Turkey	88.3	93.8	94.2	95.5	89.9	79.6	79.5
U.K	64.9	69.6	73.3	69.7	63.0	62.2	64.8
U.S.A	35.3	34.0	36.1	34.2	33.2	36.1	35.1
OECD Total	**66.6**	**66.4**	**65.6**	**64.3**	**62.9**	**64.0**	**56.4**

GCV: Gross Calorific Value. MWh: megawatt hour PPP: Purchasing Power Parity na: not available

Source: International Energy Agency's "Energy Prices and Taxes" First Quarter of 2019.

XI.25: Crude Oil Import Costs

(Average Unit Value, CIF)(in US $/bbl)

Country	2012	2013	2014	2015	2016	2017	2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IEA[1]	109.15	105.85	97.43	50.88	40.86	52.05	67.78
IEA Europe[1]	111.58	108.93	98.89	51.83	42.18	53.26	70.53
Australia	117.78	114.19	107.05	57.90	46.87	56.99	76.03
Austria	112.50	110.63	103.81	55.52	42.89	54.73	71.12
Belgium	110.83	108.45	98.49	51.65	42.06	53.01	70.68
Canada	110.61	108.60	98.60	53.48	43.60	54.30	70.88
France	112.01	109.56	99.40	53.14	43.48	54.47	71.59
Germany	112.21	109.62	99.76	52.65	42.80	54.02	70.50
Greece	111.92	107.61	95.55	49.32	40.08	50.81	68.14
Italy	112.18	109.98	99.09	52.06	42.33	53.17	70.88
Japan	114.75	110.61	104.16	54.20	41.79	54.42	72.85
Korea	113.24	108.59	101.24	53.32	41.00	53.47	71.56
Netherlands	111.54	108.55	99.22	51.66	41.62	52.63	69.99
New Zealand	117.70	113.43	105.96	57.99	44.91	55.91	75.68
Spain	109.48	106.77	97.07	49.51	40.08	51.69	69.02
Sweden	112.36	109.10	97.75	51.19	42.41	54.17	71.49
U.K	112.62	110.27	100.07	53.81	44.62	54.69	72.65
U.S.A	101.16	97.26	89.43	45.81	37.94	48.12	59.21

Note: CIF: Cost Insurance Freight

1. Computed across the countries of the region using import volumes as current weights. Poland is included since Jan. 2008; the Slovac Republic is included since Jan. 2007; Korea and Czech Republic are included since January 2001;Hungary is not included. Data for Mexico is not available. For reasons like confidentiality, data for some countries is not listed separately.

Source: International Energy Agency's "Energy Prices and Taxes" First Quarter of 2019.

XI.26: Oil Trade Movements

(Figures in Thousand Barrels daily)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Imports								
US	10587	9859	9241	9451	10056	10148	9929	13.9
Europe	12721	12920	12957	13993	14354	14699	15124	21.2
China	6675	6978	7398	8333	9214	10240	11039	15.5
India	4168	4370	4155	4380	4945	4947	5223	7.3
Japan	4743	4637	4383	4332	4180	4142	3941	5.5
Rest of World	17812	20012	21193	22026	23776	25457	26087	36.6
Total World	**56706**	**58776**	**59328**	**62515**	**66526**	**69633**	**71344**	**100**
Exports								
Canada	3056	3296	3536	3836	3890	4248	4530	6.3
Mexico	1366	1347	1293	1323	1380	1300	1360	1.9
US	2682	3563	4033	4521	5078	5858	7131	10.0
S. & Cent. America	3830	3790	3939	4107	4147	3992	3745	5.2
Europe	2181	2545	2467	2926	3082	3387	3428	4.8
Russia	7457	7948	7792	8313	8814	8979	9159	12.8
Other CIS	1962	2166	2092	2100	2096	2210	2170	3.0
Saudi Arabia	8468	8365	7911	7968	8606	8333	8553	12.0
Middle East (ex Saudi Arabia)	11742	12242	12699	13537	15321	16183	16087	22.5
North Africa	2602	2127	1743	1701	1727	2214	2486	3.5
West Africa	4724	4590	4849	4880	4401	4582	4572	6.4
Asia Pacific (ex Japan)	6299	6307	6450	6780	7356	7716	7527	10.6
Rest of World	338	491	524	525	625	632	594	0.8
Total World	**56706**	**58776**	**59328**	**62515**	**66526**	**69633**	**71344**	**100**

Note:

1. Annual changes and shares of total are calculated using thousand barrels daily figures.
2.Bunkers are not included as exports. Intra-area movements (for example, between countries in Europe) are excluded.
3.Unless otherwise stated, this table shows inter-regional trade based on the regional classification in the table `Oil trade in 2017 and 2018'.

Source: BP Statistical Review of World Energy, June 2019

XI.27: World Primary Energy Consumption by Fuel during 2018

(Figures in Million Tonnes Oil Equivalent)

Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Canada	110.0	99.5	14.4	22.6	87.6	10.3	344.4
Mexico	82.8	77.0	11.9	3.1	7.3	4.8	186.9
US	919.7	702.6	317.0	192.2	65.3	103.8	2300.6
Total North America	**1112.5**	**879.1**	**343.3**	**217.9**	**160.3**	**118.8**	**2832.0**
Argentina	30.1	41.9	1.2	1.6	9.4	0.9	85.1
Brazil	135.9	30.9	15.9	3.5	87.7	23.6	297.6
Chile	18.1	5.5	7.7	-	5.2	3.5	40.1
Colombia	16.6	11.2	5.9	-	12.8	0.5	46.9
Ecuador	12.2	0.6	-	-	4.7	0.1	17.6
Peru	12.4	6.1	0.9	-	7.0	0.7	27.0
Trinidad & Tobago	2.1	13.2	-	-	-	^	15.3
Venezuela	19.5	28.7	0.1	-	16.3	^	64.6
Other S. & Cent. America	68.3	6.8	4.3	-	22.3	6.1	107.8
Total S. & Cent. America	**315.3**	**144.8**	**36.0**	**5.1**	**165.5**	**35.4**	**702.0**
Austria	13.4	7.5	2.9	-	8.5	2.8	35.0
Belgium	34.1	14.5	3.3	6.4	0.1	3.8	62.2
Czech Republic	10.6	6.9	15.7	6.8	0.4	1.7	42.1
Finland	10.7	1.8	4.3	5.2	3.0	4.3	29.3
France	78.9	36.7	8.4	93.5	14.5	10.6	242.6
Germany	113.2	75.9	66.4	17.2	3.8	47.3	323.9
Greece	16.0	4.1	4.7	-	1.3	2.4	28.3
Hungary	8.8	8.3	2.2	3.6	0.1	0.8	23.7
Italy	60.8	59.5	8.9	-	10.4	14.9	154.5
Netherlands	40.9	30.7	8.2	0.8	^	4.2	84.8
Norway	10.4	3.9	0.8	-	31.3	0.9	47.4
Poland	32.8	17.0	50.5	-	0.4	4.4	105.2
Portugal	11.5	5.0	2.7	-	2.8	3.9	26.0
Romania	10.2	9.3	5.3	2.6	4.0	2.0	33.4
Spain	66.6	27.1	11.1	12.6	8.0	16.0	141.4
Sweden	14.8	0.7	2.0	15.5	14.0	6.6	53.6
Switzerland	10.5	2.6	0.1	5.8	7.9	0.9	27.8
Turkey	48.6	40.7	42.3	-	13.5	8.5	153.5
Ukraine	9.6	26.3	26.2	19.1	2.2	0.6	84.0
United Kingdom	77.0	67.8	7.6	14.7	1.2	23.9	192.3
Other Europe	62.4	25.9	33.6	8.3	17.9	11.7	159.8
Total Europe	**742.0**	**472.0**	**307.1**	**212.1**	**145.3**	**172.2**	**2050.7**
Azerbaijan	4.6	9.3	^	-	0.4	^	14.4
Belarus	6.8	16.6	1.0	-	0.1	0.1	24.6
Kazakhstan	16.4	16.7	40.8	-	2.3	0.1	76.4
Russian Federation	152.3	390.8	88.0	46.3	43.0	0.3	720.7
Turkmenistan	7.1	24.4	-	-	-	^	31.5
Uzbekistan	2.6	36.6	3.1	-	1.6	-	43.9
Other CIS	3.7	4.9	2.0	0.5	8.0	^	19.0
Total CIS	**193.5**	**499.4**	**134.9**	**46.7**	**55.4**	**0.6**	**930.5**
Iran	86.2	193.9	1.5	1.6	2.4	0.1	285.7
Iraq	38.4	14.7	-	-	0.7	^	53.7
Israel	11.5	9.0	4.7	-	^	0.5	25.6
Kuwait	20.0	18.7	0.2	-	-	^	39.0
Oman	9.2	21.4	0.1	-	-	^	30.7

Contd…

XI.27: World Primary Energy Consumption by Fuel during 2018 (Contd....)

(Figures in Million Tonnes Oil Equivalent)

Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Qatar	12.2	36.0	-	-	-	^	48.3
Saudi Arabia	162.6	96.4	0.1	-	-	^	259.2
United Arab Emirates	45.1	65.8	1.1	-	-	0.2	112.2
Other Middle East	26.8	19.5	0.4	-	0.3	0.8	47.9
Total Middle East	**412.1**	**475.6**	**7.9**	**1.6**	**3.4**	**1.7**	**902.3**
Algeria	19.6	36.7	0.2	-	^	0.1	56.7
Egypt	36.7	51.2	2.8	-	3.1	0.8	94.5
Morocco	13.2	0.9	5.4	-	0.4	1.1	21.0
South Africa	26.3	3.7	86.0	2.5	0.2	2.8	121.5
Other Africa	95.5	36.4	7.0	-	26.4	2.4	167.8
Total Africa	**191.3**	**129.0**	**101.4**	**2.5**	**30.1**	**7.2**	**461.5**
Australia	53.3	35.6	44.3	-	3.9	7.2	144.3
Bangladesh	9.0	24.4	2.1	-	0.2	0.1	35.8
China	641.2	243.3	1906.7	66.6	272.1	143.5	3273.5
China Hong Kong SAR	22.2	2.6	6.3	-	-	^	31.1
India	239.1	49.9	452.2	8.8	31.6	27.5	809.2
Indonesia	83.4	33.5	61.6	-	3.7	3.3	185.5
Japan	182.4	99.5	117.5	11.1	18.3	25.4	454.1
Malaysia	36.9	35.5	21.1	-	5.5	0.3	99.3
New Zealand	8.4	3.7	1.3	-	6.0	2.4	21.7
Pakistan	24.3	37.5	11.6	2.2	8.1	1.2	85.0
Philippines	22.0	3.5	16.3	-	2.1	3.2	47.0
Singapore	75.8	10.6	0.9	-	-	0.3	87.6
South Korea	128.9	48.1	88.2	30.2	0.7	5.0	301.0
Sri Lanka	5.3	-	1.2	-	1.4	0.1	8.1
Taiwan	50.0	20.3	39.3	6.3	1.0	1.5	118.4
Thailand	65.8	42.9	18.5	-	1.7	4.0	133.0
Vietnam	24.9	8.3	34.3	-	18.3	0.1	85.8
Other Asia Pacific	22.5	10.3	18.0	-	14.2	0.3	65.4
Total Asia Pacific	**1695.4**	**709.6**	**2841.3**	**125.3**	**388.9**	**225.4**	**5985.8**
Total World	**4662.1**	**3309.4**	**3772.1**	**611.3**	**948.8**	**561.3**	**13864.9**

Note:^: less than 0.05

1. In this review, primary energy comprises commercially traded fuels, including modern renewables used to generate electricity.
2. Total may not add up due to rounding off.

Source: BP Statistical Review of World Energy, June 2019

Figure XI.14: Region-wise Primary Energy Consumption during 2018 (%)

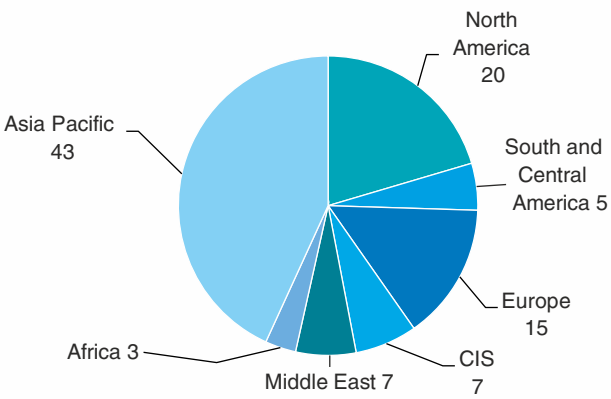
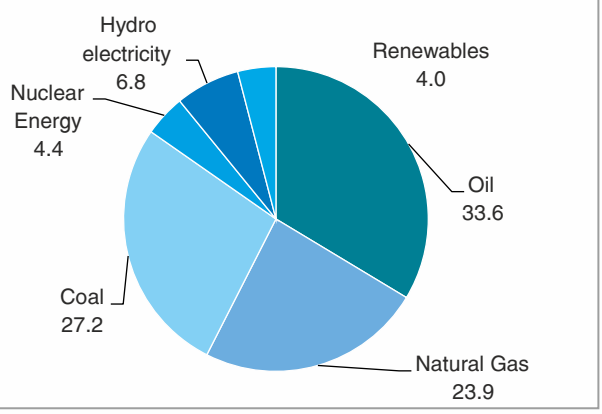


Figure XI.15: Share of various energy sources in world primary energy consumption during 2018



XI.28: Per Capita Primary Energy Consumption-some International Comparisons during 2018

(Figures in Kg. Oil Equivalent)

Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
US	2804.1	2142.0	966.5	586.1	199.2	316.3	7014.1
Canada	2956.3	2675.2	387.7	608.5	2355.5	275.6	9258.7
Mexico	633.2	588.3	91.0	23.5	56.0	36.9	1429.0
Total North America	**2243.0**	**1772.3**	**692.2**	**439.4**	**323.2**	**239.6**	**5709.6**
Argentina	676.7	941.1	27.4	34.9	211.8	19.4	1911.3
Brazil	649.1	147.4	76.0	16.9	418.9	112.9	1421.2
Chile	975.6	296.5	413.1	0.0	281.6	189.1	2155.8
Colombia	332.7	224.9	117.9	0.0	257.4	9.7	942.7
Ecuador	718.4	35.8	0.0	0.0	275.5	7.3	1036.9
Peru	384.7	188.0	29.2	0.0	216.2	20.5	838.6
Trinidad & Tobago	1501.5	9398.8	0.0	0.0	0.0	0.6	10900.9
Venezuela	613.2	903.3	3.2	0.0	512.9	0.1	2032.7
Other S. & Cent. America	603.4	59.8	38.1	0.0	197.1	53.6	952.0
Total S. & Cent. America	**608.7**	**279.5**	**69.6**	**9.8**	**319.5**	**68.3**	**1355.4**
Austria	1523.7	848.8	324.6	0.0	965.0	314.8	3976.8
Azerbaijan	469.7	939.4	0.1	0.0	40.4	4.6	1454.2
Belarus	716.0	1748.6	100.7	0.0	10.9	8.6	2584.8
Belgium	2989.3	1272.7	287.4	565.2	5.7	334.8	5455.2
Czech Republic	1002.8	647.5	1485.8	638.7	34.7	163.9	3973.5
Finland	1954.2	319.5	776.5	947.9	546.3	776.8	5321.2
France	1211.5	564.1	128.8	1436.1	223.2	162.8	3726.5
Germany	1367.1	916.9	801.9	208.0	46.2	571.7	3911.7
Greece	1504.8	384.1	439.6	0.0	122.1	221.8	2672.4
Hungary	903.0	843.2	223.3	363.3	5.1	82.4	2420.3
Italy	1003.0	982.1	146.5	0.0	171.2	246.5	2549.3
Kazakhstan	890.3	908.2	2217.6	0.0	127.0	8.1	4151.2
Netherlands	2377.3	1784.4	475.9	46.0	1.0	245.0	4929.6
Norway	1964.5	727.3	159.4	0.0	5912.9	175.8	8939.8
Poland	854.8	442.0	1315.2	0.0	11.6	114.8	2738.3
Portugal	1121.0	488.8	264.4	0.0	271.2	376.0	2521.4
Romania	525.0	479.4	272.3	132.0	203.8	100.2	1712.7
Russian Federation	1034.1	2653.1	597.6	314.1	292.2	1.9	4893.1
Spain	1426.5	579.4	238.1	269.6	170.5	342.7	3026.9
Sweden	1454.4	68.5	193.0	1521.9	1373.6	644.3	5255.6
Switzerland	1237.9	302.8	13.0	684.1	926.5	108.2	3272.4
Turkey	597.3	500.2	520.4	0.0	165.7	104.9	1888.6
Turkmenistan	1201.7	4137.8	0.0	0.0	0.0	0.3	5339.7
Ukraine	226.5	621.4	619.6	451.5	53.0	14.1	1985.9
United Kingdom	1160.1	1021.7	113.8	221.7	18.6	359.9	2895.9
Uzbekistan	80.3	1113.2	93.8	0.0	47.2	0.0	1334.7
Other Europe & Eurasia	829.0	386.7	446.8	110.3	324.7	146.6	2244.2
Total Europe & CIS	**1022.5**	**1061.7**	**483.1**	**283.0**	**219.4**	**188.9**	**3258.6**

Contd…

XI.28: Per Capita Primary Energy Consumption-some International Comparisons during 2018 (Contd....)

(Figures in Kg. Oil Equivalent)

Country	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Iran	1056.0	2376.8	18.3	19.4	29.9	1.2	3501.5
Iraq	954.5	364.7	0.0	0.0	17.5	0.3	1337.0
Israel	1347.7	1064.5	550.2	0.0	0.7	53.6	3016.6
Kuwait	4773.2	4458.5	37.5	0.0	0.0	5.7	9274.9
Oman	1958.4	4554.4	16.1	0.0	0.0	0.7	6529.6
Qatar	4521.2	13341.3	0.0	0.0	0.0	10.4	17872.9
Saudi Arabia	4869.6	2886.4	3.1	0.0	0.0	1.0	7760.1
United Arab Emirates	4747.8	6929.8	110.6	0.0	0.0	22.7	11810.9
Other Middle East	384.6	279.9	5.7	0.0	4.2	11.7	686.1
Total Middle East	**1618.4**	**1868.0**	**31.2**	**6.2**	**13.5**	**6.6**	**3543.9**
Algeria	459.5	860.6	4.3	0.0	0.6	3.2	1328.2
Egypt	378.5	527.9	28.7	0.0	31.5	8.1	974.6
Moroco	374.8	25.2	154.8	0.0	10.9	30.8	596.5
South Africa	398.3	56.5	1302.8	38.0	3.1	42.4	1841.1
Other Africa	88.6	33.8	6.5	0.0	24.5	2.2	155.6
Total Africa	**149.0**	**100.4**	**79.0**	**2.0**	**23.4**	**5.6**	**359.4**
Australia	2213.0	1477.0	1837.2	0.0	162.1	299.4	5988.7
Bangladesh	54.1	146.6	12.8	0.0	1.2	0.4	215.1
China	460.0	174.6	1368.0	47.8	195.2	103.0	2348.6
China Hong Kong SAR	2738.6	320.3	774.6	0.0	0.0	2.9	3836.3
India	174.3	36.4	329.8	6.4	23.0	20.0	590.1
Indonesia	314.5	126.4	232.1	0.0	14.0	12.6	699.6
Japan	1441.6	786.5	928.6	87.8	144.9	200.6	3590.0
Malaysia	1134.9	1092.0	649.9	0.0	168.3	10.2	3055.4
New Zealand	1716.4	763.1	258.3	0.0	1215.4	483.3	4436.5
Pakistan	121.3	186.8	57.8	11.1	40.6	6.2	423.9
Philippines	205.2	32.9	152.1	0.0	19.8	29.5	439.5
Singapore	13072.6	1821.4	157.3	0.0	0.0	46.3	15097.7
South Korea	2488.0	928.6	1702.9	583.2	12.8	95.8	5811.2
Sri Lanka	246.2	0.0	54.4	0.0	66.4	6.5	373.5
Taiwan	2120.6	862.1	1665.2	265.4	42.8	61.6	5017.7
Thailand	993.7	648.6	279.5	0.0	26.0	60.8	2008.6
Vietnam	262.4	87.5	362.0	0.0	192.8	1.1	905.9
Other Asia Pacific	118.8	54.6	95.3	0.0	75.2	1.5	345.3
Total Asia Pacific	**408.2**	**170.9**	**684.1**	**30.2**	**93.6**	**54.3**	**1441.1**
Total World	**611.7**	**434.3**	**495.0**	**80.2**	**124.5**	**73.6**	**1819.3**

Note: na: not available

1.Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent.

2. Primary energy comprises commercially traded fuels including modern Renewables used to generate electricity.

3. Population 2018 data have been taken from "Population Reference Bureau".

Source: BP Statistical Review of World Energy, June 2019

XI.29: Trends in World Primary Energy Consumption by Fuel

(Figures Million Tonnes Oil Equivalent)

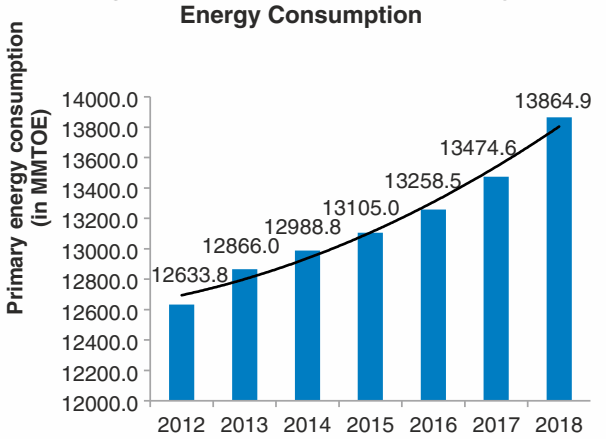
Year	Oil	Natural Gas	Coal	Nuclear Energy	Hydro electricity	Renewables	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2012	4176.2	3010.5	3817.3	559.2	832.1	238.5	12633.8
2013	4220.9	3054.4	3887.0	563.9	859.2	280.7	12866.0
2014	4254.8	3073.0	3889.4	575.0	879.3	317.3	12988.8
2015	4341.0	3146.7	3784.7	582.7	883.2	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	4662.1	3309.4	3772.1	611.3	948.8	561.3	13864.9

Note: Primary energy comprises commercially-traded fuels, including modern renewables used to generate electricity.

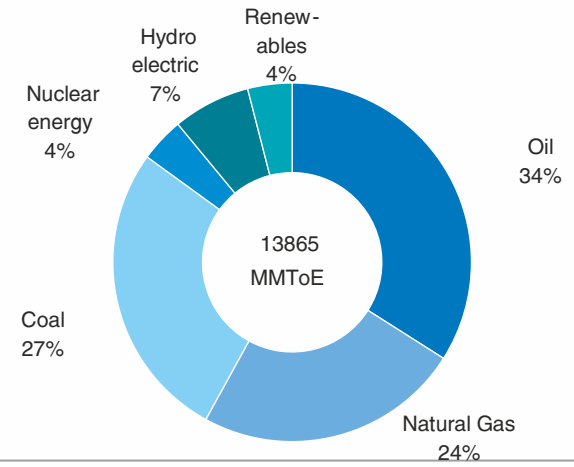
P: Provisional

Source : BP Statistical Review of World Energy, June 2019

Figure XI.16: Trends in World Primary Energy Consumption



Figures XI.17: India's primary energy -2018



XI.30: Primary Energy Consumption in Select Countries of the World

(Figures in Million Tonnes Oil Equivalent)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Canada	324.7	337.0	341.8	339.0	338.2	343.7	344.4	2.5
Mexico	184.2	185.0	184.1	184.0	186.4	189.3	186.9	1.3
US	2148.5	2208.0	2232.9	2213.2	2212.7	2222.5	2300.6	16.6
Total North America	**2657.4**	**2730.1**	**2758.9**	**2736.2**	**2737.2**	**2755.5**	**2832.0**	**20.4**
Argentina	81.0	84.5	84.1	86.1	85.9	86.1	85.1	0.6
Brazil	281.3	292.4	299.4	295.9	289.4	293.9	297.6	2.1
Chile	35.3	35.7	35.1	35.9	37.7	38.3	40.1	0.3
Colombia	38.3	38.9	41.0	41.3	44.2	45.5	46.9	0.3
Ecuador	14.8	15.3	16.1	16.1	16.0	16.7	17.6	0.1
Peru	21.3	21.9	22.6	24.2	25.5	25.4	27.0	0.2
Trinidad & Tobago	16.7	17.2	16.8	16.9	15.4	15.2	15.3	0.1
Venezuela	86.9	84.9	82.1	79.3	72.3	73.6	64.6	0.5
Central America	26.3	26.6	27.5	29.9	31.3	32.1	33.7	0.2
Other Caribbean	40.5	39.4	39.5	40.3	41.6	41.7	42.4	0.3
Other South America	28.2	29.1	28.7	29.3	31.7	31.3	31.7	0.2
Total S. & Cent. America	**670.9**	**685.9**	**692.9**	**695.3**	**691.1**	**699.8**	**702.0**	**5.1**
Austria	35.0	34.7	33.3	33.4	34.6	35.5	35.0	0.3
Belgium	60.7	62.2	58.2	59.1	63.9	64.1	62.2	0.4
Bulgaria	18.4	17.0	18.1	19.3	18.3	18.7	18.6	0.1
Croatia	7.5	8.2	8.2	7.8	8.1	8.1	8.6	0.1
Cyprus	2.7	2.4	2.4	2.5	2.7	2.8	2.8	^
Czech Republic	42.8	42.1	41.2	40.5	39.9	41.8	42.1	0.3
Denmark	17.3	18.1	17.5	16.9	17.1	17.2	17.0	0.1
Estonia	6.4	6.6	6.5	6.0	6.1	6.6	6.9	^
Finland	28.8	29.1	28.1	28.0	28.8	28.1	29.3	0.2
France	247.3	250.1	240.4	241.9	238.4	237.5	242.6	1.7
Germany	320.5	329.8	316.4	322.5	328.1	333.9	323.9	2.3
Greece	30.0	28.5	26.8	27.0	26.6	28.0	28.3	0.2
Hungary	21.9	20.9	21.0	22.0	22.4	23.5	23.7	0.2
Iceland	4.8	5.0	5.0	5.2	5.3	5.5	5.6	^
Ireland	14.4	14.1	14.1	14.9	15.6	15.7	16.1	0.1
Italy	165.8	158.2	149.7	153.1	154.7	156.3	154.5	1.1
Latvia	3.9	3.8	3.5	3.5	3.8	4.1	3.7	^
Lithuania	5.9	5.4	5.2	5.5	5.6	5.9	5.8	^
Luxembourg	4.1	3.9	3.8	3.7	3.6	3.8	4.0	^
Netherlands	90.6	87.9	83.1	84.1	85.7	84.5	84.8	0.6
North Macedonia	2.7	2.6	2.4	2.5	2.6	2.5	2.6	^
Norway	47.3	44.3	45.7	46.5	47.2	47.6	47.4	0.3
Poland	97.5	97.8	94.2	95.2	99.4	103.4	105.2	0.8

Contd…

XI.30: Primary Energy Consumption in Select Countries of the World (Contd....)

(Figures in Million Tonnes Oil Equivalent)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Portugal	22.6	24.7	24.9	24.8	26.2	25.8	26.0	0.2
Romania	33.6	31.4	32.7	32.8	32.8	33.4	33.4	0.2
Slovakia	16.2	16.9	15.5	15.7	15.8	16.7	16.3	0.1
Slovenia	7.0	6.9	7.1	6.4	6.9	6.9	7.0	0.1
Spain	143.2	135.9	133.5	135.4	136.9	138.8	141.4	1.0
Sweden	54.7	51.5	51.5	53.3	52.6	54.4	53.6	0.4
Switzerland	29.4	30.3	29.0	28.4	26.8	26.9	27.8	0.2
Turkey	122.3	121.5	125.4	137.2	144.6	152.7	153.5	1.1
Ukraine	123.1	117.3	103.2	85.7	89.8	83.4	84.0	0.6
United Kingdom	204.8	204.1	192.5	195.1	193.5	193.2	192.3	1.4
Other Europe	39.2	41.5	38.2	40.7	43.3	42.8	44.7	0.3
Total Europe	**2072.3**	**2054.7**	**1978.3**	**1996.8**	**2027.5**	**2050.0**	**2050.7**	**14.8**
Azerbaijan	12.8	13.2	13.5	14.7	14.6	14.3	14.4	0.1
Belarus	28.0	24.7	25.5	23.2	23.0	23.4	24.6	0.2
Kazakhstan	62.7	63.5	64.4	63.7	64.7	67.6	76.4	0.6
Russian Federation	693.8	685.5	688.3	675.4	690.5	694.3	720.7	5.2
Turkmenistan	26.0	23.1	23.9	28.6	27.5	28.7	31.5	0.2
Uzbekistan	45.5	45.2	47.1	44.9	43.6	45.0	43.9	0.3
Other CIS	18.0	17.1	17.5	17.4	17.5	18.0	19.0	0.1
Total CIS	**886.7**	**872.1**	**880.3**	**867.9**	**881.5**	**891.2**	**930.5**	**6.7**
Iran	226.2	237.9	249.0	249.2	257.2	272.0	285.7	2.1
Iraq	39.0	42.0	40.2	40.1	46.2	47.1	53.7	0.4
Israel	25.3	23.5	23.1	24.4	24.8	25.6	25.6	0.2
Kuwait	37.3	38.7	35.4	38.5	38.9	38.7	39.0	0.3
Oman	24.5	27.4	27.3	28.8	29.0	29.3	30.7	0.2
Qatar	37.9	40.8	43.9	48.2	47.6	48.9	48.3	0.3
Saudi Arabia	233.1	234.0	250.8	259.0	262.2	262.8	259.2	1.9
United Arab Emirates	92.8	97.8	97.4	107.1	111.1	109.0	112.2	0.8
Other Middle East	51.1	50.3	50.1	48.4	48.0	48.0	47.9	0.3
Total Middle East	**767.3**	**792.5**	**817.2**	**843.7**	**864.9**	**881.4**	**902.3**	**6.5**
Algeria	43.6	46.2	50.4	53.1	53.0	53.1	56.7	0.4
Egypt	83.8	83.2	83.0	85.3	89.9	92.6	94.5	0.7
Morocco	17.8	18.3	18.6	18.9	19.1	20.0	21.0	0.2
South Africa	122.7	123.2	124.8	121.9	123.9	121.8	121.5	0.9
Eastern Africa	40.0	43.5	48.1	50.3	49.5	52.0	54.1	0.4
Middle Africa	18.5	19.7	20.7	20.2	21.1	21.9	22.9	0.2
Western Africa	42.9	43.5	45.0	51.7	54.9	57.5	60.3	0.4
Other Northern Africa	25.8	27.8	27.4	24.0	23.1	24.4	25.4	0.2
Other Southern Africa	4.2	4.3	4.7	4.8	4.9	5.2	5.0	^
Total Africa	**399.2**	**409.7**	**422.6**	**430.1**	**439.4**	**448.6**	**461.5**	**3.3**

Contd…

XI.30: Primary Energy Consumption in Select Countries of the World (Contd....)

(Figures in Million Tonnes Oil Equivalent)

Country/Year	2012	2013	2014	2015	2016	2017	2018 (P)	% share in 2018
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Australia	134.6	135.3	137.5	139.2	142.1	140.5	144.3	1.0
Bangladesh	25.0	25.5	27.0	31.3	31.8	33.0	35.8	0.3
China	2799.5	2907.5	2974.7	3009.6	3047.1	3139.0	3273.5	23.6
China Hong Kong SAR	27.2	28.0	27.3	28.1	28.8	30.9	31.1	0.2
India	601.0	624.5	667.5	689.8	719.3	750.1	809.2	5.8
Indonesia	173.4	178.2	167.2	165.7	170.2	176.9	185.5	1.3
Japan	475.7	472.3	460.3	453.3	450.8	455.2	454.1	3.3
Malaysia	89.0	93.1	93.6	95.1	96.6	96.7	99.3	0.7
New Zealand	20.0	20.2	21.2	21.4	21.6	22.2	21.7	0.2
Pakistan	64.1	64.9	66.9	70.4	76.6	81.0	85.0	0.6
Philippines	30.9	33.1	34.9	38.3	41.8	45.7	47.0	0.3
Singapore	71.6	73.6	75.8	80.6	83.8	86.5	87.6	0.6
South Korea	276.3	276.7	279.5	285.3	292.2	297.1	301.0	2.2
Sri Lanka	6.0	6.1	5.5	7.0	7.5	7.8	8.1	0.1
Taiwan	109.1	111.1	113.8	112.9	115.0	117.0	118.4	0.9
Thailand	116.5	118.3	121.6	124.7	127.3	130.2	133.0	1.0
Vietnam	53.4	57.2	62.6	69.1	73.9	75.8	85.8	0.6
Other Asia Pacific	48.3	48.8	52.7	53.9	60.5	62.4	65.4	0.5
Total Asia Pacific	**5121.6**	**5274.4**	**5389.6**	**5475.7**	**5587.0**	**5748.0**	**5985.8**	**43.2**
Total World	**12575.5**	**12819.4**	**12939.8**	**13045.6**	**13228.6**	**13474.6**	**13864.9**	**100.0**

Notes: ^: less than 0.05

1. Primary energy comprises commercially traded fuels including modern renewables used to generate electricity.
2. Total may not add up due to rounding off.

Source: BP Statistical Review of World Energy, June 2019

XI.31: Economic Indicators of OPEC Nations' during 2018

Country	Population (Million)	GDP at market prices (Million $)	Per capita GDP (US $)	Petroleum Exports (Million $)	Total Export (Million $)	Petroleum Exports as % of total Exports	Proven crude oil reserves (Million Barrels)	Gas Reserves (BCM)	Crude Oil Production (000' b/d)	Natural Gas Marketed Production BCM	Production of Petroleum Products (000' b/d)	Refinery Throughput (000' b/d)	Crude of Capacity (000' b/d)	Export of Crude Oil (000' b/d)	Export of of Natural Gas BCM	Exports of Refined Products (000' b/d)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Algeria	42.58	178259	4186	26092	44117	59.14	12200	4504	1040	95.899	621	644	657	571	51.42	532
Angola	29.25	99150	3390	36323	40774	89.08	8160	383	1473	9.614	32	55	80	1421	0.54	18
Congo	5.40	10160	1882	4455	9836	45.29	2982	285	324	0.867	16	16	21	307	-	6
Ecuador	17.02	103700	6094	9832	24359	40.36	8273	11	517	0.349	167	170	188	371	-	42
Equatorial Guinea	1.31	10856	8263	5353	5492	97.47	1100	42	120	7.751	-	-	-	145	5.51	-
Gabon	1.97	17210	8751	4218	6510	64.79	2000	26	193	0.530	13	16	24	174	-	9
Iran	82.01	418582	5104	60198	107435	56.03	155600	33899	3553	248.524	1691	1705	2141	1850	12.33	272
Iraq	38.12	212407	5571	68192	95256	71.59	145019	3729	4410	11.130	592	609	663	3862	-	46
Kuwait	4.62	141705	30661	58393	71931	81.18	101500	1784	2737	17.738	891	681	736	2050	-	630
Libya	6.56	49716	7574	17141	24814	69.08	48363	1505	951	13.880	70	78	380	999	4.25	25
Nigeria	202.99	417410	2056	54513	63020	86.50	36972	5627	1602	44.251	33	38	446	1980	28.63	21
Saudi Arabia	33.41	782484	23418	194358	294544	65.99	267026	9069	10317	118.000	2817	2643	2886	7372	-	1971
U.A.E	10.14	414179	40859	74940	388179	19.31	97800	6091	3008	47.624	1070	1142	1124	2297	7.09	916
Venezuela	31.84	98468	3093	34674	34996	99.08	302809	5674	1510	24.785	804	842	1891	1273	-	219
Total	**507.23**	**2954286**	**5824**	**648683**	**1211262**	**53.55**	**1189804**	**72676**	**31756**	**640.941**	**8818**	**8637**	**11207**	**24670**	**109.76**	**4708**

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, 2019

Appendix

INDEX OF APPENDICES

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.

(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

Contd...

(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

(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.
1 Metre	3 Feet
	0.9144 Metre (m)
	39.3701 Inches.
	3.28084 Feet
	1.09361 Yards
	0.001 Kilometre (km.)
1 Kilometre	1000 Metre (m)
1 Mile	0.621371 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.
1 Square Mile	0.386102 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.
1 Hundred Weight (Cwt)	0.01 Quintal
	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
	0.0353147 Cubic Foot
1 Hectolitre	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.
	0.00378541 Cubic Metre (M3)
1 Imperial Gallon	277.420 Cubic Inches
	4.54609 Cubic Decimetres (dm3) or Litres
	1.20095 American Gallon
	0.160544 Cubic Foot
	0.02894 American Barrel
	0.00454609 Cubic Metre (m3)
1 Cubic Foot	28.3168 Cubic Decimetres (dm3) or Litres
	7.48052 American Gallons
	6.22883 Imperial Gallons
	0.17811 American Barrel
	0.0283168 Cubic Metre (m3)
1 Americal Barrel	9702 Cubic Inches
	158.987 Cubic Decimetres (dm3) or Litres
	42 American Gallons
	34.9726 Imperial Gallons
	5.6146 Cubic Feet
	0.158987 Cubic Metre (M3)
1 Cubic Metres	1000 Litres.
	264.172 American Gallons
	219.969 Imperial Gallons
	35.3147 Cubic Feet
1 Kilolitre	1000 Cubic Decimetres (dm3) or Litres
	6.28981 Americal Barrels.
1 Gross Ton (Shipping)	2.83168 Cubic Metres or 100 Cubic Feet
	or Permanently Enclosed Space
1 Ton of Liquefied Methane	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

(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 150 C to 29.50 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	

(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)

(XIV) Natural Gas Conversions

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 to tonnes	tonnes to barrels	kilolitres to tonnes	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 metres NG	billion cubic feet NG	million tonnes oil equivalent	million tonnes LNG	trillion British thermal units	million barrels 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
	2204.62 lb.
1 kilolitre	6.2898 barrels
	1 cubic metre
1 kilocalorie (kcal)	4.187 kJ
	3.968 Btu
1 kilojoule (kJ)	0.239 kcal
	0.948 Btu
1 British thermal unit (Btu)	0.252 kcal
	1.055 kJ
	860 kcal
1 kilowatt-hour (kWh	3412 Btu
	3600 kJ
1 barrel of ethanol	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
	40 million Btu
Solid fuels	1.5 tonnes of hard coal
	3 tonnes of lignite
Electricity	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 A.P.I.	**Specific Gravity**	**Barrels per tonne***	**Long 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 Gravity	Barrels 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			
Products		**Specific Gravity**	**Barrels 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

(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 million tonnes of coal equivalent (mtce)**	**Unit million tonnes of coal (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

Calendar Years						Financial Years	
Year	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)
2011	45.27	44.71	45.78	50.93	46.67	2011-12	47.93
2012	50.31	54.22	55.24	54.14	53.48	2012-13	54.44
2013	54.17	56.50	62.13	62.03	58.71	2013-14	61.86
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	70.48	69.56					

Source: RBI

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