

MONTHLY REPORT ON INDIGENOUS CRUDE OIL PRODUCTION, IMPORT AND PROCESSING & PRODUCTION, IMPORT AND EXPORT OF PETROLEUM PRODUCTS

November 2016



Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

1.0 In this report, indigenous crude oil production, imports and processing as well as production and imports/exports of petroleum products by oil companies are analyzed on a monthly basis to assess the domestic availability of petroleum products in the country for consumption.

Highlights

- Indigenous crude oil and condensate production decreased by 164 TMT (5.4%) during November 2016 with decrease of 9 TMT (0.4%) in PSU fields and 155 TMT (16.5%) in PSC fields as compared to November 2015.
- Import of crude oil increased by 2120 TMT (12.7%) during November 2016 as compared to November 2015. During the period April - November 2016, import of crude oil increased by 12246 TMT (9.3%) over the corresponding period of the previous year.
- Crude oil processing increased by 425 TMT (3.6%) in PSU/JV refineries and marginally decreased by 28 TMT (0.4%) in private refineries during November 2016 as compared to November 2015.
- Petroleum products production including fractionators marginally decreased by 134 TMT (0.7%) during November 2016 as compared to November 2015. On cumulative basis, production of petroleum products increased by 10478 TMT (7.0%).
- BS IV MS and BS IV HSD production registered growth of 380 TMT (79.3%) and 1174 TMT (74.1%) respectively during November 2016 as compared to November 2015.
- Import of petroleum products increased by 740 TMT (34.7%) during November 2016 as compared to November 2015. During the period April - November 2016, import of petroleum products increased by 5596 TMT (29.4%) over the corresponding period of the previous year.
- Exports of petroleum products in November 2016 marginally decreased by 41 TMT (0.8 % as compared to November 2015.

2.0 Indigenous crude oil and condensate production

2.1 Indigenous crude oil and condensate production (2876 TMT) decreased by 164 TMT (5.4%) during November 2016 as compared to November 2015 (3040 TMT). Overall indigenous crude oil and condensate production decreased by 877 TMT (3.5%) during April-November 2016 at 23991 TMT as compared to 24868 TMT of the previous year.

- i. OIL's crude oil production in November 2016 was marginally higher by 4.6 TMT (1.7%) at 269 TMT as compared to 265 TMT during November 2015. However on overall basis crude oil production was lower by 30.6 TMT (1.4%) at 2150 TMT during April - November 2016 as compared to 2180 TMT of the previous year.
- ii. In case of ONGC, crude oil and condensate production in November 2016 was marginally lower by 13.8 TMT (0.7%) at 1823 TMT as compared to as compared to 1837 TMT in November 2015. ONGC's overall crude oil and condensate production decreased by 258.5 TMT (1.7%) during April-November 2016 at 14725 TMT as compared to 14984 TMT of the previous year.

The shortfall in production was due to natural decline from mature and marginal fields of Mumbai High and operational loss in Bassein fields due to suspected wax deposition and choking in B-193 export pipeline.

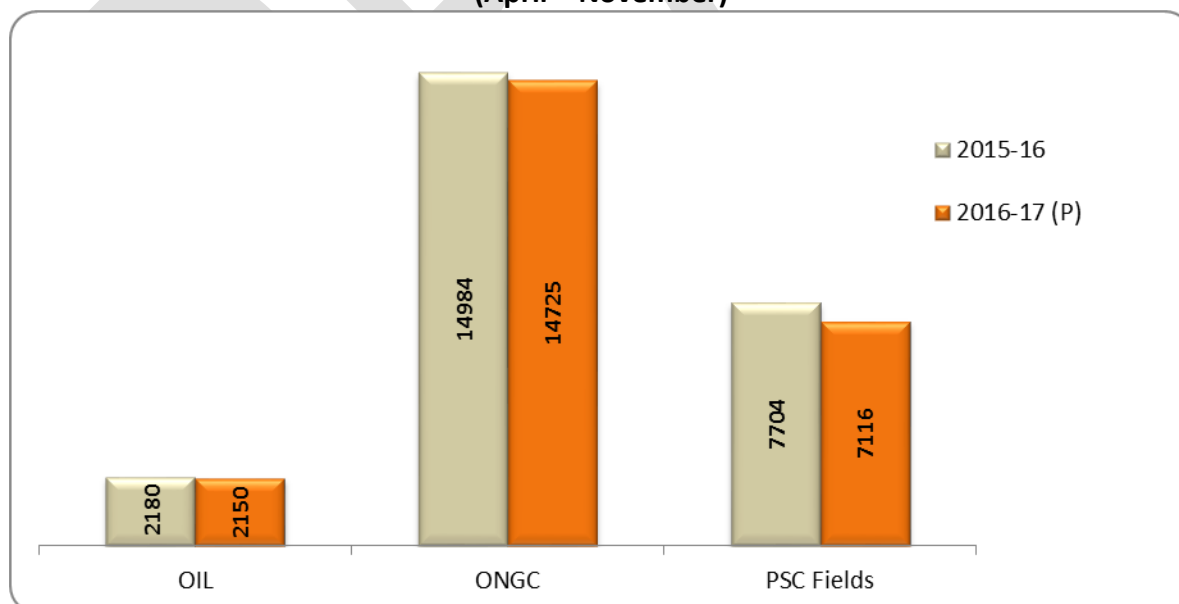
- iii. Indigenous crude oil and condensate production under PSC fields decreased by 154.9 TMT (16.5%) at 783 TMT during November 2016 as compared to 938 TMT in November 2015. Crude oil and condensate production under PSC fields was lower by 588.2 TMT (7.6%) during April-November 2016 at 7116 TMT in comparison to 7704 TMT of the previous year. The major share of decline was observed in Ravva and Rajasthan Mangla fields.
- iv. The overall decrease in production of crude oil was 849 TMT (3.8%) during April-November 2016 in comparison to the previous year. The overall decrease in production of condensate was 28 TMT (1.1%) during April-November 2016 as compared to the previous year.

2.2 Indigenous crude oil and condensate production in the country is given in Table-1 and Figure-1.

Table-1: Indigenous Crude oil and Condensate production							
(Thousand Metric Tonnes)							
Oil Company	Product	November			April- November		
		2015-16	2016-17 (P)	Change (%)	2015-16	2016-17 (P)	Change (%)
OIL	Crude oil	265	269	1.7	2180	2150	-1.4
ONGC	Crude oil	1514	1501	-0.9	12424	12183	-1.9
	Condensate	323	323	-0.2	2560	2542	-0.7
	Total	1837	1823	-0.7	14984	14725	-1.7
PSC FIELDS	Crude oil	935	783	-16.3	7690	7113	-7.5
	Condensate	3	0.2	-91.0	14	3	-77.2
	Total	938	783	-16.5	7704	7116	-7.6
Total	Crude oil	2714	2553	-5.9	22294	21446	-3.8
	Condensate	326	323	-0.9	2574	2545	-1.1
Grand Total	Crude oil + Condensate	3040	2876	-5.4	24868	23991	-3.5

Note: All figures are provisional. Source : Oil Companies & DGH

Figure-1: Crude oil production including condensate in the country (in '000MT) (April – November)



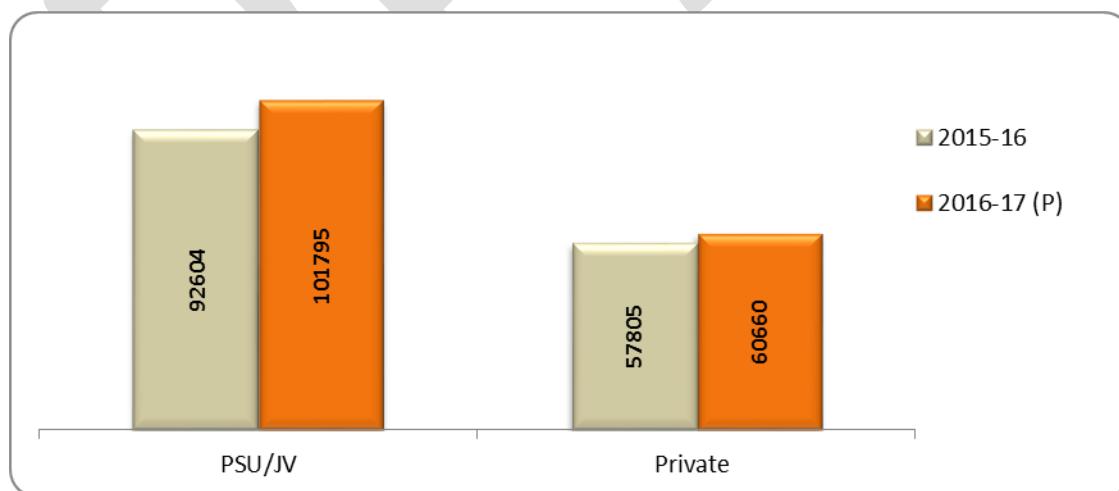
3.0 Crude Oil processing by Oil Companies

3.1 Crude oil processed (indigenous/ imported) in the country by PSU/JV/Private sector refining companies is given in Table-2 and Figure -2.

Table-2 Crude oil processed						
(Thousand Metric Tonnes)						
	November			April- November		
Oil Company	2015-16	2016-17 (P)	Change (%)	2015-16	2016-17 (P)	Change (%)
PSU / JV						
Indigenous	2408	2377	-1.3	18464	18049	-2.3
Imported	9548	10002	4.8	74140	83746	13.0
PSU/JV total	11955	12380	3.6	92604	101795	9.9
Private						
Indigenous	509	333	-34.7	4521	4037	-10.7
Imported	7063	7211	2.1	53284	56624	6.3
Private total	7572	7544	-0.4	57805	60660	4.9
TOTAL	19527	19923	2.0	150410	162455	8.0

Note: All figures are provisional. Source : Oil Companies

Figure-2: Crude oil processed (in '000MT) (April – November)



Based on processing of indigenous crude oil/condensate and the country's domestic POL consumption, self-sufficiency of petroleum products was 17.6% during the period April-November 2016 as against 20.0% during the same period of the previous year (2015-16).

Indian refineries processed 72.5 % of high sulphur (HS) crudes during April -November 2016 as against 71.2% during the same period of the previous year (2015-16).

3.2 Significant variations in crude oil processing by refineries are analysed below:

- Crude oil processing by Indian refineries during November 2016 registered growth of 396 TMT (2.0%) as compared to November 2015. On an overall basis growth of 12045 TMT (8.0%) was registered during April - November 2016 over the corresponding period of the previous year.
- In PSU (including PSU, JVs) refineries crude oil processing was higher by 425 TMT (3.6%) during November 2016 as compared to November 2015. On a cumulative basis up to November 2016, there was a growth of 9190 TMT (9.9%) over the same period of 2015-16.
- Crude oil processing by private oil refineries marginally decreased by 28 TMT (0.4%) during November 2016 compared to November 2015. On a cumulative basis up to November 2016, there was a growth of 2855 TMT (4.9%) over the same period of 2015-16.
- Indigenous crude oil processed in PSU refineries during November 2016 decreased by 30 TMT (1.3%) as compared to November 2015.
- Indigenous crude oil processed in private refineries during November 2016 decreased by 177 TMT (34.7%) as compared to November 2015.

4.0 Production of Petroleum Products

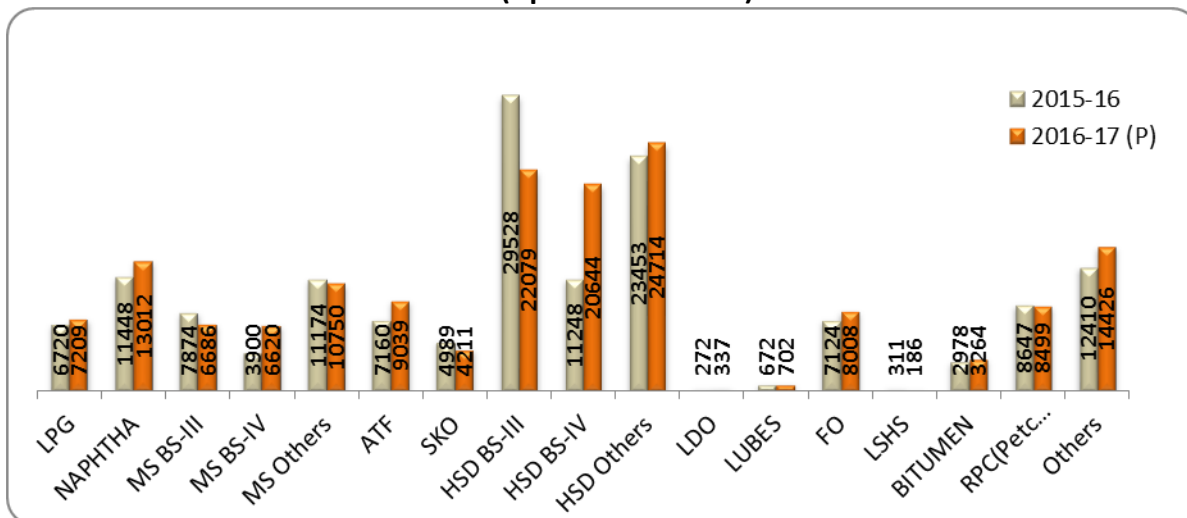
4.1 Petroleum products (grade-wise) production figures in November 2016 and cumulative production up to November 2016 vis-a-vis the same period during the previous year are given in Table-3 and Figure-3:

Table-3 Production of Petroleum Products						
(Thousand Metric Tonnes)						
PRODUCTS	November			April- November		
	2015-16	2016-17 (P)	Change (%)	2015-16	2016-17 (P)	Change (%)
LPG	911	944	3.6	6720	7209	7.3
Naphtha	1437	1650	14.8	11448	13012	13.7
MS BS-III	1124	890	-20.9	7874	6686	-15.1
MS BS-IV	479	860	79.3	3900	6620	69.8
MS Others	1488	1152	-22.5	11174	10750	-3.8
ATF	903	1121	24.1	7160	9039	26.2
SKO	616	396	-35.8	4989	4211	-15.6
HSD BS-III	3919	2723	-30.5	29528	22079	-25.2
HSD BS-IV	1584	2758	74.1	11248	20644	83.5
HSD Others	3078	3018	-2.0	23453	24714	5.4
LDO	27	69	153.6	272	337	23.9
Lubes	93	77	-17.5	672	702	4.4
FO	930	1034	11.2	7124	8008	12.4
LSHS	30	15	-49.0	311	186	-40.2
Bitumen	397	461	16.0	2978	3264	9.6
RPC(Pet coke)	1158	1134	-2.1	8647	8499	-1.7
Others*	1615	1356	-16.0	12410	14426	16.2
TOTAL of which	19790	19656	-0.7	149908	160386	7.0
Refineries	19476	19366	-0.6	147615	158084	7.1
Fractionators	314	291	-7.3	2293	2303	0.4

Note: All figures are provisional. Source : Oil Companies

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

**Figure -3: Production of petroleum products (in '000MT)
(April – November)**



4.2 Significant variations in petroleum products production by refineries/fractionators are analyzed below:

- I. Production of petroleum products from refineries and fractionators marginally decreased by 134 TMT (0.7%) in November 2016 as compared to November 2015. On a cumulative basis production was more by 10478 TMT (7.0%) as compared to the same period of the previous year 2015-16.
- II. MS BS- IV production increased by 380 TMT (79.3%) in November 2016 as compared to the corresponding period of the previous year (2015-16). On an overall basis MS BS- IV production was more by 2720 TMT (69.8%) in April - November 2016 as compared to the same period of the previous year.
- III. HSD BS-IV production increased by 1174 TMT (74.1%) in November 2016 compared to the same period in 2015-16. On an overall basis HSD BS- IV production was more by 9396 TMT (83.5 %) in April - November 2016 as compared to the same period of the previous year.
- IV. ATF production increased by 217 TMT (24.1%) in November 2016 as compared to the same period of the previous year. On an overall basis ATF production was more by 1879 TMT (26.2 %) in April - November 2016 as compared to the same period of the previous year.
- V. SKO production decreased by 777 TMT (15.6%) during April- November 2016 as compared to the same period of the previous year.

- VI. Petcoke production decreased by 147 TMT (1.7%) during April- November 2016 as compared to the same period of the previous year.
- VII. FO production showed growth of 884 TMT (12.4%) during April - November 2016 as compared to the same period of the previous year.

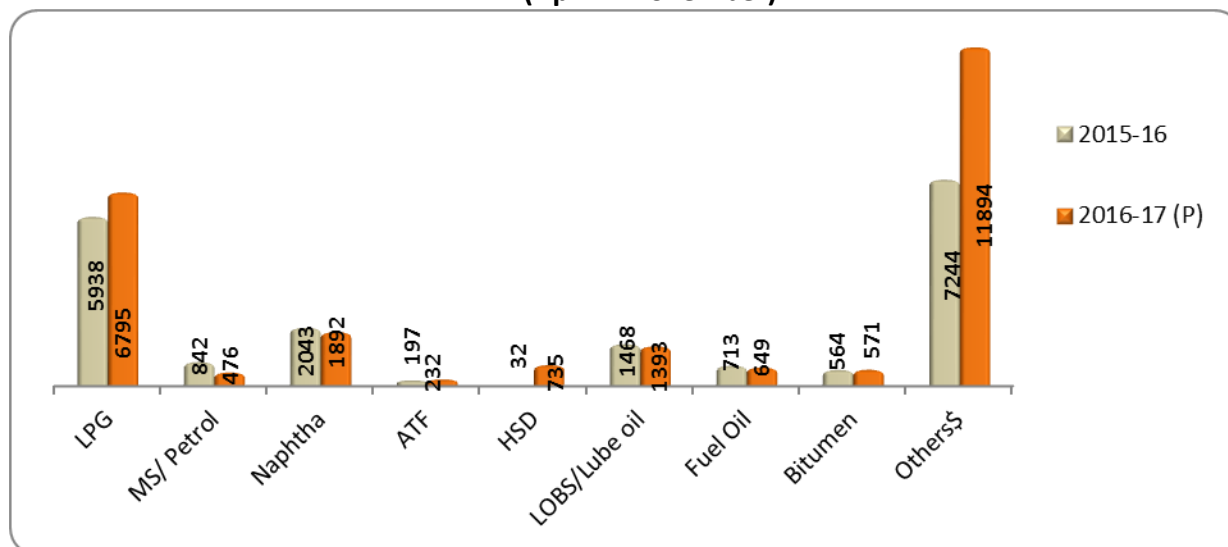
On overall basis petroleum products availability during April - November 2016 from refineries and fractionators was 160386 TMT against domestic consumption of 130002 TMT leaving a surplus of 30384 TMT. However some petroleum products like MS, naphtha, HSD and bitumen etc. were still imported to meet specific requirements (quality & specifications) of the user industries. Imports were also resorted to, to meet domestic consumption and requirement of certain products like LPG and lubes etc. for which there is a deficit in indigenous production.

5.0 Import of Crude oil and Petroleum Products

5.1 Details of import of crude oil and petroleum products are given in Table-4 and Figure-4 below:

Table -4 Import of Crude oil and Petroleum Products						
<i>(Thousand Metric Tonnes)</i>						
	November			April- November		
IMPORT	2015-16	2016-17(P)	Change (%)	2015-16	2016-17(P)	Change (%)
Crude oil						
PSU/JV	9860	11672	18.4	79164	87502	10.5
Private	6776	7084	4.5	52403	56312	7.5
Total crude oil	16636	18756	12.7	131567	143813	9.3
Products						
IMPORT #	2015-16	2016-17(P)	Change (%)	2015-16	2016-17(P)	Change (%)
LPG	724	1010	39.4	5938	6795	14.4
MS	33	33	1.0	842	476	-43.4
Naphtha	122	200	63.8	2043	1892	-7.4
ATF	27	26	-3.3	197	232	17.3
HSD	10	4	-62.6	32	735	2229.6
LOBS/Lube oil	209	182	-13.1	1468	1393	-5.1
Fuel Oil	64	78	23.4	713	649	-9.0
Bitumen	73	75	2.8	564	571	1.3
Others\$	872	1267	45.3	7244	11894	64.2
Total products	2134	2875	34.7	19041	24637	29.4
<i>Note: All figures are provisional. Source : Oil Companies</i>						
<i># DGCI&S data is estimated.</i>						
<i>\$ Others include SKO, Paraffin wax, Petroleum Jelly, LSFO/ LSWR , Aviation Gas , Pet coke etc.</i>						

**Figure-4: Import of petroleum products (in '000 MT)
(April – November)**



5.2 Significant variations in import of crude oil and petroleum products are analysed below:

- I. Crude oil imports during November 2016 increased by 2120 TMT (12.7 %) as compared to November 2015. On overall basis crude oil imports increased by 12246 TMT (9.3%) during April - November 2016 as compared to the same period during the previous year (2015-16).
- II. Crude oil imports of PSU/JV oil companies during November 2016 increased by 1812 TMT (18.4%) as compared to November 2015. On overall basis crude oil imports of PSU/JV oil companies increased by 8337 TMT (10.5%) during April - November 2016 as compared to the same period during 2015-16.
- III. Crude oil imports of private oil companies during November 2016 increased by 308 TMT (4.5%) as compared to November 2015. On overall basis crude oil imports of private oil companies increased by 3909 TMT (7.5%) during April - November 2016 as compared to the same period during 2015-16.
- IV. Import of POL products increased by 740 TMT (34.7%) during November 2016 as compared to November 2015. Import of POL products increased by 5596 TMT (29.4%) during April - November 2016 as compared to the same period of the previous year (2015-16)
- V. Import of LPG (1010 TMT) alone accounted for around 35.1% of the total petroleum product imports during November 2016 as there is deficit in domestic production of LPG. On

cumulative basis import of LPG (6795 TMT) accounted for 27.6% of the total POL imports during April - November 2016.

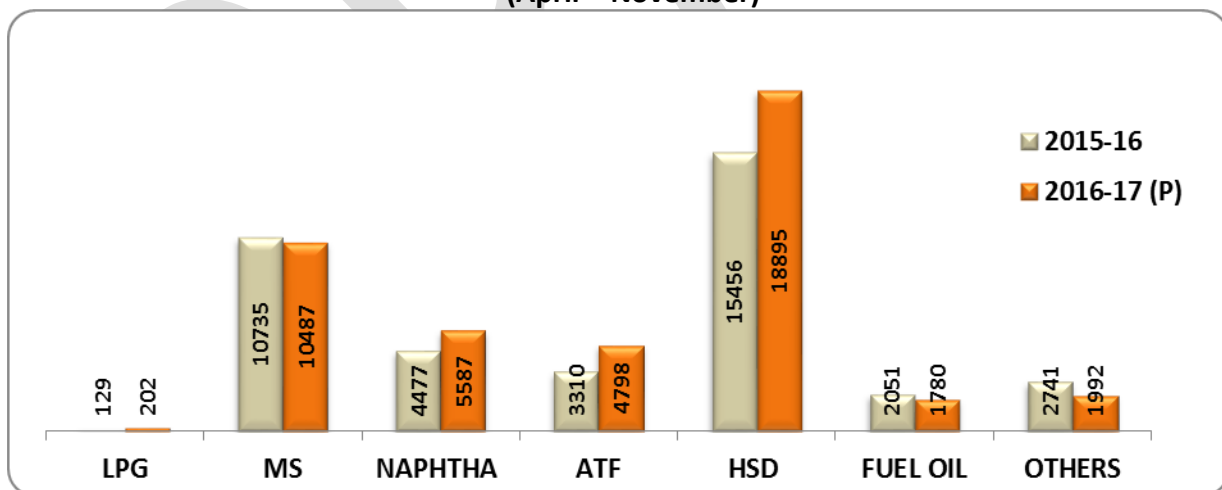
6.0 Export of Petroleum Products

6.1 The details of export of petroleum products are given in Table-5 and Figure-5 below:

Table-5: Export of Major Petroleum Products						
(Thousand Metric Tonnes)						
EXPORT	November			April- November		
	2015-16	2016-17 (P)	Change (%)	2015-16	2016-17 (P)	Change (%)
LPG	5	24	372.8	129	202	56.4
MS	1438	1042	-27.5	10735	10487	-2.3
Naphtha	546	635	16.4	4477	5587	24.8
ATF	460	562	22.0	3310	4798	44.9
HSD	2264	2417	6.7	15456	18895	22.3
Fuel Oil	191	327	70.8	2051	1780	-13.2
Others	355	212	-40.2	2741	1992	-27.3
TOTAL	5260	5219	-0.8	38899	43742	12.5

Note: All figures are provisional. Source : Oil Companies

Figure-5: Export of Petroleum Products (in '000MT)
(April – November)



6.2 Significant variations in export of petroleum products in the country are analysed below:

- I. Export of petroleum products marginally decreased by 41 TMT (0.8%) during November 2016 as compared to November 2015. However overall export of POL products

increased by 4843 TMT (12.5%) during April - November 2016 as compared to the same period of the previous year.

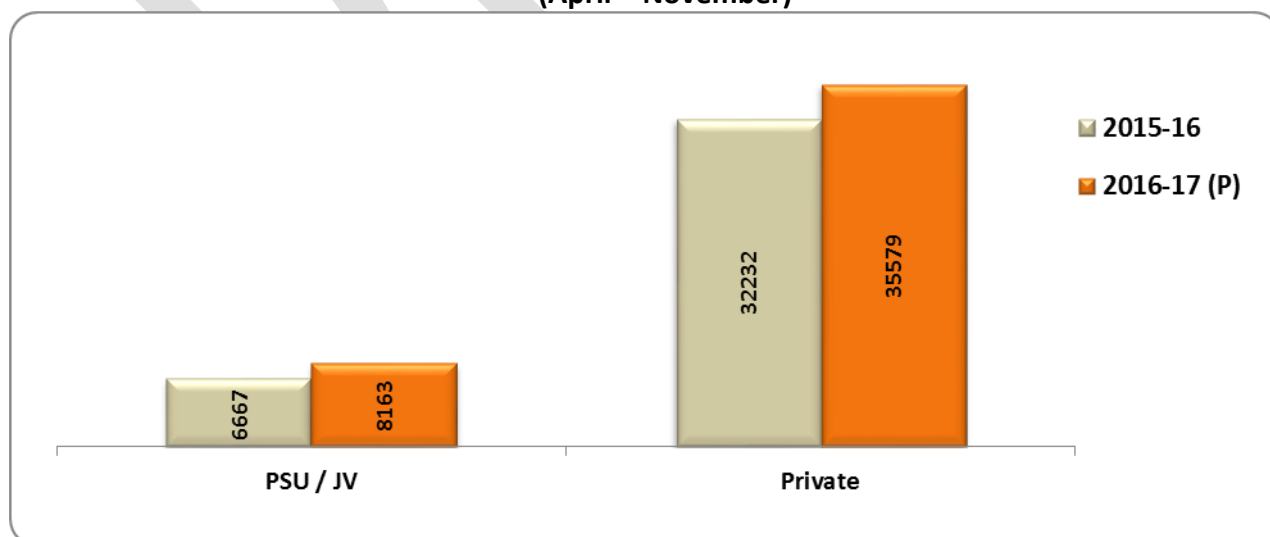
Naphtha, ATF, HSD and FO exports registered growth of 16.4%, 22.0%, 6.7%, and 70.8% respectively during November 2016 as compared to November 2015. On cumulative basis Naphtha, ATF and HSD exports registered growth of 24.8%, 44.9% and 22.3% as compared to the same period of the previous year. During April- November 2016 FO exports declined by 13.2% as compared to the same period of the previous year.

- II. Trend of export of petroleum products by PSUs / JVs and Private sector in the country is given in Table-6 and Figure-6 below:

Table-6 :Export of Petroleum Products						
<i>(Thousand Metric Tonnes)</i>						
Oil Company	November			April- November		
	2015-16	2016-17 (P)	Change (%)	2015-16	2016-17 (P)	Change (%)
PSU / JV	650	1011	55.5	6667	8163	22.4
Private	4610	4208	-8.7	32232	35579	10.4
TOTAL	5260	5219	-0.8	38899	43742	12.5

Note: All figures are provisional. Source : Oil Companies

**Figure-6: Export of Petroleum Products: PSU vs. Private (in '000MT)
(April – November)**



6.3 Salient features of exports by PSU/JV and Private Oil Companies

- PSU/JV oil companies' exports registered growth of 361 TMT (55.5%) during November 2016 as compared to November 2015. On a cumulative basis PSU/JV exports have shown growth of 1496 TMT (22.4%) during April - November 2016 as compared to the corresponding period of the previous year. Naphtha, ATF, HSD and FO made major contribution in PSU/JV exports. Naphtha (5.9%), MS (74.7%), ATF (88.1%) and HSD (97.2%) were major constituents in cumulative growth of PSU/JV exports.
- Private oil companies' petroleum products exports decreased by 402 TMT (8.7%) in November 2016 as compared to November 2015. On a cumulative basis private oil companies' petroleum products exports increased by 3347 TMT (10.4%) during the period April - November 2016 as compared to the corresponding period of the previous year. MS, HSD, Naphtha, and ATF made major contribution in private exports. Naphtha (63.1%), ATF (37.9%) and HSD (18.6%) were major constituents in cumulative growth of private exports.
- Private oil companies' export of POL products accounted for 80.6% of total petroleum product exports during November 2016 as compared to 87.6% of the previous year. On cumulative basis during April - November 2016 private oil companies' export of POL products accounted for 81.3% of total petroleum product exports as compared to 82.9% of the previous year.
