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

April 2017

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

1. 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 production during April, 2017 was marginally lower by 0.6% than that of April, 2016. The reduction in production was primarily contributed by PSC fields e.g. 26 TMT in Panna Mukta, 8 TMT in Ravva fields and 37 TMT in Mangala fields. PSU companies OIL and ONGC registered a growth of 4.5% and 2.5% respectively during April 2017 as compared to April 2016.
- Import of crude oil increased by 0.9% during April 2017 as compared to April 2016.
- Total crude oil processed during April, 2017 was 20.0 MMT, a marginal decrease of 0.8% over April, 2016.There was a decrease of 4.5% in indigenous crude oil processed over April 2016.
- The BS IV std. MS and HSD production saw growth of 135.4% and 120.3% respectively during April 2017 as compared to April 2016.
- Production of petroleum products during April, 2017 saw a marginal growth of 0.1% over April, 2016.
- Import of petroleum products decreased by 9.9% during April, 2017 over the corresponding period of 2016. LPG, Lubes and Pet-coke imports contributed to 80.7 % share of total POL imports during April, 2017.
- Export of POL products increased by 6.0% during April, 2017 as compared to April, 2016 primarily due to higher production as well as higher surplus availability of POL products like Naphtha, Fuel oil and VGO.

2. Indigenous crude oil and condensate production

Indigenous crude oil and condensate production has also shown decrease of 0.6% during April 2017 as compared to April 2016.

i. OIL's crude oil production in April 2017 was higher by 4.5% as compared to April 2016.

ii. In case of ONGC, crude oil and condensate production in April 2017 was higher by 2.5% as compared to April 2016.

iii. Indigenous crude oil and condensate production under PSC fields decreased by 8.4% during April 2017 as compared to April 2016. The major decline was observed in Rajasthan's fields as 70 wells in Mangala field were shut for work over-JP to ESP conversion and poor reservoir performance of Bhagyam wells. Planned shutdown of Panna Mukta fields resulted in oil loss @ 16,000 BOPD from 19.04.2017 to 27.04.2017.

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

Table-1; Indigenous Crude oil and Condensate production				
				(Thousand Metric Tonnes)
Oil Company	**April**			
	Product	**2016-17$^{(P)}$**	**2017-18$^{(P)}$**	**Change (%)**
OIL	**Crude oil**	**261**	**273**	**4.5**
ONGC	Crude oil	1500	**1516**	**1.1**
	Condensate	302	331	**9.7**
	Total	**1802**	**1847**	**2.5**
PSC FIELDS	Crude oil	893	818	**-8.4**
	Condensate	1	0.4	**-44.0**
	Total	**894**	**818**	**-8.4**
Total	Crude oil	2654	2607	**-1.8**
	Condensate	302	331	**9.6**
Grand Total	**Crude oil + Condensate**	**2957**	**2939**	**-0.6**
Note: All figures are provisional. Source : Oil Companies & DGH				

2.1 From the analysis of crude oil production during 2012-13 to 2016-17 following points are observed:

i. The overall crude oil and condensate production of ONGC has declined from 22.6MMT to 22.2 MMT in 2016-17 after showing some improvement during 2014-15 and 215-16.. (Refer annexure-I)

ii. OIL has shown slight reversal of downward trend in 2016-17 after continuous drop in crude oil production from 3.7 MMT in 2012-13 to 3.3 MMT in 2016-17.

iii. PSC crude oil production dropped drastically from 11.6 MMT in 2012-13 to 10.5 MMT in 2016-17, contributed by Panna Mukta, Ravva and Mangala fields.

iv. The percentage share of ONGC has increased from 58.8% to 61.7% during the span of these five years. The percentage share of OIL and PSC was around 9% and 30% respectively.

3. 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.

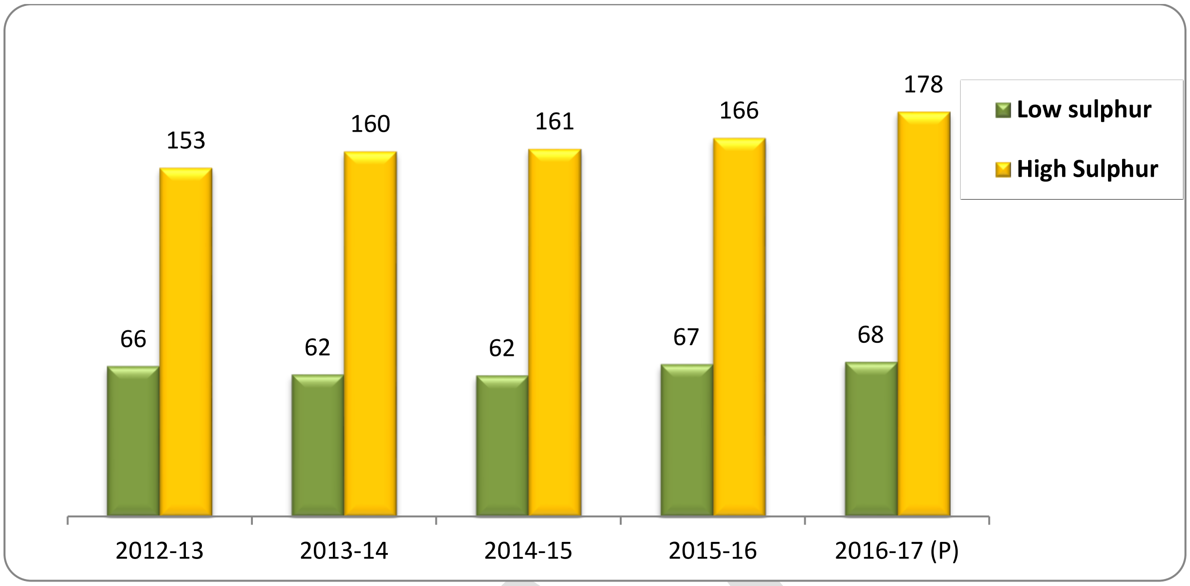
Table-2; Crude oil processed			
			(Thousand Metric Tonnes)
	April		
Oil Company	**2016-17(P)**	**2017-18(P)**	**Change (%)**
PSU / JV			
Indigenous	2321	2387	**2.8**
Imported	10270	10116	**-1.5**
PSU/JV	**12592**	**12502**	**-0.71**
Private			
Indigenous	518	326	**-37.1**
Imported	7047	7162	**1.6**
Private	**7565**	**7488**	**-1.0**
Total of which	**20157**	**19990**	**-0.8**
Indigenous	**2839**	**2712**	**-4.5**
Imported	**17318**	**17278**	**-0.2**
Note: All figures are provisional. Source : Oil Companies			

Based on processing of indigenous crude oil / condensate and the country's domestic POL consumption, self-sufficiency of petroleum products was 16.6% in April 2017 as against 17.9% during April 2016 due to reduction in indigenous crude oil production and increased domestic consumption.

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

The analysis of type of crude processed (i.e. Indigenous, low sulphur & high sulphur) in Indian refineries from 2012-13 to 2016-17 is shown in figure 1 below:

Figure-1: Trend in type of crude processed: 2012-13 to 2016-17 by Indian refineries (Qty. in MMT)



From the analysis of type of crude processed (i.e. Indigenous, low sulphur & high sulphur) in Indian refineries from 2012-13 to 2016-17 following points are observed:

- The processing of high sulphur crude oil has shown continuous rising trend since 2012-13 to 2016-17.The percentage of HS crude has touched 72.4% during 2016-17 from 69.9% during 2012-13. Continuing with same trend Indian refineries processed 73.7% of high sulphur crudes during April 2017 as compared to 72.0% in April 2016.
- There is an overall increase of 16.1% (24.6 MMT) in high sulphur crude processing in 2016-17 over 2012-13.
- An overall increase of 12.1% (26.5 MMT) is observed in total crude processed in 2016-17 as compared to 2012-13.

4. **Production of Petroleum Products**

4.1 Petroleum products (grade-wise) production figures in April 2017 vis-a-vis April 2016 during the previous year are given in Table-3.

Table-3; Production of Petroleum Products			
			(Thousand Metric Tonnes)
PRODUCTS	**April**		
	2016-17(P)	**2017-18(P)**	**Change (%)**
LPG	841	898	**6.8**
NAPHTHA	1361	1568	**15.2**
MS BS-III	815	20	**-97.6**
MS BS-IV	762	1793	**135.4**
MS Others	1392	1234	**-11.4**
ATF	1159	1149	**-0.8**
SKO	507	391	**-22.8**
HSD BS-III	2805	83	**-97.0**
HSD BS-IV	2448	5394	**120.3**
HSD Others	2784	2958	**6.3**
LDO	35	25	**-30.0**
LUBES	79	72	**-9.1**
FO	1037	591	**-43.0**
LSHS	18	23	**29.2**
BITUMEN	590	539	**-8.6**
Petcoke	979	1059	**8.2**
Others	1937	1765	**-8.9**
Total of which	**19548**	**19562**	**0.1**
REFINERIES	**19295**	**19299**	**0.0**
FRACTIONATORS	**253**	**263**	**3.9**
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.*			

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

- Production of petroleum products from refineries and fractionators marginally increased by 0.1% in April 2017 as compared to April 2016.
- Refineries stopped BSIII MS and HSD production from April 2017 except NRL and IOC BRPL.
- The month-wise production trends for BS- IV MS and HSD are shown in figures 2 and 3.

Figure-2: Month-wise BS-IV MS production (May'2016 – April'2017)

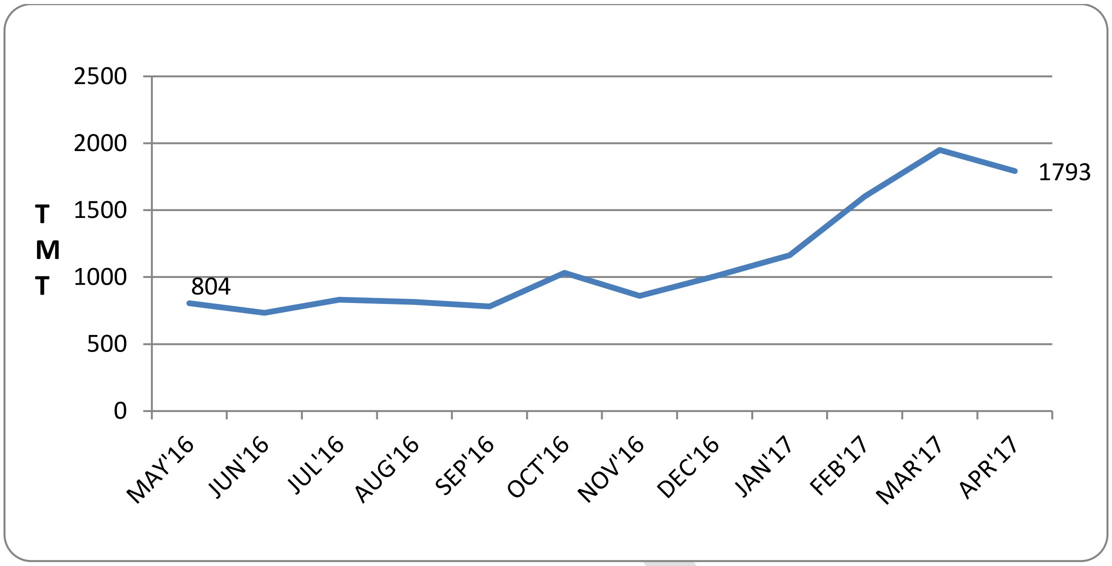
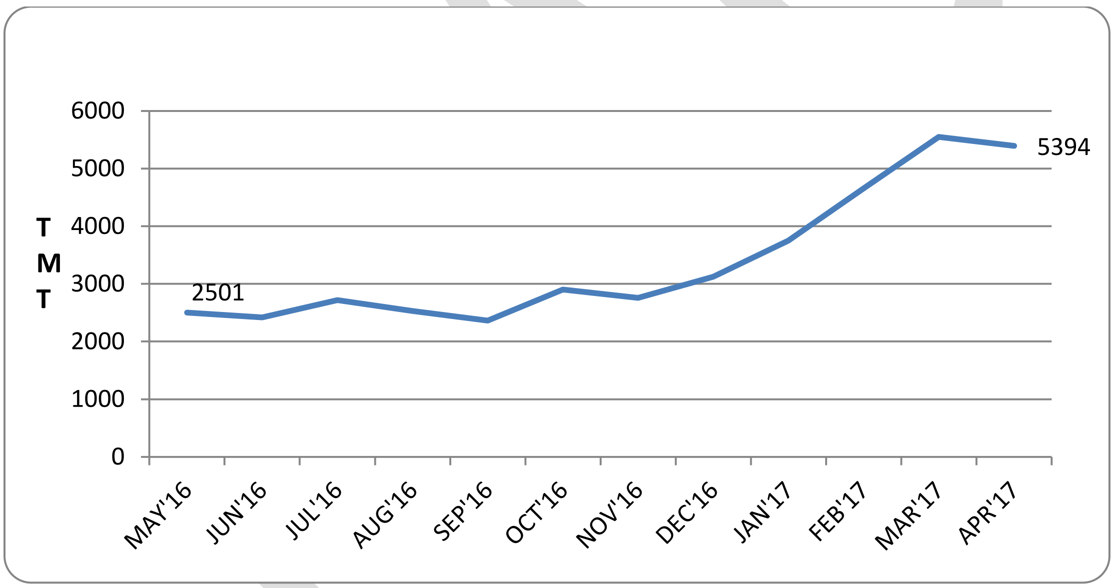
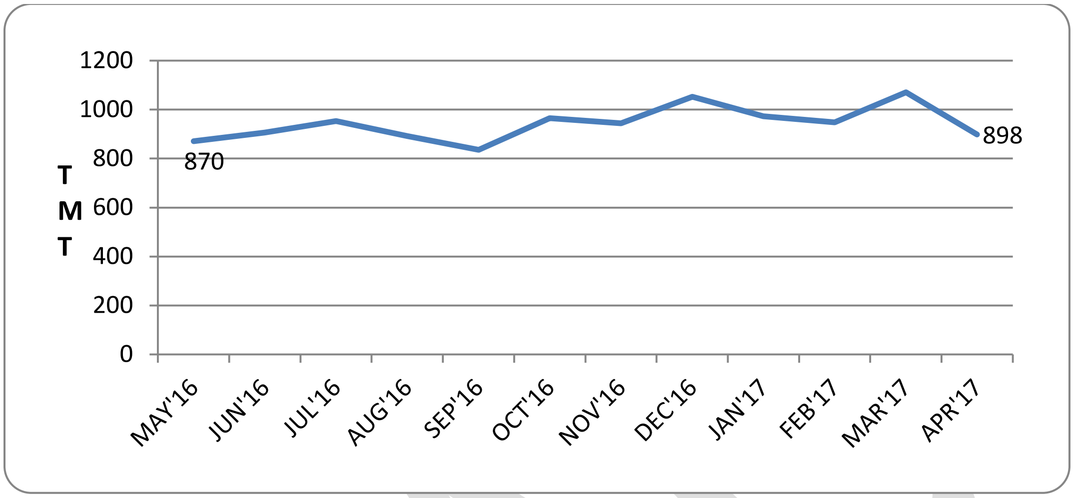


Figure-3: Month-wise BS-IV HSD production (May'2016 – April'2017)



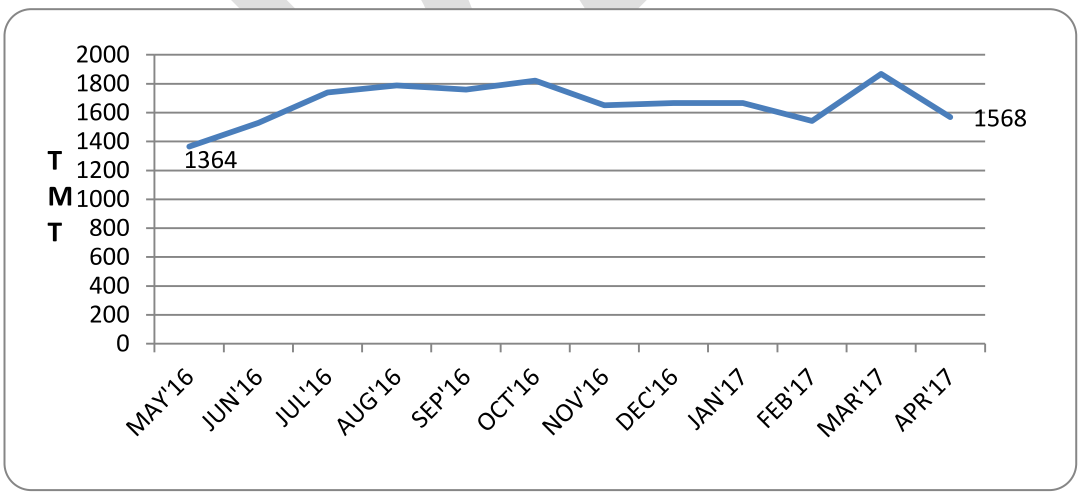
• LPG production has increased by 6.8% during April 2016 as compared to April 2017. The trend in LPG production over last twelve month is shown in figure 4:

Figure-4: Month-wise LPG production (May'2016 – April'2017)



• Naphtha production increased by 15.2% during April 2017 as compared to April 2016. The trend in Naphtha production over last twelve month is shown in figure 5:

Figure-5: Month-wise Naphtha production (May'2016 – April'2017)



• ATF production marginally decreased by 0.8% in April 2017 as compared to the same period of the previous year.

• SKO production continued to show declining trend with decreased of 22.8% during April 2016 as compared to April 2017.

• Pet coke production increased by 8.2% during April 2017 as compared to April 2016.

On overall basis petroleum products availability during April 2017 from refineries and fractionators was 19562 TMT against domestic consumption of 16791 TMT leaving a surplus of 2771 TMT. However some petroleum products like naphtha and lubes were still imported to meet specific requirements (quality & specifications) of the user industries. Imports were also resorted to, to meet domestic consumption of LPG, petcoke and bitumen for which there is a deficit in indigenous production.

5. Import of Crude oil and Petroleum Products

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

Table: 4; Import of Crude oil and Petroleum Products

(Thousand Metric Tonnes)

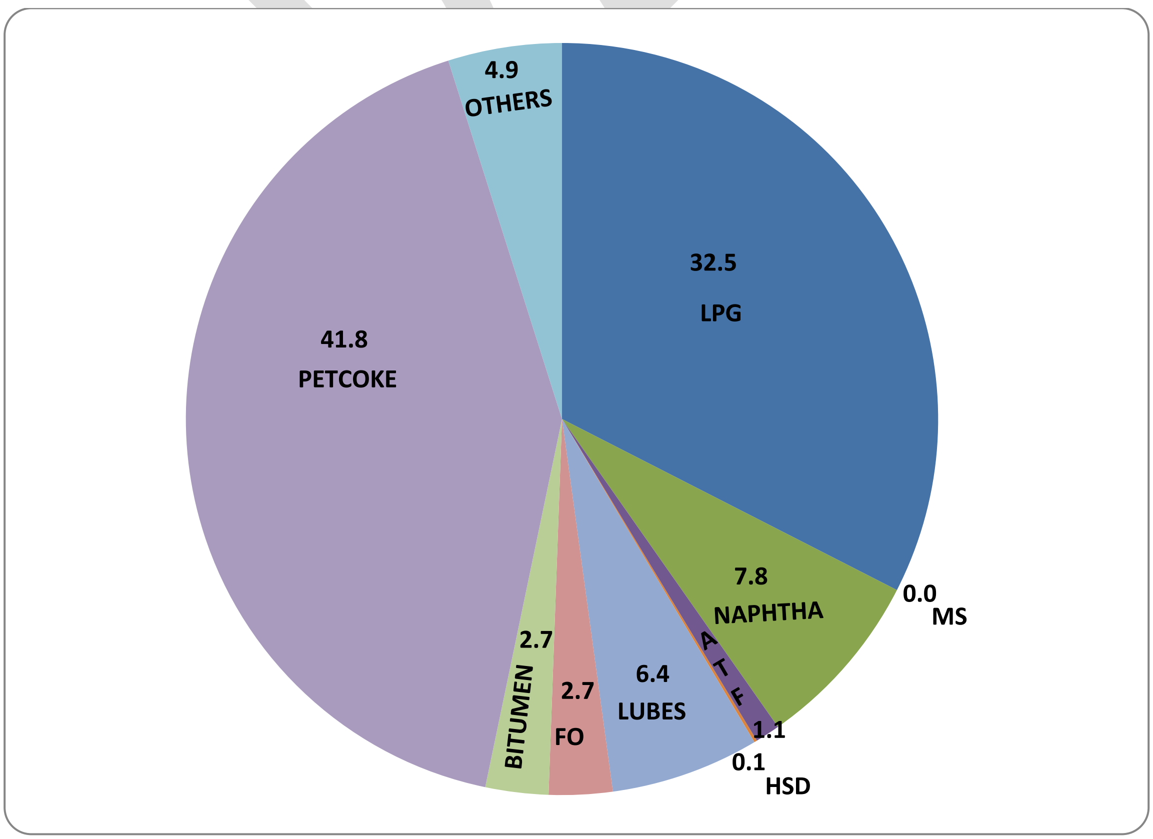
IMPORT	April		
	2016-17 (P)	2017-18 (P)	Change (%)
Crude oil			
PSU/JV	11049	11230	**1.6**
Private	6911	6886	**-0.4**
Sub Total	**17960**	**18115**	**0.9**
PRODUCTS			
IMPORT #	**2016-17 (P)**	**2017-18 (P)**	**Change (%)**
LPG	804	903	**12.4**
MS/ Petrol	74	0	**-100.0**
Naphtha	238	215	**-9.5**
ATF	23	30	**30.8**
SKO	0	0	**-**
HSD	503	3	**-99.3**
LOBS/Lube oil	179	177	**-1.0**
Fuel Oil	81	76	**-6.1**
Bitumen	122	75	**-38.6**
Petcoke	795	1162	**46.3**
Others$	265	136	**-48.8**
TOTAL	**3083**	**2778**	**-9.9**
PSU/JV	1400	897	-36.0
Pvt.	1683	1881	11.8

Note : All figures are provisional . Source : Oil Companies
 # DGCI&S data is estimated.
$ Others include SKO, Paraffin wax, Petroleum Jelly, LSWR , Aviation Gas etc.

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

- Crude oil imports during April 2017 increased by 0.9% as compared to April 2016.
- Crude oil imports of PSU/JV oil companies during April 2017 increased by 181 TMT as compared to April 2016 mainly due to increase in crude oil processing by IOC-Paradip refinery (332 TMT).
- Crude oil imports of private oil companies during April 2017 marginally decreased by 0.4% as compared to April 2016 due to decrease in crude throughput.
- Import of POL products decreased by 9.9% during April 2017 as compared to April 2016 mainly due to decrease in import of HSD, MS and bitumen.
- Import of LPG and lubes accounted for 38.9% share of the total petroleum product imports during April 2017 as there is deficit in domestic production vis-à-vis domestic consumption. LPG accounted for 32.5% of the total POL imports during April 2017.
- The share of all major products in the cumulative imports of the country during April 2016 April 2017 is shown in figure-6 below:

Figur-6, Percentage share of petroleum products in imports (April 2017)



6. **Export of Petroleum Products**

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

Table:5; Export of Major Petroleum Products			
	(Thousand Metric Tonnes)		
EXPORT	**April**		
	2016-17(P)	**2017-18(P)**	**Change (%)**
LPG	27	29	**6.8**
MS	1368	1095	**-20.0**
NAPHTHA	494	749	**51.6**
ATF	674	562	**-16.6**
HSD	2061	2243	**8.8**
FUEL OIL	88	112	**26.7**
OTHERS	169	382	**126.8**
TOTAL	**4882**	**5173**	**6.0**
Note: All figures are provisional. Source : Oil Companies			
'% Others in export include CBFS, VGO, Hexane, Benzene, MTO, Sulphur etc.			

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

I. Export of petroleum products increased by 6.0% during April 2017 as compared to April 2016 primarily due to higher production as well as higher surplus availability of POL products like Naphtha and HSD, which contributed 57.8% of total POL exports.

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

Table-6; Export of Petroleum Products			
			(Thousand Metric Tonnes)
	April		
Oil Company	**2016-17(P)**	**2017-18(P)**	**Change (%)**
PSU / JV	691	1025	**48.2**
Private	4190	4148	**-1.0**
TOTAL	**4882**	**5173**	**6.0**
Note: All figures are provisional. Source : Oil Companies			

Salient features of exports by PSU/JV and Private oil companies

- PSU/JV oil companies' exports registered growth of 48.2% during April 2017 as compared to April 2016. The export of Naphtha, ATF and HSD contributed 69.8% in the 1025 TMT of PSU/JV export during April 2017.
- Private oil companies' petroleum products exports registered decrease of 1.0% in April 2017 as compared to April 2016 mainly due to decrease in export of MS, HSD and ATF.
- Private oil companies' export of POL products accounted for 80.2% of total petroleum product exports during April 2017 as compared to 85.8% of April 2016.

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Annexure-I

Indigenous Crude Oil Production; 2012-13 to 2016-17					
	2012-13	**2013-14**	**2014-15**	**2015-16**	**2016-17 (P)**
					Qty in'000 MT
ONGC	22576	22233	22271	22360	22219
OIL	3717	3490	3420	3226	3258
PSC	11640	12073	11779	11356	10532
Total	37933	37796	37470	36942	36009

Variation over prev. year crude oil production; 2012-13 to 2016-17					
	2012-13	**2013-14**	**2014-15**	**2015-16**	**2016-17 (P)**
					Qty in'000 MT
ONGC	-1135	-343	38	89	-141
OIL	-126	-227	-70	-194	32
PSC	1113	433	-294	-423	-824
Total	-148	-137	-326	-528	-933

% Share in Crude Oil Production; 2012-13 to 2016-17					
	2012-13	**2013-14**	**2014-15**	**2015-16**	**2016-17 (P)**
ONGC	59.52	58.82	59.44	60.53	61.70
OIL	9.80	9.23	9.13	8.73	9.05
PSC	30.69	31.94	31.44	30.74	29.25
Total	100.00	100.00	100.00	100.00	100.00

Source: Oil companies & DGH; (P): Provisional