NEITI

Nigeria
Extractive
Industries
Tranparency
Initiative

REVIEW OF THREE YEARS OF NNPC'S FINANCIAL AND OPERATIONS REPORTS

NEITI OCCASIONAL PAPER SERIES
ISSUE 3, JUNE 2018

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INTRODUCTION

The last three years have ushered in a period of unprecedented but welcomed openness by the Nigerian National Petroleum Corporation (NNPC). Starting from August 2015, the NNPC has been publishing monthly data of its finances and operations, dating back to January 2015. This has resulted in a situation where with the recent release of the January 2018 report, the Nigerian public has data and information about the Federation's interests in oil and gas for the period January 2015 to December 2017. This is historic and commendable.

NEITI's first Occasional Paper Series, released in December 2016, examined data for 21 months (January 2015 – September 2016) using information from the NNPC financial and operations reports from August 2015 to September 2016. An update on that first report, this issue is a review of the whole 36 months of data that NNPC has made available to the public. This review has been made with two things in mind. One is that as commendable as the NNPC gesture of openness is, the utility of this wonderful gesture will be limited if others do not try to make sense of and examine the released data. Considering that the oil and gas sector still contributes the bulk of foreign exchange earnings and government revenues, the value of such critical examination to citizens' understanding of public finances and their capacity to demand transparent and accountable governance cannot be over-emphasized. The second is that such a review ties in very well with, and is actually expected by, Section 2(b) of the NEITI Act (2007) which sets out one of NEITI's primary objectives as: "to monitor and ensure accountability in the revenue receipts of the Federal Government from extractive industry companies". The following pages hope to do exactly this and in a way that will enhance public understanding of this still strategic sector of national life.

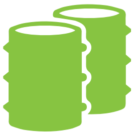
A summary of the data shows that a total of 2.126 billion barrels of crude oil and condensate was produced between January 2015 and December 2017. This comes to an average of 1.94 million barrels per day. The data also shows that Production Sharing Contracts (PSCs) have surpassed Joint Ventures (JVs) in total oil production in Nigeria. PSCs production constituted 44.8% of total oil production for the period under review, while JVs contributed 31.35% of production. This is quite remarkable considering that the earliest PSCs only started production in 2003. However, since government's take is higher in onshore and shallow water assets, priority needs to be given to increasing oil production from JVs as well as urgent review of the term of the 1993 PSCs. Interestingly, JVs contributed more to gas production than PSCs. JVs gas production made up 69.1% of total gas production over this period while PSCs contributed 22.8% to total production.

Furthermore, the data reveals that IOCs lifted more crude oil than the government. Total lifting of crude oil and condensates was 2.135 billion barrels. Of this sum, IOCs and Independents lifted a total of 1.367 billion barrels, while government's lifting by NNPC was 721.16 million barrels. This means that the operators lifted 64.01% of total crude liftings, while government through NNPC lifted 33.76%. When expressed in monetary terms, total government lifting of oil amounted to $35.893 billion while the figure for IOCs and Independents was $68.591 billion.

On domestic crude, the data shows that refineries received only 15.15% of total domestic crude lifting. The highest utilization of domestic crude was for Direct Sale Direct Purchase with 41.32%. Considered jointly, total average capacity utilization of the refineries was a mere 12.26%. Of the 36 months under consideration, the

refineries did not process crude at all in seven months.
The financial performance of the NNPC Group shows that the group made total losses of N547 billion over this study period. The Corporate Headquarters of NNPC was the highest loss-making unit with total losses of N336.268 billion, while the Nigerian Gas Company was the most profitable unit with total profits of N141.324 billion.

Two caveats are in order at this stage. One, NEITI has not, except for the year 2015, independently validated the data from NNPC. This will be done in ongoing and future reconciliation reports. What has been done here is a preliminary analysis of the data that NNPC has made available for the three-year period. Two, the figures examined here do not represent the sum total of all revenues from the sector, as other payment streams like royalties and taxes from JVs, signature bonuses, transportation rental fees, NESS fees, penalties and others are not covered by the NNPC financial and operational reports.



Production was highest in 2015 at

775.6mmbbl

and was lowest in 2016 with

661.1mmbbl

2016 was a particularly difficult year for oil production as Force Majeure was declared in at a number of oil terminals

Total Oil and Condensate Production was 2.126 Billion Barrels between 2015 and 2017

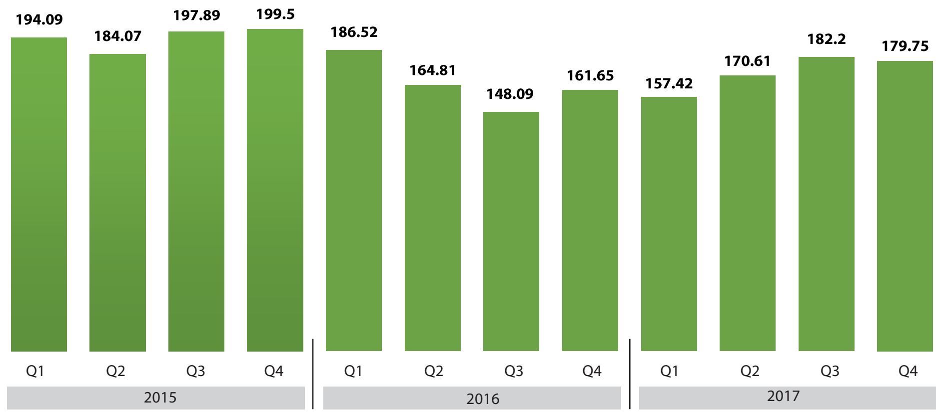


FIG 1: Quarterly Crude Oil & Condensate Production (millions of barrels)

Figure 1 presents quarterly oil production from 2015 to 2017. Between January 2015 and December 2017, Nigeria produced a total of 2.126 billion barrels of crude oil and condensate. Of this amount, yearly breakdowns show that production was highest in 2015 when 775.6 million barrels was produced. Production was lowest in 2016 with 661.1 million barrels produced, while production in 2017 was 690 million barrels. 2016 was a particularly difficult year for oil production as production was shut in at a number of oil terminals. In 2016, Force Majeure was declared in February 2016 at the Forcados Oil Terminal; while Force Majeure was declared at the Nembe Creek Trunk Line in May 2016. Both of these resulted in shut-in production of about 575,000 barrels per day. Force Majeure was also declared at the Brass Terminal in May 2016, resulting in production shut-in of about 120,000 barrels per day. Force Majeure was declared at the Escravos Terminal in June 2016 resulting in production shut-in of about 50,000 barrels per day. In addition, Force Majeure was declared at the Qua Iboe Terminal in July 2016 resulting in production shut-in of about 400,000 barrels per day. Thus, as much as 1.14 million barrels per day of production was shut-in the middle of 2016.

Quarterly oil production was highest in the third quarter of 2015 (199.5 million barrels), while it was lowest in the third quarter of 2016 (148.09 million barrels). This indicates a 34.7% change between production in the highest and lowest producing quarters. Figure 1 shows an interesting pattern in oil production over these three years. Production was initially high in 2015, and then fell substantially from the first quarter of 2016 to the first quarter of 2017. From the second quarter of 2017, production started rising but has not reached the peak levels of 2015.

The Highest Monthly Oil Production was 69.5 Million Barrels and the Lowest was 47.3 Million Barrels

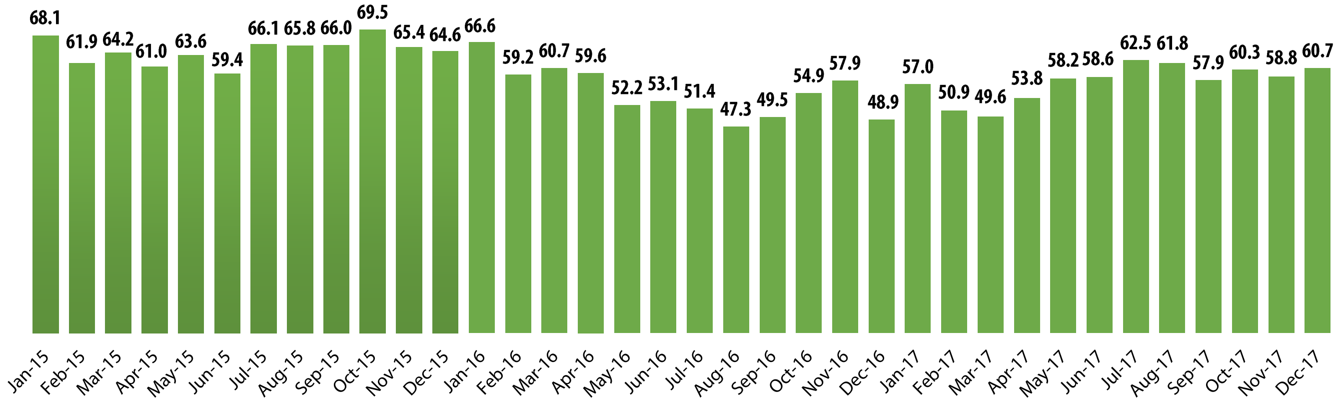
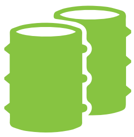


FIG 2: Monthly Crude Oil & Condensate Production (millions of barrels)

Production was highest in October 2015
(69.5mmbbl)
and was lowest in August 2016
(47.3mmbbl)

Figure 2 presents monthly oil production and reveals that production was highest in October 2015 (69.5 million barrels) and lowest in August 2016 (47.3 million barrels). Thus, production in the highest producing month was 47.03% higher than in the lowest producing month. While Figure 2 broadly depicts what was observed from Figure 1, some interesting facts also emerge. In 2015, production was initially very high and the level of production of January 2015 (68.1 million barrels) was actually the second highest level of production recorded over this period. Subsequently, production generally fell until July 2015, when it started rising and peaked in October of the same year. Thereafter, production experienced a general downward trend and reached its trough in August 2016, after which there was a series of upswings and downswings running through the latter part of 2016 and early part of 2017. Production sort of stabilized around 60 million barrels from the middle to end of 2017.



Highest average daily oil production was

2.17mmb/d

and lowest average daily production of

1.61mmb/d

Average daily production exceeded 2mmb/d from the first quarter of 2015 to the first quarter of 2016

The Highest Average Daily Oil Production was 2.17 Million Barrels while the Lowest was 1.61 Million Barrels

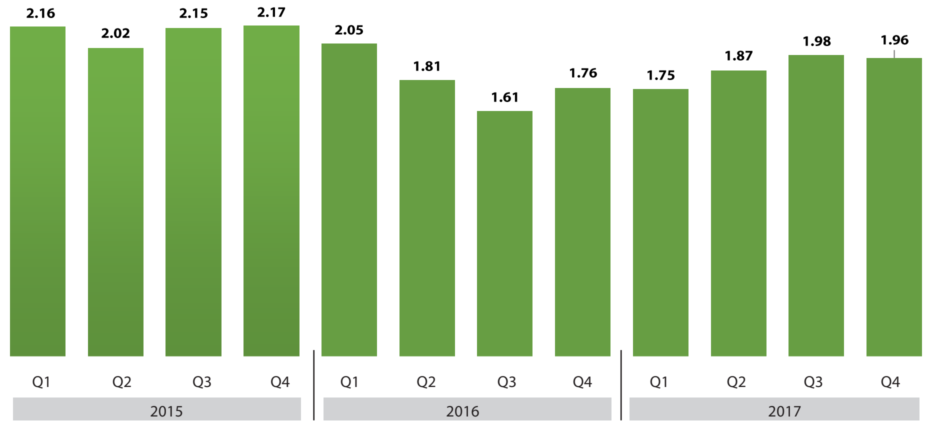


FIG 3: Daily Average Oil & Condensate Production (millions of barrels)

Figure 3 presents average daily oil production for the different quarters from 2015 to 2017. The figure shows that the highest average daily oil production was 2.17 million barrels per day, recorded in the fourth quarter of 2015. The lowest average daily production of 1.61 million barrels per day was in the third quarter of 2016. The figure shows that average daily production exceeded 2 million barrels per day from the first quarter of 2015 to the first quarter of 2016. Starting from the second quarter of 2016, average daily production reduced below 2 million barrels. After average daily production reached its lowest point in the third quarter of 2016, it started rising steadily since then. However, as at the fourth quarter of 2017, it had not yet exceeded 2 million barrels, as 1.96 million barrels per day was recorded.

PSCs made the Largest Contribution of 44.8% to Production while NPDC made the Lowest Contribution of 4.1% to Production

PSCs had the highest production with
954.34mmbbl
and NPDC had the lowest production of
87.43mmbbl

Highest production figure for gas of
255.23BCF
was recorded in July 2015 and the lowest figure of
173.9BCF
was recorded in August 2016

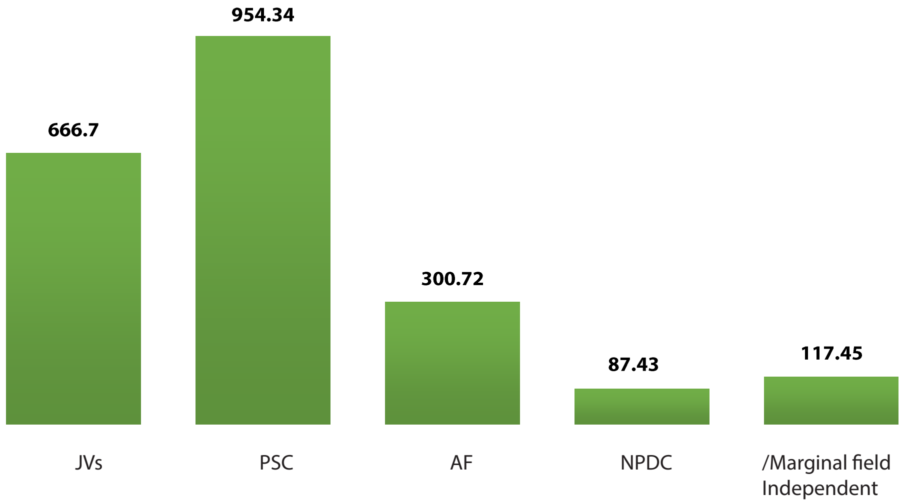


FIG 4: Total Crude Oil & Condensate Production by Different Production Arrangements (millions of barrels)

Figure 4 presents total oil and condensate production by the different production arrangements. PSCs had the highest production with 954.34 million barrels produced over the three year period. JVs came second with 666.7 million barrels produced, while Alternative Financing (AFs) had the third highest production with 300.72 million barrels produced. Production from Marginal Fields/Independents was fourth highest with production of 117.45 million barrels, while the Nigerian Petroleum Development Company (NPDC), the upstream company owned 100% by NNPC, had the lowest production of 87.43 million barrels. When expressed as percentage contributions, total PSC production was 44.87% of total production, while total JV production was 31.35% of the total. Production by AFs as a percentage of total production was 14.14% and total production from Marginals made up 5.52% of the total. NPDC contributed 4.11% to total production.

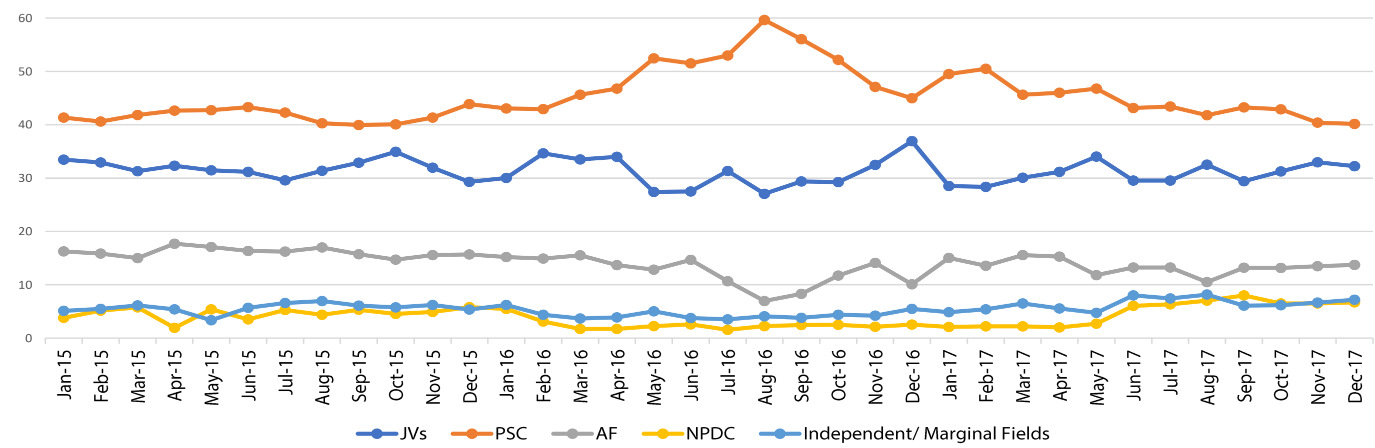


FIG 5: Crude Oil & Condensate Production by Different Contract Arrangements (% Contribution)

The contributions of the different production arrangements have fluctuated over time. Figure 5 presents the trend of the percentage contributions of the service contracts. The lowest contribution of PSCs to production was 39.9% recorded in September 2015 while the highest contribution was 59.6% in August 2016. JV contribution was highest in December 2016 (36.9%) and lowest in May 2016 with 27.4%. The contribution of AFs to production ranged between 6.9% in August 2016 and 17.7% in April 2015. The surge in PSC contribution observed in the middle of 2016 seems to have been as a result of lower contributions of JVs and AFs. The contributions by Marginal Fields/Independents and NPDC were below 10% over the period.

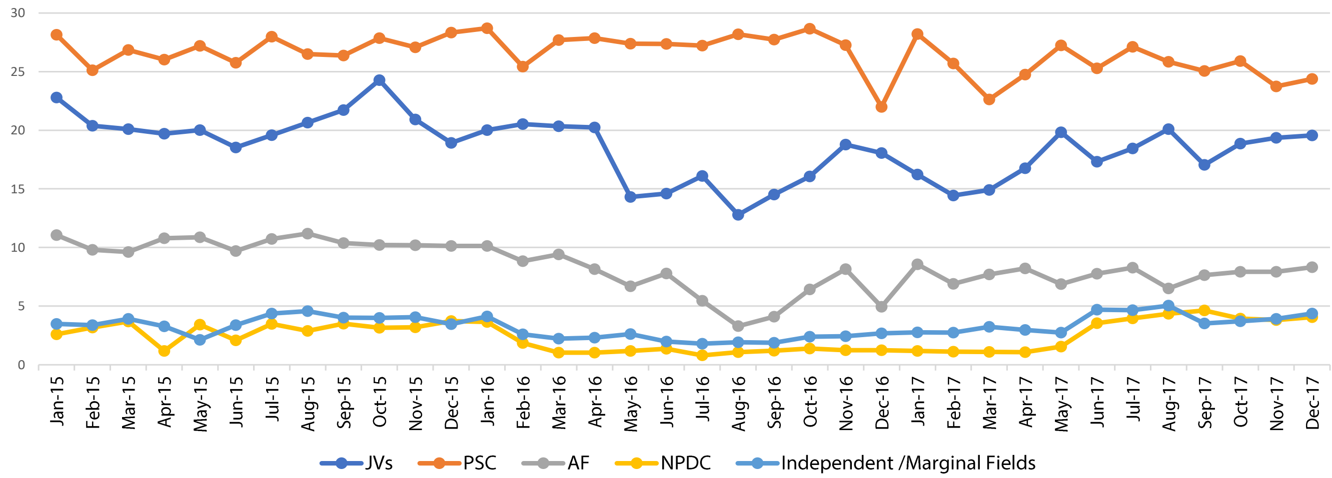


FIG 6: Crude Oil & Condensate Production by Different Contract Arrangements (millions of barrels)

PSC production was consistently highest throughout this period ranged between

25mmb/d and 28.7mmb/d

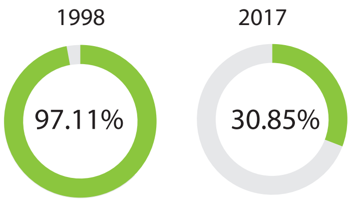
Figure 6 presents the trend of monthly oil production over this period. PSC production was consistently highest throughout this period. The figure shows that PSC production ranged between 25 million and 28.7 million barrels per month, although there were five months when it fell below 25 million barrels (December 2016, March 2016, April 2017, November 2017, and December 2017). Production by JVs, which used to be the highest, is now second highest. Figure 6 reveals that monthly JV production ranged between 24.28 and 12.79 million barrels. It is seen from Figure 6 that JV production is quite volatile, as compared to PSC production which is fairly stable. This can be attributed to the different production terrains. While JVs are typically located onshore, PSCs are generally located offshore. Thus, JVs have been vulnerable to many disruptions and shut-downs arising from militant activities. PSCs on the other hand, have not suffered so much from such. Monthly production from AFs ranged between 11.19 and 3.29 million barrels. Monthly production by both Marginal Fields/ Independents and NPDC were below 5 million barrels, with the exception of August 2017 when production from Marginals reached 5.04 million barrels.

Revenue Implications of the Changing Structure of Oil Production in Nigeria

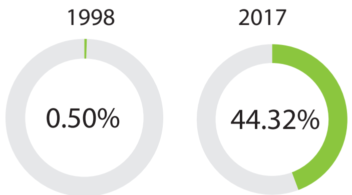
It is important to take a historical look at the contributions of different contact types to oil production in Nigeria to be able to put the current shift from NNPC's reports in proper perspective. The figure below depicts the contribution of different production arrangements to total oil production over the period 1998 to 2017. Joint Venture companies (JV) contributed 97.11% to total production in 1998 but this had dropped to 30.85% in 2017. In 1998, Production Sharing Contracts' companies (PSC) contributed 0.50% to total production and this had increased to 44.32% in 2017. Other companies, comprising Nigerian Petroleum Development Company (NPDC), Alternative Financing (AF), and Independent/ Marginal Fields contributed 2.39% to total production in 1998 and by 2017 this had risen to 24.83%. This figure clearly shows the changing structure of oil production in Nigeria, where PSCs (which contributed a mere 0.5% to total production 20 years ago) have dramatically overtaken JVs (which contributed 97% to total production 20 years ago).

Contribution of oil production by various arrangements in 1998 and 2017

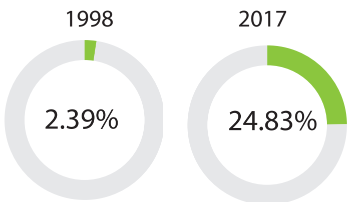
JV



PSC



NPDC and **AF** combined



	JV Companies	PSC Companies	Others	Grand Total
1998	783,143,142.00	4,000,348.00	19,300,509.00	806,443,999.00
1999	744,426,396.00	4,418,019.00	25,858,807.00	774,703,222.00
2000	781,572,652.00	6,127,477.00	35,331,053.00	823,031,182.00
2001	815,341,676.00	8,859,322.00	40,972,586.00	865,173,584.00
2002	687,980,920.00	11,500,555.00	29,709,465.00	729,190,940.00
2003	719,153,258.00	16,718,964.00	95,903,282.00	831,775,504.00
2004	722,797,515.00	24,399,567.00	162,959,407.00	910,156,489.00
2005	689,111,525.00	36,711,219.00	193,143,992.00	918,966,736.00
2006	518,184,570.00	162,532,458.00	188,479,478.00	869,196,506.00
2007	462,888,989.00	192,621,306.00	147,490,413.00	803,000,708.00
2008	471,900,351.00	195,127,693.00	101,717,888.00	768,745,932.00
2009	331,554,144.00	268,792,256.00	180,001,540.00	780,347,940.00
2010	364,717,172.00	316,887,117.00	214,439,117.00	896,043,406.00
2011	348,509,885.00	289,333,720.00	228,401,627.00	866,245,232.00
2012	314,740,436.00	320,434,163.00	217,602,054.00	852,776,653.00
2013	293,397,551.00	313,965,407.00	193,125,144.00	800,488,102.00
2014	256,364,312.00	320,200,461.00	221,976,816.00	798,541,589.00
2015	247,453,877.00	320,626,072.00	205,378,643.00	773,458,592.00
2016	206,290,000.00	325,410,000.00	129,450,000.00	661,070,000.00
2017	212,850,000.00	305,800,000.00	171,340,000.00	689,980,000.00

Table 1: Total Oil Production by Contract Types

Year	JV Companies	PSC Companies	Others
1998	97.11	0.50	2.39
1999	96.09	0.57	3.34
2000	94.96	0.74	4.29
2001	94.24	1.02	4.74
2002	94.35	1.58	4.07

2003	86.46	2.01	11.53
2004	79.41	2.68	17.90
2005	74.99	3.99	21.02
2006	59.62	18.70	21.68
2007	57.64	23.99	18.37
2008	61.39	25.38	13.23
2009	42.49	34.45	23.07
2010	40.70	35.37	23.93
2011	40.23	33.40	26.37
2012	36.91	37.58	25.52
2013	36.65	39.22	24.13
2014	32.10	40.10	27.80
2015	31.99	41.45	26.55
2016	31.21	49.22	19.58
2017	30.85	44.32	24.83

Table 2: Pecentage of Oil Production by Cobtract Types

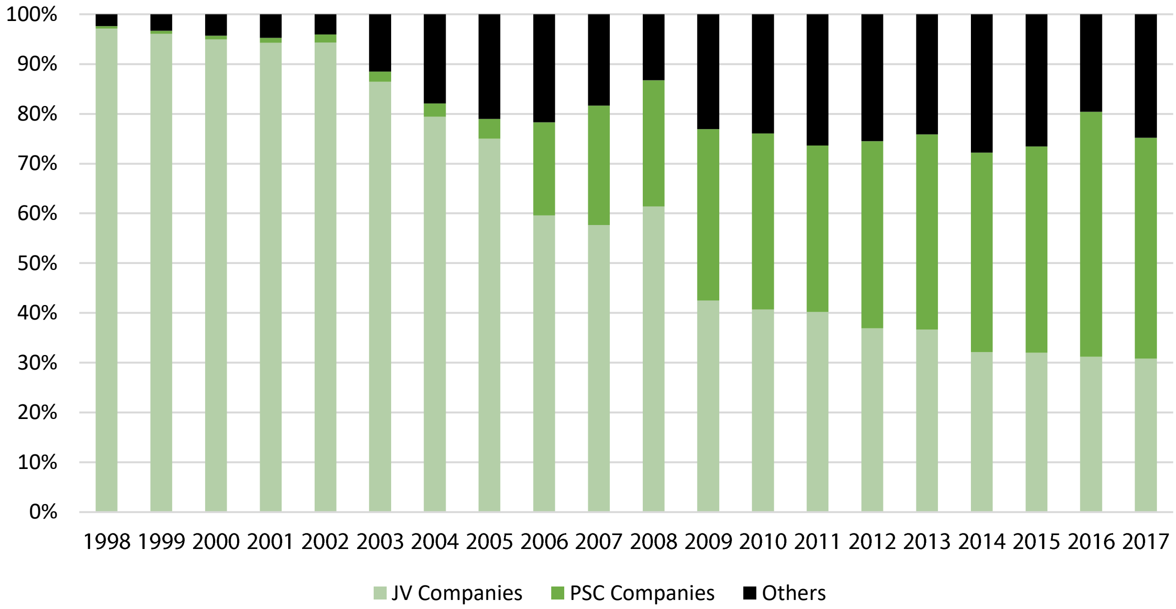


FIG 7: Oil Production by Contract Types (% of Total Production)

The declining share of production from JVs has largely been attributed to militant activity on their installations (which happen to be onshore) and declining well output. In light of these, it is likely that for the near and foreseeable future, PSCs (which are largely offshore) will continue to play a dominant role in contribution to production. However, the significance of this shift is more in the revenue implication for the Federation as government's take from PSCs are considerably lower on account of incentives put in place 25 years ago, incentives which are long overdue for review. The Deep Offshore and Inland Basin Production Sharing Contracts Act of 1993 has two trigger clauses in Section 16: a review of the terms when price of oil crosses $20 in real term; and a review of the terms 15 years after the operation of the agreements and five years subsequently. On account of non-renewal, royalty is not paid on most of the PSC productions while tax allowances that have been overtaken are still in place. The fact that PSC productions now account for almost 50% of total oil production makes an urgent case for a review of the terms as stipulated by the Act.

Highest Gas Production was 255.23 BCF while Lowest Gas Production was 173.9 BCF

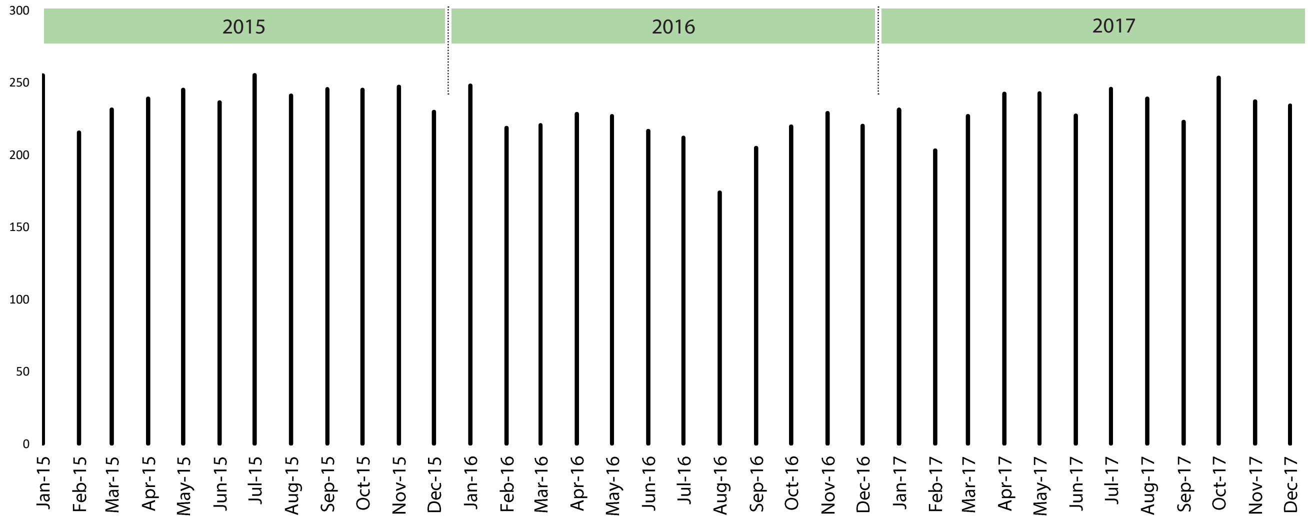


FIG 8: Gas Production (billion cubic feet)

Figure 8 presents total gas production. The highest production figure for gas of 255.23 BCF was recorded in July 2015 while the lowest figure of 173.9 BCF was recorded in August 2016. This shows a 46.76% change between the highest and lowest producing months. Interestingly, this is similar to the figure of 47.03% obtained for oil production. This largely reflects the fact that the majority of gas production is associated gas, and thus such gas production will move in the same direction as oil production.

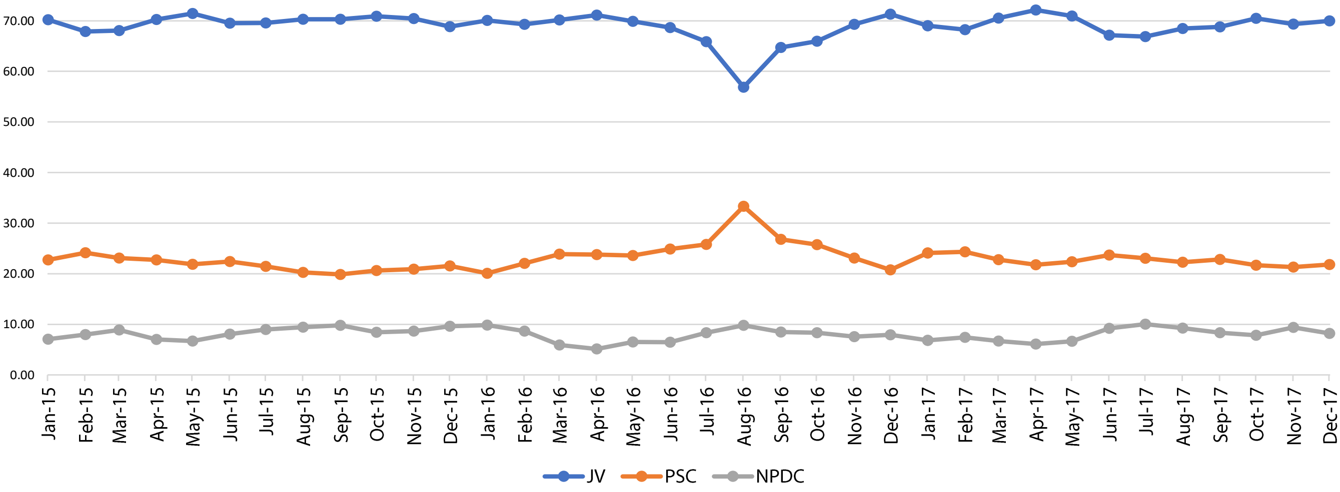
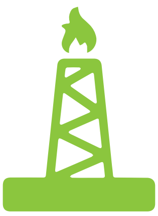


FIG 9: Gas Production by Different Contract Arrangements (% Contribution)



Interestingly, it is seen that unlike oil production where PSCs contributed the largest percentage to production, JVs contributed the most to gas production

Figure 9 presents the percentage contribution of different production arrangements to gas production. Interestingly, it is seen that unlike oil production where PSCs contributed the largest percentage to production, JVs contributed the most to gas production. This is as a result of the fact that the 1993 PSCs, which contribute the most to PSC production, do not make any provision for how the parties should treat gas available for commercial exploitation. Ordinarily, the parties should have separate agreements for gas production. However, such agreements have not been completed. Figure 9 shows that JV contribution to gas production was between 56.87% in August 2016, and 72.13% in April 2017. With the exception of August and September 2016, JV production exceeded 65%, highlighting the dominance of JVs in gas production. PSC production of gas ranged broadly between 19.86% (September 2015) and 26.79% (September 2016). The only exception was in August 2016 when PSCs contributed 33.32% to production. NPDC generally contributed less than 10% to gas production.

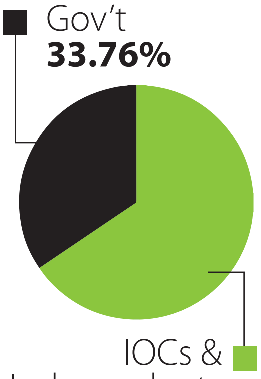
Total Government Lifting of Oil Constituted 33.76% of Total Liftings while Total Lifting by IOCs and Independents Made up 64.01% of Total Liftings

	NIGERIAN GOVERNMENT						IOCs & INDE-PENDENTS (INC. NPDC)	AF	GRAND TOTAL
	FIRS (PSC)	DPR (PSC)	NNPC			SUB-TOTAL GOVERNMENT LIFTING			
			FEDERATION EXPORT	DOMESTIC	SUB-TOTAL (NNPC)				
Jan-15	6.60	0.41	6.65	13.56	20.21	27.22	40.15	1.29	68.66
Feb-15	5.00	0.26	6.54	14.61	21.15	26.40	37.71	1.05	65.17
Mar-15	2.30	1.30	6.07	14.06	20.13	23.73	37.74	1.21	62.68
Apr-15	4.75	0.05	5.12	11.17	16.29	21.10	40.59	2.30	63.99
May-15	4.86	1.45	3.94	12.29	16.23	22.54	36.79	2.39	61.72
Jun-15	3.27	0.55	5.02	11.19	16.22	20.03	37.76	1.78	59.57
Jul-15	7.81	0.00	1.92	15.49	17.41	25.22	38.38	1.26	64.86
Aug-15	6.69	0.48	3.39	10.90	14.30	21.47	42.39	2.27	66.14
Sep-15	2.50	0.00	6.93	13.52	20.44	22.95	41.13	2.08	66.16
Oct-15	6.09	0.70	6.17	12.07	18.24	25.03	42.77	2.51	70.31
Nov-15	3.77	0.15	3.73	11.32	15.05	18.97	45.12	1.39	65.48
Dec-15	2.74	1.45	5.18	13.04	18.21	22.40	42.28	1.28	65.95
Jan-16	6.10	1.00	5.38	11.30	16.69	23.79	41.76	2.05	67.59
Feb-16	5.33	1.53	3.05	10.27	13.32	20.17	40.08	0.99	61.24
Mar-16	4.22	0.77	4.95	14.19	19.14	24.13	34.44	1.09	59.67
Apr-16	2.82	1.30	2.11	13.05	15.16	19.28	39.21	0.97	59.47
May-16	2.05	0.38	4.31	11.29	15.60	18.03	36.66	0.24	54.93
Jun-16	3.74	0.50	3.16	8.96	12.12	16.36	31.74	1.39	49.48
Jul-16	3.93	1.05	2.18	9.06	11.24	16.21	28.85	0.98	46.04
Aug-16	5.13	0.33	1.84	8.98	10.82	16.28	37.14	0.19	53.61
Sep-16	4.21	0.23	0.45	5.16	5.61	10.05	37.28	1.44	48.77
Oct-16	4.02	0.19	1.94	11.90	13.84	18.05	35.21	0.13	53.38
Nov-16	3.92	2.17	2.24	13.58	15.83	21.92	42.39	1.19	65.50
Dec-16	4.49	0.77	1.78	9.42	11.20	16.46	32.16	0.28	48.90
Jan-17	3.53	0.58	2.85	8.99	11.84	15.95	36.40	0.04	53.36
Feb-17	5.99	1.69	4.63	5.69	10.32	18.00	30.95	0.16	49.11
Mar-17	3.02	0.14	1.43	10.93	12.36	15.52	33.74	0.56	49.81
Apr-17	4.55	1.41	2.62	10.30	12.92	18.88	31.04	1.27	51.19
May-17	4.84	0.14	3.48	12.61	16.09	21.07	39.84	0.79	61.70
Jun-17	3.87	0.19	7.60	9.50	17.11	21.17	34.88	0.03	56.07
Jul-17	7.75	0.26	6.35	7.21	13.56	21.56	40.40	1.81	63.78
Aug-17	2.45	1.27	4.60	9.71	14.31	18.02	41.08	1.40	60.50
Sep-17	4.30	0.67	4.01	6.45	10.46	15.43	45.70	3.56	64.69
Oct-17	5.77	1.72	2.56	9.00	11.56	19.06	34.34	2.18	55.58
Nov-17	6.74	0.35	5.42	5.77	11.19	18.28	40.65	1.03	59.96
Dec-17	4.48	1.47	4.70	9.77	14.46	20.42	38.58	1.92	60.92
TOTAL	163.63	26.91	144.31	386.32	530.63	721.16	1,367.33	46.49	2,135.95

Table 3: Crude Oil & Condensate Lifting and utilization (millions of barrels)

Table 3 presents figures for lifting of crude oil and condensates over the study period. Total lifting of crude oil and condensates was 2.135 billion barrels. Total government lifting was 721.16 million barrels, IOCs and Independents lifted a total of 1.367 billion barrels, while AFs lifted a total of 46.49 million barrels. This shows that total government lifting was 33.76% of total liftings. The proportion

LIFTING OF OIL



Total amounts lifted in 2015, 2016 and 2017 were
780.69mmbbl,
668.58mmbbl
& 686.67mmbbl

of total liftings by IOCs and Independents was 64.01%, while AF lifting made up 2.17% of total lifting. Yearly breakdowns reveal that total amounts lifted in 2015, 2016 and 2017 were 780.69 million barrels, 668.58 million barrels and 686.67 million barrels respectively.

Government lifting of crude oil has fallen substantially below lifting by IOCs primarily because PSCs now constitute the largest proportion of oil production. Government's take is higher with JVs. However, due to disruptions from attacks on onshore installations and the subsequent production shut-ins, the nation has relied heavily on offshore production. Such offshore productions are from PSCs where the IOCs have higher take. This calls for urgency in reviewing the terms of the 1993 PSCs which, though due for review, have not been reviewed. The urgency of such reviews comes to light when it is considered that many of the onshore fields will be mature in the not too distant future. Thus, even if attacks on installations subside, production from such fields will still fall. It is in this spirit that the recent announcement by NNPC of a presidential approval of the review of the PSCs is another positive development.

The government liftings, which are all done by the NNPC, consist of three components: lifting for FIRS, lifting for DPR, and lifting for NNPC itself (comprising of exports and domestic use). Further analysis shows that NNPC's lifting on behalf of FIRS totaled 163.63 million barrels, which contributed 7.66% to grand total lifting, and 22.68% to total government lifting. NNPC's lifting on behalf of DPR totaled 26.91 million barrels, accounting for 1.25% of grand total lifting, and 3.73% of total government lifting. Total NNPC lifting for exports was 144.31 million barrels while total lifting for domestic use was 386.32 million barrels. Thus, the NNPC lifted more crude for domestic use rather than for exports. This once more highlights the issue of the daily allocation of 445,000 barrels of crude for domestic use. Total lifting by NNPC for exports constituted 6.75% of grand total lifting, and 20.01% of total government lifting. NNPC's lifting for domestic use made up 18.08% of grand total lifting, and 53.56% of total government lifting. Thus, lifting for domestic use made up the larger share of total government lifting. It needs to be stated however that part of the domestic crude allocation is further exported or used for DSDP in exchange for refined products.

Total Government Lifting of Oil was Valued at $35.893 billion while Total Lifting by IOCs and Independents was Valued at $68.591 billion

	NIGERIAN GOVERNMENT						IOCs & INDE-PENDENTS (INC. NPDC)	AF	GRAND TOTAL
	FIRS (PSC)	DPR (PSC)	NNPC			SUB-TOTAL GOVERNMENT LIFTING			
			FED-ERATION EXPORT	DOMESTIC	SUB-TOTAL (NNPC)				
Jan-15	310.27	19.54	323.43	643.40	966.82	1,296.63	1,953.47	61.31	3,311.41
Feb-15	292.12	15.67	361.90	824.80	1,186.69	1,494.48	2,086.96	62.95	3,644.40
Mar-15	126.35	69.71	340.23	761.34	1,101.57	1,297.63	2,114.90	67.56	3,480.09
Apr-15	285.99	2.94	306.60	659.36	965.95	1,254.89	2,430.73	144.15	3,829.76
May-15	306.63	88.01	259.16	777.32	1,036.48	1,431.12	2,419.55	157.17	4,007.83
Jun-15	201.85	33.79	307.75	676.15	983.90	1,219.54	2,313.78	109.16	3,642.48
Jul-15	443.05	0.00	108.92	805.22	914.14	1,357.19	2,178.60	73.99	3,609.78
Aug-15	308.97	22.23	160.58	489.71	650.30	981.50	2,005.73	109.76	3,097.00
Sep-15	119.67	0.00	325.28	644.54	969.82	1,089.49	1,931.18	101.18	3,121.84
Oct-15	291.07	33.02	305.86	573.00	878.85	1,202.95	2,120.53	123.70	3,447.18
Nov-15	167.00	6.55	161.90	476.23	638.13	811.68	1,957.98	62.10	2,831.76
Dec-15	103.57	51.40	202.09	444.17	646.26	801.23	1,650.58	47.38	2,499.19
Jan-16	183.36	30.46	156.19	320.72	476.91	690.73	1,211.65	58.01	1,960.39
Feb-16	172.39	46.07	98.31	338.34	436.64	655.10	1,293.01	32.39	1,980.50
Mar-16	164.25	29.35	191.30	549.10	740.40	934.00	1,330.89	43.47	2,308.36
Apr-16	114.38	47.29	89.13	547.80	636.93	798.60	1,655.28	42.89	2,496.76
May-16	98.22	17.18	198.53	533.87	732.39	847.79	1,688.64	11.36	2,547.80
Jun-16	178.12	23.10	153.01	432.57	585.58	786.79	1,537.21	68.36	2,392.36
Jul-16	183.98	42.08	101.54	409.29	510.84	736.89	1,342.91	47.11	2,126.91
Aug-16	231.99	14.74	86.80	421.10	507.90	754.63	1,748.85	9.11	2,512.59
Sep-16	203.61	23.45	21.40	245.81	267.22	494.28	1,762.52	67.81	2,324.61
Oct-16	203.82	9.31	96.31	593.58	689.89	903.02	1,847.81	6.44	2,600.11
Nov-16	177.94	93.36	100.37	629.69	730.05	1,001.35	1,896.49	57.88	2,955.73
Dec-16	240.10	41.02	93.97	509.66	603.63	884.75	1,700.09	15.27	2,600.11
Jan-17	196.92	32.02	157.65	498.00	655.65	884.59	2,015.90	55.21	2,955.71
Feb-17	328.63	92.40	255.50	311.96	567.46	988.49	1,707.77	8.77	2,705.02
Mar-17	154.66	6.74	71.81	566.55	638.37	799.76	1,696.10	27.92	2,523.78
Apr-17	234.10	69.62	133.81	539.60	673.41	977.13	1,584.93	66.98	2,629.04
May-17	243.55	6.71	175.46	639.11	814.57	1,064.83	2,009.57	40.55	3,114.95
Jun-17	176.79	1.20	351.90	443.20	795.11	973.10	1,614.49	1.20	2,588.79
Jul-17	373.53	12.01	308.96	349.55	658.51	1,044.05	1,966.02	90.36	3,100.44
Aug-17	127.59	67.68	239.48	502.25	741.73	936.99	2,138.82	70.45	3,146.26
Sep-17	244.50	37.60	227.83	369.82	597.65	879.75	2,597.08	207.62	3,684.44
Oct-17	336.99	100.58	147.80	530.42	678.22	1,115.79	1,981.67	131.63	3,229.08
Nov-17	426.70	21.38	342.18	368.80	710.98	1,159.06	2,564.22	65.23	3,788.51
Dec-17	299.60	98.25	308.61	637.17	945.78	1,343.63	2,535.18	130.32	4,009.13
TOTAL	8,252.26	1,306.45	7,271.54	19,063.19	26,334.73	35,893.44	68,591.09	2,476.75	106,961.28

Table 4: Crude Oil Lifting Values (USD millions)

Table 4 presents monetary values for crude oil liftings. The total monetary value of grand total liftings of crude oil and condensates was $106.961 billion. The value of total government lifting was $35.893 billion while the value of total lifting by IOCs and Independents was $68.591 billion. The value of lifting by AFS was $2.476 billion. Examination of the government lifting done by NNPC shows that lifting on behalf of DPR was lowest with $1.306 billion. This was followed by lifting for exports ($7.271 billion), and lifting for FIRS (8.252 billion). Lifting for domestic use had the highest value of $19.063 billion. The value of lifting by government was 33.55% of the total lifting value. On the other hand, the value of lifting by IOCs and Independents made up 64.12% of the total value of lifting.

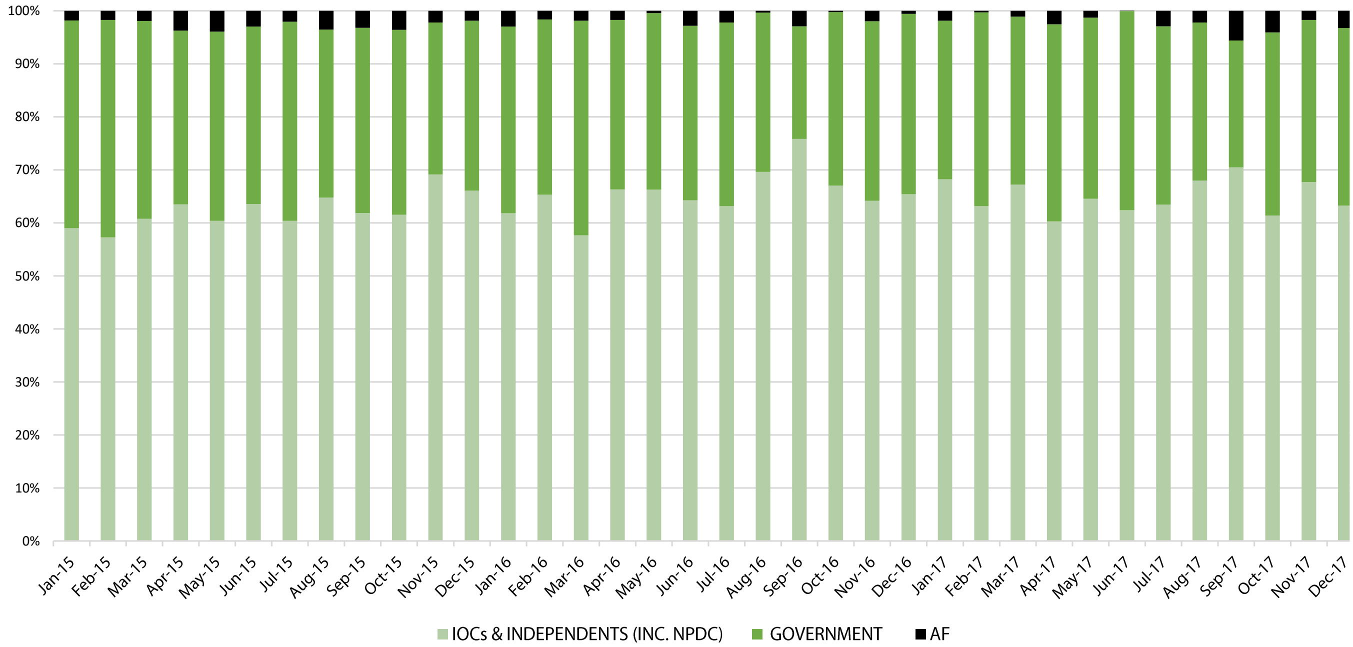


FIG 10: Composition of Crude Oil Lifting Values Among Different Production Arrangements (%)

This is further illustrated in Figure 10 where it is seen that IOCs and Independents received over 50% of the value of crude oil lifted for all months. IOCs and Independents received as much as 70% of the value of crude oil liftings in September 2016.

The value of lifting by government was

33.55%

while IOCs and Independents made up

64.12%

of the total value of lifting

The Largest Utilization of NNPC Lifting of Domestic Crude was for DSDP with 41.32% while the Lowest Utilization was for Deliveries to Refineries with 15.15%

	EXPORT		OFFSHORE PROCESSING		DELIVERIES TO REFINERIES		DIRECT SALES DIRECT PURCHASE		TOTAL	
Month	Quantity (thousands of barrels)	Percentage of Total	Quantity (thousands of barrels)	Percent-age of Total	Quantity (thousands of barrels)	Percentage of Total	Quantity (thousands of barrels)	Percent-age of Total	Quantity (thousands of barrels)	Value in NGN (million)
Jan-15	6,993.53	51.56	6,570.68	48.44	0	0		0	13,564.21	107,447.51
Feb-15	6,408.80	43.87	7,934.01	54.31	265.45	1.817122642		0	14,608.26	161,316.71
Mar-15	5,388.98	38.32	8,673.47	61.68	0	0		0	14,062.45	149,222.81
Apr-15	5,219.86	46.71	5,954.11	53.29	0	0		0	11,173.96	129,233.86
May-15	3,735.48	30.40	8,551.54	69.60	0	0		0	12,287.02	152,353.94
Jun-15	2,761.38	24.67	7,483.12	66.85	948.58	8.47470044		0	11,193.08	132,525.86
Jul-15	3,415.78	22.05	8,731.92	56.36	3,345.99	21.59582385		0	15,493.69	157,782.87
Aug-15	1,861.37	17.07	6,643.33	60.93	2,397.68	21.99228241		0	10,902.37	95,983.82
Sep-15	3,871.78	28.64	7,597.21	56.21	2,047.77	15.1498584		0	13,516.76	126,329.01
Oct-15	6,387.71	52.90	5,687.09	47.10	0	0		0	12,074.80	112,278.94
Nov-15	4,536.37	40.07	6,784.71	59.93	0	0		0	11,321.08	93,341.70
Dec-15	5,529.59	42.41	7,507.77	57.59	0	0		0	13,037.36	87,043.51
Jan-16	5,106.14	45.18	5,694.26	50.38	502.45	4.445335074	0	0	11,302.86	62,861.75
Feb-16	1,768.20	17.22	948.99	9.24	1,888.31	18.3885044	5,663.46	55.15119822	10,268.97	66,313.93
Mar-16	904.22	6.37	1,897.06	13.37	1,890.48	13.32676329	9,493.82	66.92580287	14,185.59	107,622.65
Apr-16	0	0.00	0	0.00	2,605.02	19.96037073	10,445.94	80.03962927	13,050.96	107,369.01
May-16	0	0.00	0	0.00	1,396.09	12.36462669	9,894.91	87.63537331	11,291.00	104,637.75
Jun-16	0	0.00	0	0.00	1,387.01	15.48223407	7,571.71	84.51776593	8,958.72	84,783.51
Jul-16	937.88	10.36	951.14	10.50	1,469.54	16.22621343	5,698.03	62.91591307	9,056.58	114,173.88
Aug-16	0	0.00	0	0.00	3,282.24	36.57083773	5,692.78	63.42916227	8,975.02	131,382.71
Sep-16	0	0.00	0	0.00	1,319.85	25.58329764	3,839.18	74.41670236	5,159.03	74,973.21
Oct-16	947.45	7.96	0	0.00	2,366.76	19.88566474	8,587.62	72.15371741	11,901.84	180,622.10
Nov-16	948.84	6.98	0	0.00	3,142.18	23.13037141	9,493.64	69.88505409	13,584.65	191,476.03
Dec-16	0	0.00	949.3	10.07	1,835.72	19.48164138	6,637.80	70.44387986	9,422.82	154,937.68
Jan-17	0	0.00		0.00	3,294.98	36.63918248	5,698.07	63.36081752	8,993.05	151,392.93
Feb-17	0	0.00		0.00	2,845.14	49.96821159	2,848.76	50.03178841	5,693.90	94,913.02
Mar-17	949.62	8.69		0.00	2,400.30	21.96560251	7,577.63	69.3443355	10,927.54	172,515.74
Apr-17	948.64	9.21		0.00	2,978.37	28.9227844	6,370.66	61.86512276	10,297.66	164,767.97
May-17	0	0.00		0.00	3,086.89	24.48447516	9,520.65	75.51552484	12,607.54	194,833.33
Jun-17	0	0.00		0.00	1,904.83	20.04326786	7,598.77	79.95683736	9,503.59	134,956.67
Jul-17	0	0.00		0.00	1,462.52	20.29501964	5,743.78	79.70498036	7,206.30	106,577.72
Aug-17	0	0.00		0.00	1,220.00	12.568677	8,486.67	87.431323	9,706.67	153,010.01
Sep-17	0	0.00		0.00	757.57	11.74132114	5,694.60	88.25867886	6,452.17	112,740.54
Oct-17	948.93	10.54		0.00	2,359.70	26.21157877	5,693.88	63.24769425	9,002.51	161,645.13
Nov-17	0	0.00		0.00	1,967.71	34.12490028	3,798.49	65.87509972	5,766.20	112,409.09
Dec-17	0	0.00		0.00	2,174.00	22.25757771	7,593.45	77.74231991	9,767.46	194,337.07
Grand Total	69,570.55	18.01	98,559.71	25.51	58,543.13	15.15414244	159,644.30	41.32461764	386,317.67	4,640,113.97

Table 5: Breakdown of NNPC Utilization of Crude Oil for Domestic Product Supply

Table 5 presents the breakdown of how NNPC utilized the crude oil for domestic use for the period under review. The table shows that out of the total crude oil lifted for domestic use of 386.317 million barrels, 159.644 million barrels, representing 41.32% of the total was allocated for Direct Sales Direct Purchase (DSDP), which commenced in February 2016 after which the OPA was discontinued in late 2015. This was followed by utilization for Offshore Processing Arrangement (OPA) where 98.559 million barrels, representing 25.51% of the total was used. Then, 69.570 million barrels (or 18% of the total) was exported. Refineries received the lowest crude with 58.543 million barrels, representing 15.15% of the total. Since the other types of arrangements apart from the deliveries to refineries were exported in one way or the other, this buttresses our earlier point of the relevance of the crude oil allocation for domestic use. Considering that such domestic crude oil allocations have constituted over 50% of total government lifting, there is really a need for this provision to be re-examined.

The total crude oil lifted for domestic use was
386.317mmbbl.

159.644mmbbl
was allocated for DSDP followed by utilization for OPA with
98.559mmbbl.

69.570mmbbl
was exported and Refineries received the lowest with
58.543mmbbl

Table 5 also shows that from January to December 2015, domestic crude was mainly utilized for exports and offshore processing. However, from the beginning of 2016, domestic crude has been primarily utilized by refineries and DSDP. Between January 2016 and December 2017, 49.537 million barrels of crude oil were delivered to the refineries. On the other hand, for the same period, 159.644 million barrels of crude were utilized for DSDP. 13.459 million barrels were exported. These figures indicate that between January 2016 and December 2017, DSDP made up 68.49% of total domestic crude utilization. Deliveries to refineries constituted 21.25% of the utilization of domestic crude while exports made up 5.77% of the utilization.

The NNPC reports reveal that the OPA resulted in losses of up to 30% per cargo. In July 2016, after four months of executing the DSDP, NNPC estimated average monthly savings of $53 million. Total savings between February and July 2016 were estimated at $336.37 million. It would be good if future reports can provide information on savings and efficiency of the DSDP in the other months covered by the reports.

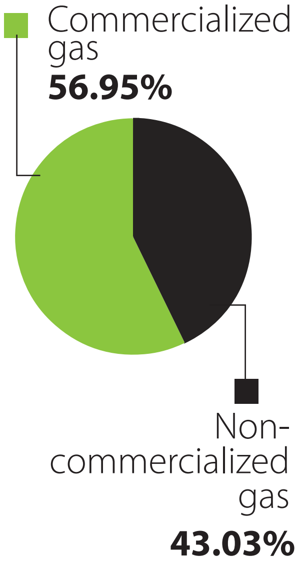
56.96% of Gas was Commercialized, while 43.03% of Gas was Non-commercialized

	Gas Commercialisation								Non-Commercialized Gas				
Period	Domestic Gas			Export Gas					Re-Injection	Fuel Gas	Flare	Total Non-Commerial Gas	Grand Total
	Domestic Gas To Power	Domestic Gas to Industry	Total Domestic Gas Supply	WAPG	EGTL	NGL/ LPG	NLNG	Total Export Gas					
Jan-15	20.8	9.5	30.3	1.6	4.7	8.3	97.8	112.5	69.1	12.2	26.7	108	250.8
Feb-15	18.08	9.32	27.40	1.42	3.35	6.05	76.37	87.20	59.79	11.49	26.20	97.48	212.08
Mar-15	20.82	11.21	32.03	1.85	4.94	5.65	86.19	98.64	57.59	11.62	28.49	97.69	228.36
Apr-15	18.15	10.10	28.25	1.72	5.39	7.40	89.59	104.10	67.56	13.52	22.66	103.75	236.1
May-15	16.52	9.91	26.44	1.78	6.40	7.60	92.99	108.78	74.60	13.51	19.07	107.19	242.41
Jun-15	20.37	10.00	30.37	1.35	4.07	7.76	89.55	102.73	70.35	12.32	18.66	101.33	234.43
Jul-15	24.37	11.01	35.38	2.10	3.99	7.25	96.77	110.11	76.33	12.36	18.80	107.50	252.99
Aug-15	25.16	11.27	36.43	2.44	4.99	7.49	86.38	101.30	69.68	11.31	21.28	102.27	240
Sep-15	23.19	10.90	34.10	2.82	4.99	6.46	93.59	107.86	68.06	11.93	21.89	101.88	243.84
Oct-15	22.56	9.97	32.53	2.01	8.22	7.96	88.87	107.05	69.50	12.45	21.81	103.76	243.34
Nov-15	22.01	11.02	33.03	1.27	6.54	7.01	94.40	109.23	68.08	11.82	23.25	103.15	245.41
Dec-15	22.38	11.79	34.17	1.23	4.86	8.64	77.32	92.05	68.14	11.60	22.59	102.32	228.54
Jan-16	22.74	12.43	35.17	1.04	7.55	19.60	79.66	107.85	72.36	12.11	22.32	106.79	249.81
Feb-16	19.26	10.58	29.84	0.66	7.73	11.06	74.92	94.37	63.85	11.48	20.38	95.71	219.92
Mar-16	16.53	11.27	27.80	0.57	4.37	8.30	71.94	85.19	73.46	12.63	20.11	106.21	219.20
Apr-16	16.42	10.34	26.76	0.55	5.80	8.06	82.44	96.85	71.80	11.90	18.70	102.40	226.01
May-16	13.81	7.66	21.47	0.38	6.40	7.99	93.47	108.24	67.70	11.70	15.80	95.20	224.91
Jun-16	9.80	6.70	16.50	0.06	6.36	9.34	83.62	99.38	70.50	11.40	14.80	96.70	212.58
Jul-16	12.57	7.73	20.30	0.01	1.43	6.48	86.64	94.56	58.81	10.44	21.79	91.04	205.90
Aug-16	14.55	9.58	24.13	0.05	0.27	3.74	61.36	65.42	47.76	10.17	21.14	79.07	168.63
Sep-16	15.58	10.39	25.97	0.11	0.13	4.74	88.43	93.41	48.60	10.20	21.50	80.30	199.68
Oct-16	17.42	11.87	29.29	0.00	0.21	6.33	85.80	92.34	60.00	11.20	22.60	93.80	215.43
Nov-16	15.84	9.65	25.50	0.07	0.25	4.29	97.33	101.94	61.48	11.58	24.54	97.59	225.03
Dec-16	14.97	9.53	24.51	0.55	0.57	4.40	95.54	101.06	56.26	11.21	21.44	88.91	214.48
Jan-17	12.00	9.96	21.96	0.55	0.97	3.91	98.08	103.52	62.76	11.60	24.77	99.13	224.61
Feb-17	16.29	10.26	26.55	0.41	1.26	2.87	81.08	85.62	55.97	10.93	20.42	87.31	199.48
Mar-17	21.36	13.02	34.38	0.58	4.04	3.04	93.41	101.07	57.93	11.39	21.47	90.78	226.24
Apr-17	20.15	12.87	33.02	0.72	5.72	3.22	98.84	108.49	68.36	11.89	20.50	100.75	242.26
May-17	21.88	12.49	34.37	0.74	5.36	2.73	101.30	110.13	62.99	11.66	21.75	96.39	240.90
Jun-17	21.89	12.46	34.34	1.20	5.42	2.64	89.11	98.37	62.73	11.37	19.90	94.01	226.72
Jul-17	21.35	13.23	34.58	1.38	5.88	2.97	99.11	109.34	67.25	11.42	22.38	101.05	244.97
Aug-17	19.47	12.25	31.72	1.80	8.35	3.29	92.20	105.64	60.53	11.24	28.51	100.28	237.65
Sep-17	18.74	12.04	30.77	1.89	4.65	2.65	85.63	94.81	59.33	10.82	25.53	95.68	221.26
Oct-17	22.21	13.20	35.41	1.59	8.09	2.72	97.22	109.62	71.56	12.01	24.24	107.81	252.83
Nov-17	22.29	13.03	35.33	1.47	6.91	2.21	90.73	101.32	63.20	10.72	26.24	100.16	236.80
Dec-17	25.66	13.87	39.53	1.30	4.82	2.35	90.99	99.46	57.13	10.40	31.88	99.41	238.40
Total	687.19	392.41	1079.63	39.27	164.98	216.50	3188.67	3609.55	2321.10	417.60	804.11	3542.80	8232.00

Table 6: Total Gas Commercialization and Utilization (BCF)

Table 6 presents the breakdown of gas commercialization and utilization. Total commercialized gas was 4,689.18 billion cubic feet (BCF) while total non-commercialized gas was 3,542.8 BCF. This implies that commercialized gas constituted 56.95% of total gas produced while non-commercialized gas made up 43.03%. Non-commercialized gas consists of re-injection, fuel gas, and gas flare. Total re-injected gas was 2,321.1 BCF, and this amounted to 28.19% of total gas produced. Fuel gas and gas flared totaled 417.6 BCF and 804.11 BCF respectively. These figures correspond to 5.07% and 9.76%, respectively of total gas produced. Thus, majority of non-commercialized gas was re-injected by the companies.

GAS COMMERCIALIZATION AND UTILIZATION



Commercialized gas consists of domestic and export gas. Total domestic gas supplied was 1,079.63 BCF (13.11% of total), while total exported gas was 3,609.55 BCF (43.85% of total). This indicates that most of the commercial gas was exported. The breakdown of domestic gas shows that 687.19 BCF (8.34% of total) was transported to power while 392.41 BCF (4.76% of total) was channeled to industry. The breakdown of export gas showed that NLNG received the substantial supply of gas with 3,188.67 BCF or 38.73% of total gas supply. The other components of export gas combined for 420.75 BCF, making up 5.11% of total gas supply.

Commercialized gas consists of domestic and export gas. Total domestic gas supplied was

1,079.63BCF,

while total exported gas was

3,609.55BCF,

Average Consolidated Capacity Utilization of the Refineries was 12.26%

	Opening Stock (A)	Crude Received (B)	Total Crude Available (C=A+B)	Closing Stock (D=C-E)	Crude Processed ('E)	(i) Finished Products	(ii) Intermediate Products	(iii) Plant Consumption	(iv) Losses	Plant Capacity	Capacity Utilization	Losses	Plant Con-sumption	Yields Effi-ciency based on CDU, CRU& FCC (%)
	MT	MT	MT	MT	MT	MT	MT	MT	MT	Kpd	%	%	%	%
Jan-15	311096	43732	354828	144408	210420	113514	57924	35432	3551	445	11.18%	1.69%	16.84%	53.95%
Feb-15	152,580	2,509	155,089	155,089	0	32,370	-51,371	17,107	1,894	445	0.00%	0.00%	0.00%	0.00%
Mar-15	156,522	0	156,522	156,522	0	2,778	27,814	23,048	1,988	445	0.00%	0.00%	0.00%	0.00%
Apr-15	157,379	27,665	185,044	185,044	0	19,830	31,052	7,617	3,605	445	0.00%	0.00%	0.00%	0.00%
May-15	155,960	12,521	168,481	168,481	0	2,463	1,201	1,262	0	445	0.00%	0.00%	0.00%	0.00%
Jun-15	165,188	77,006	242,194	242,194	0	15,469	22,458	3,082	3,907	445	0.00%	0.00%	0.00%	0.00%
Jul-15	242,463	296,784	539,247	282,930	256,317	100,543	140,009	13,117	2,649	445	14.08%	1.03%	5.12%	39.23%
Aug-15	285,216	462,218	747,434	294,282	453,152	232,171	180,847	32,574	7,561	445	24.08%	1.67%	7.19%	51.23%
Sep-15	299,744	220,850	520,594	484,946	35,648	100,269	83,650	15,922	3,107	445	1.89%	8.72%	44.66%	281.28%
Oct-15	491,540	50,777	542,317	542,317	0	68,420	92,332	18,749	5,162	445	0.00%	0.00%	0.00%	0.00%
Nov-15	493,959	0	493,959	493,959	0	5,015	4,843	4,099	3,927	445	0.00%	0.00%	0.00%	0.00%
Dec-15	493,611	109,198	602,809	478,163	124,646	79,574	32,226	10,743	2,103	445	6.85%	1.69%	8.62%	63.84%
Jan-16	369,069	16,391	385,460	128,707	256,676	216,141	1,064	32,015	9,584	445	13.64%	3.73%	12.47%	83.79%
Feb-16	128,707	178,354	307,061	274,154	32,352	90,628	74,167	11,140	4,751	445	1.72%	14.69	34.43%	50.88%
Mar-16	274,154	322,480	570,572	243,195	329,396	202,791	110,057	14,577	1,971	445	18.71%	0.60%	4.43%	94.98%
Apr-16	243,195	569,113	665,396	317,025	351,698	318,104	2,624	21,354	14,864	445	19.32%	4.23%	6.07%	89.70%
May-16	325,666	303,988	535,379	231,361	301,604	242,053	9,708	37,565	12,278	445	16.03%	4.07%	12.46%	83.47%
Jun-16	244,493	382,108	532,530	296,354	225,770	133,991	47,495	31,812	12,473	445	12.40%	5.52%	14.09%	80.39%
Jul-16	296,354	432,903	575,438	454,110	126,756	139,284	-40,640	21,612	6,500	445	6.74%	5.13%	17.05%	77.82%
Aug-16	459,550	509,814	883,695	516,329	359,081	328,314	-16,305	35,461	11,612	445	19.09%	3.23%	9.88%	86.89%
Sep-16	516,329	460,246	836,405	581,127	252,897	139,724	74,885	32,545	5,744	445	13.89%	2.27%	12.87%	84.86%
Oct-16	581,127	366,376	854,207	411,514	442,693	251,925	137,776	39,042	13,950	445	23.53%	3.15%	8.82%	88.03%
Nov-16	431,036	551,838	802,671	569,903	232,768	178,107	24,599	23,978	6,084	445	12.78%	2.61%	10.30%	87.08%
Dec-16	569,903	327,946	821,999	680,001	141,998	121,555	-4,491	22,288	2,647	445	7.55%	1.86%	15.70%	82.44%
Jan-17	679,500	495,407	1,129,852	438,730	691,122	394,573	259,729	30,915	5,906	445	36.73%	0.85%	4.47%	94.67%
Feb-17	447,150	567,247	914,367	420,594	493,773	331,236	114,983	41,729	5,825	445	29.06%	1.18%	8.45%	90.37%
Mar-17	414,294	495,635	728,805	475,625	253,180	282,164	59,791	24,241	6,566	445	13.46%	2.59%	9.57%	87.83%
Apr-17	478,506	615,389	902,940	455,202	447,738	307,946	95,042	37,884	6,866	445	24.59%	1.53%	8.46%	90.01%
May-17	442,939	687,020	935,904	501,485	434,419	350,706	22,790	52,030	8,894	445	23.09%	2.05%	11.98%	85.98%
Jun-17	507,387	331,634	753,548	521,712	231,836	222,585	21,731	25,315	5,666	445	12.73%	2.44%	10.92%	86.64%
Jul-17	519,983	228,024	717,991	493,407	224,584	160,642	39,492	18,639	5,811	445	11.94%	2.59%	8.30%	89.11%
Aug-17	496,257	201,921	688,524	509,736	178,788	95,548	53,496	21,418	8,325	445	9.50%	4.66%	11.98%	83.36%
Sep-17	501,499	222,126	703,861	588,420	115,441	137,984	47,837	19,851	5,443	445	6.34%	4.71%	17.20%	78.09%
Oct-17	588,125	307,644	895,769	564,064	331,705	228,222	71,919	25,356	6,208	445	17.63%	1.87%	7.64%	90.48%
Nov-17	552,062	180,697	732,759	624,616	105,735	55,187	39,562	9,229	3,770	445	5.81%	3.57%	8.73%	89.61%
Dec-17	636,970	294,006	920,981	413,249	507,732	300,264	151,554	47,466	8,448	445	26.99%	1.66%	9.35%	88.99%
Jan-18	414,105	244,608	658,194	453,317	204,877	154,676	29,661	17,301	3,239	445	10.89%	1.58%	8.44%	89.97%
Total / Average	14,523,618	10,596,175	23,162,826	14,792,272	8,354,802	6,151,840	1,371,503	869,317	222,879	445	17.13857143	2.355	10.16642857	85.64714286

Table 7: Refineries Operations Consolidated

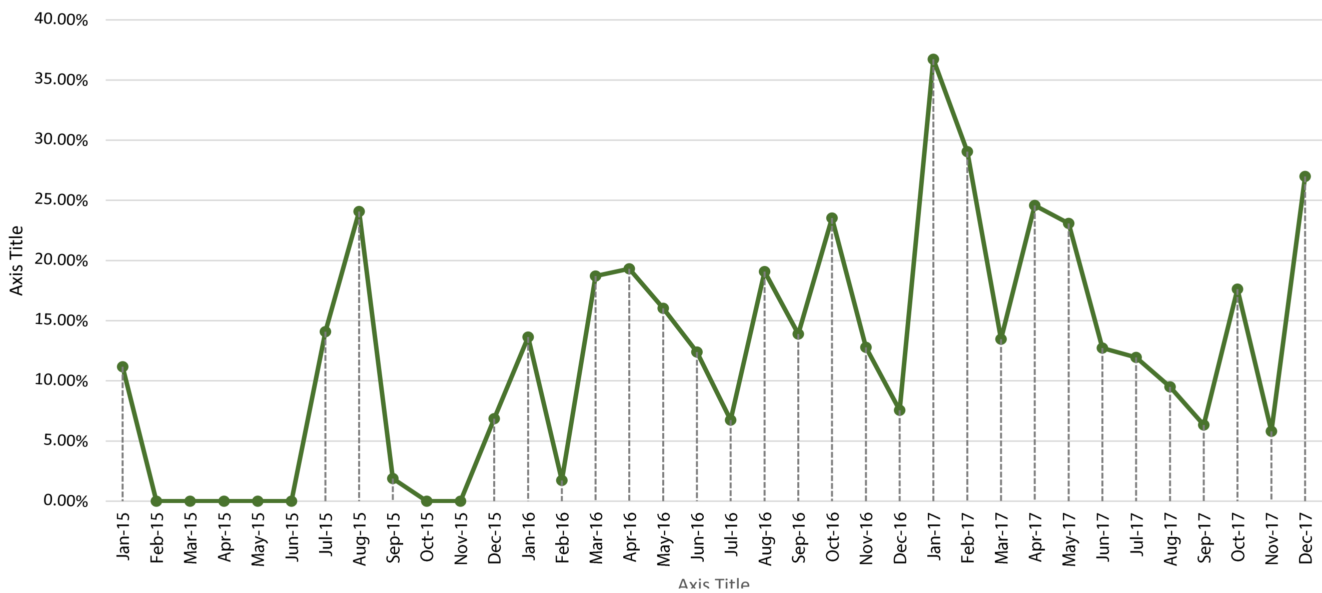


FIG 11: Consolidated Capacity Utilization of Refineries (%)

Table 7 presents consolidated data on the operations of the nation's refineries. The first striking feature of this table is the column on capacity utilization. Of the 36 months from January 2015 to December 2017, the refineries operated at 0% capacity for seven months. These months were February 2015 to June 2015, and October 2015 to November 2015. It is noteworthy that despite not operating at all, the refineries still received a combined total of 170,478 metric tonnes (MT) of crude oil. Further examination of capacity utilization reveals that average capacity over this period was 12.26%. Apart from the seven months when utilization was zero, this indicates that the refineries still operated way below their capacities for other months as well. This is illustrated in Figure 11 which reveals that the refineries operated above 25% of their installed capacities in only three months - January 2017 (36.73%), February 2017 (29.06%) and December 2017 (26.99%). This poor utilization of the refineries suggests need for a more optimal use of the domestic crude allocation and what to do with the refineries.

Another interesting feature of Table 7 relates to figures of crude actually processed at the refineries. The refineries received a total of 10.35 million MT of crude over this period. When this is added to their opening stock, it is seen that a total of 22.5 million MT of crude was available. The refineries combined to process a total of 8.14 million MT of crude over this period. This indicates that crude processed as a percentage of crude received was 78.73%. However, crude processed as a percentage of total crude available was 36.21%. This further highlights the inability of the refineries to function optimally.

Breakdown of the processing shows that out of the total of 8.14 million MT of crude processed, 5.99 million MT was finished products, representing 73.58%. Losses amounted to 219,640 MT, which was 2.69% of total crude processed. The refineries themselves consumed 852,016 MT, or 10.45% of total crude processed. The balance of 1.08 million MT (13.28%) was processed as intermediate products.

The refineries operated above

25%

of their installed capacities in only three months

Average Capacity Utilization at the Warri Refinery was 9.73%

	Opening Stock (A)	Crude Received (B)	Total Crude Available (C=A+B)	Closing Stock (D=C-E)	Crude Processed ('E)	(i) Finished Products	(ii) Intermediate Products	(iii) Plant Consumption	(iv) Losses	Plant Capacity	Capacity Utilization	Losses	Plant Consumption	Yields Efficiency based on CDU, CRU& FCC (%)
	MT	MT	MT	MT	MT	MT	MT	MT	MT	kpd	%	%	%	%
Jan-15	210939	30419	241358	68341	173017	110958	50537	8897	2626	125	32.74%	1.52%	5.14%	93.34%
Feb-15	73,978	0	73,978	73,978	0	29,294	-32,905	3,017	594	125	0.00%	0.00%	0.00%	0.00%
Mar-15	73,978	0	73,978	73,978	0	901	0	901	0	125	0.00%	0.00%	0.00%	0.00%
Apr-15	73,978	10,261	84,239	84,239	0	3,405	437	1,997	971	125	0.00%	0.00%	0.00%	0.00%
May-15	53,232	7,303	60,535	60,535	0	4,384	4,991	607	0	125	0.00%	0.00%	0.00%	0.00%
Jun-15	57,627	74,267	131,894	131,894	0	14,703	16,228	838	687	125	0.00%	0.00%	0.00%	0.00%
Jul-15	131,894	118,859	250,753	128,635	122,118	46,106	69,016	6,005	992	125	23.11%	0.81%	4.92%	94.27%
Aug-15	130,940	153,826	284,766	143,988	140,778	111,055	18,999	8,552	2,173	125	26.64%	1.54%	6.07%	92.38%
Sep-15	145,977	42,294	188,271	188,271	0	12,293	13,279	986	0	125	0.00%	0.00%	0.00%	0.00%
Oct-15	194,865	44,841	239,706	239,706	0	4,259	6,695	2,435	0	125	0.00%	0.00%	0.00%	0.00%
Nov-15	190,000	0	190,000	190,000	0	1,075	0	1,075	0	125	0.00%	0.00%	0.00%	0.00%
Dec-15	190,000	0	190,000	190,000	0	0	0	0	0	125	0.00%	0.00%	0.00%	0.00%
Jan-16	60,292	0	60,292	60,292	0	44,810	60,083	9,158	6,115	125	0.00%	0.00%	0.00%	0.00%
Feb-16	60,292	49,547	109,839	109,284	0	2,243	3,599	1,255	101	125	0.00%	0.00%	0.00%	0.00%
Mar-16	109,284	194,252	277,474	143,920	135,573	50,066	80,008	4,528	971	125	27.42%	0.72%	3.34%	95.94%
Apr-16	143,920	187,268	184,276	151,749	32,527	51,813	-36,071	6,933	9,852	125	6.36%	30.29	21.31%	48.40%
May-16	151,748	124,643	182,116	104,224	75,297	61,207	957	6,743	6,390	125	14.25%	8.49%	8.96%	82.56%
Jun-16	117,356	171,433	194,718	59,763	124,549	66,051	53,138	4,609	752	125	24.35%	0.60%	3.70%	95.70%
Jul-16	59,763	179,086	85,030	90,458	0	45,037	-55,413	7,065	3,311	125	0.00%	0.00%	0.00%	0.00%
Aug-16	90,458	268,209	272,998	166,251	98,462	90,852	-10,112	10,955	6,768	125	18.63%	6.87%	11.13%	82.00%
Sep-16	166,251	257,387	283,468	167,403	114,110	69,331	39,176	4,897	707	125	22.31%	0.62%	4.29%	95.09%
Oct-16	167,403	227,242	301,349	138,241	163,108	109,542	35,670	9,029	8,867	125	30.86%	5.44%	5.54%	89.03%
Nov-16	158,048	216,482	194,327	194,327	0	45,754	-57,065	8,282	3,029	125	0.00%	0.00%	0.00%	0.00%
Dec-16	194,327	78,847	197,324	197,324	0	27,965	-32,261	3,596	701	125	0.00%	0.00%	0.00%	0.00%
Jan-17	196,171	217,019	368,135	143,177	224,958	79,910	138,536	5,637	876	125	42.56%	0.39%	2.51%	97.11%
Feb-17	152,110	177,463	229,543	207,125	22,418	15,545	2,930	3,074	869	125	4.70%	3.88%	13.71%	82.41%
Mar-17	200,825	180,861	200,562	200,562	0	23,857	32,878	6,267	2,754	125	0.00%	0.00%	0.00%	0.00%
Apr-17	203,443	196,233	208,721	157,968	50,753	40,439	2,654	6,398	1,262	125	9.92%	2.49%	12.61%	84.91%
May-17	145,705	205,774	157,424	157,424	0	3,898	1,954	1,945	0	125	0.00%	0.00%	0.00%	0.00%
Jun-17	163,279	92,300	170,106	170,106	0	950	949	0	0	125	0.00%	0.00%	0.00%	0.00%
Jul-17	168,739	50,554	189,277	179,386	9,891	24,011	17,563	3,061	382	125	1.87%	3.86%	30.95%	65.19%
Aug-17	181,690	69,946	241,982	63,194	178,788	68,717	100,721	6,391	2,958	125	33.83%	1.65%	3.57%	94.77%
Sep-17	61,259	140,420	181,915	181,915	0	28,481	37,525	4,899	4,145	125	0.00%	0.00%	0.00%	0.00%
Oct-17	181,620	44,748	226,368	173,163	53,205	27,308	17,451	5,039	3,407	125	10.07%	6.40%	9.47%	84.13%
Nov-17	161,161	140,102	301,263	193,120	105,735	55,187	41,425	7,366	3,770	125	20.67%	3.57%	6.97%	91.37%
Dec-17	205,832	0	195,837	195,837	0	24,343	25,697	1,354	0	125	0.00%	0.00%	0.00%	0.00%
Total/Aver.	5,028,384	3,951,886	7,023,822	5,179,778	1,825,287	1,375,292	212,193	163,791	76,030	125	9.73%	2.20%	4.28%	40.79%

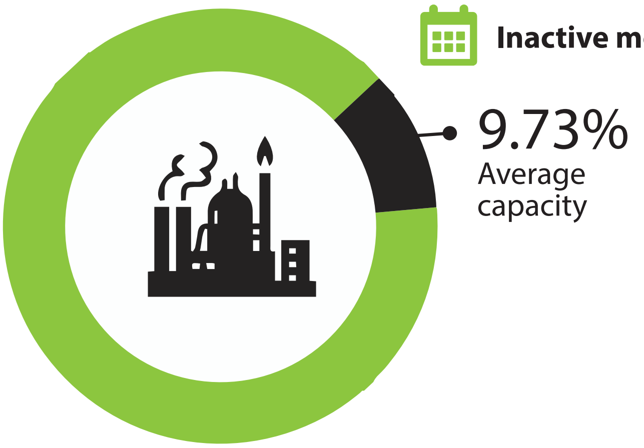
Table 8: Refineries Operations Consolidated (WRPC)

Warri refinery did not produce for 19 months out of the 36 months of the study period.

The Warri Petrochemical and Refining Company did not produce for 19 months out of the 36 months of the study period. This is seen from Table 8. Arising from this, average capacity utilization at the refinery was a mere 9.73%. Despite the fact that the refinery was not productive for many months, crude was still delivered to the refinery for 30 months, as shown by data from NNPC's reports. Total crude received was 3.95 million MT, while total crude available was 7.02 million MT. Total crude processed was 1.82 million MT. Thus, total crude processed as a percentage of total crude received was 46.18%. Furthermore, total crude processed as a percentage of total crude available was 25.98%. It is quite curious why crude continues to be delivered to this refinery when it is not being utilized. It would have been more beneficial if such crude is sold and the proceeds remitted to the Federation Account.

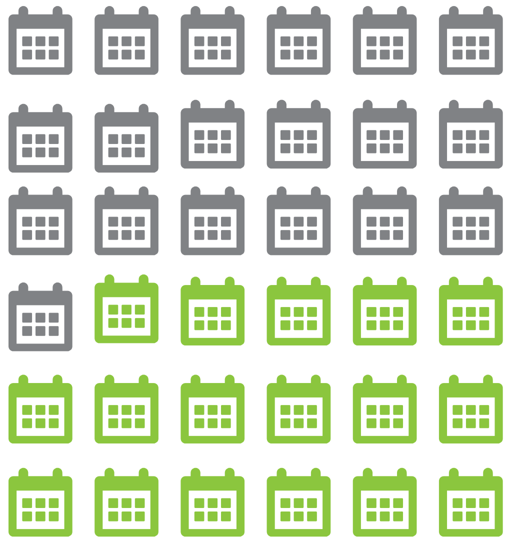
WARRI REFINERY

Produce for **19 months** out of the **36 months** of the study period



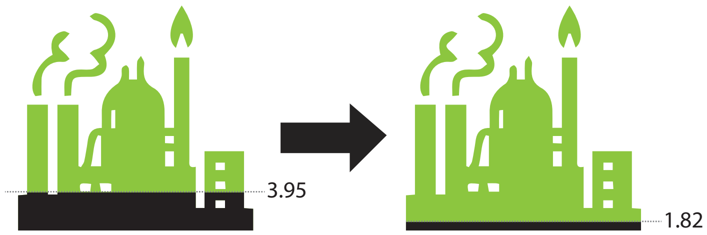
Active months

Inactive months



Despite inactive of the refinery for many months, crude was still delivered for

30 months

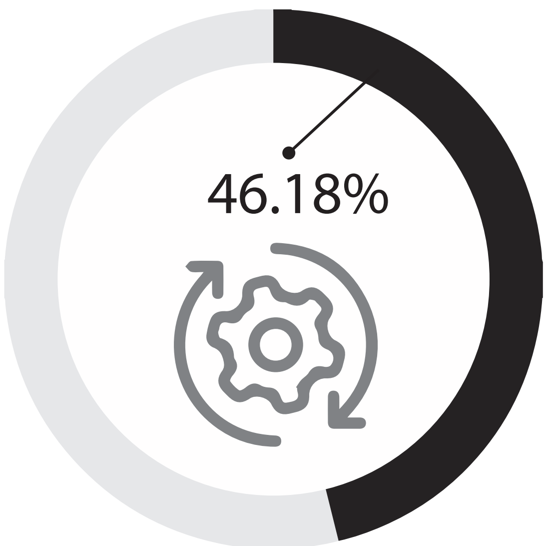


Total crude received
3.95m MT

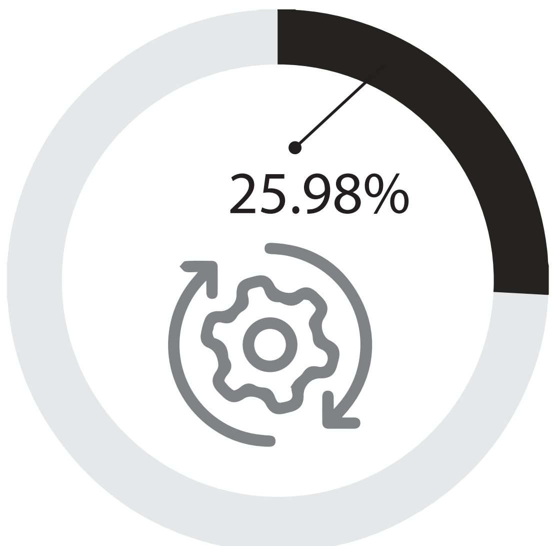
Total crude processed
1.82m MT

Total crude available
7.02m MT

Total crude processed as a percentage of total crude received



Total crude processed as a percentage of total crude available



Average Capacity Utilization at the Port Harcourt Refinery was 15.43%

	Opening Stock (A)	Crude Received (B)	Total Crude Available (C=A+B)	Closing Stock (D=C-E)	Crude Processed ('E)	(i) Finished Products	(ii) Inter-mediate Products	(iii) Plant Consumption	(iv) Losses	Plant Capacity	Capacity Utilization	Losses	Plant Con-sumption	Yields Efficiency based on CDU, CRU& FCC (%)
	MT	MT	MT	MT	MT	MT	MT	MT	MT	kpd	%	%	%	%
Jan-15	31636	0	31636	31636	0	808	17116	17414	510	210	0.00%	0.00%	0.00%	0.00%
Feb-15	34,171	0	34,171	34,171	0	3,076	13,817	9,441	1,300	210	0.00%	0.00%	0.00%	0.00%
Mar-15	35,620	0	35,620	35,620	0	3,679	15,907	10,240	1,988	210	0.00%	0.00%	0.00%	0.00%
Apr-15	36,477	0	36,477	36,477	0	23,235	30,183	4,314	2,634	210	0.00%	0.00%	0.00%	0.00%
May-15	38,400	0	38,400	38,400	0	6,847	6,545	302	0	210	0.00%	0.00%	0.00%	0.00%
Jun-15	38,015	0	38,015	38,015	0	1,847	3,290	1,917	3,220	210	0.00%	0.00%	0.00%	0.00%
Jul-15	38,315	153,566	191,881	69,740	122,141	54,437	61,085	5,118	1,501	210	13.76%	1.23%	4.19%	94.58%
Aug-15	69,740	308,392	378,132	114,595	263,537	105,780	147,688	7,933	2,136	210	29.68%	0.81%	3.01%	96.18%
Sep-15	114,595	178,556	293,151	257,503	35,648	63,764	40,299	9,076	3,107	210	4.15%	8.72%	25.46%	65.82%
Oct-15	257,503	5,936	263,439	263,439	0	57,786	71,260	8,312	5,162	210	0.00%	0.00%	0.00%	0.00%
Nov-15	264,787	0	264,787	264,787	0	4,810	1,324	7,413	3,927	210	0.00%	0.00%	0.00%	0.00%
Dec-15	264,439	0	264,439	202,941	61,498	53,575	964	7,587	1,300	210	6.93%	2.11%	12.34%	85.55%
Jan-16	202,941	0	202,941	27,340	175,601	122,375	38,367	12,334	2,525	210	19.78%	1.44%	7.02%	91.54%
Feb-16	27,340	128,807	156,147	123,795	32,352	77,475	56,935	7,162	4,650	210	3.64%	14.37%	22.14%	63.49%
Mar-16	123,795	128,228	252,023	58,200	193,823	150,565	35,766	6,492	1,000	210	23.34%	0.52%	3.35%	96.13%
Apr-16	58,200	279,297	337,497	69,569	271,255	246,372	7,371	12,832	4,680	210	31.57%	1.73%	4.73%	93.54%
May-16	77,609	134,358	211,967	74,111	137,856	153,640	31,898	11,346	4,768	210	15.53%	3.46%	8.23%	88.31%
Jun-16	74,111	156,644	230,755	129,534	101,221	46,648	46,468	4,945	3,160	210	11.78%	3.12%	4.89%	91.99%
Jul-16	129,534	170,504	300,038	173,282	126,756	76,420	37,728	9,608	3,000	210	14.28%	2.37%	7.58%	90.05%
Aug-16	173,282	207,990	381,272	207,990	173,282	203,665	-46,476	12,393	3,700	210	19.52%	2.14%	7.15%	90.71%
Sep-16	207,990	97,750	305,740	305,740	0	-5,678	-8,873	11,443	3,108	210	0.00%	0.00%	0.00%	0.00%
Oct-16	305,740	73,694	379,434	159,733	219,701	100,835	104,633	9,929	4,304	210	24.74%	1.96%	4.52%	93.52%
Nov-16	160,204	208,597	368,801	136,033	232,768	121,267	101,327	7,131	3,043	210	27.09%	1.31%	3.06%	95.63%
Dec-16	136,033	249,099	385,132	243,134	141,998	93,196	36,889	9,967	1,946	210	15.99%	1.37%	7.02%	91.61%
Jan-17	243,134	261,610	504,744	162,848	341,896	251,413	77,716	9,467	3,300	210	38.51%	0.97%	2.77%	96.27%
Feb-17	162,848	309,371	472,219	145,573	326,646	225,202	85,636	12,811	2,997	210	40.73%	0.92%	3.92%	95.16%
Mar-17	145,573	140,810	286,383	171,473	114,910	143,565	42,690	12,110	1,925	210	12.94%	1.68%	10.54%	87.79%
Apr-17	171,473	269,503	440,976	184,855	256,121	186,759	53,704	11,972	3,686	210	29.81%	1.44%	4.67%	93.89%
May-17	184,855	296,005	480,860	176,415	304,445	252,273	17,077	28,094	7,001	210	34.29%	2.30%	9.23%	88.47%
Jun-17	176,415	178,833	355,248	123,412	231,836	197,770	12,961	15,439	5,666	210	26.98%	2.44%	6.66%	90.90%
Jul-17	123,412	172,517	295,929	81,236	214,693	135,762	63,387	10,575	4,969	210	24.18%	2.31%	4.93%	92.76%
Aug-17	81,236	129,588	210,824	210,824	0	22,314	34,194	6,744	5,136	210	0.00%	0.00%	0.00%	0.00%
Sep-17	204,445	81,706	286,151	170,710	115,441	109,503	4,036	8,676	1,298	210	13.44%	1.12%	7.52%	91.36%
Oct-17	170,710	262,896	433,606	155,106	278,500	200,914	63,415	11,370	2,801	210	31.37%	1.01%	4.08%	94.91%
Nov-17	155,106	40,595	195,701	195,701	0	0	0	0	0	210	0.00%	0.00%	0.00%	0.00%
Dec-17	195,592	291,857	487,449	117,324	370,125	229,579	116,439	17,283	6,824	210	41.69%	1.84%	4.67%	93.49%
Total	4,915,276	4,916,709	9,831,985	4,991,262	4,844,050	3,704,090	729,172	334,364	112,272	210	15.43%	1.74%	5.10%	62.60%

Table 9: Refineries Operations Consolidated (PHRC)

Port Harcourt refinery refinery did not produce at all in 11 months.

Table 9 presents consolidated figures for the Port Harcourt Refinery. This refinery performed slightly better than the Warri Refinery as average capacity utilization was 15.43%. However, this refinery did not produce at all in 11 months. Total crude processed in the three years was 4.84 million MT. This was just slightly less than total crude received of 4.91 million MT. This can be attributed to the fact that this refinery did not receive any crude in nine months. This led to the situation where total crude processed as a percentage of total crude received was 98.52%. Total crude available in the refinery was 9.83 million MT. Thus, crude processed as a percentage of crude available was 49.26%. These figures suggest that the Port Harcourt Refinery performed better than Warri Refinery, and better than the average for all refineries combined.

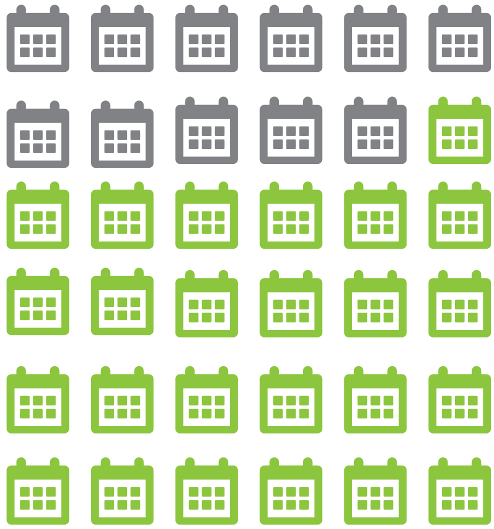
PORT HARCOURT REFINERY

Produce for **11 months** out of the **36 months** of the study period

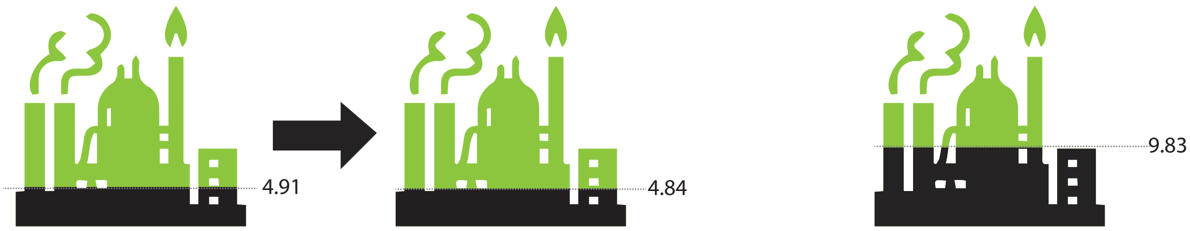
Active months

Inactive months

15.43%
Average capacity



This refinery performed slightly better than the Warri Refinery

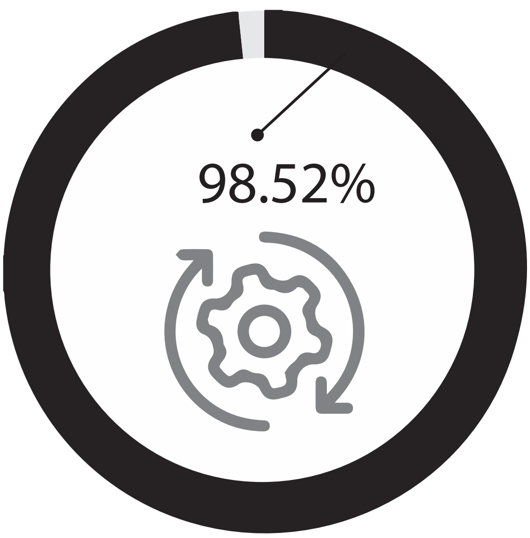


Total crude received
4.91m MT

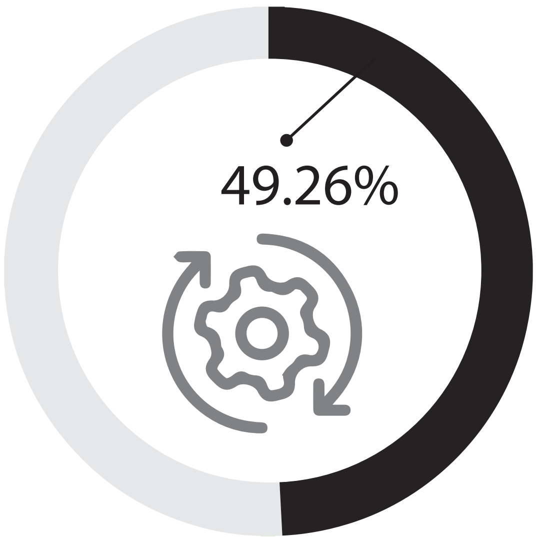
Total crude processed
4.84m MT

Total crude available
9.83m MT

Total crude processed as a percentage of total crude received



Total crude processed as a percentage of total crude available



Average Capacity Utilization at the Kaduna Refinery was 9%

	Opening Stock (A)	Crude Received (B)	Total Crude Available (C=A+B)	Closing Stock (D=C-E)	Crude Processed ('E)	(i) Finished Products	(ii) Intermediate Products	(iii) Plant Consumption	(iv) Losses	Plant Capacit	Capacity Utilization	Losses	Plant Consumption	Yields Efficiency based on CDU, CRU& FCC (%)
	MT	MT	MT	MT	MT	MT	MT	MT	MT	kpd	%	%	%	%
Jan-15	68521	13313	81834	44431	37403	3364	24503	9121	415	110	8.04%	1.11%	24.39%	74.50%
Feb-15	44,431	2,509	46,940	46,940	0	0	-4,649	4,649	0	110	0.00%	0.00%	0.00%	0.00%
Mar-15	46,924	0	46,924	46,924	0	0	11,907	11,907	0	110	0.00%	0.00%	0.00%	0.00%
Apr-15	46,924	17,404	64,328	64,328	0	0	1,306	1,306	0	110	0.00%	0.00%	0.00%	0.00%
May-15	64,328	5,218	69,546	69,546	0	0	353	353	0	110	0.00%	0.00%	0.00%	0.00%
Jun-15	69,546	2,739	72,285	72,285	0	2,613	2,940	327	0	110	0.00%	0.00%	0.00%	0.00%
Jul-15	72,254	24,359	96,613	84,555	12,058	0	9,908	1,994	156	110	2.59%	1.29%	16.54%	82.17%
Aug-15	84,536	0	84,536	35,699	48,837	15,336	14,160	16,089	3,252	110	10.50%	6.66%	32.94%	60.40%
Sep-15	39,172	0	39,172	39,172	0	24,212	30,072	5,860	0	110	0.00%	0.00%	0.00%	0.00%
Oct-15	39,172	0	39,172	39,172	0	6,375	14,377	8,002	0	110	0.00%	0.00%	0.00%	0.00%
Nov-15	39,172	0	39,172	39,172	0	1,280	3,519	2,239	0	110	0.00%	0.00%	0.00%	0.00%
Dec-15	39,172	109,198	148,370	92,164	63,148	25,999	33,190	3,156	803	110	13.58%	1.27%	5.00%	41.17%
Jan-16	105,836	16,391	122,227	41,075	81,075	48,956	20,652	10,523	944	110	17.43%	1.16%	12.98%	85.86%
Feb-16	41,075	0	41,075	41,075	0	10,910	13,633	2,723	0	110	0.00%	0.00%	0.00%	0.00%
Mar-16	41,075	0	41,075	41,075	0	2,160	5,717	3,557	0	110	0.00%	0.00%	0.00%	0.00%
Apr-16	41,075	102,548	143,623	95,707	47,916	19,919	26,076	1,589	332	110	10.65%	0.69%	3.32%	95.99%
May-16	96,309	44,987	141,296	53,026	88,451	27,206	40,649	19,476	1,120	110	19.02%	1.27%	22.02%	76.71%
Jun-16	53,026	54,031	107,057	107,057	0	21,292	52,111	22,258	8,561	110	0.00%	0.00%	0.00%	0.00%
Jul-16	107,057	83,313	190,370	190,370	0	17,827	22,955	4,939	189	110	0.00%	0.00%	0.00%	0.00%
Aug-16	195,810	33,615	229,425	142,088	87,337	33,797	40,283	12,113	1,144	110	18.78%	1.31%	13.87%	84.82%
Sep-16	142,088	105,109	247,197	107,984	138,787	76,071	44,582	16,205	1,929	110	30.84%	1.39%	11.68%	86.93%
Oct-16	107,984	65,440	173,424	113,540	59,884	41,548	2,527	20,084	779	110	12.88%	1.30%	33.54%	65.16%
Nov-16	112,784	126,759	239,543	239,543	0	11,086	19,663	8,565	12	110	0.00%	0.00%	0.00%	0.00%
Dec-16	239,543	0	239,543	239,543	0	394	9,119	8,725	0	110	0.00%	0.00%	0.00%	0.00%
Jan-17	240,195	16,778	256,973	132,705	124,268	63,250	43,477	15,811	1,730	110	26.72%	1.39%	12.72%	85.88%
Feb-17	132,192	80,413	212,605	67,896	144,709	90,489	26,417	25,844	1,959	110	34.45%	1.35%	17.86%	80.79%
Mar-17	67,896	173,964	241,860	103,590	138,270	114,742	15,777	5,864	1,887	110	29.73%	1.36%	4.24%	94.39%
Apr-17	103,590	149,653	253,243	112,379	140,864	80,748	38,684	19,514	1,918	110	31.30%	1.36%	13.85%	84.79%
May-17	112,379	185,241	297,620	167,646	129,974	102,331	3,759	21,991	1,893	110	27.95%	1.46%	16.92%	81.62%
Jun-17	167,693	60,501	228,194	228,194	0	25,765	35,641	9,876	0	110	0.00%	0.00%	0.00%	0.00%
Jul-17	227,832	4,953	232,785	232,785	0	869	6,332	5,003	460	110	0.00%	0.00%	0.00%	0.00%
Aug-17	233,331	2,387	235,718	235,718	0	4,517	13,031	8,283	231	110	0.00%	0.00%	0.00%	0.00%
Sep-17	235,795	0	235,795	235,795	0	0	6,276	6,276	0	110	0.00%	0.00%	0.00%	0.00%
Oct-17	235,795	0	235,795	235,795	0	0	8,947	8,947	0	110	0.00%	0.00%	0.00%	0.00%
Nov-17	235,795	0	235,795	235,795	0	0	1,863	1,863	0	110	0.00%	0.00%	0.00%	0.00%
Dec-17	235,546	2,149	237,695	100,088	137,607	46,342	60,812	28,829	1,624	110	29.59%	1.18%	20.95%	77.87%
Total	4,165,853	1,482,972	5,648,825	4,174,857	1,480,588	919,398	304,939	353,861	31,338	110	9.00%	0.71%	7.30%	34.97%

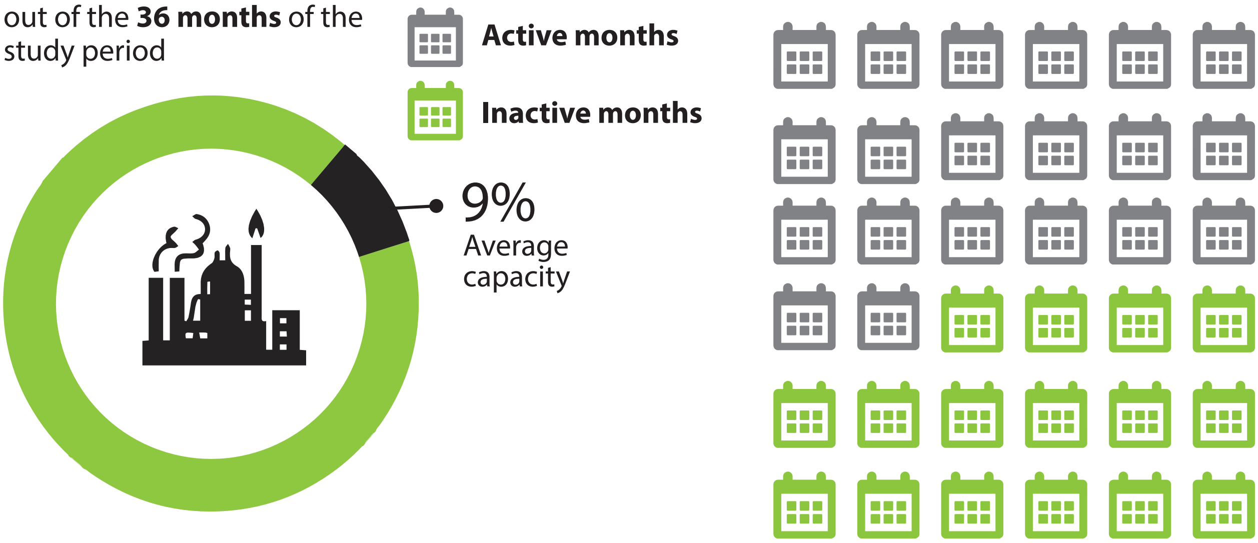
Table 10: Refineries Operations Consolidated (KRPC)

Kaduna refinery had zero capacity utilization in 20 months of the 36 months covered by the reports

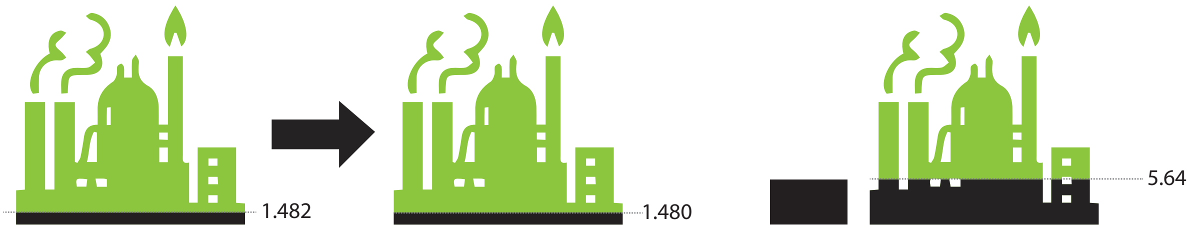
The Kaduna Refinery had the worst performance of all the refineries. Table 10 reveals that this refinery had capacity utilization of 9%. The refinery had zero capacity utilization in 20 months of the 36 months covered by the reports. This refinery did not receive any crude in eleven months. Total crude processed in this refinery was 1.480 million MT. This was 99.83% of total crude received (1.482 million MT). Thus, similar to the Port Harcourt Refinery, the Kaduna Refinery processed almost all the crude it received. However, like the other refineries, it was unable to process most of the crude available at the plant. With a total of 5.64 million MT of crude available at the plant over this period, the figures mean that only 26.21% of this available amount was processed.

KADUNA REFINERY

Produce for **20 months** out of the **36 months** of the study period



Similar to the Port Harcourt Refinery, the Kaduna Refinery processed almost all the crude it received

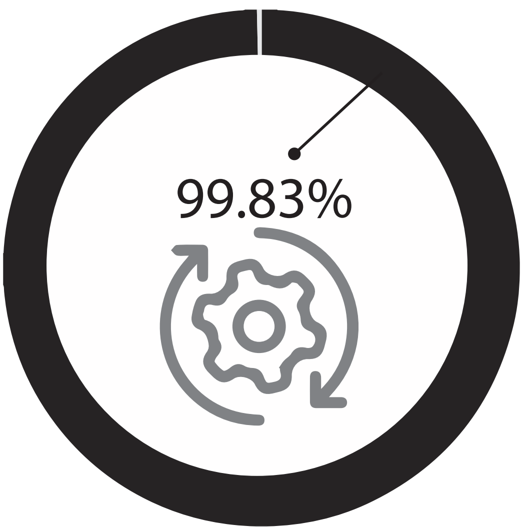


Total crude received
1.482m MT

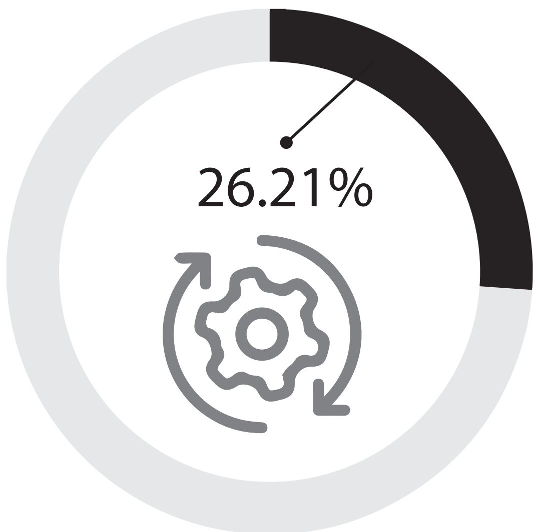
Total crude processed
1.480m MT

Total crude available
5.64m MT

Total crude processed as a percentage of total crude received



Total crude processed as a percentage of total crude available



Imported Petroleum Products Constituted on Average 87% of Total Domestic Product Supply by NNPC

Total imported petrol for this period was
31.231bn litre,
while total supply of petrol from the NNPC was
34.905bn litre,

	Imported Petroleum Products via OPA & DSDP			Total Product Supply (OPA+DSDP+Refineries)			Imported Products as a Percentage of Total Product Supply		
Period	PMS	DPK	TOTAL	PMS	DPK	Total	PMS	DPK	Total
Jan-15	518.77	328.47	847.24	699.28	392.41	1,091.69	74.19	83.71	77.61
Feb-15	472.81	84.31	557.11	533.57	84.31	617.88	88.61	100.00	90.16
Mar-15	928.34	84.99	1,013.33	983.45	84.99	1,068.43	94.40	100.00	94.84
Apr-15	575.9	171.71	747.61	633.99	171.71	805.69	90.84	100.00	92.79
May-15	700.04	349.63	1,049.67	729.02	349.63	1,078.65	96.02	100.00	97.31
Jun-15	295.64	67.56	363.2	353.47	67.56	421.03	83.64	100.00	86.26
Jul-15	773.68	36.97	810.65	827.07	66.83	893.9	93.54	55.32	90.69
Aug-15	701.29		701.29	817.76	83.78	901.54	85.76	0.00	77.79
Sep-15	567.6	196.3	763.9	639.61	200.07	839.68	88.74	98.12	90.98
Oct-15	645.64	206.46	852.1	748.11	206.46	954.57	86.30	100.00	89.27
Nov-15	787.21	221.82	1,009.04	837.74	221.82	1,059.56	93.97	100.00	95.23
Dec-15	977.84	116.36	1,094.19	1,003.04	130.79	1,133.83	97.49	88.97	96.50
Jan-16	1,024.77	30.86	1,055.63	1,158.04	59.61	1,217.65	88.49	51.77	86.69
Feb-16	838.99	137.1	976.09	921.37	155.24	1,076.61	91.06	88.31	90.66
Mar-16	873.82	81.48	955.29	928.06	137.75	1,065.81	94.16	59.15	89.63
Apr-16	909.04	49.31	958.35	963.28	105.58	1,068.86	94.37	46.70	89.66
May-16	873.82	81.48	955.29	999.88	120.35	1,120.23	87.39	67.70	85.28
Jun-16	1,183.78		1,183.78	1,395.34	119.58	1,514.93	84.84	0.00	78.14
Jul-16	798.33		798.33	842.08	22.95	865.03	94.80	0.00	92.29
Aug-16	901.35		901.35	1,057.49	63.47	1,120.96	85.23	0.00	80.41
Sep-16	426.97	33.66	460.63	494.87	73.35	568.23	86.28	45.89	81.06
Oct-16	802.75		802.75	928.6	84.15	1,012.75	86.45	0.00	79.26
Nov-16	1,003.28		1,003.28	1,152.72	42.31	1,195.03	87.04	0.00	83.95
Dec-16	683.15	39.79	722.94	782.73	63.38	846.12	87.28	62.78	85.44
Jan-17	642.16		642.16	877.71	92.11	969.82	73.16	0.00	66.21
Feb-17	1,210.29		1,210.29	1,396.02	77.83	1,473.85	86.70	0.00	82.12
Mar-17	1,491.21		1,491.21	1,633.57	39.81	1,673.39	91.29	0.00	89.11
Apr-17	1,290.44		1,290.44	1,460.74	62.41	1,523.15	88.34	0.00	84.72
May-17	1,060.16		1,060.16	1,216.23	65.95	1,282.18	87.17	0.00	82.68
Jun-17	859.84		859.84	1,000.55	45.55	1,046.11	85.94	0.00	82.19
Jul-17	1,173.27		1,173.27	1,221.24	32.21	1,253.45	96.07	0.00	93.60
Aug-17	952.98	30.44	983.42	998.98	62.88	1,061.86	95.40	48.41	92.61
Sep-17	886.46		886.46	946.33	27.59	973.92	93.67	0.00	91.02
Oct-17	1,478.74	33.29	1,512.02	1,621.11	95.22	1,716.33	91.22	34.96	88.10
Nov-17	781.1		781.1	805.55	19.98	825.53	96.96	0.00	94.62
Dec-17	1,140.07		1,140.07	1,297.14	75.48	1,372.62	87.89	0.00	83.06
Total/Average	31,231.53	2,381.99	33,613.48	34,905.74	3,805.10	38,710.87	89.30	42.55	87.00

Table 11: Total Petroleum White Product Supply from NNPC (OPA + DSDP + Refineries) (millions of litres)

Table 11 presents figures of the supply of petroleum products to the domestic market by NNPC. Imported petroleum products constituted a large proportion of domestic supply. This is more especially for premium motor spirit (PMS) or petrol, than for dual purpose kerosene (DPK) or kerosene. Total imported petrol for this period was 31.231 billion litres, while total supply of petrol from the

NNPC was 34.905 litres. This implies that imported petrol on average made up 89.30% of total petrol supply. Imported kerosene accounts for a lower percentage of total domestic kerosene supply. In fact, there was no record of kerosene imports in 16 months. Since June 2016, kerosene has been imported in only four months. Total imported kerosene over the study period was 2.381 billion litres while total kerosene supply was 3.805 billion litres. Thus, imported kerosene constituted 42.44% of total kerosene supply.

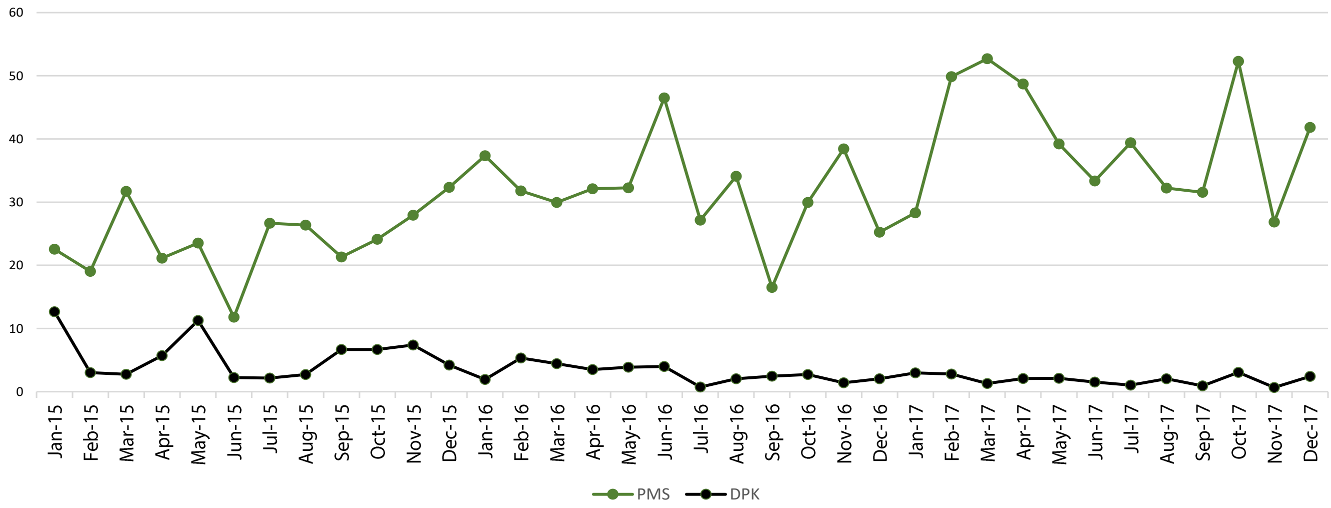


FIG 12: Average Daily Supply of Petroleum Products (millions of litres)

Total imported kerosene over the study period was
2.381 bn litre,
while total kerosene supply was
3.805bn litre

Figure 12 presents average daily supply of petrol and kerosene by NNPC. Petrol has a clear higher daily supply than kerosene. Average petrol supply was 31.84 million litres while average kerosene supply was 3.47 million litres. Interestingly, the figure reveals that while petrol supply has been gradually rising, the supply of kerosene has been falling. In January 2015, 22.56 million litres of petrol was supplied on average each day, and by December 2017, the daily average supply of petrol was 41.84 million litres. The highest average daily supply of petrol was 52.7 million litres recorded in March 2017. June 2015 recorded the lowest average daily supply of petrol (11.78 million litres). In January 2015, average daily supply of kerosene was 12.66 million litres and this had fallen to 2.43 million litres by December 2017.

A Total of 6,512 Vandalized Points was Recorded in Three Years

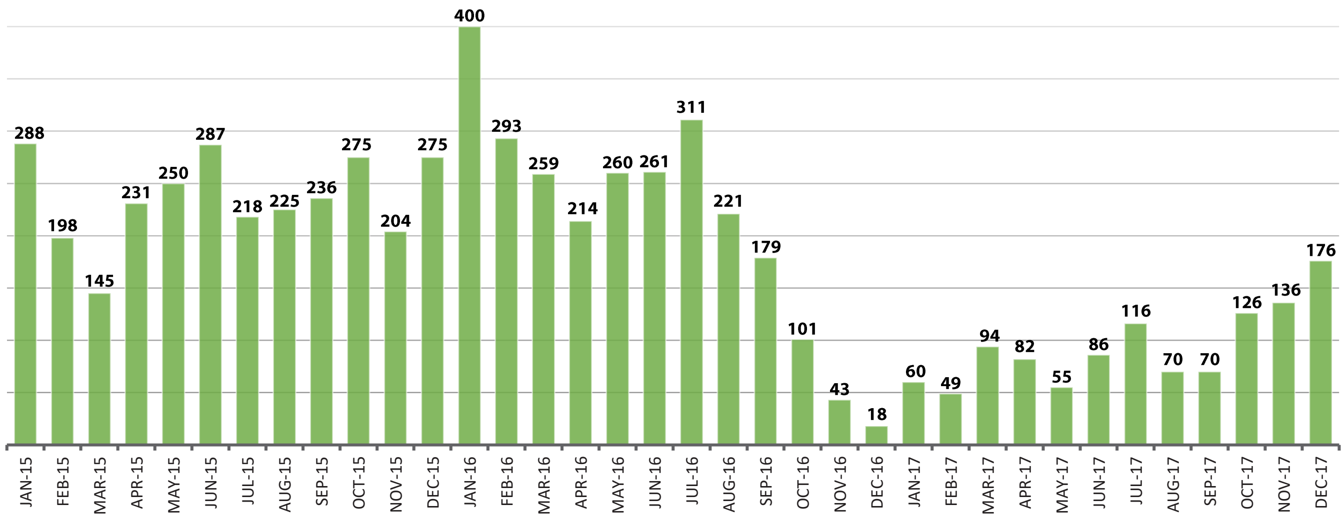


FIG 13: PPMC Pipeline Breaks

Figure 13 presents monthly breakdowns of vandalized points. A total of 6,512 vandalized points was recorded in the period under review. There were 2,832 vandalized points in 2015. Total vandalized points in 2016 were 2,560, while 2017 had a total of 1,120 vandalized points. The figure shows that January 2016 had the highest record of pipeline vandalizations with 400 reported breaks. The lowest vandalizations occurred in December 2016, where only 18 pipeline breaks were recorded. It is generally observed that 2017 witnessed considerably lower pipeline vandalizations than the 2015 and 2016. This can be attributed to continued efforts by the NNPC to improve security of installations. In April 2016, the NNPC started reporting that it commenced innovative operate and maintain (O & M) pipelines security arrangements to secure infrastructure. Also, in July 2016 the NNPC reported creating the internal security advisory council, which included representatives from NNPC, the IOCs, the unions and security operatives to brainstorm and address host community agitations.

January 2016 had the highest record of pipeline vandalizations with

400

reported breaks

The NNPC Group Made Losses of N547 billion between 2015 and 2017

	NNPC Group Revenue	NNPC Group Operating Expenditure	NNPC Group Surplus/Deficit
Jan-15	168.83	161.18	7.65
Feb-15	168.52	205.9	-37.38
Mar-15	194.31	206.98	-12.67
Apr-15	171.27	189.95	-18.68
May-15	164.47	197.41	-32.93
Jun-15	167.73	204.69	-36.96
Jul-15	185.15	206.35	-21.19
Aug-15	182.13	212.25	-30.12
Sep-15	130.62	177.12	-46.49
Oct-15	173.56	185.78	-12.22
Nov-15	155.1	169.39	-14.29
Dec-15	184.4	196.26	-11.86
Jan-16	130.86	134.41	-3.55
Feb-16	104.8	129.03	-24.23
Mar-16	107.83	126.72	-18.89
Apr-16	102.45	121.87	-19.43
May-16	142.53	142.26	0.27
Jun-16	118.39	144.89	-26.5
Jul-16	128.43	152.61	-24.18
Aug-16	181.53	192.75	-11.22
Sep-16	157.89	175.07	-17.18
Oct-16	157.5	174.35	-16.85
Nov-16	187.75	206.47	-18.72
Dec-16	206.4	223.4	-17.01
Jan-17	255.43	269.68	-14.25
Feb-17	318.29	332.41	-14.12
Mar-17	354.57	360.19	-5.62
Apr-17	322.19	327.47	-5.27
May-17	307.87	311.42	-3.55
Jun-17	295.75	300.95	-5.19
Jul-17	269.3	281.18	-11.87
Aug-17	265.1	270.84	-5.74
Sep-17	307.59	310.4	-2.81
Oct-17	354.08	354.49	-0.41
Nov-17	270.8	277.59	-6.79
Dec-17	406.83	413.64	-6.81
Total	7500.25	8047.35	-547.06

Table 12: P&L position of NNPC Group

NNPC Group total revenue was

N7.500tr

while total expenditure was

N8.047tr

Table 12 presents the financial figures for the NNPC Group. The NNPC Group's expenditure exceeded revenue in 34 out of the 36 months under consideration. Total revenue was N7.500 trillion while total expenditure was N8.047 trillion. Thus, the NNPC group had losses amounting to N547.06 billion in the three years under consideration. Total revenues in 2015, 2016 and 2017 were N2.046 trillion, N1.726 trillion, and N3.727 trillion respectively. Total expenditures were N2.313 trillion, N1.923 trillion and N3.810 trillion for 2015, 2016 and 2017 respectively.

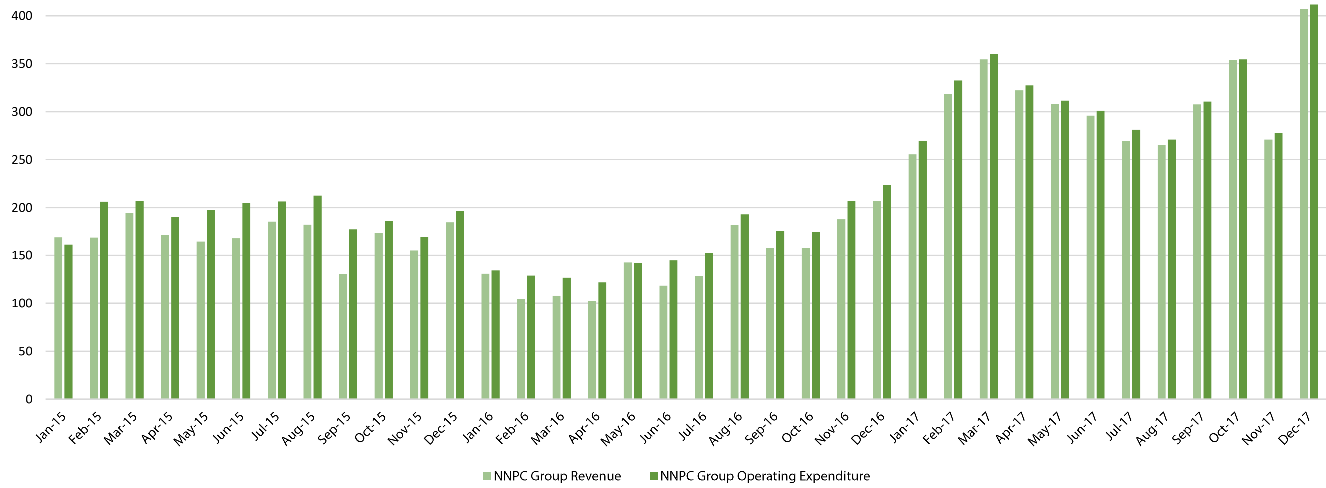


FIG 14: NNPC Group Revenue and Expenditure (Nbillions)

Figure 14 presents revenue and expenditure, and it is seen that revenue and expenditure experienced a general decline in 2016 before an upward trend in 2017. Average revenue and expenditure in 2015 were N170.5 billion and N192 billion respectively. These fell in 2016 when revenue for the group averaged N143 billion, and expenditure averaged N160 billion. There was then an increase in 2017, with average revenues and expenditures of N310 billion and N317 billion respectively.

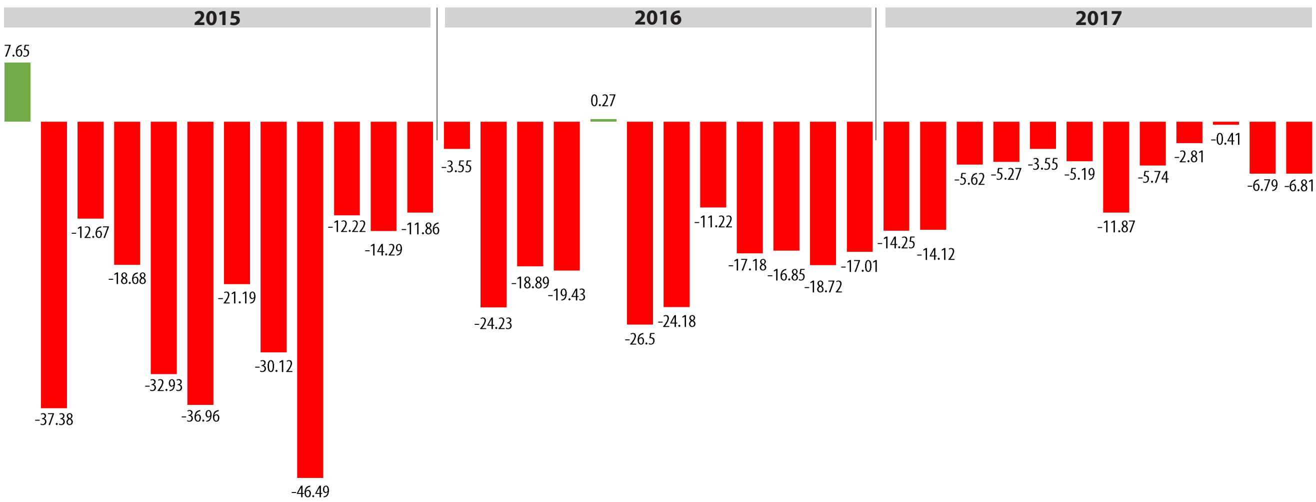


FIG 15: NNPC Group Surplus/Deficit (N billions)

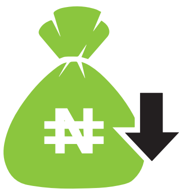


Figure 15 presents the operating surplus and deficits of the NNPC Group. The figure shows that deficits are the predominant financial position of the NNPC Group. However, it is seen that these deficits have been falling over time. Average deficits were N22.6 billion in 2015. These had dropped to N16.4 billion in 2016, and dropped even further to N6.8 billion in 2017. Total deficits were N267.14 billion in 2015. By 2016, total deficits were N197.49 billion, and they had dropped to N82.43 billion in 2017.

Total deficits were
N267.14 bn 2015), N197.49bn (2016)
and dropped to
N82.43bn(2017)

NNPC's Corporate Headquarters had the Largest Losses (N336.268 billion) while Nigerian Gas Company had the Largest Profit (N141.324 billion) in the NNPC Group

SBU/CSU	Total 2015*			Total 2016			Total 2017			Total Profit/ Loss 2015 to 2017
	Revenue	Expense	Profit/Loss	Revenue	Expense	Profit/Loss	Revenue	Expense	Profit/Loss	
NPDC	176,208.00	177,160.00	-952.00	165,661.27	182,504.72	-16,843.45	668,475.00	556,598.00	111,877.00	94,081.55
IDSL	4,062.00	4,186.00	-124.00	5,338.74	9,514.93	-4,176.19	17,926.00	10,462.00	7,464.00	3,163.81
NETCO	2,935.00	4,722.00	-1,787.00	8,093.03	6,083.14	2,009.89	18,127.00	12,729.00	5,398.00	5,620.89
NGC	79,201.00	56,304.00	22,897.00	203,163.82	158,549.45	44,614.37	275,502.00	201,689.00	73,813.00	141,324.37
KRPC	21.00	18,602.00	-18,581.00	208.76	31,923.59	-31,714.83	109,524.63	141,295.00	-31,770.37	-82,066.20
PHRC	215.00	12,223.00	-12,008.00	807.26	28,234.20	-27,426.94	372,399.59	351,729.00	20,670.59	-18,764.35
WRPC	45.00	15,579.00	-15,534.00	89.40	18,788.60	-18,699.20	89,360.43	111,104.00	-21,743.57	-55,976.77
RETAIL	8,940.00	6,508.00	2,432.00	19,987.01	12,508.52	7,478.49	187,646.00	185,083.00	2,563.00	12,473.49
PPMC	674,866.00	778,080.00	-103,214.00	1,322,778.09	1,323,461.76	-683.67	1,971,666.00	2,074,194.00	-102,528.00	-206,425.67
CHQ	954.00	71,325.00	-70,371.00	134.47	134,089.39	-133,954.92	916.41	132,859.00	-131,942.59	-336,268.51
VENTURES	141.00	8,133.00	-7,992.00	85.79	18,186.04	-18,100.25	268.26	16,075.00	-15,806.74	-41,898.99
Grand Total	947,588.00	1,152,822.00	-205,234.00	1,726,347.64	1,923,844.34	-197,496.70	3,711,811.32	3,793,817.00	-82,005.68	-484,736.38

*Note: * The figures for 2015 are from July. There was no disaggregated data from January to June 2015. This is responsible for the discrepancy in total losses of N597 billion reported earlier and losses in this table of N484 billion*

Table 13: NNPC Group Disaggregated Financial Performance (N millions)

Table 13 presents disaggregated financial performance data for the NNPC Group. Of the 11 Strategic Business Units (SBU), five made total profits over the three years while six made losses. The entities that made profits were: Nigerian Gas Company (NGC), Nigerian Petroleum Development Company (NPDC), Integrated Data Services Limited (IDSL), National Engineering and Technical Company Limited (NETCO), and NNPC Retail. The entities that made losses were: Kaduna Refinery and Petrochemical Company Limited (KRPC), Port Harcourt Refining Company Limited (PHRC), Warri Refinery and Petrochemical Company Limited (WRPC), Products and Pipelines Marketing Company (PPMC), Corporate Headquarters (CHQ) and NNPC Ventures.

The NGC made profits in all years and with a figure of N141.324 billion, had the largest profit in the group. The NPDC with N94.08 billion had the second largest total profits in the group. However, unlike the NGC which was profit-making in all years, NPDC made losses in 2015 and 2016 and it was only because of very large profits in 2017 that it generated net profits. There was a huge growth of 303% in revenue of NPDC between 2016 and 2017. Expenditure also grew by 204% over this period. The reports attributed the huge losses by NPDC to shut-in production, especially from the Forcados Export Terminal which was under force majeure for virtually the whole of 2016. The Forcados force majeure was estimated to have led to a loss of about 70% of NPDC's crude oil production capability.

Of the 11 Strategic Business Units (SBU), five made total profits over the three years while 6 made losses.

The other profit-making companies had lower profits compared to the NGC and NPDC. NNPC Retail had the third largest overall profits of N12.473 billion. This was followed by NETCO with overall profits of N5.620 billion, and IDSL with overall profits of N3.163 billion.

For the loss making SBUs, Corporate Headquarters led the way with total losses of N336.268 billion. This was followed by PPMC with losses of N206.425 billion. The monthly reports, in many cases, attributed monthly group deficits to PPMC and NPDC. For the PPMC, this was blamed on decline in petroleum product sales and increase in products distribution costs. KRPC had the third highest losses with N82.066 billion, followed by WRPC with overall losses of N55.976 billion. NNPC Ventures had the fifth highest overall losses with N41.898 billion. PHRC had the lowest overall losses with N18.764 billion.

84.87% of Receipts from Oil and Gas Exports was Allocated to JV Cash Call Funding while 15.12% of Export Receipts was Allocated to the Federation Account

	Export Sales Proceed Value Due			Export Sales Proceed Receipts				Allocation of Proceeds to Federation	
	Crude Oil Sale Proceed	Gas Sales Proceed	Total Oil & Gas Sales Proceed	Crude Oil Proceed Receipts	Gas proceed Receipts (NLNG, EGTL, NGLs, N-GAS	Other Receipts	Total Sales Proceed Receipts	JV Cash Call Funding	Balance remittance to FAAC
Jan-15	212.84	173.18	386.02	206.63	169.73	0.28	376.64	300.00	76.64
Feb-15	323.43	151.60	475.02	307.36	163.06	196.58	667.00	320.80	346.21
Mar-15	361.90	113.34	475.24	400.29	105.30	0.19	505.78	320.80	184.98
Apr-15	340.23	123.19	463.42	335.02	167.10	0.26	502.39	502.39	0.00
May-15	306.60	110.12	416.71	240.27	96.42	1.41	338.10	338.10	0.00
Jun-15	259.16	101.35	360.51	299.41	85.60	2.91	387.93	387.93	0.00
Jul-15	307.75	126.63	434.38	320.12	99.23	0.06	419.41	419.41	0.00
Aug-15	108.92	124.34	233.26	108.92	99.97	16.86	225.74	225.74	0.00
Sep-15	160.58	94.14	254.72	159.27	84.88	27.84	271.99	271.99	0.00
Oct-15	325.28	94.98	420.26	325.28	84.57	35.93	445.79	445.79	0.00
Nov-15	296.99	118.02	415.01	296.99	105.53	0.03	402.55	402.55	0.00
Dec-15	161.90	107.96	269.86	161.90	34.84	0.42	197.15	197.15	0.00
Jan-16	202.09	80.74	282.83	201.92	135.89	70.05	407.86	407.86	0.00
Feb-16	156.19	91.26	247.45	153.63	72.53	10.54	236.70	236.70	0.00
Mar-16	98.31	72.57	170.88	88.36	2.28	51.23	141.87	141.87	0.00
Apr-16	191.30	98.06	289.36	164.40	131.17	5.02	300.59	300.59	0.00
May-16	89.13	66.56	155.69	86.63	60.25	3.00	149.88	149.88	0.00
Jun-16	198.53	89.64	288.17	163.59	49.12	6.55	219.26	214.40	4.87
Jul-16	153.01	73.46	226.47	145.51	64.21	2.53	212.25	168.13	44.12
Aug-16	101.54	84.22	185.76	120.84	60.09	0.00	180.93	157.05	23.88
Sep-16	86.80	44.70	131.50	73.71	40.81	1.04	115.57	115.57	0.00
Oct-16	21.40	84.34	105.74	18.90	78.14	0.25	97.29	97.29	0.00
Nov-16	96.31	69.87	166.18	96.31	66.09	0.00	162.40	162.40	0.00
Dec-16	100.37	95.04	195.40	97.87	77.16	0.01	175.04	175.04	0.00
Jan-17	93.97	108.20	202.16	93.97	69.76	7.39	171.12	171.12	0.00
Feb-17	157.65	105.46	263.11	157.65	10.54	0.00	168.19	168.19	0.00
Mar-17	255.50	106.45	361.95	253.00	151.53	0.02	404.55	267.11	137.44
Apr-17	71.81	86.21	158.03	71.81	70.29	0.01	142.12	142.12	0.00
May-17	133.81	138.93	272.74	123.24	103.83	20.75	247.82	188.27	59.55
Jun-17	217.13	96.98	314.11	175.46	78.83	6.71	261.00	131.60	129.40
Jul-17	351.90	96.58	448.48	350.53	64.72	14.98	430.23	363.81	66.42
Aug-17	308.96	124.42	433.39	310.34	116.56	15.57	442.47	287.61	154.87
Sep-17	239.48	113.07	352.55	239.48	100.28	27.32	367.07	238.60	128.47
Oct-17	227.83	93.86	321.69	227.66	49.09	0.76	277.50	155.76	121.75
Nov-17	147.80	125.13	272.93	147.39	50.17	3.55	201.11	144.55	56.56
Dec-17	342.18	105.44	447.62	342.16	94.85	39.24	476.25	388.46	87.78
Total	7208.57	3690.05	10898.62	7065.81	3094.42	569.32	10729.55	9106.60	1622.95

Table 14: NNPC/FGN Export Crude Oil & Gas Dollar Accruals, Receipts & Payments (USD millions

$9.106bn
was allocated for
JV cash call funding and
$1.622bn
was transferred to the FAAC

Table 14 presents remittances by the NNPC from exports of oil and gas over the study period. A total of $10.729 billion was received from exports of oil and gas. Of this sum, $7.065 billion, representing 65.85% was from oil exports while $3.094 billion (28.84%) was from gas exports. The table reveals that $9.106 billion was allocated for JV cash call funding. This represents 84.87% of the total received from exports. $1.622 billion was transferred to the Federation Accounts Allocation Committee (FAAC), representing 15.12% of the total. Thus, the bulk of the receipts from oil and gas exports went to funding of JV cash calls. The good news in this regard is that the NNPC reported in December 2016 that it has signed off agreements with JV partners to enable it pay off the cash call arrears, exit cash call funding mechanism, and create self-funding mechanism being part of enablers to transit into an Incorporated Joint Venture (IJV) within three years.

CONCLUSION

This paper has reviewed NNPC's monthly financial and operations reports from August 2015 to December 2017. The publication of these reports has provided critical information on the nation's interests in oil and gas from January 2015 to December 2017. Such information had hitherto been unavailable to the Nigerian public. Although NEITI has not independently validated the data, these reports offer something close to real-time information about developments in Nigeria's oil and gas sector.

It is indeed commendable that the NNPC has opened up in this manner. In line with NEITI's mandate of transparency and accountability, we observed a number of things that the NNPC committed to do in these annual reports. Some were reported to have been achieved while some others do not seem to have been achieved. We urge the NNPC to deliver on these commitments to further promote openness, transparency and accountability in the nation's extractive industry.

One of things that the NNPC promised to do and which were reported to have been achieved is:

a. Reconciliation of the Crude Swap Under-Deliveries transactions executed during the defunct crude for product swap regime. AITEO Group paid in full its outstanding indebtedness of $202.34 million, while Televaras pledged a tranche payment of $17.2 million [March 2017 – April 2017].

A few things that NNPC has committed to do but which have not yet been done are:

a. In 2016, development of an index by which NNPC could continuously measure its progress in improving its transparency and public accountability. We encourage NNPC to intensify efforts in developing this index [December 2015 & January 2016 issues];
b. To collaborate with IOCs to carry out Value-For-Money Audit on all the Federation's Joint Ventures with a view to ensure business process improvement on projects execution. We do not know if this is already being done but we urge NNPC to focus resources to get this done [April 2016 – November 2016 issues];
c. Ongoing review of existing PSCs with a view to improve government share of revenue from the arrangement [April 2016 – January 2017].

Moving forward, we make a number of recommendations on how NNPC's reports can be improved. These are:

i. The data in the reports can be disseminated in a more reader-friendly format, such as Microsoft Excel. This will make the reports comply with open data policies, thereby moving the NNPC to the frontier of global best practices;
ii. The NNPC could release these reports more timely. As at June 2, 2018, the latest report available was for January 2018. When NNPC started releasing these monthly reports, they were quite timelier. It would be good to go back to this timeliness.

On the whole, we commend this new and sustained spirit of openness in NNPC and urge all stakeholders to pay close attention to and make use of the information made available to ensure more transparent, accountable and optimal operation of the oil and gas sector in Nigeria.

NEITI Nigeria Extractive Industries Tranparency Initiative

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