



BUYING WITH A CONSCIENCE: CURBING CRUDE OIL THEFT IN NIGERIA

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OVERVIEW

- **Nigeria**
- **The Niger Delta Region**
- **Federal University of Petroleum Resources, Effurun (FUPRE)**
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- **Measures Put in Place by Oil Companies to Curtail Crude Oil Theft**
- **Federal Government Intervention**
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Map of Nigeria



Main Statistics of Nigeria

Land Mass: 978,768(sq. km)

Population: 178.5 million

GDP: \$574 billion (nominal; 2015)

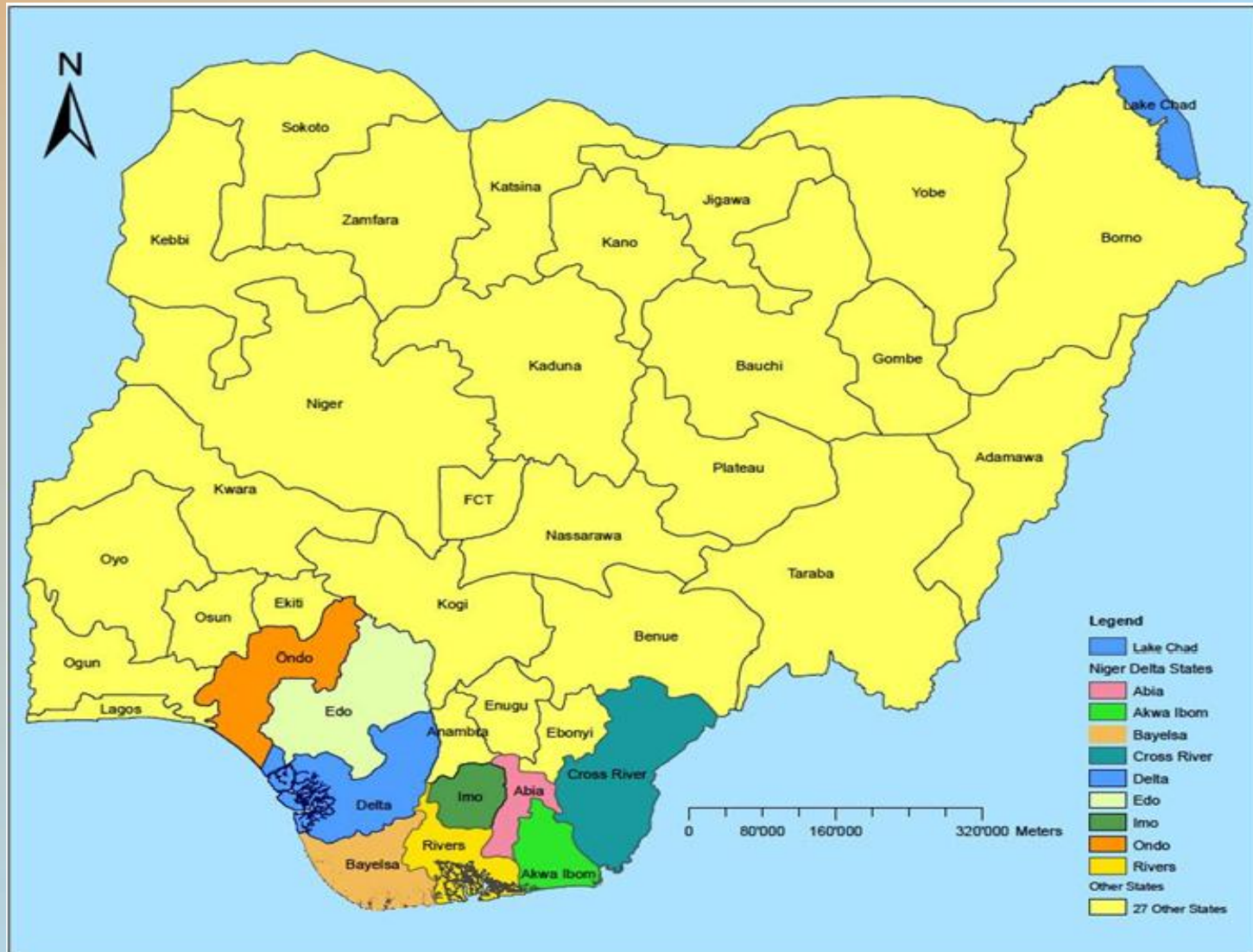
Oil Revenue: \$77bn in 2014

Oil - production: 2.35 million barrels per day
($374 \times 10^3 \text{ m}^3/\text{d}$) (July 2006 est.)

Oil - consumption: 310,000 bbl/d
($49,000 \text{ m}^3/\text{d}$) (2003 est.)

THE NIGER DELTA REGION

Map of Nigeria showing the Niger Delta region
States making it up



**THE FEDERAL UNIVERSITY OF PETROLEUM RESOURCES,
EFFURUN (FUPRE)**

Year Founded: 2007

Student Population: 2185

Staff Population: 722

No. of Academic Staff: 193

No. of Non-academic staff: 529

Colleges: 2 - College of Science and College of Technology
New Colleges: College of Management and School of Postgraduate Studies
(take-off date: 2015/2016 session)

INTRODUCTION

Nigeria

- Largest oil producer in Africa
- Ranks number six in Organisation of Petroleum OPEC
- Ranks eleventh in the world
- All the oil is produced from the Niger Delta area which has very difficult swampy terrain
- Oil is the main stay of the Nigerian economy

Paradox of Oil Production in Nigeria

- The central government is happy with oil revenues accruing to it
- However, the same cannot be said of the host communities
- They bear the brunt of oil production in terms of environmental degradation
- The oil communities see oil as a curse
 - their lives have not been impacted positively by oil money
 - lack basic amenities such as portable water, electricity, good roads etc.

The Blame Game

- The government and the oil companies blame each other for lack of development
- The government says the oil companies are not doing enough on social corporate responsibility
- International oil companies blame government since they pay royalties, taxes and equity money to government
- Scenario has resulted in host community restiveness
 - both parties seem not to have been unable to manage this effectively
- The restiveness has now grown into crude oil stealing and pipeline vandalization

Community Restiveness

- Took the colouration of agitation for resource control when democracy returned to Nigeria after years of military rule
- Resource control agitation championed by some South-South Governors
- Formation of Movement for the Emancipation of Niger Delta (MEND) as the mild resource control agitation was yielding no positive results
- MEND was a military wing of the agitation which had the capability to blow up pipelines and other surface facilities

Destruction of Facilities

- February 2006, total oil production in the Western Niger Delta completely shut down by MEND
- February 2008, general amnesty granted to MEND militants
- Attempts to re-open oil wells revealed that almost all the flowlines, pipelines and oil surface facilities had been vandalized
- Oil companies had to replace facilities at an enormous cost
- It has not been quantified the total amount of crude oil that was stolen directly from the wellheads during the two years of non-production
- Thereafter oil companies started to divest their Western Delta assets
- As at today, most of the assets have been divested to indigenous operators
- Divesting of the Eastern Delta assets is on-going

Crude Oil Theft Continues

- Though assets have changed hands, crude oil theft has continued unabated
- Highest technical stealing of crude oil occurred in 2013 when the Forcados crude oil export terminal was tapped
- Tapping line was two kilometres long
 - Required underwater welding which only those with special equipment and skills could carry out
- Meant that the thieves had built their own export terminal which was fed with crude oil anytime tankers were being loaded legitimately at the Forcados terminal
- Quantity of crude oil stolen via this tapped line remains unknown.

MEASURES PUT IN PLACE BY OIL COMPANIES TO CURTAIL CRUDE OIL THEFT

(a) Technical Measures

- Most oil wells are completed with devices called Surface Controlled Subsurface Safety Valves (ScSSV)
 - should trip and shut down well when oil is being bunkered
- Also installed on the flowline near the wellhead is a Surface Safety Valve (SSV)
 - should also trip when the flowline is being vandalized
- These valves work to prevent pollution and crude oil theft
- They require special technical training to operate them
 - ordinary thieves cannot steal the crude oil
 - the ScSSV and SSV should stop them
- However the thieves have acquired the skills to operate the valves

(b) Corporate Social Responsibility

- Development of host communities
 - to combat the restiveness
 - indirectly curtails crude oil stealing
- Amenities
 - roads
 - electricity
 - market stalls
 - town halls
 - skills acquisition centres, etc
- Despite these, restiveness has continued
- Oil companies have continued to appeal to the Federal and State Governments to intervene

FEDERAL GOVERNMENT INTERVENTION

- Establishment of the Niger Delta Development Commission (NDDC)
- Mandate to develop the Niger Delta area
 - build roads
 - build schools
 - build health centres
 - supplying portable water
 - provision of electricity, etc
- Establishment of the Ministry of Niger Delta
 - to oversee all matters of rapid development of the Niger Delta
- These interventions have achieved little
- Thus use of the Joint Task Force (JTF) comprising the Army, the Navy and Police
- Now being proposed to the Air Force to fly for surveillance

NIGER DELTA STATE GOVERNMENTS' INTERVENTION

- Setting up Oil Producing Areas Development Commissions
 - have not achieved their objectives
 - as the areas remain undeveloped and restiveness continues

DEMAND FOR STOLEN CRUDE OIL

(a) Illegal Refineries

- About 100,000 to 200,000 barrels stolen per day
- About 30% of the stolen crude is locally refined
 - in crude non technical illegal refineries
 - which are built in the creeks.
 - produce petrol, kerosene and diesel
 - use the heavy ends for firing their “kettle” refineries
- Market exists due to persistent shortages of refined petroleum products
 - fuelled by high youth unemployment
 - also by high poverty level in the Niger Delta
- These refineries mostly established in the creeks which are not easily accessible
- JTF combs the creeks to destroy them
- But easily rebuilt after JTF leaves the area







(b) International Community

- Remaining 70% of stolen crude goes into the international market
- Highly technical syndicates located both in Nigeria and overseas are involved in this unwholesome trade
- Requires cooperation of International Community to stop it

International Community's Obligation

- Proceeds from stolen crude are laundered through
 - world financial centres
- Used to buy assets (houses, businesses) overseas
- Outside governments should join forces with the Nigerian government
 - to curb export of stolen crude
- Intelligent multistate campaign
 - to close off the markets and financial centres of the stolen crude
 - make crude stealing unattractive
- International community to treat stolen crude as blood money
 - same way as blood diamonds or conflict minerals

COLLUSION IN HIGH PLACES ON CRUDE OIL THEFT

- Feeling in some quarters that there may be some involvement of highly placed persons in crude oil theft in Nigeria
- First, involvement from persons with relevant skills in oil operations
 - may be in employment or out of employment in the oil companies
- Second, there are some stupendously rich persons in Nigeria whose visible means of livelihood cannot support the wealth they display
- Third, some highly placed persons in government, security agencies, and oil industry regulatory agencies
 - facilitate the theft by the foot-soldiers
 - provide protection for the thieves

RECOMMENDATIONS TO CURB CRUDE THEFT

- A combination of these recommendations may reduce crude oil theft

(i) Job Creation

- Federal and State governments in the Niger Delta should
 - create jobs
 - provide enabling environment for the private sector to thrive
- Will reduce
 - poverty level
 - pipeline vandalism
 - crude oil theft

(ii) Petroleum Industry Bill

- The Petroleum Industry Bill (PIB) which has been in the National Assembly for 8 years should be passed into law
- Will give the host communities a sense of ownership
 - reduce the hostility

(iii) Intelligence Data

- Nigeria needs the help of the International Community to gather and analyse intelligence data on stolen crude export

(iv) Identification of Oil Theft Tankers

- A survey of the small to medium sized tankers anchored off the Niger Delta coast (Gulf of Benin) should be carried out to identify those loading stolen crude

(v) Identification of Stolen Crude Refineries

- Refining companies suspected to be refining stolen crude should be studied or monitored to confirm their culpability

(vi) Foreign Banks

- Foreign banks can assist to trace the laundered stolen crude money
 - Following the money trail is key to curbing oil theft

(vii) Chemical Fingerprinting

- Chemical fingerprinting of crude oil is a new technology that could be used to identify the crude origin and confirm if the crude is stolen
 - an emerging technology, and may have some limitations
- Blending the stolen crude with crudes from other regions may render the application of the fingerprint technology unusable

(viii) Effective Policing of the Niger Delta Coast

- The Nigerian Navy needs international assistance in terms of modern equipment and training to adequately police the Niger Delta coast.

INTERVENTION OF THE FEDERAL UNIVERSITY OF PETROLEUM RESOURCES (FUPRE)

(i) Vision of New Management

- to be among the best 500 Universities in the World by 2020
- wants to drive petroleum technology development in Nigeria

(ii) “Illegal” Refineries

- “Illegal” refineries dot the creeks of the Niger Delta
- These are hurriedly constructed refineries
- They illegally obtain their crude oil for refining by vandalizing crude oil pipelines
- Security agencies search for and destroy such illegal refineries
- However, it appears that the security agencies’ actions are most times compromised
- It is rumoured that some units of the security agencies collude with the illegal refineries in giving them cover to operate and share in the illegal profits
- When there is disagreement in profit sharing, the security unit goes after such un-cooperating refineries to destroy them and goes on television to show such refineries!

(iii) Upgrading of “Illegal” Refineries

- One area for value addition in the oil and gas business in Nigeria
- A new project
 - Objective is to redesign the processes while retaining its simplicity in order to produce refined products that will meet required quality standards
- Replicating the standard “illegal” refinery in our laboratory as shown in Figure 1
- Analyse the qualities of the refined products from it
- Thereafter, make improvements on the process design with a view to producing acceptable product qualities

(iv) Essence of Project

- Existing commercial mini refineries cost hundreds of thousands to millions of dollars
- This project wants to latch on the low-cost nature and simplicity of these local refineries
- Typically cost between US\$1,500 - US\$2,500 depending on the degree of sophistication

Replication of an “Illegal” refinery at FUPRE (under construction)



(v) Benefits of Upgrading the “Illegal” Refineries

- Will remove the illegality tag on these refineries for them to operate as legal businesses in Nigeria with all the attendant benefits
- Will greatly increase the employment of youths in the Niger Delta many times over the numbers currently engaged in the illegal business thus assisting governments in job creation
- Will increase the availability of refined petroleum products in the country currently engaged in massive importation of these products
- Reduce petroleum pipeline vandalization
- Reduction in pipeline vandalization will reduce oil theft and oil spill
- Reduction in environmental degradation arising from poor disposal of residues from the illegal refining process

Benefits continued

- Reduction in adulterated refined petroleum products
- Tables 1 and 2 show test results on 21 samples of petroleum products intercepted by the National Security and Defence Corps (NSDC) in Benin City
 - brought to our laboratory for analysis
- 15 of the samples were adulterated gasoline and kerosene with varying amounts of diesel
- 6 samples were some mixtures of crude oil
- Most of these samples could be products from these illegal refineries

Table 1: BATCH A received on 13th October, 2015

Sample code from source	Chemistry lab code	Total Volume (cm ³)	Color VISUAL	Specific gravity @16 ^o C/60 ^o F ASTM-D1298	API Gravity @16 ^o C/60 ^o F ASTM-D1298	Kinematic Viscosity @37.8 ^o C/100 ^o F cSt ASTM-D446	Flash Point(^o C) ASTM-D92	Water Content %v/v ASTM-D4006	Inference
A	CL1	520	Straw	0.815	42.1	0.705	44.0	NIL	Blend of kerosene and AGO suspected
2	CL2	660	Straw	0.820	41.1	1.084	49.0	NIL	Blend of kerosene and AGO suspected
5	CL3	535	Straw	0.815	42.1	0.973	47.5	NIL	Blend of kerosene and AGO suspected
3	CL4	538	Straw	0.815	42.1	1.091	52.5	NIL	Blend of kerosene and AGO suspected
4	CL5	748	Straw	0.825	40.0	1.141	52.0	NIL	Blend of kerosene and AGO suspected
7	CL6	796	Straw	0.795	46.5	0.902	34.5	NIL	Blend of kerosene and petrol suspected



6	CL7	512	Straw	0.830	39.0	0.802	48.5	NIL	Blend of kerosene and AGO suspected
Jerry can (1)	CL8	712	Straw	0.825	40.0	1.141	50.0	NIL	Blend of kerosene and AGO suspected
From the big drum 250L (C)	CL9	744	Straw	0.825	40.0	1.143	53.0	NIL	Blend of kerosene and AGO suspected
From the big drum 250L (B)	CL10	754	Straw	0.825	40.0	1.146	45.0	NIL	Blend of kerosene and AGO suspected
2	CL11	508	Dark Brown	0.895	26.6	27.779	46.5	2	Crude oil suspected
3	CL12	722	Dark Brown	0.895	26.6	37.712	61	5.2	Crude oil suspected
C	CL13	675	Dark Brown	0.925	21.5	469.60	68.0	1.6	Crude oil suspected
B	CL14	755	Dark Brown	0.905	24.9	79.143	50.0	3.6	Crude oil suspected
A	CL15	465	Dark Brown	0.895	26.6	43.843	46.5	16.8	Crude oil suspected
1	CL16	705	Dark Brown	0.900	25.7	15.772	46.5	2.4	Crude oil suspected

Table 2: BATCH B received on 20th October, 2015

Sample code	Chemistry lab code	Total Volume (cm ³)	Color (Visual)	Specific gravity @16 ⁰ C/ 60 ⁰ F ASTM-D1298	API Gravity @16 ⁰ C/ 60 ⁰ F ASTM-D1298	Kinematic Viscosity (@100 ⁰ F) cSt ASTM-D446	Flash Point(⁰ C) ASTM-D92	Water Content %v/v ASTM-D4006	Inference
ATN708 YV (A)	CL17	698	Straw	0.825	40.0	2.002	86	NIL	Blend of kerosene and AGO suspected
ATN708 YV (B)	CL18	648	Straw	0.830	39.0	2.001	82	NIL	Blend of kerosene and AGO suspected
GWL62 6XA (A)	CL19	748	Dark	0.860	33.0	3.010	81	NIL	AGO suspected
GWL62 6XA (B)	CL20	755	Dark	0.855	34.0	2.517	75	NIL	AGO suspected
GWL62 6XA (C)	CL21	736	Dark	0.860	33.0	2.685	80	NIL	AGO suspected

CONCLUSION

- **Crude oil theft in Nigeria is a hydra-headed problem which is multi-faceted**
- **It requires a concerted effort on the part of all stakeholders**
 - **the Nigerian governments**
 - **host communities**
 - **oil companies**
 - **other relevant bodies**
 - **members of the public**
 - **the international community**
- **to bring a stop to it or reduce it to its barest minimum.**

THANK YOU FOR LISTENING