# NIGERIA: FUEL SUBSIDY

A DESKTOP STUDY BY
THE CENTRE FOR PUBLIC POLICY ALTERNATIVES

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#### **SUMMARY**

The executive arm of the federal government has taken the view that subsidy removal is an important element in the larger scheme to accelerate Nigeria's economic development. This report reviews the abundant literature related to the subject of subsidies in general and fuel subsidies in particular. It aims to improve public understanding of this complex subject at a time of intense and often times emotional debate as to the social and economic welfare improving benefits of subsidy removal.

The study presents a compendium of findings from current literature, research and classic theory on the subject, methods and country experiences related to subsidy removal around essential commodities. It does not make judgments, advice or otherwise seek to influence government's position or public opinion on the matter. The report further endeavours to present evidence and create a platform for informed decision making on what is obviously a major policy engagement between the Goodluck Jonathan regime, the legislature and the citizens of the federal republic of Nigeria.

## 1.0 INTRODUCTION

Subsidies were introduced in the Nigerian energy sector in the mid 1980's. Something of a creeping phenomenon, the value of the subsidies has gone from 1 billion in the 1980s to an expected 6 billion Dollars in 2011. In this period the specific products targeted for subsidy have changed. Diesel oil has had its associated subsidy redacted while petrol Gasoline, kerosene DPK continues to enjoy a 54.4 % subsidy over the international spot market price at the Nigerian pump.

A subsidy by definition is any measure that keeps prices consumers pay for a good or product below market levels for consumers or for producers above market. Subsidies take different forms. Some subsidies have a direct impact on price. These include grants, tax reductions and exemptions or price controls. Others affect prices or costs indirectly, such as regulations that skew the market in favour of a particular fuel, government-sponsored technology, or research and development (R&D) <sup>1</sup>.

Energy subsidies and specifically fuel subsidies, which are the subject of this review, have a long history and have been applied in different forms with differing outcomes internationally<sup>1</sup>. Two major classes of subsidies exist: production subsidies mainly a feature of developed economies and consumer subsidies, which are found mainly in developing countries.

The justifications for introduction or removal of subsidies vary markedly. In developed economies Environmental issues, international trade and maintaining competitiveness are the main drivers of policy. Whereas welfare, poverty alleviation and election cycle politics largely underpin the reasons for which subsidies are introduced in developing countries. A new

factor in the current mix of policy drivers is the renewed emphasis on governance reform championed by the Bretton woods institutions-The World Bank, IMF and the donor community. Lending urgency to this scenario is the global economic downturn and consequent rationalization by lenders, aid-granting countries. As domestic demand for funds increase in these countries amounts available for aid, FDI and subsidies diminish. The consequence is a demand for greater efficacy in the economies of the aid receiving countries of which Nigeria is one.

Energy subsidies in developing countries and countries with economies in transition considered in this report are generally much larger net of taxes than in OECD countries, and take markedly different forms<sup>1</sup>. The majority of such subsidies in developing countries as earlier stated are aimed at consumers. Government price controls, which hold prices below the full economic cost of supply, remain the most widespread means of providing subsidies. They are most common for electricity, but are still important in some countries for oil products, coal and gas. The extent of under-pricing is generally bigger in countries where the energy sector is state-owned. State companies are usually treated as public service entities and are often not required to maximize profits. Energy subsidies are especially pervasive in energy-producing countries such as Nigeria, Iran and Indonesia, where the prices of almost every form of commercial energy are well below competitive market levels. India on the other hand has taken important steps to raise oil and coal prices to economic levels in recent years, but massive electricity subsidies remain. 1

Economists believe that social welfare is maximized when the price of each good and service is freely determined by the interaction of buyers and

sellers in open, competitive markets. In practice and especially in developing countries however, policy is often driven more by political consideration than rational economic theory. The risk of social unrest, street riots, examples from the Arab spring and threats of civil war very easily make introduction of market distorting policies justified.

Nigeria as a case in point is under increased pressures to grow its economy. Yet countervailing forces of corruption, mismanagement of public resources and poor governance conspire to frustrate efforts to sustain growth in the face of rising population numbers and demands for a democratic dividend by the citizenry.

This Nigerian government proposes to remove all subsidies on fuel arguing that such subsidy removal savings can be better invested in refineries, roads and major infrastructure projects which in the long term will ensure sustainable development and wealth generation for her citizens. **Evidence from the "share of conversation" suggests that major public resistance is developing to the idea of a subsidy removal.** 

This study does an extensive review of public policy research literature, local and international print media as part of a desk-top research and proposes to elicit evidence of support or otherwise for the proposed subsidy removal. As part of the study we review the origins, justifications and complexities of fuel subsidies in Nigeria and the possible impact of said policy on the country. Drawing from the experiences of other countries, determine possible outcomes for the implementation of such major policy change.

International experience indicates that results of subsidy removal have

been mixed. In some countries subsidy removal as a program enjoyed relative success with limited social stress. In other cases the exercise was deemed a failure. Elimination of subsidies on essential commodities has been known to precipitate social dislocation and in the extreme led to street riots and civil strife. There is a view that the Arab spring was caused by a build up of tension from stresses caused by high food prices and extreme social inequality. Materialists have blamed Arab economies for being highly vulnerable to inflation and recently, rising food prices2. (New England Complex Systems Institute), found a causal relationship between critically high food prices and social unrest. Food riots have been reported on rumours of subsidy removal from staples in several countries. Algeria 1998 food riots, Bolivia food riots 1985, Jamaica fuel subsidy riots1985, Jordan food riots 1996. The fuel subsidy in Nigeria if removed will translate to a sudden and massive tax on an essential commodity (fuel), which will have the knock off effect of raising food prices across the board.

Fuel subsidy removal programs are sensitive to economic structure, level of development of the country, political systems and the state of the economy. There is evidence that the more successful countries have taken a phased or gradual approach, have engaged in Conscientious research prior to implementation and followed a rigorous approach to policy making. That effective communications and a fair level of trust between citizens and government may be the other critical success factors in such an exercise. We examine Nigeria's proposal for fuel subsidy removal against this back drop.

### 1.1 BACKGROUND

#### Context.

Nigeria is a young democracy with an 11-year history of successful democratic regime change after more than 30 years of military rule interrupted by five years of civilian rule. The Mo –lbrahim index which tracks governance in Africa rates Nigeria 41<sup>st</sup> out of 53 African Countries it reviewed and even in West Africa, Nigeria is the 13<sup>th</sup> ranked country out of 16. Transparency international ranks Nigeria 134 out of 178 and by most accounts is perceived as a corrupt poorly governed state. The population suffers an increasing level of poverty and growing inequality. Politically the country continues to experience simmering pockets of insurgency in the Niger delta and militant violence from Islamic fundamentalist s in its northern parts.

Nigeria is the world's 14<sup>th</sup> largest producer of (index mundi) (with10<sup>th</sup> largest proven reserves) crude oil. It possesses the world's 8<sup>th</sup> largest proven natural gas reserves. The country has 4 refineries with an installed production capacity of 445,000 barrels of fuel per day, adequate to meet its domestic needs with a surplus for export. Yet the country is a large net importer of gasoline and other petroleum products.

The Government in power is drawn from the Peoples Democratic Party the party that has held power at federal level since the transition from military rule in 1998. A cabinet of technocrats, with ministers drawn from multilateral organizations including the World Bank, international consulting firms and the private sector, controls the policy-making machinery within the country.

International financial markets remain depressed, still hung over from the 2008 global economic meltdown. The EU, traditionally Nigeria's largest trading partner is presently facing serious financial challenges, Nigeria's foreign exchange rates continue to show weakness, the naira posting a persistent slide against all major currencies. Inflation runs at roughly 10% per annum (CBN).

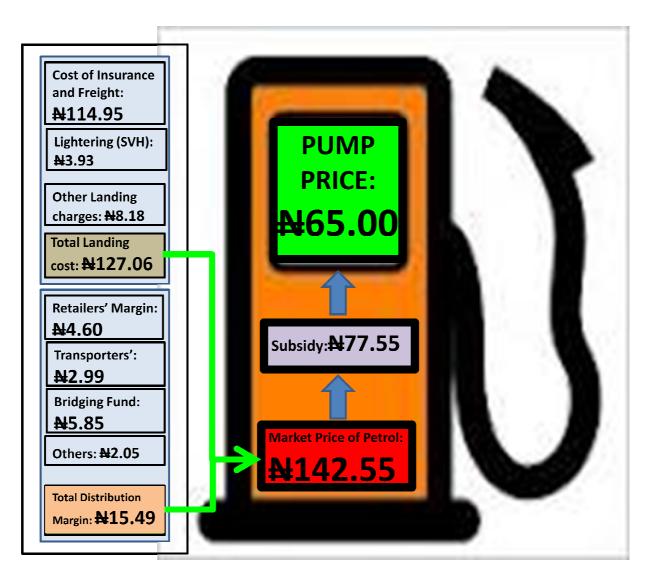
We attempt to situate the arguments for and against fuel subsidy removal within this context

#### 1.2 OBJECTIVES OF THIS REPORT

Terms of reference.

- Improve the knowledge of all relevant stakeholders in understanding the social and economic implications of the removal of subsidy as well as the implications of maintaining the subsidy;
- Improve the understanding of all relevant stakeholders with regards the social and economic effects of proposed government plans to offset the ramifications of the removal of the subsidy;
- Examine best practice for dealing with petroleum subsidy in other countries and in particular in emerging economies;
- Improve the quality of dialogue and debate around the issue of the removal of fuel subsidy by providing an easily digestible factsheet summarizing the facts and figures in favour and against the removal of the subsidy;

## 2.0 FACT SHEET: BASIC NUMBERS AND STATISTICS

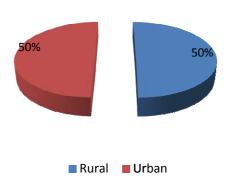


**Figure 1: The Current Subsidy** 

Source: CPPA

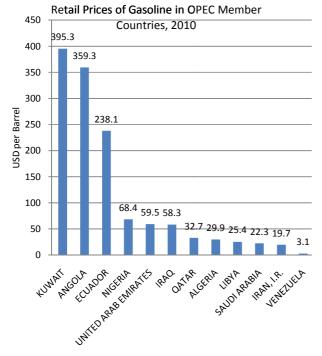
Figure 2: Nigeria Urban Rural Distribution

Nigerian Population by area, 2010



Source: World Bank

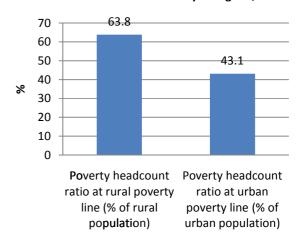
Figure 4: Relative Gasoline Prices for OPEC Countries



Source: OPEC

Figure 3: Nigeria: Poverty Distribution

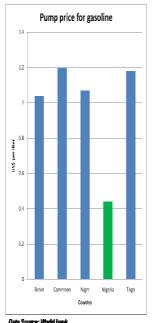
Urban and Rural Poverty in Nigeria, 2004

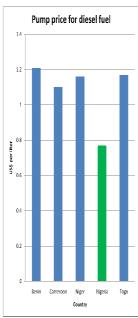


Source: World Bank

Figure 5: Relative Gasoline Prices -Nigeria/Neighbouring Countries

Pump price in Nigeria and Neighbouring countries, 2010

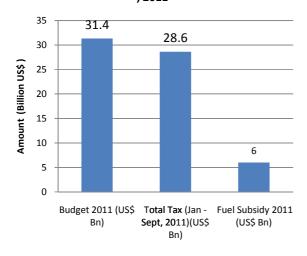




Data Scurce: World bank

Figure 6: Nigeria Fiscal Matters

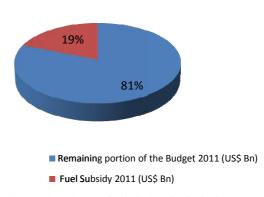
Budget, Tax, & Subsidy distribution in Nigeria, 2011



Source: Central Bank of Nigeria & Federal Inland Revenue Service

Figure 7: Nigeria- The Relative Size of the Subsidy

Percentage Of Fuel Subsidy in 2011 Budget



Source: Central Bank of Nigeria & Federal Inland Revenue Service

**Table 1: Possible Impacts** 

Variable	<b>Direction Impacts</b>
	-
Inflation	<b> </b>
Security	<b>→</b>
Health	<b>→</b>
Education	<b>\</b>
Living Standard	<b>\</b>
Source: CPPA	

**Figure 8: The Refineries** 

- Old Port Harcourt Refinery: Has an installed processing capacity of 60,000 barrels per day, built by Shell-BP in 1964. It was taken over by the Nigerian government in 1977. It is Nigeria's first refinery.
- Kaduna Refinery: This was built and commissioned in 1988 with processing capacity of 150,000 bbls per day.
- Warri Refinery: Has installed processing capacity of 125,000 barrels per day of crude. It was built in 1978 with initial capacity for 100,000 bbl per day. De-bottlenecked in 1991 to increase processing capacity to 125,000 bbl per day.
- New Port Harcourt Refinery: Has installed processing capacity of 150,000 barrels per day. It was initially designed as an export refinery. It is the most modern of Nigeria refineries and was commissioned in 1991.
- Total refineries capacity: 60,000 + 150,000 + 125,000 + 150,000 = 485,000 bbl/day

Source: NNPC

**Table 2: Distribution of Subsidies** 

Table 2: Distribution of Su  Petroleum Products Distribution by State ('000Litres) - State	Amount of litre subsidized by FG for each state	Amount in Naira subsidized by FG for each state(Using N77 subsidy per litre)	Amount in dollars subsidized by FG for each state (Using N77 subsidy per litre and N150/US\$)
( OUOLITIES) - State		state(Osing N77 subsidy per litre)	(Osing N77 subsidy per little and N150/05\$)
Abia	84,848,780	6,533,356,060	43,555,707.07
Adamawa	97,042,100	7,472,241,700	49,814,944.67
Akwa-Ibom	70,790,820	5,450,893,140	36,339,287.60
Anambra	76,324,040	5,876,951,080	39,179,673.87
Bauchi	74,818,380	5,761,015,260	38,406,768.40
Bayelsa	14,369,230	1,106,430,710	7,376,204.73
Benue	85,019,500	6,546,501,500	43,643,343.33
Borno	89,229,290	6,870,655,330	45,804,368.87
Cross-River	129,931,280	10,004,708,560	66,698,057.07
Delta	225,148,770	17,336,455,290	115,576,368.60
Ebonyi	41,134,760	3,167,376,520	21,115,843.47
Edo	166,752,930	12,839,975,610	85,599,837.40
Ekiti	54,356,220	4,185,428,940	27,902,859.60
Enugu	88,895,580	6,844,959,660	45,633,064.40
Gombe	65,984,360	5,080,795,720	33,871,971.47
Imo	75,278,050	5,796,409,850	38,642,732.33
Jigawa	75,968,870	5,849,602,990	38,997,353.27
Kaduna	299,720,320	23,078,464,640	153,856,430.93
Kano	371,326,960	28,592,175,920	190,614,506.13
Katsina	113,976,530	8,776,192,810	58,507,952.07
Kebbi	100,904,850	7,769,673,450	51,797,823.00
Kogi	194,314,340	14,962,204,180	99,748,027.87
Kwara	103,908,530	8,000,956,810	53,339,712.07
Lagos	1,449,075,060	111,578,779,620	743,858,530.80
Nasarawa	65,110,780	10,780 5,013,530,060 33,423,533.7.	
Niger	268,653,680	20,686,333,360	137,908,889.07
Ogun	286,286,550	22,044,064,350	146,960,429.00
Ondo	106,205,310	8,177,808,870	54,518,725.80
Osun	124,943,170	9,620,624,090	64,137,493.93
Oyo	340,695,890	26,233,583,530	174,890,556.87
Plateau	129,868,110	9,999,844,470	66,665,629.80
Rivers	370,582,710	28,534,868,670	190,232,457.80
Sokoto	79,240,310	6,101,503,870	40,676,692.47
Taraba	48,544,170	3,737,901,090	24,919,340.60
Yobe	118,686,260	9,138,842,020	60,925,613.47
Zamfara	76,320,680	5,876,692,360	39,177,949.07
Abuja	620,283,460	47,761,826,420	318,412,176.13
Independent Marketers Lifting's	2,721,074,940	209,522,770,380	1,396,818,469.20
Total Sold	9,505,615,550	731,932,397,350	4,879,549,315.67

**Figure 9: Elements of Successful Reforms** 

	Assess the nature of the subsidy to be reformed, its original objectives and current role in the economy	
	Assess how the subsidies have arisen or have been exacerbated	
	Analyze the economic, political, social and environmental context of reform	
1. Research	Identify the political-economy issues, including subsidy recipients and non-recipients and other stakeholders	
1. Nesearci	Make results of research public to improve understanding of the rationale for reform	Identify
	- Make results of research public to improve understanding of the radionale for relorni	stakeholders and
\ /		Consult
V /	Articulate the objectives of reform	
	Assess the potential economic, social and environmental impacts of reform	
	Consider the limits on reform, including funding available for policies to ease the transition to de-	
2. Objectives and	subsidization	
arameters of reform	Assess any external constraints, such as donor requirements or international obligations	
· ·		
\ \ /	Determine the time period over which reform is to take place, based on available resources and likely stakeholder response	
	Design transitional measures to reduce impacts on affected industry and consumers, as well as exit strategies for these measures	
Building a coherent	Develop a communications strategy	
reform policy	• Ensure transparency regarding subsidy levels and strategies for de-subsidization	Stakeholder
		consultation
		Develop and
		implement
1		communication
	• Ensure that those charged with implementing the reform strategy are determined to carry it through,	strategies
	even if it takes many years     Communicate to affected groups and the general public the necessity of reform, the strategy and the	
4. Implementation	expected benefits	
4. implementation		
	Monitor the impacts of reform, checking against the initial objectives and for unintended negative	
×	• Adjust the policies as necessary, based on observed impacts	
5. Monitoring and	- Aujust the pointes as necessary, pased on observed impacts	
valuation of reform		
		Ongoing
	Establish indepedent institutions and automated price-setting mechanisms to distance the government from the cumply and pricing of energy.	communication
	government from the supply and pricing of energy	communication
5. Going forward		Ongoing communication and consultation

Source: Institute for Sustainable Development (2010)

### 3.0 General

#### Overview

A subsidy is a reverse tax. It is a deliberate attempt be government to support a chosen economic agent —a consumer and a provider and it can be applied in any market that involves the buying and selling of products and or services. A subsidy as defined by the OECD in a study is basically government action that decreases the consumption price of the consumer and or increases the selling price of the producer (UNEP,2002).

The application of the or use of subsidies is not exclusive to developing economies. Subsidies span different types of economic activities the most featured in popular press tend to be agricultural and energy related subsidies. The subsidy could be direct in the form of price controls, tax exemptions or the provision of grants – this more or less entails the injection of cash back into the hands of either the consumer or the producer. The indirect form of subsidy is more in the form of the provision of industrial input requirements in the form of – favourable regulatory frameworks, research and development.

The pattern of engagement observed in reviewed literature is that developing countries are more inclined to the provision of consumer subsidies within the context of a welfarist notion of protecting the most vulnerable groups of the society. The Developed nations on the other hand are more attuned to the use of producer subsidies.

## 3.1 Section 1 Analytical frameworks

Subsidies enjoy widespread use in several countries and several commodities such as petroleum products, food or farm inputs like fertilizer and machinery. Though, a subsidy can be a very powerful policy tool that can be used to address market failures or achieve social objectives, it may also be an artificial tool to skew markets and this can impose large economic costs with huge negative externalities such as corruption. Since government is the primary provider of subsidies, it is expedient that policymakers should be well equipped to decide whether, where and when to provide subsidies. It is equally important that any such subsidy injection should adequately recognize the costs to the economy of distorting competition when assessing subsidies and to identify where, if possible, such costs may be minimized.

This section presents some of the analytical points of view for and against subsidies. It aims to comparatively inspect the arguments for keeping subsidy regimes against those for its removal through these frameworks.

## 1. Welfare/Pro-poor framework

Global development partners including the Department for International Development (DFID) and the World Bank Group have generally maintained an overall goal of poverty reduction across the globe. This pro-poor stance aims to push for policies that improve the participation of the poor in the policy process including the introduction or removal of subsidies. Other related analytical

frameworks, such as the Benefit Incidence Analysis, concentrate on how poverty-reducing strategies can be initiated, sustained or enhanced. The central idea is to gain a better insight into how government payments (or withdrawals of payments) for subsidies are distributed across the different income/expenditure groups (CSEA, 2010). This informs the classification of payments as progressive (when targeted towards poor households) and regressive (when benefits are extracted by better-off households).

Many governments across the globe perceive the provision of subsidies as a social obligation to the economically disadvantaged citizen, particularly the poor (people who live under \$2 a day) and vulnerable groups. In this way, virtually every country introducing subsidies takes the pro-poor point of view into consideration, sometimes arguing for some form of protection for citizens of the various countries. Once such programmes have been adopted, all subsequent arguments are tailored to policy preferences that ease the impact of subsidy removal for societies' poorest citizens.

Proponents perceive that adequate domestic availability of products is essential in absorbing the shocks from excessive exposure of consumers to price volatility in the international markets, especially for volatile commodities such as oil. This provides backing for price controls and other incentives targeted at supporting consumption by average citizens. Even where governments advance the welfare argument, one must ask the question; does international experience support this point of view? Realities in world economics suggest that

the interference brought in by price control mechanisms which lead from subsidies may well distort markets and thus work against intended objectives when the subsidies become captured by a small elite (World Bank, 2010).

Finally, for welfare and pro-poor arguments towards subsidy removal to be acceptable, an implementable valid means test for poverty must be available (IISD, 2010). Targeted pro-poor subsidies must by their definition impact the essentials in the lives of the poor with commodities such as fuel. For instance, strategies must be able to delineate the geographical distributions of poor and vulnerable people. This is to say that the targeted recipients who live in rural and urban settings must be uniquely identified. In certain cases, such as in energy subsidies, the problem is largely urban. Governments need to make the appropriate accommodation for the population demographics and distribution when planning policies on subsidies, especially understanding those who would be affected and how they would be affected. This is because "governments that have rushed subsidy reforms without preparing the population for the changes, and without providing targeted support to particularly disadvantaged groups, have often had to reverse the policy in the face of widespread opposition." (World Bank, 2010).

## 2. Market Liberalization framework (also known as the Bretton Woods' Institutions Framework)

The market liberalization framework argues for governments to consider reforms to the policy framework on petroleum subsidies

and product prices which impose a fiscal burden on governments as well as on the environment (IMF, 2010). Here, the argument for macroeconomic development and reducing global externalities is predominant. It considers that energy subsidies are large and widespread in both developed and developing countries and that economies with such large energy consumption may introduce or encourage an extra energy demand induced by the lower consumer prices. These introduce huge fiscal costs and effects on balance of payments, growth, and global externalities (World Bank, 2010).

In this framework the efficiency of free markets over controlled or closed economies is the main thrust. Thus, practices such as under pricing are perceived negatively and are considered pernicious to running efficient economies. Price controls introduced by way of subsidies eventually result in undesirable effects by possibly raising market prices through increased demand. Proponents of subsidy removal also invoke three other arguments; 1) that the persistence of subsidies encourages government agencies or industries to become quasi-monopolistic in pricing, undermining the buying power of the *common* citizen, 2) that subsidies serve to protect the special interests of industry players, who receive these subsidies, and 3) that subsidies ultimately create uncompetitive domestic industries. This framework is impervious to local sensitivities and realities.

On the other hand, protagonists of subsidy regimes in the market system elevate arguments for job creation, industry protection or energy security as major benefits from subsidies. Effective subsidies may encourage commercial establishments to commence domestic production, refining and distribution of petroleum products, creating jobs and leading to some level of energy security for the country, needed to absorb shocks introduced from international market pricing of such volatile commodities, as explained earlier. However, in developing country contexts, arbitrary rules, rent-seeking, and inefficient supplies create black markets where the goods from the controlled markets are shifted. This eventually leads to higher prices paid by consumers as witnessed in the kerosene sector in Nigeria. Fuel subsidies encourage smuggling to neighbouring countries as a result of higher returns based on international market prices.

## 3. Logical Economics framework (The Classic Economic Theory of Regulated Monopolies)

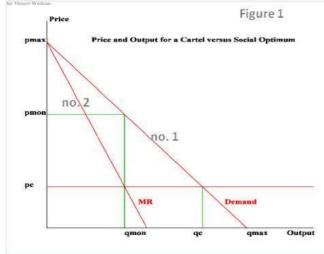
This framework is purely based on the classic theories of economics within which subsidies, themselves, are perceived as distorting to the forces of demand and supply. Depending on the structure of the market, ranging from; competitive markets, oligopolies, monopolies to regulated monopolies, the impact of the subsidy can differ substantially (T. Watkins, n.d). By strict definition, the Nigerian fuel market is oligopolistic but in reality, it is a regulated monopoly of the Nigerian National Petroleum Corporation (NNPC) with the Major marketers acting only as agents of that monopoly. See page 23.

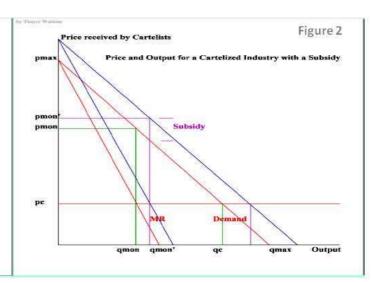
The theory of regulated monopolies suggests that in the subsidies flow from the producers (or marketers) to the consumer, there is a transmission loss in which appropriately, about half of the subsidies accrue to the few actors who are licensed in the industry and their agents. At each further point in the value chain, dissipation of the subsidy occurs before final transmission to the consumer. Such dissipation includes a "dead weight" loss of any subsidy where no one benefits. The NNPC acts through seven major marketers listed<sup>1</sup> as Mobil, NNPC Retail, Oando, Conoil, Total, AP and MRS Oil. This block essentially captures 50 percent of the subsidies available in the industry.

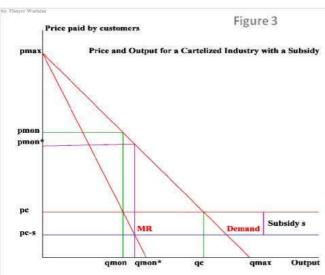
In this framework, the emphasis is on the distinction between the interests of the major marketers and the consumer. As we further examine country specifics and characteristics of the Nigerian economy, we shall contrast these features with proposed government implementation plans.

<sup>&</sup>lt;sup>1</sup>list obtained from the NNPC 2011 Second Quarter Petroleum Information

Figure 10: Logical Framework







In the case of a subsidy, as described in figures 2 and 3, the benefit of the subsidy is divided equally between the monopolist and the consumers. If the government pays a subsidy s in a protected monopoly market where the price without the subsidy is  $p_{mon}$ , the price paid by consumers does not fall to  $(p_{mon}$ -s). Instead the monopoly price rises to  $p_{mon}$ + $\frac{1}{2}s$  so the price to consumers falls to  $p_{mon}$ - $\frac{1}{2}s$ .

Thus the higher the subsidy the higher the price set by the monopolist and the more consumers feel they must have a subsidy. The consumers do benefit from the subsidy but only to an extent equal to half of the subsidy. The other half of the subsidy goes to the monopoly. Of course the consumers ultimately pay for the government subsidy in terms of taxes. Therefore, the consumer/taxpayers have a net increase in costs equal to the one half of the subsidy that goes to the monopoly.

Source: T. Watkins; The Impact of a Subsidy on Prices in a Market with a Protected Monopoly, San Jose University, Department of Economics

In an industry with constant unit cost of products (average and marginal) and a straight line demand function, the monopoly output is one half of what the competitive output would be. The price rises to a level that is half way between the competitive price and maximum price for the market; the maximum price is the price that would reduce the quantity demanded to zero. This is shown in the image labeled as Fig 1 above, where the demand line (no. 1) extends from the quantity the demanded if the price were zero,  $q_{max}$ , to the price at which the

quantity demanded is reduced to zero,  $p_{max}$ . The quantities  $p_c$  and  $q_c$  are the price and output that would prevail under competition. In the absence of externalities in the production and consumption of the product,  $q_c$  and  $p_c$ , would be the socially optimum levels of production and price.

Line no. 2 is the marginal revenue line which represents the benefit to the monopolist of a unit increase in production. The monopolist chooses a level of output where marginal revenue is equal to marginal cost. That output is labelled  $q_{mon}$  in the diagram and the price charged is  $p_{mon}$ .

## 4. Government expenditure (Long term) framework

This framework attempts to examine the efficiency or otherwise of government expenditure contributions to social welfare using human development indicators (HDI) as a proxy. Such indicators include health (indicator: life expectancy), education (indicator: mean years of schooling and expected years of schooling) and living standards, measured by the Gross national income per capita. These indicators help reflect the performance of government expenditure over the long term.

It is against this background we review the argument for more disposable revenue in the hands of government from subsidy removal. That is, the argument that more disposable income would enable the government to contribute to greater capital budgets and therefore the social welfare development of individual citizens. The Nigerian government for instance, advances this argument in seeking support for its transformation agenda. We examine historical data on government expenditure with respect to HDI indicators.

Between 1990 and 1999, government expenditure in the social services sector increased significantly to an annual average of \$53 million for capital expenditure and \$117 million for recurrent expenditure relative to previous years. This amounts further climbed in the following decade between 2000 and 2010, with average annual capital expenditure at \$468 million and average annual recurrent expenditure at \$1.16 billion. The increase in annual capital expenditure between the periods examined represents a 782.4 per cent change while that for the annual recurrent expenditure average amounts to 884.5 per cent. These figures<sup>2</sup> confirm that there has been a greater amount of disposable revenue, for the government, available for the social services sector over the years. However, according to the Human Development Report 2011, Nigeria remains in the low human development category, with a score of 0.459, positioning the country at 156 out of 187 countries and territories. This is despite the significant increase in government expenditure to social services over the last decade. Also notable is the stagnation in the education component of the country's HDI though marginal increase, of 1.1 per cent annually, in the other components was observed during the period. A much more telling statistic in Nigeria's social indicators points to the inequality in the distribution of human development across the population. When discounted for inequality, that is, the Inequality-adjusted HDI (IHDI), Nigeria's human development score becomes 0.278, a loss of 39.3 per cent. The HDI represents an index of 'potential' human development

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<sup>&</sup>lt;sup>2</sup> figures as computed from the CBN Statistical Bulletin 2009

while the IHDI can be viewed as an index of actual human development.

Thus, we observe that Government expenditure has had no significant long term impact on social performance indicators across the country. This is also in agreement with the observation of a Millennium Development Goals Report in 2010 that "no goal is certain to be achieved" in Nigeria. A fair conclusion may be that the presence or absence of subsidies is insufficient to directly impact substantially on social indicators.

Nigeria's Medium Term Expenditure Framework and Fiscal Strategy Paper for 2012 to 2015, suggests that the government intends to free up about N1.2 trillion in savings using the instrument of fuel subsidy removal. The paper notes that part of the savings "can be deployed into providing safety nets for poor segments of the society to ameliorate the effects of subsidy removal" and also to augment funds for critical infrastructure. However, it recognizes that the Federal Government operates an "unbalanced" fiscal policy with 25.6 percent of its budget addressing issues relating to capital expenditure and 74.4 percent directly spent on recurrent expenditures. At this rate, little or no radical change may be expected in the short to medium term from expenditures.

Again, if we take cue from the debt relief debate, we can perhaps establish a clearer picture of the effects of government expenditure on the human development indicators. One of the arguments at the time

was that debt servicing burden was one of the major obstacles to development. In 2005, the Paris Club debt relief package wiped off about \$19.3 billion dollars of government-owned debt. This amount saved the country over \$1 billion (or 1/3 of the country's annual budget at the time) in annual debt servicing which was perceived as the biggest impediment to government's ability to fund development projects. However, six years later, the global social indices point to worsening conditions for the average Nigerian.

## **5. Corruption framework**

The anti-corruption framework follows from the global campaign against corruption and towards better governance practices. It contrasts the argument, detailed above, for more disposable income for government expenditure by highlighting the waste in an economy due to corruption. Given that the Nigerian government's payment for fuel subsidies (\$7.5 billion) relative to gross domestic product (\$193.67 billion) which is 3.87 per cent and that the loss to corruption is 39 per cent<sup>3</sup>, a logical and well-prioritized approach would suggest that corruption should be a first-call item on government hit list.

Accepting the preponderance in literature and empirical evidence to the effect that Nigeria is a corruption-ridden environment as supported by Transparency International's Corruption Perception Index, which places Nigeria at 134 out of 178 countries suggests that even the subsidies as they are, are largely being wasted by the effects of

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<sup>&</sup>lt;sup>3</sup> estimates calculated by the CPPA

corruption. One of the indicators of a study by Daniel Kauffmann, Aart Kraay and Massimo Mastruzzi determined that the anti-corruption level in an economic system is particularly important in addressing governance issues. It is noteworthy that increased government spending may not yield desirable results without decisive attempts to improve core governance issues tied to performance measures such as efficiency, management, and central planning. The study also found that countries with improvements in governance raise standards of living by about 3 times in the long run. Daniel Kauffmann's argument is that, more important than the government expenditure, is the question of governance. The impact of the short term contribution of governance on development is greater than that from government expenditure developmental projects. Other intangible through wealth disaggregation studies (The Ambassadors' Review, 2008; World Bank, 2006; Petri Kajander, 2010) note that any one point change on the rule of law index directly yields a jump in Gross national per capita income of \$3,000 in high-income countries, \$400 in medium-income countries, and \$100 in low-income countries. That is, Governance Matters! All these suggest that the argument for more disposable income into government coffers may not be valid within the context of subsidy removal policies.

This section highlighted the major lenses through which the question of subsidy removal can be viewed. Whether governments should use subsidies as a tool to provide welfare for the poor, remove subsidies/tariffs to enable free exchange of goods and services across its borders, promote competition within the economy by avoiding preferential treatment of

certain interests or improve on core performance measures of governance including corruption, remains to be fully determined. Thus, any later recommendations in deciding to keep or not to keep subsidies will be referenced in composite of these frameworks.

Sound policy making demands that if subsidies must be removed or reformed, the following conditions should apply;

- An appropriate assessment of the subsidy to be reformed to determine that the explicit or implicit fiscal costs to the government are so large that the government feels it must act. This provides a basis for strengthening political will.
- Policymakers need to conduct an analysis of the political economy issues, including subsidy recipients, non-recipients, and other stakeholders, detailing the economic, political and social impacts of proposed policies on these groups.
- Provision of effective and well-organized communication strategies such as increasing the availability and transparency of subsidy data which promote informed discussion making and debate regarding the subsidies and government policy towards them will encourage contestability of fuel subsidy-related decisions.
- Improvements in the credibility of government by establishing independent institutions that manage the reform process and distance the government from the supply and pricing of petroleum products. This would help ensure transparency and accountability in public acceptance of government plans.
- Improvements in governance indicators that further build legitimacy for government policymakers as representing public interests in the distribution of social and economic benefits.
- Availability of a detailed plan that clearly itemizes subsidy reform implementation over a timed period identifying feasible compensation needs and allocations to offset the adverse effects of subsidy

changes for and vulneral	income/e	expenditure	groups	especially	the	poor

### 3.2 SECTION 2 THE NIGERIAN ENERGY ECONOMY

The Nigerian energy economy is a paradox. Given its natural endowments -The world's 14<sup>th</sup> largest producer of crude oil (index mundi) with 10<sup>th</sup> largest proven reserves and possessing the world's 8th largest proven natural gas reserves. The country has 4 refineries with an installed production capacity of 445,000 barrels of fuel per day. The country has a relatively small industrial base and demand for fuel is driven mainly by domestic use and transportation. There is a clear divide between urban and rural demand patterns. In rural communities, biomass sources of energy, firewood and burnt charcoal are still the main sources of domestic cooking fuel. In urban communities gas and electric devices are mostly used. Energy supply and consumption is projected to raise dramatically as more electricity plants come on stream. In the main, these new electricity generating plants will be gas fired. Gasoline, kerosene and diesel oil are still the main determinants in the Nigerian energy consumption mix with small amounts of refined products are exported sporadically from her domestic refineries.

As a net importer of fuel products (80%) Nigerian consumers are subject to price regimes in the international markets. Domestically fuel supply is a monopoly of the NNPC and its subsidiaries. The NNPC, licenses importers and distributors, fixes local pump prices, owns fuel stations and depots and administers payments of subsidies to distributors. **The NNPC therefore acts as a regulator, a distributor, producer and competitor in the retail markets.** With this arrangement in place, the Nigerian energy markets can be classified a regulated monopoly with the added distinction that the

regulator is also competitor in the market. Various arguments have been advanced for keeping this regime intact, most prominent of which is the need to protect the Nigerian consumer from the vagaries of international markets and to prevent exploitation by private sector actors. The demand and supply situation is therefore subject to three major influences. A monopoly effect, a subsidy effect and a price fixing effect acting independently and in concert to produce a truly complex and confusing economic picture. Issues such as corruption are treated as additional taxes on the consumer.

Graphs in the basic facts section, more accurately describe the individual effects.

Fuel in Nigeria is an inelastic product both from the demand and supply side, which means that it is very difficult for consumers to find alternatives to the use of gasoline, kerosene or diesel in their daily lives. Electric trains, solar heaters and cookers are non-existent in Nigeria. Cooking gas is supplied in cylinders and not available or affordable to the rural dwellers and the poor who make up 70% of the population. The various taxes and subsidies further produce a dead weight loss to the economy, which is difficult to quantify and identify.

### 3.3 SECTION 3 POLITICAL ECONOMY

A Review of the Political Economy of Actors

In a country like Nigeria where private and group influences policy making, where the prizes are few and the stakes so high, the fight for the booty or "national cake", the manipulation of the "game board" is inevitable. The

question of who gains or loses in the Nigerian policy arena is rarely an accident. More often than not, the distributional consequences of public policies are the intended result of the private or group interests, which have been instrumental in their design, passage and implementation. Thus understanding the political economy at play in the fuel subsidy is expedient (Ikpeze, Soludo C.C. and Elekwa N.N, 2004).

According to Prof. Aluko's convenient overlook of facts related to fuel subsidy removal in Nigeria, if the demotic refineries operate at an average of 66 per cent of their full capacity, Nigeria would have no need for fuel importation and subsidy (Next, October 27, 2011). This, therefore, raises the question of who gains or losses in this subsidy policy. To answer this question, it would be important to consider the following sub-questions:

- Why has Nigeria continued to import fuel?
- Why have the domestic refineries continued to operate far below the installed capacity?

Answers to these questions may be linked directly or indirectly to key stakeholders in Nigerian Oil sector. These stakeholders are discussed below in the light of the proposed removal of fuel subsidy and the low capacity of domestic refineries.

The outcome in terms of winners and losers in the event of an abrogation of the current fuel subsidy will depend on:

I. Structure of the successor programme: That is, does the savings go to the federation account where it will be distributed between the federal and state governments or will a special fund be set up to

- administer savings outside of government control and the guidelines by which such a fund will be administered
- II. The time horizons by which the subsidy removal is examined short, medium or long term.
- III. The regulatory envelope in which the fuel markets operate: Will markets, importation and pricing be liberalised or will government maintain price caps at the pump

## Winners and losers

If fuel subsidy is abolished which are the local winners and losers on the short to medium term

**Table 3: Winners and Losers** 

Table	Table 3: Winners and Losers				
1	Winners Traceum	Losers State Covernments			
1.	Federal Government Treasury	State Governments			
		In particular states with magnet cities. Which are:			
		Lagos, Kano, Abuja, Port Harcourt			
2.	World Bank, IMF	Marketers, Haulage and logistics companies (fuel distributors)			
3.	Infrastructure companies (maybe)				
	(Long term)	Micro-business sector			
4.	NNPC and existing refineries	State social/welfare services sector  Education, health,  Standard of living for the poor will suffer			
5.	Investors in the refinery sector (maybe) (long term)	State security			
		The poor and vulnerable groups, elderly, students, women, lower middle class			
		Neighbouring countries: Ghana, Togo, Cameroon, Niger			
6.	Opposition parties	Importers, PDP/President			

**Table 4: Stakeholder Analysis** 

S/No	No Stakeholders		Fuel Subsidy	Improved Capacity Utilization of Domestic Refineries		
		Position	Remark	Position	Remark	
1.	Major Foreign Oil Producing Companies (Shell, Mobil, Chevron, Total E & P, NAOC/Phillips, Texaco, and Pan-Ocean)	<b>√</b>	Removal of subsidy would reduce local consumption and increase export to 'home' countries.	x	Improved capacity of domestic refineries would reduce export to 'home' countries.	
2.	Foreign Nations (Major destinations of Oil Exportation): North America, Europe, Africa, South America, and Asia	$\sqrt{}$	Removal of subsidy would reduce local consumption and increase receivable crude oil.	x	Improved capacity of domestic refineries would reduce receivable crude oil.	
3.	Foreign Nations (Major sources of fuel importation): Europe, Spain, the Mediterranean, the Baltic, South Africa, and West Africa (Ghana)	<b>V</b>	Removal of subsidy would reduce their foreign earning from Nigeria, but would increase fuel availability in 'home' countries.	x	Improved capacity of domestic refineries would reduce demand from Nigeria – reduction of foreign earning from Nigeria.	
4.	International Development Institutions (IMF and World bank)	<b>V</b>	Removal of subsidy would reduce local consumption and increase availability of products in the major funding countries.	x	Improved capacity of domestic refineries would reduce availability of products in the major funding countries.	
5.	Major fuel importers: Mobil, NNPC Retail, Oando, Conoil, Total, African Petroleum, and MRS Oil	x	Removal of subsidy would reduce their earnings.	x	Improved capacity of domestic refineries would reduce their earnings.	
6.	Federal Government	$\sqrt{}$	Removal of subsidy would increase disposable fund to other sectors/projects.	Δ	Improved capacity of domestic refineries would reduce expenditure on fuel subsidy but would adversely affect its relationship with major their earnings.	
7	State Governments	V	Removal of subsidy may increase shareable fund from the federation account.	Δ	Improved capacity of domestic refineries may increase shareable fund from the removal of subsidy.	
8.	Civil servants and Corrupt elements in Government Agencies and Oil industry	X	Removal of subsidy would reduce their earnings via rents, bribery, Over-invoicing, theft or embezzlement.	$\checkmark$	Improved capacity of domestic refineries would reduce their earnings via rents, bribery, Over-invoicing, theft or embezzlement.	
9.	Distributors/Transporters/licensed Dealers of petroleum products	X	Removal of subsidy would reduce their payback period and increase financial risk.	x	Improved capacity of domestic refineries would reduce transportation risk since each would be dealing with the nearest refinery/depot, but it would reduce earning from petroleum equalization fund (PEF).	
10	Civil society Organizations/National Labour Congress	x	Removal of subsidy would increase hardship for members, and they do not trust the government to use the fund that would be saved for the benefit of ordinary Nigerians. However, they are angered by the secrecy and the perceived corrupt practices in the subsidy implementation.	<b>√</b>	Improved capacity of domestic refineries would reduce the cost of fuel and ejection of fund that would have been used to improve the living standard of Nigerians. It would ensure availability of product.	

**Keys:**  $\sqrt{\ }$  = In favour X = Against $\Delta$  = Neutral

# 3.4. SECTION 4 SCENARIO BUILDING. IMPACT OF SUBSIDY REMOVAL ON IDENTIFIED INCOME SEGMENTS.

Table 5: Monthly Expenditure Plan

Income Class	Monthly Salary Band (N)	Food	Rent	Car/	Health	Generator/	Education
				Transport ation		Cooking/other domestic uses	
Poor	0 – 18, 000	7, 200 @240/day	500 -1000	4, 500	N500, no insurance	N500 @4 bottles of kerosene and charcoal (no generator)	N 691 @ 4 kids in public school
Impact		High	Medium	High	Medium	Low	Low
Working Class	18, 000 – 40, 000	N15, 000 @500/day	N5, 000	N6, 000	N1, 000, no insurance	5, 000 @ 1 small generator and 2 gallons of kerosene	N1, 382@ 4 kids in public school
Impact		High	Medium	High	Medium	High	Low
Lower Middle Class	40, 000 – 120, 000	N30, 000 @N1000/d ay	N12, 500	N11, 000 @1 car/1 fill per week	N6, 510 @ Zenith Smart Health Family insurance scheme	N9, 750 Uses cooking gas	N 15, 000 @ 4 kids in public/private school
Impact		Medium	Medium	High	Low	High	Medium
Upper Middle Class	120, 00- 500, 000	N60, 000 @ N2000/d ay	N25, 000	N22, 000 @ 2 cars/3 fills per week	N10, 080@ Zenith Classic Health Family insurance scheme	N19, 500 Uses cooking gas	N40, 000 @ 4 kids in mission private school
Impact		Medium	Medium	High	Low	High	Medium
High Income/Upper Class	500, 000 +	N120, 00 @ N4, 000/day	0 (owner occupier)	N55, 0000 @ 3 cars/2	N15, 330 @Zenith Super Health Family	Generator runs on diesel and uses cooking gas	N500, 000 @ 4 kids in private school
				fill-ups per week	insurance scheme		
Impact		low	Not applicable	high	low	Not applicable	low

#### Key assumptions:

- National average family size of 4 children
- ii. Food consumption figures are calculated as average cost of daily feeding per household within an income group
- iii.
- Health cost assumes HMO insurance payment structure
  Individual household generator usage of 5hrs/day where applicable. Generator capacities vary across income groups

#### **Discussion**

The monthly income expenditure pattern nationally shows variations across income groups. Across all income groups, the impact will be most felt on transportation. Though each group experiences some impact, the outlays show that the middle class would be most nominally affected if energy prices rise. Studies conducted by Freund and Wallich in Poland reported by UNEP (2003) observes that "The welfare loss of higher energy prices is greater for the non-poor than the poor ......among different socioeconomic groups considered, farmers and families are hurt the least by higher energy prices, largely because they do not consume energy for which the prices increase the most" (169). This seems applicable to the rural poor in Nigeria and partially to the urban poor. The rural poor use more of charcoal and firewood, use less transportation, and live in their own homes and source food from their immediate locales and farms. However the urban poor will have to pay for transportation, rents and incur other living expenses. The above submission by Freund and Wallich also points to the fact that the effects of removal of subsidies would be felt mostly in the urban centres where petrol is largely consumed.

Freund and Wallich also state that "Workers are also hurt significantly, their annual welfare falling by 7.1%. The scenario developed by the CPPA suggests that the working class will be spend more than the poor on petrol and as such would experience more direct impacts, though they have more disposable income than the poor to fall back on.

The middle class would be the most directly affected given that their consumption of petrol represents the largest as a percentage of income.

They spend substantially on fuel, small back up generating electricity generating sets and cars. Rising living expenses will also erode their incomes but their substantially high incomes may help to offset welfare losses.

The wealthiest quintile of the population will feel the impact mainly in fuelling cars. The impact will be least on this class since price increases will not be significant as a percentage of their income. Moreover, the use of diesel and cooking gas whose prices are already market rates is prevalent in this group. Secondly since home ownership is most prevalent in this group, the inflationary impacts on rent may not be substantial.

#### 3.5. SECTION 5 INTERNATIONAL/CROSS COUNTRY EXPERIENCE

A number of developed and developing countries have engaged in fossil fuel subsidy policy reforms. These countries include Argentina, Brazil, Canada, China, Ghana, Senegal, India, Indonesia, Italy, Korea, Mexico, Russia, Spain, France and the United States. The International Institute for Sustainable Development (IISD) maintains that "once in place, fossil-fuel subsidies are extremely difficult to remove. There is no single observed formula for success, country circumstances and changing global conditions are major contributory factors. However, strategies can be identified that contribute to successful reform and respond to individual country circumstances" (2010:8). It recognises six important reform approaches: research; establishing reform objectives and parameters; building a coherent reform strategy; implementation; clear frames of progress; and monitoring and evaluation (see appendix for table on elements of successful strategies for reforming fossil-fuel subsidies by IISD). The experiences of Ghana, Senegal, Argentina, China, India, and Mexico will be summarized.

# **Ghana (Premium Motor Spirit)**

The attempt at reforming petrol subsidies started in 2001 in a collaborative effort with the International Monetary Fund (IMF) as part of the latter's Poverty Reduction and Growth Facility Program. In February 2001, the government in a bid to deregulate the sector raised fuel prices by 91 percent and in June introduced an automatic price-setting mechanism. Such measures were to help resuscitate the state-owned Tema Oil Refinery (TOR) and pay off its mounting debts. This move itself could not

be sustained when international oil prices rose and the new price mechanism had almost been abandoned by the end of 2002 when it failed to rescue the TOR, as its debt continued on the ascendancy equalling about 7 percent of GDP (IISD, 2010)

The government made a second but unsuccessful attempt in January 2003. As international oil prices continued to rise, the deregulation was suspended again in June. Through 2004, the government in a bid to pacify the public and maintain stability in the run-up to the general elections maintained its suspension of the reforms. In 2005 the government continued with the reforms setting up the National Petroleum Authority (NPA) which had the responsibility of administering pricing. In 2009, the new government reduced prices once more as part of its campaign promises.

It is noteworthy that the government had a comprehensive plan which took into account the need to make energy consumption economically sustainable while also cushioning the effect of withdrawal of subsidies on the poor. To mitigate the impact of subsidy removal on the poor, the Government in 2005 introduced a number of policy measures:

- i. Establishment of the Deregulation Mitigating Levy and the Unified Petroleum Fund
- ii. Introduction of free tuition in public primary and secondary schools
- iii. Increased number of mass transit buses
- iv. Introduction of a price ceiling on public transport fares
- v. Increased funding for health care services in rural areas
- vi. Increase in the daily minimum wage from \$1.24 to \$1.50 US

- vii. Rural Electrification projects
- viii. Continued cross-subsidy on Kerosene and Liquefied Petroleum Gas (LPG)

However, Kerosene subsidies led to smuggling of the product and its use for the adulteration of diesel. The Ghana case is recorded as a substantial success for the following reasons: "Research was conducted to identify those most likely to be impacted by reform; a communications strategy was employed to increase popular support; semi-independent and transparent institutions were established to manage fuel pricing; domestic prices were linked with international prices; and policies were implemented to reduce impacts on the poor" (IISD, 2010:14).

# **Senegal (Liquefied Petroleum Gas, LPG)**

The goal of the Senegalese government was to address environmental concerns of deforestation through discouraging the use of charcoal and firewood, especially in the urban centres (IISD, 2010). In the 1970s, the government attempted to indirectly subsidize the use of LPG through removing import duties on LPG based cooking equipment. With relative success in switching users to LPG, the government decided to directly subsidize LPG in 1988. Four gas cylinder sizes (2.7 kg, 6 kg, 9 kg and 12.5 kg) were set as standard measures of which the government subsidized for the first two. The hope was that the poor will use the smaller cylinders. However by 1998 the burden on the government had become unbearable and on the advice of the IMF it planned a five year subsidy removal target running on 20 percent withdrawal yearly to 2002.

This plan was put on hold by the government before 2002 following negotiations among member states of the West African Economic Union to harmonize economic policies. Thus, they alternated between taxing and subsidizing the 2.7 and 6 kg cylinders. In 2009 the government restated its commitment to removing subsidies which saw the prices of the subsidized cylinders rise. Senegal also maintained a tax exemption for Kerosene. This was found to benefit the poor more than the LPG subsidies. The LPG subsidies benefited the rich more as they consumed more LPG and used the smaller cylinders as well. There were also problems of smuggling of subsidized LPG to neighbouring countries.

The IISD (2010) observes that the Senegalese reform experience substantially achieved its initial objectives. The "LPG subsidy program, which created strong incentives to switch from charcoal to LPG, yielded large environmental benefits—reduced household pollution and reduced pressure on forests—and therefore met its initial objectives, at least in urban areas" (19). However, a number of issues undermined the reform process. The UNEP (2003) observe that "the Senegalese experience with subsidising LPG demonstrates that rapid switching away from traditional fuels to modern forms of energy does not occur automatically. The rural populations did not massively switch to the LPG gases because most rural household were unable to afford the cylinders. Palliative measures for the poor were poorly articulated. As a result, it eroded some of the gains made as some reverted to the use of charcoal. Other measures such as Conditional Cash Transfers and sustainable firewood harvesting ISSD and UNEP argue would have enhanced the success of the reforms.

Additionally, unlike in Ghana, the information and awareness-raising campaign was not properly done.

## Chile (Petrol, Diesel, Kerosene and Coal)

Chile's energy sector reforms began in the mid 1970s as part of larger social and economic reforms which targeted the reduction of state involvement in productive activities. The reform process came in two phases: "In the first phase from 1974 to 1977, a process to prepare the necessary economic and financial conditions for the reform in the energy sector was begun" (UNEP, 2003:125). During this period, energy prices which before now had been kept low were adjusted closer to the international market. The second phase "1978 to 1989 emphasised institutional reforms including the regulatory framework, legal aspects and ownership" (125). During this period, the National Energy Commission (CNE) was established with the duty to make and implement energy policies. The oil sector subsidies reform will be summarized in this piece.

While the distribution of oil products was privatised, the state owned oil firm, ENAP, retained the responsibility for exploration, production, importing and refining. The prices of oil products are semi-regulated with Ex-refinery prices set freely but consistent with the prices of imported products in addition to a 10% import tax. Transportation, storage and marketing costs estimates, in addition to a VAT of 18% are added to ex-refinery prices to set final retail prices.

A petrol price stabilisation fund was created by the Government in 1999 to offset the effects of international oil price fluctuations. A predetermined

parity price was set for each product of which government either paid a loan or levied taxes on the fund depending on the difference. An upper and lower limit for the difference between parity and reference price of 12.5% is allowed of which the government pays the difference if higher and levies a 60 percent tax if lower. However, due to rising oil prices in the international market, the cost on the government became enormous that it had to reform the system in 2000. A new fund was created which set caps and new rules required it "to act only as a stabilisation fund and no longer as a subsidy".

The UNEP (2003) through a simulation studied possible impacts of the reforms and stated that "a key conclusion of the analysis for Chile is that removing oil subsidies could have bigger economic and distributional effects than removing coal subsidies. This is mainly because consumption of oil is much larger than that of coal. Not surprisingly, the effects on the sectors concerned, namely, oil refining and coal production, are much bigger in each case. The environment clearly benefits from the removal of both coal and oil subsidies" (126-127).

**Table 6: Subsidies - Transmission Effect** 

		How the subsidy usually works			
Government intervention	Example	Lowers cost of production	Raises cost of production	Lowers price to consumer	
Direct financial transfer	Grants to producers	V			
	Grants to consumer			V	
	Low-interest or preferential loans to producers	√			
Preferential tax treatment	Rebates or exemptions on royalties, sales taxes, producer levies and tariffs	√			
	Tax credit	<b>V</b>		√	
	Accelerated depreciation allowances on energy supply equipment	√			
Trade restrictions	Quotas, technical restrictions and trade embargoes		√		
Energy-related services provided directly by government at less than full cost	Direct investment in energy infrastructure	<b>V</b>			
than full cost	Public research and development	V			
Regulation of the energy sector	Demand guarantees and mandated deployment rates	V	V	<b>√</b>	
	Price control		V		
	Market-access restrictions		V		

Source: UNEP/IEA (2002).

### Subsidies - Justification

The reasons for subsidies tend to be multi fold and would depend on the policy objective of the government in review. These could be a welfarist positioning of the government that ensures some form of social justice in favour of the most vulnerable groups of the society – essentially the low income groups. The prices of targeted goods or services are subsidised in

a manner that ensures lower socio economic groups have access to goods that are perceived to be necessities of life an example being access to energy.

Another reason for government intervention would be the event of market failure – where the necessary mechanisms that would stimulate demand and supply for a good and by that a forum for exchange is nonexistent - goods of this type tend to classified as public goods –

The ongoing clamour for a greener cleaner and sustainable environment is another reason why governments would deploy subsidies. The argument being that the emissions from the burning of fossil fuels a highly subsidised industry in energy producing economies that are developing constitute a major threat to the environment. To that effect subsidies would be deployed to encourage the switch that would ensure the use and supply cleaner and renewable energy.

Ironically even though the fossil energies are now being tagged as the offending fuel group in the current quest for a more sustainable climatic environment – fossil energy is deemed as cleaner alternative to energy derived from firewood/biomass and by that is a credit to use of fossil in an economy whereby such a benefit is realised

#### Subsidies: Case for Removal

The argument for the removal of consumer subsidies is that it distorts markets. The signalling effect of the price of the good or service is somewhat compromised leading to the tendency to be wasteful in the purchasing and selling of such a product. It is believed that the target

beneficiaries of such subsidies would be better served if the subsidies are removed.

In the case of the existence of a somewhat permanent producer subsidy, the producer develops an unfair advantage relative to other competitors. The implicit costs of production that has been somewhat subsidised and by that do not reflect the real price of the production. If on the other hand there is a consumer subsidy there is a possibility that the target beneficiaries would not fully benefit from the planned support. Subsidies such as fossil fuel subsidies that adopt a consumer focused subsidy in the form of price controls as is the case in Nigeria – are believed to result in the following

- inefficient markets;
- fiscal pressures on the governments purse and on the foreign trade balance
- environmental degradation

The pressure on the government purse tends to be exacerbated in the wake of escalating prices as it is being witnessed in Nigeria whereby the government is being forced to eke out extra funds to maintain the regulated price – the government and the society at large absorb the full cost of the marginal increase in the price of the commodity.

This type of subsidy also encourages the consumer to waste resources by over consuming while producers over supply the product. The forced price no longer curbs such wasteful behaviour. The inclination to over consume could have is possible implications on the trade balances as it manifests in additional pressure on the import profile to import the product especially

when the local capacity is inadequate. Another downside that is sometimes overlooked is the possibility of a further shock to the system if the production subsidy is eliminated by the foreign producers of fuel.

## **The Nigerian Case**

The Nigerian case is that of the imposition of a consumer subsidy which translates into a consumer surplus whereby the consumer pays for fuel at a price of N65 per litre that is less than the current world market price of imported fuel inclusive of distribution costs of N142 per litre. The consumer benefits by also purchasing the commodity/product in quantities that are at variance to the ideal quantities to be demanded by the consumer public.

The supplying community (Oil marketers) enjoys the producer's surplus as they are now inclined to sell larger quantities at the market price. These benefits from the subsidy are in some sense equally shared between the producer and consumer communities. The snag being that the consumer surplus is shared by a fairly large population of fuel consumers while the producer surplus is split amongst a smaller community of the importing community in Nigeria.

Economic theory postulates that the actual cost of subsidies exceed the transfers offered by the government to the producer and consumer community – there is a notion of a residual portion that accounts for the opportunity cost of the inefficient allocation of resources by both the consumer and supplier. This residual is identified as the dead weight burden borne by the society and thereby has considerable social welfare implications when one factors the possible opportunity costs of corruption borne by the society.

The Nigerian situation is somewhat peculiar and manifests in a rather intriguing way that almost hints of the notorious Nigerian factor. This producer surplus in Nigeria should be redefined as an **importer surplus** in the sense that with the exception of the NNPC an indigenous operator in Nigeria the other beneficiaries of this surplus are the foreign suppliers of refined products. Besides NNPC role in this regime is primarily of that of an importer of refined fuel.

This is contrary to the grain of the theory that assumes that the supplying community is predominantly indigenous -even if production is inefficient this surplus should be at least be enjoyed in the home country if the productive capacity exists. The imposed price control and mode of regulation in Nigeria – discourages the local refining of crude oil – it is technically and almost effortless to import fuel. The disincentives are exacerbated in the manner in which the NNPC imports fuel as this is done in the form of a swap of a barrel of crude for an equivalent barrel of refined products. This roughly translates in a ratio of a barrel of crude oil to half a barrel of gasoline a level of supply that exceeds the domestic consumption rate. This excess supply fuels the black market transactions between Nigeria and other neighbouring countries as well as the subsidy market – virtually a low risk enterprise as sales to the importer is more or less guaranteed. This situation gives further insight as to why the fuel business is perceived as a very lucrative source of livelihood for the privileged group of importers but certainly a loss to the society.

There is certainly a case for the removal of subsidies in Nigeria. Nigeria currently does not meet any of the listed criteria in the framework adopted

in a UNEP 2003 study on energy subsidies that would justify the continued imposition of a subsidy.

Table 7: Subsidies Critical Success Factors

Criteria	Specifics	Nigeria
Well targeted	the targeted beneficiary group should be able to receive the subsidies	X The transmission effect is distorted. The major beneficiaries are the importing community and high income users of gasoline
Soundly based	must be rationalised on the basis of well thought out research	X No evidence that this thought process was put in place at the inception of this concept.  - There might have been the element of a herd mentality whereby oil producing nations felt populist gains could be achieved with the use of fuel subsidy
Transparent	- the public must have access to the full cost of the subsidy	Not transparent the actual cost of subsidy is not easily accessible in the public documents generated by the key government agencies involved in this exercise – namely PPRA, FAAC, DPR, NNPC, DMO, CBN and FMF
Efficient –	should not undermine the incentives to efficiently allocate resources	X Current system encourages excessive consumption and supply by both the consumer and the producer.
Practical –	Must be affordable and administered in a cost effective manner	X The financing of the current program is not sustainable especially when the price of crude oil rises in the world market.
Limited in time	<ul> <li>Subsidy programs should be limited in time to eliminate an unhealthy dependence on subsidies either by the consumer or producer.</li> </ul>	X Subsidy imposition has had a long history in Nigerian spanning three decades

Source CPPA

The realities however suggest the likelihood of high level of social distress and some erosion in the quality of life if a sharp and sudden adjustment is made to the price of fuel. The impact of which will be mostly felt by the urban population of fuel consumers as they represent the major consumers of fuel to meet their transportation and generating needs. The impact will be disproportionately felt by the most vulnerable users of the working/middle class communities.

There would certainly be a downward shift in the quality of life for the borderline income groups as they are forced further down into the most desperate or challenged group of workers as choices have to be made in the redistribution of the household and business budgets – trades off have to be made between the essentials – fuel consumption/transport costs vis a vis health care costs, feeding allowance, education allowance, saving investment opportunities until some adjustments have been made to the wage levels. This has not taken into cognisance the plight of the unemployed and possible levels of unemployment such a shock might trigger in the short to medium term.

An introduction of a subsidy removal in the manner as proposed by government would be a hard sell. Besides the fact that there is some measure of distrust by the civilian populace in response of the pronouncements made by the government in respect of its proposed palliatives in response to the untoward shock of a price increase. The government's argument has been that savings made from the removal of

the subsidy would be channelled to sectors that would alleviate the effect of the removal. While there is no dispute in respect of this fact that savings will be made the issues of contention remain the dismal performance of government in its duty in the provision of either physical or social infrastructure.

Government expenditure when juxtaposed against the social indicators reveals the inadequacies of programs implement by governments. If subsidies are to be removed the safety nets have to be such that effectively ameliorate the suffering of these groups.

## Implementation strategies

To be effective the subsidy removal should balance out the tradeoffs between the economic cost and the social welfare of the populace and would need to meet the following criteria. Implementation strategies would have to take into cognisance the interests of the stakeholders in this fuel imports supply and subsidy value chain. Measures have to be taken to address the losses of the groups/communities that will lose out on the imposition of this subsidy in the short and long term as featured in the table below

**Table 8: The Underlying Dynamics** 

Key Players	Negotiating/Power Base	Status
Importing Community - lose out on the producers surplus	Financially Strong	Would rather maintain the status quo
Black marketers	Financial leverage	ii .
Low income consumer/Poor	Weak	Would suffer adversely in the short to medium term if shocks are not cushioned
Middle income consumer	indifferent	Would suffer but has some cushion to absorb the shock
Regulatory Agencies – PPPRA/DPR	Political	Lose political power/relevance and possibly means of livelihood
Nigerian Labour Congress	Political – Strong Very	Champion for the masses – Very strong bargaining power if well harnessed.

Source: CPPA

# 4.0 CRITIQUE OF PROPOSED MITIGATING POLICIES OF GOVERNMENT

So far, government's plans have only been discernable from press statements or interviews given by officials. Interviews and statements attributed to some government officials and the President. (*This Day*, 23rd October 2011, for instance) suggest a number of plans and projects including:

- 1. Setting up a fund from the withdrawn subsidy to be managed by a committee of highly-respected Nigerians
- Infrastructural and social services projects involving road constructions; major public maintenance works; and improving on the progress made in power generation and distribution through additional investment
- Facilitation of a comprehensive mass transportation system; schemes for skilled and unskilled youths; social programmes targeted at pregnant women, children and the elderly;
- 4. Public Private Partnership to establish refineries and increase domestic fuel production and supply

However, Federal Government is yet to present a detailed plan with specific projects that will cushion the initial shocks to the economy and difficulties that may be suffered by the poor and vulnerable groups in society

The withdrawal of subsidies on fuel is expected to have some major impact on the economy and particularly on the poor and vulnerable groups in society. Cost of consumer items, food, transportation and the other living expenses are likely to rise diminishing the income of the poor. This would also imply that gains made by the low income workers from the newly approved minimum wage will be substantially eroded. In this regard, the Federal Government has consistently argued of its recognition of and readiness to alleviate some of these apparent impacts.

Much of these government plans appear to be integral to the 1st National Implementation Plan (NIP) of the Vision 20:2020. The subsidy withdrawal proposal is contained in the 2012-2015 Medium Term Expenditure Framework and Fiscal Strategy Paper (MTEF &FSP) of the Federal Government which provides the blue print for the government's fiscal policy strategy within the stipulated period. The MTEF & FSP is created around the objectives of the 1st NIP. The government's intentions and plans towards cushioning the effects of the withdrawal of the fuel subsidy must have to be understood within the context of the objectives and programmes of the 1st NIP.

The second Volume of the 1St NIP contains sectoral plans and programmes of the government detailing objectives, targets and specific projects. The document identifies four thematic areas namely: Physical Infrastructure; Productive Sector; Human Capital and Social Development; Knowledge Based Economy. Very important to the poor and vulnerable groups is the third thematic area which focuses on "Education; Health; Labour Employment and Productivity; Women Affairs and Social and Youth Development; Sports Development; Food and Nutrition and Social Protection" as key priority areas. The details of each thematic and priority area is too large to outline in this document.

The programmes outlined earlier in the interviews from government officials and the sectoral plans and programmes of the 1st NIP represents governments approach to improving livelihoods generally and following the removal of subsidies (though not stated is implied or deductible). Let us examine the potentials of these programmes to have mitigating impacts in the light of the withdrawal of fuel subsidy.

The first of the plans by government is to create a fund to be managed by eminent and respected Nigerians. Special Funds in Nigeria are not new and have been created previously for targeted developmental purposes such as the Petroleum Trust Fund (PTF) and the Education Trust Fund (ETF). Such funds have only recorded limited success. However, the low level of trust in government by citizens, poor track record of keeping promises by government and the high level of corruption in government leave huge doubts in the minds of the public.

The second aspect involves infrastructural projects and social services programmes. This is the core of the third thematic area (Human Capital and Social Development) of the 1st NIP. The programmes are important in alleviating poverty but are long term in nature. For such projects to have substantial relief effect, they would have started before the removal of the subsidy. Besides, the programmes are more general, seem more targeted at tackling overall poverty rather than alleviating immediate shock effects. The absence of a comprehensive data base and identification systems suggest that implementing social welfare programmes will be a very difficult exercise. Further, the MTEF &FSP paper does not show substantial evidence that government investment in infrastructure and social services will considerably improve over the next four year period. Government information projects that "capital spending will increase marginally from N1.32tr in 2012 to N1.64tr in 2015 as Government intends to leverage on Public Private Partnership-type arrangements to supplement capital allocations from the Budget". In this regard, claims of improved investment in infrastructure are not substantiated by government's own budget allocation formula.

Third is the building of new refineries to increase domestic production and supply. Producing locally would mean the elimination of much of the costs subsidized by government. Many have argued that it should be the first action in the process rather than the last. Addressing the issue of domestic supply is important in reducing costs after the withdrawal of subsidy but the government's plan does not integrate this in its immediate mitigation strategy. This would imply that if subsidy is withdrawn, costs would remain

high as much of domestic consumption would come from imports. Refinery building is known to have a long gestation period the first group took over four years to commissioning.

The government does not yet have comprehensive mitigation strategies apart from the apparently general framework of the 1st NIP. The problem this raises is that the programmes of the NIP are not tailored to respond to shocks but gradual improvements in citizens' welfare and standard of living. There may therefore be a need for a more robust response strategy with clearly defined measures to mitigate the inevitable social and economic impacts that will arise from the withdrawal of fuel subsidy.

#### **5.0 Conclusion**

This desk-top study focused on evidence supporting the decision to abolish or maintain fuel subsidies in Nigeria. Beyond off-the-cuff pronouncements and generalisations from government official and statements attributed to president Jonathan Goodluck, no formal statement or documents could be found to confirm the federal government's position on the decision to remove fuel subsidies from the Nigerian market. A complex task in the most competent of hands, such a program will require major research in the effects and political economy. Policy makers will need to pay attention to implementation details taking global economy realities and local politics into account. The proposed exercise is a delicate one fraught with the possibility of failure. The risk of failure in such an endeavour can be substantial, especially as powerful interests who stand to lose economically will react to protect "turf". The current program is proving unsustainable in

the wake of the increasing hike in the price of crude. There is an inequitable distribution of the benefits amongst the importing community and the fuel users in Nigeria. The peculiar Nigerian nature creates a lucrative value chain for anyone engaged in the importing of fuel and by that provides no incentive whatsoever to produce fuel locally.

While the arguments for subsidy removal are theoretically sound the internal environment may not be ready for much drastic change and the timing may not be the most opportune. Government will certainly need to tread carefully. Should the current administration choose to abolish the subsidy on fuel, a cautious phased approach would be advised. Well target measures to ameliorate the negative effects on poor and vulnerable groups will be necessary and further research by independent competent researchers and policy professionals will be important in ensuring the success of such a program.

#### **6.0** Further research

The areas that should be given further consideration and rigorous research would be the following

- A study on the gasoline value chain in Nigeria
- An in-depth survey of local refining
- A comprehensive household and business survey of consumption patterns
- An income survey of major urban cities Nigeria

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