PDF - ECONOMIC EFFECTS OF CRUDE OIL EXPLOITATION ON CASSAVA PRODUCTION IN DELTA STATE - researchcub.info**ABSTRACT**

This study examined the economic effects of crude oilexploitation on cassava production in Delta State. Specifically, the effect ofcrude oil exploitation on land productivity, farm income and cassava yield wasexplored. The costs and returns, and hence profitability of cassava productionas influenced by oil pollution, the farming systems and socioeconomiccharacteristics of cassava farmers were critically examined. Copies of wellstructured questionnaires were used to collect primary data from a sampleof 204 small scale cassava farmers drawn using stratified and simple randomsampling techniques from the three (3) agro-ecological zones of Delta Statebetween October 2007 and February 2009. Data were analyzed using descriptivestatistics, costs and returns analyses, net margin and regression analyses. Theresults revealed that total fixed cost per cassava farmer was N 27,624.49 while total variable cost per cassava farmer was N19,108.68. Total output of cassava product (garri) before and after oil spillincidents were 48,636kg and 40,549.22kg with an average yield of 328kg and274kg respectively per cassava farmer. A net margin of N 27, 846.43and N19, 206.43 before and after oil spills incidents per cassavafarmer, indicating a 31% reduction in profit, was also revealed. Using theOrdinary Least Square (OLS) multiple regression method to estimate the effectof crude oil exploitation on the major dependent variables, the linearfunctions had the best fit with adjusted R² of 0.432 and DW-statistic of 2.08 for land productivity, adjusted R² of 0.953 and DW-statistic of 1.537 for farm income and adjusted R² of 0.950 and DW-statistic of 2.015 for cassava yield. The results of theregression analyses and all the hypotheses tested using the paired t-teststatistic at 1% and 5% probability levels, indicated that crude oilexploitation had a negative and statistically significant effect on cassavaproduction in consonance with a prior expectations. Thus, it is recommended amongother measures that government at all levels should take pragmatic steps atenacting and enforcing stringent environmental laws that will protect the oilproducing farming communities as well as guaranteeing the people a better means of livelihood.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND INFORMATION

One of the most discussed issues in Nigeria in recent time isthat of sustainable development. Sustainable development, according to theBruntland commission, is development that meets the needs of the present generationwithout compromising the ability of future generations to meet their own needs(World Commission, 1987).

Agriculture plays fundamental role in the development of anyeconomy. Thus, according to Uwakah*et al*, (1991), agriculture is thebedrock of the economic development of most developing nations. Edordu, (1986)put it succinctly as follows: "experience has shown that no modern developedcountry around the world achieved rapid industrialization without havingpreviously or simultaneously attained a marked increase in agriculturalproduction". The contribution of agriculture to development, most especially inthe developing countries includes provision of food supplies, employment, capital formation, release of labour for industrial development and fibre needsof industries (Okorie and Eboh, 1999; Njoku, 2000; FAMRD, 2002). This implies that agriculture is very crucial to the social and economic development of Nigeria.

Agriculture is a vital business enterprise having variouscomponents. One of these components that is productive in nature is cropproduction-a component that dominates largely the Nigerian agricultural scene. It is noteworthy that agriculture in Nigeria is dominated by small scalefarmers who are responsible for about 90 percent of the total production (Olatunbode, 1990). The small holder farmers usually have farm sizes rangingbetween 1-4 hectares and cultivate mainly staple food crops (Obinne and Mundi, 1999).

In recognition of the importance of crop production in the Nigerian economy, successive

governments in Nigeria have undertaken variouspolicy measures to revitalize the agricultural sector. However, none of thesemeasures has yielded adequate fruitful result. This is an evidence of the factthat the bulk of Nigeria's foreign currency earning presently comes from crudeoil and gas. NNPC, (2004) reports that the national budget depends heavily on the revenue expectation from oil and gas and this will remain for a while. Thus, the dominant role of crude oil has pushed agriculture, the traditionalmainstay of the economy from the early fifties and sixties, to the background.

According to Onwudiwe, (2003), there are eighteen oil companiesoperating currently in Nigeria. These companies operate over 159 oil fields andproduce from over 1,481 oil wells. Of this figure, the Shell PetroleumDevelopment Company (SPDC), controls about half (83 oil fields and 748 oilwells). All of these are almost exclusively in the Niger Delta region.

Oil production in Nigeria has come a long way from the earlydays of the 1950s. Today, of Africa's proven crude oil reserves of some 66billion barrels, Nigeria accounts for 25 billion barrels, more than 35 percentof the total. Therefore, the significance of oil in Nigeria's political economyhas grown considerably. From accounting for one percent of Nigeria's exportearning in 1958, it now accounts for up to 98 percent of export earnings; andfrom accounting for some 70 percent of total government revenue in 1970, it nowaccounts for between 80 and 90 percent. This phenomenal rise is attributable tocrude oil output, which grew from 1.88 million barrels in 1958 to 822.75million in 1974 and to 547.08 million in 1985 (NNPC, 1985). This figure rosesignificantly to 751.8 million barrels as at 1996 (CBN, 1996).

According to CBN, (2000) Nigeria's crude oil production, including condensates, rose by 11.2 percent over the level in the precedingyear (1999) to 2.18 million barrels per day (mbd). Consequently, net oilrevenue rose sharply from N204, 848m in 1996 to N857, 582min 2000 as shown in the following table.

Table 1.1: Nigeria Net Oil Revenue (Nmillion)

Fiscal Year	Oil Revenue (Net)(N million)
1996	204,848.0
1997	218,727.3
1998	166,333.1
1999 1/	336, 131.6
2000 2/	857,582.2
	Operational Developer (Nilsensia, Jacob) Assessed and Otertai

Sources: Federal Ministry of Finance Central Bank of Nigeria. In CBN Annual and Statement of Accounts for the year ended 31St December, 2000 (P. 102).

Extracted from Federation and Account Operation

1/Revised

2/Provisional

There is therefore, no doubt that the Nigerian oil industry hasaffected the country in a variety of ways. On one hand, it has fashioned aremarkable economic landscape for the country. However, on the negative side,petroleum exploration and production also have adverse effects on fishing andfarming which are the traditional means of livelihood of the people of the oilproducing communities in the Niger Delta region of Nigeria, specifically DeltaState.

Eteng, (1997) asserts that "oil exploration and exploitation hadover the last four decades impacted disastrously on the socio-physicalenvironment of the Niger-Delta Oil-bearing communities, massively threateningthe subsistent peasant economy and the environment and hence the entirelivelihood and basic survival of the people".

In a similar vein, Gbadegesin, (1997) averred that "oilexploration and production in South Eastern Nigeria, has adversely affectedpeasant agriculture, the basis of sustenance of millions of rural inhabitantsthrough a complex web of interaction of several negative environmental factors. Such factors include contamination of streams and rivers, the problem of oilspill, forest destruction and bio-diversity loss, the environmental effect ofgas flaring and effluent discharge and disposal". Thus, if the oil industry isconsidered in view of its enormous contribution to foreign exchange earnings, it has achieved a remarkable success. On the other scale, when considered inrespect of its negative impact on the socio-economic life and the environmentof the immediate oil bearing local communities and their inhabitants, it hasleft a balance sheet of ecological and socio-physical disaster. This rightlyprovides a framework to carry out an economic assessment of the effects ofcrude oil exploitation on small scale cassava production in Delta State ofNigeria.

ECONOMIC EFFECTS OF CRUDE OIL EXPLOITATION ON CASSAVA PRODUCTION IN DELTA STATE

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